

# Intractable Pain Patients in the Minnesota Medical Cannabis Program: Experience of Enrollees During the First Five Months

## **Intractable Pain Patients in the Minnesota Medical Cannabis Program: Experience of Enrollees During the First Five Months**

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As requested by Minnesota Statute 3.197: This report cost approximately \$51,000 to prepare, including staff time, printing and mailing expenses.

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# Executive Summary

In May 2014, Minnesota became the 22<sup>nd</sup> state to create a medical cannabis program. Distribution of extracted cannabis products in liquid or oil form to qualified, enrolled patients began July 1, 2015. Intractable pain was added to the list of qualifying conditions for the program effective August 1, 2016. Intractable pain is defined in the program as, “pain whose cause cannot be removed and, according to generally accepted medical practice, the full range of pain management modalities appropriate for this patient has been used without adequate result or with intolerable side effects.” This report draws on data from enrollment, purchasing, symptom and side effect ratings at time of each purchase, and survey results to describe the experience of patients newly enrolled in the program for intractable pain during the first five months it was a qualifying condition.

## Participation

Between August 1 - December 31, 2016 a total of 2290 patients were enrolled in the program under the qualifying condition of intractable pain; 45 of these patients were previously enrolled in the program under an additional qualifying condition. This report focuses on the 2245 patients who were certified for intractable pain and enrolled in the program for the first time during this interval. Note that patients who took advantage of pre-enrollment during the month of July were given an effective enrollment date of August 1 for this report. Most of the patients were middle aged (64% between ages 36-64), <1% were <18, and 87% were ≤65. Distribution by race/ethnicity generally matched the state’s demographics, with 87% of patients describing themselves as white. 52% were female. Fifteen percent (344 patients) were certified for one or more qualifying conditions in addition to intractable pain; severe and persistent muscle spasms was by far the most common additional qualifying condition.

Most patients (73%) live within the Twin Cities metro region, based on first three digits of zip code; 6% live in the St. Cloud region, 4% live in the Rochester region, and 4% live in the Mankato region. The program allows patients to have one or more parents or non-parent caregivers who register with the program, who then are allowed to transport and administer a patient’s medical cannabis. Only 8% of patients had a registered caregiver, 2% had a registered parent or guardian, and 10% had either a registered parent/legal guardian or registered caregiver.

When certifying a patient for intractable pain, the health care practitioner indicates the primary cause of pain. The most common causes were axial (mechanical, localized) back pain – 23%, radicular (nerve, extends into legs) back pain – 14%, fibromyalgia/myofascial pain – 10%, neuropathy – 8%, and osteoarthritis – 7%.

A total of 268 health care practitioners registered with the program and certified for intractable pain the 2245 patients covered in this report; 85% were physicians, 9% were advanced practice registered nurses, and 6% were physician assistants.

## Medical Cannabis Use Patterns

Each patient's medical cannabis purchasing transactions during their first enrollment year (or through November 2, 2017 if still within their first enrollment year) were analyzed. A total of 28,800 products were purchased through 17,189 transactions. For analytic purposes, products were classified according to the ratio of delta-9-tetrahydrocannabinol (THC) to cannabidiol (CBD) as follows:

- Very High THC:CBD (100:1 or higher)
- High THC:CBD (>4:1 up to 99:1)
- Balanced THC:CBD (1:1 up to 4:1)
- High CBD:THC ( $\geq$ 1:1 up to 99:1)
- Very High CBD:THC (100:1 or higher).

Products for inhalation (vaporized oil) accounted for 54% of products purchased, products for enteral administration (swallowed – includes capsules and oral solutions) accounted for 39%, oromucosal products accounted for 6%, and topical products <1%. When all routes of administration are combined, Very High THC:CBD products accounted for 57% of all product purchases, followed by Balanced products (33%), High THC:CBD products (6%), High CBD:THC products (4%), and Very High CBD:THC (<1%).

Examining purchasing history across all patients is very complex for reasons that include experimentation with different products over time. As a first approach to assessing routine use of products, most frequently purchased products were examined for each patient. For 28% of patients, two or more products were purchased the same number of times. The product types that emerged as most frequently purchased were Very High THC:CBD vaporization oil (30%), Balanced enteral preparations (14%), Very High THC:CBD enteral preparations (10%), and Balanced vaporization oil (6%).

## Benefits

Information on patient benefits comes from the required Patient Self-Evaluation (PSE) completed by patients prior to each medical cannabis purchase, from patient and health care practitioner surveys (sent twice each enrollment year), and from pain scale information at certification by the health care practitioner. Results of analysis of these data indicate perceptions of a high degree of benefit for about half the patients.

Among respondents to the patient (54% response rate) and health care practitioner (40% response rate) surveys, a high level of benefit was reported by 61% and 43%, respectively (score of 6 or 7 on a seven-point scale). Little or no benefit (score of 1, 2, or 3) was reported by 10% of patients and 24% of health care practitioners.

The benefits extended beyond reduction in pain severity, though that was the benefit mentioned most often (64%). The benefit described second most often was improved sleep (27%), which likely has a synergistic relationship with reduction in pain severity. In some cases improved sleep, reduction of other pain medications and their side effects, decreased anxiety,

improved mobility and function, and other quality of life factors were cited as being the most important benefit. The pattern of described benefits was similar in the patient and the health care practitioner survey results.

An important part of this report is the verbatim comments written by patients, and the reader is encouraged to review these comments in *Appendix B: Patient-Reported Benefits from Medical Cannabis*. Examples of these comments include:

- “This program has opened up a world for me I thought I lost. I started on this just a few short months ago and am totally off my narco's and nicanin. I also have had less spasms and cramping through out my body. I even chanced getting on a motorcycle and going for a short ride with a friend before it snowed. Thought never do that again. It has also helped me gain weight. and silence some demons in my head from my PTSD. So, thank you. Now all I ask is make it affordable to stay on.”
- “At first, when I began using the medical cannabis for pain, I Definitely noticed a Drastic Relief in my pain levels - that was So Wonderful - I was So Hopeful. Then, unfortunately, after the first week of using the cannabis regularly, the efficacy for the pain relief I had been receiving began to steadily wane..., to the point of no noticeable pain relief at all within a 6 to 8 week period - even though I carefully "upped" the dosage and the frequency of dosing, etc... I'm so disheartened..., but I know others with the same type of pain that I have that are experiencing and sustaining far better pain relief.”
- “Medical cannabis has not made a difference for me. I have never used it before and was a little hesitant to try. When I did I found that I had no relief of pain and I didn't like the way I felt so I discontinued use.”
- “The vaporizer has increased by ability to relax and fall asleep, something I struggled with a great deal due to pain. I have not found the other methods helpful. I do not feel it helps my pain, but simply makes me think about it less?”
- “Reduction in migraine occurrence and severity, improved sleep, less overall muscle aching and cramping, pain relief from arthritic joints, reduction in GI reflux which also aids sleep.”
- “I have fibromyalgia. I lived my life in constant pain my daily pain on an average was an 8. I started taking medical cannabis in August. I now have a daily pain average between 2 and 3. After 2 weeks of cannabis I cooked my first meal in 15 years. My husband was doing all of the cooking and housework I am now able to help with it.”

The symptom scores provided in the Patient Self-Evaluation data have the advantage of completeness, since they are required prior to each medical cannabis purchase. This data is used to calculate the composite PEG scale, a three-item scale that asks the patient to assess, over the past week, pain intensity and its interference with enjoyment of life and general activity. Using the PEG scale data, 42% achieved  $\geq 30\%$  reduction, and 22% both achieved and maintained  $\geq 30\%$  reduction over four months. The  $\geq 30\%$  reduction threshold is often used in pain studies to define clinically meaningful improvement.

Health care practitioners responding to the survey indicated a reduction in pain scale scores very similar to the change in PEG scores described above (41% achieved a  $\geq 30\%$  reduction).

A large proportion (58%) of patients on other pain medications when they started taking medical cannabis were able to reduce their use of these meds according to health care practitioner survey results. Opioid medications were reduced for 38% of patients (nearly 60% of these reduced at least one opioid by  $\geq 50\%$ ), benzodiazepines were reduced for 3%, and other pain medications were reduced for 22%. If only the 353 patients (60.2%, based on medication list in first Patient Self-Evaluation) known to be taking opioid medications at baseline are included, 62.6% (221/353) were able to reduce or eliminate opioid usage after six months.

### **Adverse Side Effects**

The safety profile of medical cannabis products available through the Minnesota program continues to appear quite favorable. By survey results, approximately 35-40% experience at least one physical or mental adverse effect, with the vast majority (approximately 90%) mild to moderate in severity in both the survey and Patient Self-Evaluation results. The most common adverse effects reported in the Patient Self-Evaluations are dry mouth, drowsiness, fatigue, and mental clouding/"foggy brain". An assessment of the 75 patients reporting severe adverse events, meaning "interrupts usual daily activities," found no apparent pattern in patient age, primary cause of pain, or type of medical cannabis product used. No serious adverse events (life threatening or requiring hospitalization) were reported for this group of patients during the observation period.



# 1. Introduction

In May 2014, Minnesota became the 22nd state to create a medical cannabis program. Distribution of cannabis products to qualified, enrolled patients began July 1, 2015. Minnesota's medical cannabis program is distinct from those in nearly all other states due to the fact that the Minnesota Department of Health's Office of Medical Cannabis is required to study and learn from the experience of participants. Minnesota's online registry, which integrates information from patients, certifying health care practitioners and manufacturers, continuously captures program data. Data elements from the Registry have been selected to create a de-identified research data set for reporting and research. This report draws on aspects of that research data set to describe the experience of patients newly enrolled in the program for intractable pain from August 1 through December 31, 2016 – the first five months it was a qualifying condition.

Data in this report come from several aspects of the program's operations:

- Information from registration or enrollment of patients, health care practitioners, and caregivers;
- Information patients provide each time they visit a cannabis patient center (CPC) for purchase of cannabis products, including information on symptom severity and side effects;
- Details about each cannabis product purchased; and
- Information derived from responses to periodic surveys of patients and their certifying health care practitioners

Though there is certainly imprecision in some of the data collected by the program, this report provides important details that can be found in few other states. A notable part of the report is a set of statements regarding benefits and negative effects made by patients and health care practitioners. These are redacted to protect privacy, but otherwise presented as written on the surveys. The comments have been coded by type but the verbatim comments have a power of their own, reminding us that each enrollee is a unique individual, not just a number. A few comments are included elsewhere, but the reader is encouraged to spend time reviewing the full listing of responses in the appendices.

This is the second detailed report on patient experience produced by the Office of Medical Cannabis. The first, titled, "Minnesota Medical Cannabis Program: Patient Experiences from the First Program Year," was published on the Office of Medical Cannabis website in May, 2017. Many analyses from these two reports will be updated periodically and posted on the web site. In addition, studies of additional topics will be pursued over time.

## 2. Patients and Caregivers Registered in the First Program Year

### Description of Patients Enrolled in the First Program Year

#### Qualifying Condition

On August 1, 2016, intractable pain became a qualifying medical condition for the Minnesota Medical Cannabis program. In the subsequent five months (August 2016-December 2016), a total of 2,290 patients were enrolled in the program under the qualifying condition of intractable pain; 45 of these patients were previously enrolled in the program under an additional qualifying condition and were excluded from descriptive analyses in this report. Of the 2,245 patients enrolled for the first time and certified for intractable pain, 1,177 (52.4%) were female, 1,054 (46.9%) were male and 14 (0.6%) did not respond. Patients can be certified by their healthcare practitioner for multiple qualifying conditions; among these intractable pain patients, 344 (15.3%) were certified for at least one additional qualifying condition. The most common additional qualifying condition was severe and persistent muscle spasms (n=264; 11.8%), followed by Crohn's disease (n=16; 0.7%), cancer (n=15; 0.7%) and seizures (n=15; 0.7%). Table 2.1 shows the frequency of additional qualifying medical conditions within the cohort.

**Table 2.1. Count of intractable pain patients with additional qualifying medical conditions.**

Conditions	Count (%)
Severe and Persistent Muscle Spasms	264 (11.8%)
Crohn's Disease	16 (0.7%)
Cancer	15 (0.7%)
Seizures	15 (0.7%)
Glaucoma	9 (0.4%)
HIV/AIDS	4 (0.2%)
Terminal Illness	6 (0.3%)
Tourette Syndrome	0 (0%)

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ALS	0 (0%)
Total	2245

### Age by Qualifying Condition

Average age of patients certified for intractable pain and enrolled from August-December 2016 was 52.3 years (SD: 15.6 years); breakdown of patients by age group is shown in Table 2.2.

**Table 2.2. Intractable pain patient age.**

Age	Count (%)
0-4 yrs	2 (0.1%)
5-17 yrs	8 (0.4%)
18-24 yrs	63 (2.8%)
25-35 yrs	309 (13.8%)
36-49 yrs	582 (25.9%)
50-64 yrs	847 (37.7%)
65+ yrs	434 (19.3%)

### Race and Ethnicity

Intractable pain patients enrolled in the first five months were predominantly white (n=1945; 86.6%); 4% were black, 3% were American Indian, 2% identified as Hispanic and 5% did not respond (Table 2.3). Patients were given the option to select multiple race and ethnicity categories, so the counts reflect some patients more than once. Fifty-two patients (2.3%) selected more than one race/ethnicity and 106 patients (4.7%) declined the question. Compared to 2014 Census Bureau estimates of race/ethnicity in Minnesota, the distribution of responding members of the first program year cohort is generally similar, with a slightly higher proportion of American Indians (2.7% versus 1.9%) and lower proportion of Hispanics (2.4% versus 4.9%) and Asians (1.0% versus 5.0%).

**Table 2.3. Self-reported race and ethnicity for intractable pain patients.**

Race/Ethnicity	Count (%)
American Indian	61 (2.7%)
Asian	23 (1.0%)

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Black	99 (4.4%)
Hawaiian	5 (0.2%)
White	1945 (86.6%)
Other	38 (1.7%)
No Answer	147 (6.5%)

*\*Patients could select more than one race/ethnicity and may be represented more than once each in this table.*

### Registered Caregivers and Parents/Legal Guardians

If a patient is unable to pick up their medication from a cannabis patient center or is unable to administer the medication, their certifying health care practitioner may also certify the patient’s need for a designated caregiver. This allows the enrolled patient to have a caregiver who then undergoes a background check and registers with the program. Registered caregivers can then legally obtain and possess the patient’s medical cannabis on their behalf. Additionally, parents or legal guardians of patients can register with the program to act as caregiver and pick up or possess medication on behalf of the patient. Table 2.4 shows the proportion of patients who have registered caregivers or parents or legal guardians registered to pick up medication on behalf of the patient.

**Table 2.4. Patients with caregiver(s) and/or parent(s)/legal guardian(s) registered in the program.**

<b>Patients with Caregiver or Parent/Legal Guardian</b>	<b>Count (%)</b>
Patients with Registered Caregivers	178 (8%)
Patients with Registered Parent/Legal Guardian	37 (2%)
Patients with Caregivers and/or Parent/Legal Guardian	214 (10%)

### Geographic Distribution

At the time of registration, patients provide their home address for verification of Minnesota residency. Home addresses are retained in the patient’s online registry account but are not retained in the research database; in lieu of home address, patient ZIP codes are accessible for research purposes. The general geographic distribution of patients was examined using patient-reported ZIP codes; the first three digits of ZIP codes compose a prefix which corresponds to an

approximate geographic region<sup>1</sup>. The U.S. Postal Service assigns to each prefix labels that match the major city within the region and approximate surrounding cities; these region labels are shown in Table 2.5, along with the count of patients living in the corresponding ZIP codes.

Most patients live within the Twin Cities metro ZIP code region (73%); 6% of patients live in the Saint Cloud region, 4% live in the Rochester region and 4% live in the Mankato region.

**Table 2.5. Intractable pain patients by ZIP code region (first three number prefixes).**

ZIP Region	ZIP Prefixes	Count (%)
Saint Paul	550,551	769 (34%)
Minneapolis	553,554,555	874 (39%)
Duluth	556,557,558	78 (3%)
Rochester	559	101 (4%)
Mankato	560,561	94 (4%)
Willmar	562	63 (3%)
Saint Cloud	563	142 (6%)
Brainerd	564	38 (2%)
Detroit Lakes	565	41 (2%)
Bemidji	566	32 (1%)
Grand Forks	567	11 (0%)

*Note: The Grand Forks region, corresponding to ZIP codes with a 567 prefix, refers to a region including Grand Forks, South Dakota, as well as several ZIP codes located in Minnesota near the western border. Patients living in this region reside in Minnesota.*

## Primary Cause of Intractable Pain

When a registered healthcare practitioner certifies that a patient has intractable pain and qualifies for the Minnesota Medical Cannabis program, the healthcare practitioner must report the patient’s primary cause of intractable pain, choosing from several common causes or selecting “Other” and providing a narrative description of the pain cause. All pain cause entries other than the selection of common causes provided were reviewed and classified as one of the common causes or as another category (Table 2.6). The most common primary causes of intractable pain were axial and radicular back pain (n=521 (23%), and n=305 (14%), respectively), fibromyalgia or myofascial pain (n=233; 10%), neuropathies (including diabetic neuropathy, trigeminal neuralgia, post-herpetic neuropathy, HIV neuropathy and other

<sup>1</sup> <http://pe.usps.com/Archive/HTML/DMMArchive20050106/print/L002.htm>

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neuropathies; n=172 (8%)) osteoarthritis (n=166; 7%). Of 2,245 patients included in this analysis, 147 (7%) were certified with an infrequently-reported primary cause of pain (less than 10 patients within the same category); a full tabulation of primary pain causes as reported by certifying HCPs is available in *Appendix A: Healthcare Practitioner-Reported Primary Cause of Intractable Pain*.

**Table 2.6. Count of intractable pain patients by primary cause of pain.**

<b>Primary Pain Cause</b>	<b>N (%)</b>
Back pain, axial	521 (23%)
Back pain, radicular	306 (14%)
Fibromyalgia/myofascial pain	233 (10%)
Neuropathy	172 (8%)
<i>Diabetic Neuropathy</i>	23 (1%)
<i>Trigeminal neuralgia</i>	17 (1%)
<i>Post-Herpetic Neuropathy</i>	3 (0%)
<i>HIV Neuropathy</i>	1 (0%)
<i>Neuropathy, Other</i>	128 (6%)
Osteoarthritis	166 (7%)
Neck pain	103 (5%)
Migraine Headache	86 (4%)
Trauma	81 (4%)
Rheumatoid Arthritis	72 (3%)
Headache Other Than Migraine	60 (3%)
Complex Regional Pain Syndrome	43 (2%)
Spinal Stenosis	36 (2%)
Postoperative Pain	29 (2%)
Myelopathies	28 (1%)
Pelvic Pain	22 (1%)
Spinal Cord Injury	22 (1%)
Disc (Vertebral) Herniation	21 (1%)
Abdominal Pain	17 (1%)
Cancer	16 (1%)

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Ehler-Danlos Syndrome	16 (1%)
Connective Tissue Diseases (Excluding Rheumatoid Arthritis)	15 (1%)
Pancreatitis	12 (1%)
Arthritis, Other Inflammatory	11 (0%)
Sciatica	10 (0%)
Other	147 (7%)

### 3. Registered Healthcare Practitioners Certifying Early Intractable Pain Patients

The Minnesota Medical Cannabis program outlines a set of qualifying medical conditions which make a patient eligible for enrollment in the program. By Minnesota statute, a patient must be certified by a Minnesota-licensed physician, physician assistant (PA), or advanced practice registered nurse (APRN) as having one or more of the qualifying conditions. A Minnesota practitioner with appropriate credentials must first register with the Minnesota Medical Cannabis program before they can certify patients for the program: practitioners complete a short online form with their name and clinic information to register. Office of Medical Cannabis staff verify the provider’s entered information and their Drug Enforcement Agency (DEA) license prior to approving the practitioner to certify patients. This chapter will describe registered healthcare practitioners who certified patients under the qualifying condition of intractable pain who were approved within the first five months of when intractable pain was added as a qualifying condition (August 2016- December 2016.)

#### Healthcare Practitioners By Type

A total of 268 healthcare practitioners (HCPs) who registered in the Minnesota Medical Cannabis program certified patients under intractable pain who enrolled in the program prior to December 31, 2016. Of these HCPs, 227 (85%) were physicians, 16 (6%) were PAs and 25 (9%) were APRNs (Table 3.1).

**Table 3.1. Certifying healthcare practitioners for the first five months of intractable pain, by type.**

Healthcare Practitioner Type	Count (%)
Physician	227 (85%)
Physician Assistant	16 (6%)
Advanced Practice Registered Nurse	25 (9%)

#### Certifying Physician Specialty

The Minnesota Board of Medical Practice lists information on Minnesota-licensed physicians and physician assistants. Included is self-reported “Area of Specialty” information indicating a



physician’s certifications from the American Board of Medical Specialties or American Osteopathic Specialty Boards. While physician assistant specialty information is infrequently provided, physicians often list multiple certifications. For example, physicians practicing as infectious disease specialists may list certifications in the areas of Internal Medicine and Infectious Disease. A variety of specialties were represented among physicians certifying intractable pain patients, including Neurology and the Internal Medicine subspecialties of and Hospice and Palliative Medicine.

In cases where a physician listed an area of specialty and subspecialty, such as Internal Medicine and Infectious Disease, the subspecialty was chosen to represent the physician’s practice (in this case, Infectious Disease). Table 3.2 shows the distribution of physician specialties; each physician is represented only once. One physician who is licensed in Minnesota and registered in the program does not have any listed specialties with the Board of Medical Practice; this physician is therefore excluded from Table 3.2. The most common specialty category for physicians is primary care (n=140; 52%), followed by Physical Medicine and Rehabilitation (n=16; 6%), Hospice and Palliative Medicine (n=12; 4%), and Neurology (n=12; 4%).

**Table 3.2. Count of physicians by certification type.**

<b>Physician Certification Type</b>	<b>Count (%)</b>
Primary Care	140 (52%)
Physical Medicine and Rehabilitation	16 (6%)
Hospice/Palliative Medicine	12 (4%)
Neurology	12 (4%)
Oncology	8 (3%)
Pain Medicine	6 (2%)
Geriatric Medicine	5 (2%)
Pediatric Specialty	5 (2%)
Anesthesiology	4 (1%)
Psychiatry	4 (1%)
Sports Medicine	3 (1%)
Surgery	3 (1%)
Infectious Disease	2 (1%)
Nephrology	2 (1%)
Rheumatology	2 (1%)
Radiology/Radiation Oncology	1 (0%)
Urology	1 (0%)

## 4. Medical Cannabis Use Patterns

### Description of Purchased Products

Medical cannabis purchasing data is captured for enrolled MN patients through the online registry. For this report, purchasing data was extracted for Intractable Pain patients enrolled between August 1, 2016 through December 31, 2016. All purchases that occurred within each patient's first enrollment year were retained. For patients whose first enrollment year had not yet ended at the time of data extraction (November 2, 2017), all purchasing transactions prior to that date were retained. This query provided a dataset containing:

- 17,189 purchasing transactions consisting of:
- 28,800 product purchases, which
- Represented 2,181 patients (97.1% of the Intractable Pain cohort)

Products included in this dataset were categorized according to their route of administration and ratio of THC to CBD contained in the product. Routes of administration include enteral, inhalation, oromucosal, and topical routes of entry into the body (see Box 4.1). THC:CBD ratios ranged from products very high in THC to CBD to those very high in CBD to THC, as well as everything in between (see Box 4.1)

#### **Box 4.1. Categories to describe medical cannabis products purchased by patients.**

##### **Medical Cannabis Products Categorized by THC:CBD Content Ratio:**

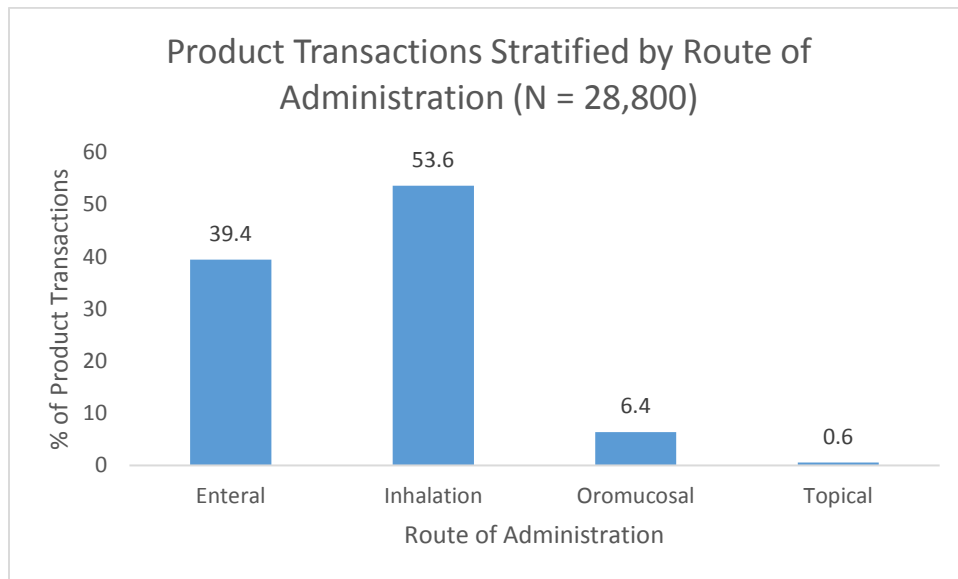
- **Very High THC to CBD** = 100:1 or higher
- **High THC to CBD** = >4:1 up to 99:1
- **Balanced** = 1:1 up to 4:1
- **High CBD to THC** =  $\geq$ 1:1 up to 99:1
- **Very High CBD to THC** = 100:1 or higher

##### **Product Routes of Administration (ROA):**

- **Enteral:** entry through the gastrointestinal tract via swallowing (i.e., capsules, oral solutions).
- **Inhalation:** oils vaporized into lungs.
- **Oromucosal:** sublingual sprays and tinctures absorbed through cheek/oral mucosa.
- **Topical:** applied to body surface (i.e., balms).

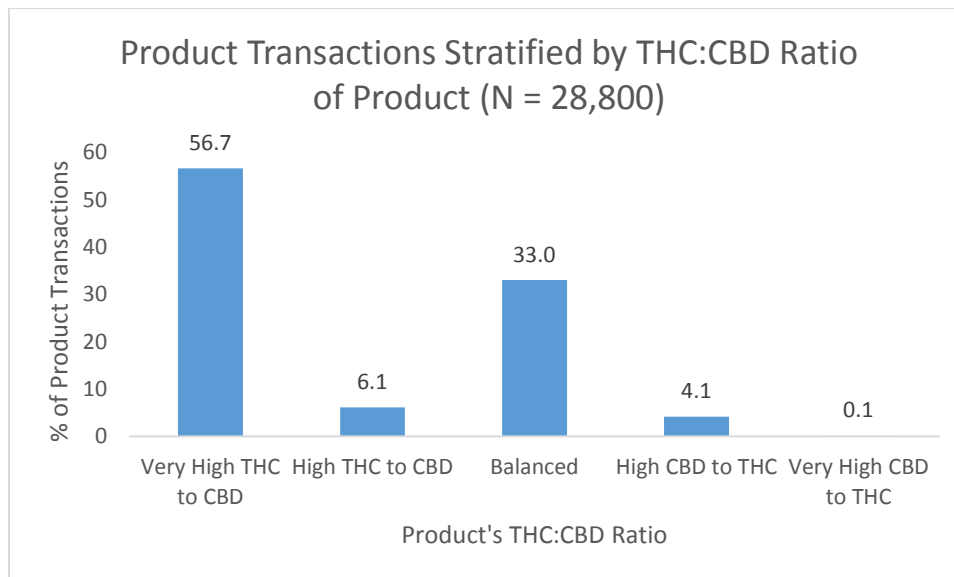
Analysis of purchased products indicates that just over half of all purchases (53.6%) were intended for inhalation and 39.4% for enteral administration. Together, these routes accounted for 93% of all products purchased. Oromucosal and topical products together accounted for less than 10% of all products purchased (respectively at 6.4% and 0.6% of all purchases). Note that topical products were not available for the full duration of the study period, becoming available over time starting in August 2017. See Figure 4.1.

**Figure 4.1. Product transactions categorized by the product’s intended route of administration (out of 28,800 products).**



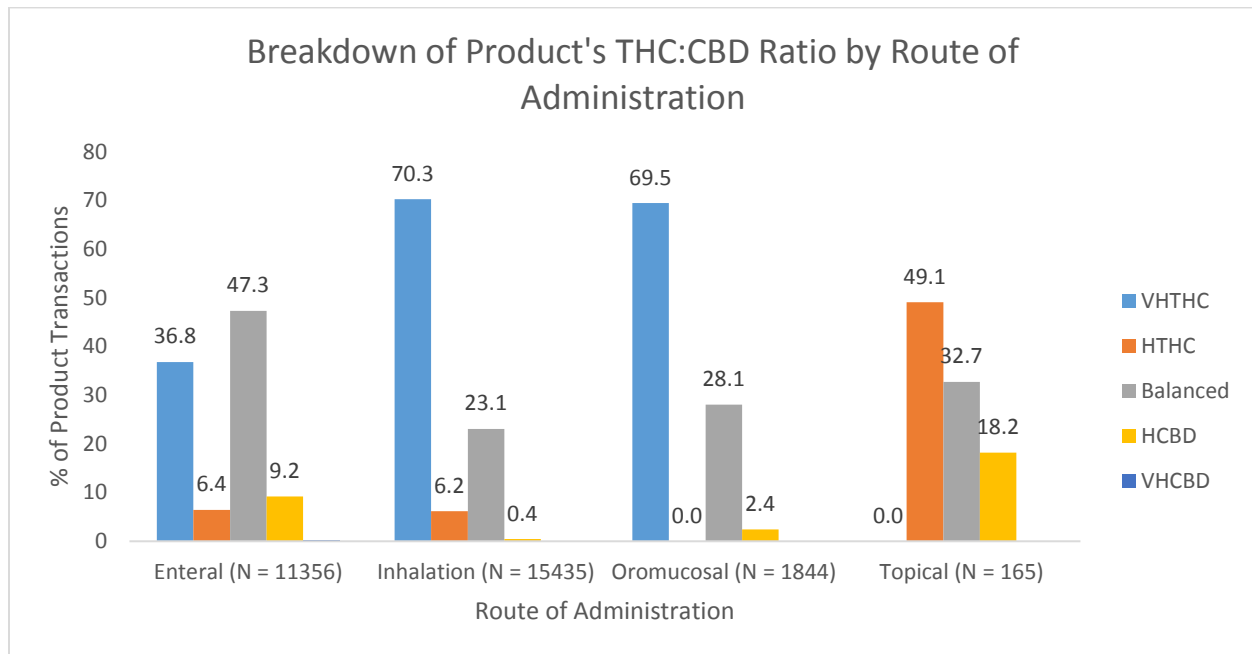
Analysis of products stratified by the THC:CBD ratio showed that products with Very High THC:CBD ratios were purchased most frequently (56.7% of all product purchases), followed by Balanced products (33.0%). High THC:CBD products and High CBD:THC products respectively accounted for 6.1% and 4.1% of all product transactions, with Very High CBD:THC products accounting for 0.1% of all products purchased. See Figure 4.2.

**Figure 4.2. Product transactions categorized by THC:CBD ratio.**



Product transactions were also examined by the products' THC:CBD ratio as a function of route of administration (see Figure 4.3 below). Balanced and Very High THC:CBD products were most frequently purchased among enterally administered products. Very High THC:CBD products accounted for roughly 70% of all purchased inhaled and oromucosal products. High THC:CBD products were purchased almost half the time for topical products, with Balanced and High CBD:THC products less frequently.

**Figure 4.3. A percentage breakdown of product transactions by the THC:CBD product ratio types as a function of route of administration.**



## Most Frequently Purchased Product(s)

Analyzing purchasing patterns across patients is complicated in that there may be some experimentation involved when purchasing medical cannabis to find a dosage and formulation a patient believes is working for them. Another layer of complexity is the fact that products that patients have an affinity for may not necessarily be purchased in the same transaction. Therefore, understanding what is routinely used requires some careful thought and standardized operationalization of what would be considered 'routine' medication. As a first step, this report will present products most frequently purchased by patients. This particular approach is simplistic, but the idea is to continue to refine the operational definition of routine use over time in subsequent analyses.

All products purchased by any given patient were quantified by the number of times they were purchased. The most frequently purchased product(s) was then categorized according to their route of administration and THC:CBD ratio. For each product identified as most frequently purchased, the following calculations were performed within each patient across purchases of that product: summing of intended days supply of product usage, summing of THC dosages (mg), and summing of CBD dosages (mg). From these summed values, daily THC and CBD consumption of the product(s) purchased most frequently was calculated by dividing the summed THC dose and CBD dose by the summed days supply for each patient. Patients who

most frequently purchased the same product type(s) had their calculated daily THC and CBD dosages averaged together. This data is displayed in Table 4.1.

Table 4.1 identifies the most frequently purchased product types with an “X”, along with the percentage of patients identified as having purchased that product most frequently (see 2<sup>nd</sup> column from right). The average daily THC and CBD dose for the patients who purchased the same product type most frequently are indicated in the right-most column. According to the data, 72.3% of all patients (n = 1577) purchased product(s) from one ROA-THC:CBD ratio category most frequently (see rows with one “X”). Just under a third of all patients making purchases most frequently purchased vaporized product(s) with Very High THC:CBD, followed by Balanced enteral (14.3%) and Very High THC:CBD enteral (10.2%) product types.

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**Table 4.1. Product type(s) most frequently purchased by each patient (out of 2,181 patients), along with average daily THC/CBD dose (mg).**

Enteral					Inhalation					Oromucosal					Topical					% of Patients (n)	Avg Daily THC (mg) / Avg Daily CBD (mg)		
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC				
					X																30.3 (660)	81.5 mg / 0.6 mg	
		X																				14.3 (312)	22.9 mg / 20.4 mg
X																						10.2 (223)	24.4 mg / 0.1 mg
							X															6.4 (140)	75.4 mg / 62.1 mg
										X												3.3 (73)	30.8 mg / 0.1 mg
					X		X															3.3 (72)	512.7 mg / 23.6 mg
		X			X																	3.2 (69)	69.6 mg / 22.3 mg
X		X																				2.8 (60)	84.2 mg / 68.8 mg
			X																			2.6 (57)	4.9 mg / 105.8 mg
X					X																	2.5 (55)	166.4 mg / 0.7 mg
						X																1.9 (41)	134.8 mg / 5.9 mg
												X										1.8 (39)	23.5 mg / 22.7 mg
		X					X															1.6 (34)	48.5 mg / 31.5 mg
		X									X											1.5 (33)	55.8 mg / 29.3 mg
	X																					1.4 (30)	66.5 mg / 7.2 mg
X		X			X		X															0.8 (18)	116.1 mg / 39.9 mg
X		X			X																	0.7 (16)	89.9 mg / 19.4 mg
		X	X																			0.7 (16)	24.7 mg / 110.5 mg
		X			X		X															0.7 (16)	143.2 mg / 50.2 mg
										X		X										0.6 (12)	52.2 mg / 22.1 mg
X										X												0.3 (7)	47.8 mg / 0.1 mg
		X			X					X												0.3 (7)	101.3 mg / 29.1 mg
					X	X																0.3 (7)	243.3 mg / 9.0 mg
X		X					X															0.3 (6)	99.3 mg / 34.6 mg
	X				X																	0.3 (6)	168.3 mg / 5.6 mg
X		X	X																			0.2 (5)	56.7 mg / 181.5 mg
X			X																			0.2 (5)	14.6 mg / 88.6 mg
X					X		X															0.2 (5)	77.2 mg / 14.4 mg
X					X					X												0.2 (5)	116.7 mg / 0.7 mg
X							X															0.2 (5)	41.2 mg / 18.3 mg

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**Table 4.1 cont. Product type(s) most frequently purchased by each patient (out of 2,181 patients), along with average daily THC/CBD dose (mg).**

Very High THC to CBD	Enteral				Inhalation					Oromucosal					Topical					% of Patients (n)	Avg Daily THC (mg) / Avg Daily CBD (mg)	
	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC			
	X	X																		0.2 (5)	81.7 mg / 29.1 mg	
		X			X							X									0.2 (5)	100.5 mg / 64.2 mg
		X					X														0.2 (5)	57.9 mg / 9.3 mg
		X										X									0.2 (5)	42.3 mg / 34.0 mg
			X		X		X														0.2 (4)	83.6 mg / 92.3 mg
			X		X																0.2 (4)	50.6 mg / 142.9 mg
X	X				X																0.1 (3)	175.9 mg / 7.6 mg
X		X	X		X		X														0.1 (3)	112.6 mg / 127.6 mg
X		X			X						X										0.1 (3)	94.6 mg / 21.2 mg
X		X									X										0.1 (3)	77.2 mg / 26.0 mg
		X	X		X		X														0.1 (3)	85.7 mg / 110.1 mg
		X			X	X	X														0.1 (3)	300.8 mg / 68.0 mg
		X			X		X				X										0.1 (3)	121.8 mg / 35.1 mg
					X		X				X										0.1 (3)	164.9 mg / 61.0 mg
					X						X										0.1 (3)	70.6 mg / 0.5 mg
					X							X									0.1 (3)	56.7 mg / 21.1 mg
						X	X														0.1 (3)	179.9 mg / 69.3 mg
X	X	X																			0.1 (2)	43.9 mg / 18.5 mg
X		X				X															0.1 (2)	69.9 mg / 6.8 mg
X			X		X		X									X					0.1 (2)	66.3 mg / 167.1 mg
X															X						0.1 (2)	31.4 mg / 17.8 mg
	X	X			X		X														0.1 (2)	226.0 mg / 73.0 mg
		X	X												X						0.1 (2)	41.4 mg / 71.3 mg
		X			X	X															0.1 (2)	133.8 mg / 10.2 mg
		X										X			X						0.1 (2)	85.4 mg / 46.5 mg
			X									X									0.1 (2)	30.7 mg / 50.1 mg
			X										X								0.1 (2)	17.4 mg / 93.4 mg
					X	X	X														0.1 (2)	282.9 mg / 33.5 mg
					X		X					X									0.1 (2)	61.5 mg / 16.8 mg
					X							X			X						0.1 (2)	78.3 mg / 15.1 mg
													X								0.1 (2)	5.3 mg / 100.2 mg



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**Table 4.1 cont. Product type(s) most frequently purchased by each patient (out of 2,181 patients), along with average daily THC/CBD dose (mg).**

Enteral					Inhalation					Oromucosal					Topical					% of Patients (n)	Avg Daily THC (mg) / Avg Daily CBD (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X	X	X	X		X		X													0.0 (1)	242.7 mg / 111.2 mg
X	X	X			X		X									X				0.0 (1)	105.3 mg / 22.5 mg
X	X	X			X		X													0.0 (1)	293.4 mg / 57.3 mg
X	X		X		X		X													0.0 (1)	205.5 mg / 248.9 mg
X	X				X		X					X								0.0 (1)	115.8 mg / 22.8 mg
X	X					X												X		0.0 (1)	171.3 mg / 19.2 mg
X	X																	X		0.0 (1)	61.6 mg / 19.9 mg
X		X	X		X															0.0 (1)	71.1 mg / 135.3 mg
X		X	X				X													0.0 (1)	177.5 mg / 147.9 mg
X		X	X							X										0.0 (1)	103.5 mg / 345.1 mg
X		X			X	X	X													0.0 (1)	220.1 mg / 13.1 mg
X		X			X			X		X							X			0.0 (1)	177.6 mg / 145.5 mg
X		X			X					X		X								0.0 (1)	199.7 mg / 57.0 mg
X		X					X			X										0.0 (1)	122.2 mg / 48.4 mg
X		X								X		X								0.0 (1)	123.3 mg / 61.6 mg
X		X										X								0.0 (1)	40.9 mg / 31.0 mg
X			X		X		X													0.0 (1)	433.9 mg / 1439.2 mg
X			X				X													0.0 (1)	53.3 mg / 116.4 mg
X			X									X								0.0 (1)	38.2 mg / 98.2 mg
X					X	X	X													0.0 (1)	220.0 mg / 38.8 mg
X					X	X														0.0 (1)	282.5 mg / 10.8 mg
X						X	X													0.0 (1)	100.4 mg / 34.6 mg
X							X													0.0 (1)	147.7 mg / 7.3 mg
X								X		X										0.0 (1)	71.9 mg / 27.1 mg
X							X													0.0 (1)	72.2 mg / 56.2 mg
X										X		X								0.0 (1)	102.3 mg / 36.6 mg
X												X								0.0 (1)	37.4 mg / 21.7 mg
	X	X	X		X					X										0.0 (1)	160.4 mg / 114.2 mg
	X	X			X		X			X										0.0 (1)	553.8 mg / 154.8 mg
	X	X			X															0.0 (1)	86.1 mg / 9.6 mg

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**Table 4.1 cont. Product type(s) most frequently purchased by each patient (out of 2,181 patients), along with average daily THC/CBD dose (mg).**

Very High THC to CBD	Enteral				Inhalation					Oromucosal					Topical					% of Patients (n)	Avg Daily THC (mg) / Avg Daily CBD (mg)
	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
	X	X					X													0.0 (1)	236.4 mg / 176.0 mg
	X		X																	0.0 (1)	77.9 mg / 558.7 mg
	X				X	X	X													0.0 (1)	334.6 mg / 44.3 mg
	X				X	X														0.0 (1)	366.1 mg / 11.7 mg
	X				X		X													0.0 (1)	133.8 mg / 41.6 mg
	X						X													0.0 (1)	257.2 mg / 49.1 mg
	X								X											0.0 (1)	36.2 mg / 4.8 mg
		X	X	X								X								0.0 (1)	66.1 mg / 309.8 mg
		X	X		X	X	X													0.0 (1)	161.5 mg / 140.5 mg
		X	X		X					X										0.0 (1)	70.3 mg / 67.0 mg
		X	X		X															0.0 (1)	32.2 mg / 55.1 mg
		X	X			X				X										0.0 (1)	71.3 mg / 144.9 mg
		X	X														X			0.0 (1)	17.5 mg / 107.5 mg
		X			X		X			X		X								0.0 (1)	166.9 mg / 65.8 mg
		X			X		X					X								0.0 (1)	223.8 mg / 97.5 mg
		X			X		X									X	X			0.0 (1)	212.3 mg / 61.7 mg
		X			X		X											X		0.0 (1)	165.3 mg / 66.5 mg
		X			X			X												0.0 (1)	101.2 mg / 123.8 mg
		X				X	X													0.0 (1)	135.3 mg / 37.7 mg
			X				X													0.0 (1)	123.9 mg / 54.6 mg
			X				X													0.0 (1)	15.1 mg / 53.1 mg
			X							X		X								0.0 (1)	32.2 mg / 58.2 mg
					X	X				X										0.0 (1)	297.2 mg / 11.2 mg
					X		X										X			0.0 (1)	58.5 mg / 28.4 mg
					X			X								X	X	X		0.0 (1)	226.8 mg / 28.0 mg
								X					X							0.0 (1)	17.4 mg / 17.4 mg
								X		X		X								0.0 (1)	55.9 mg / 100.7 mg
								X												0.0 (1)	4.4 mg / 88.0 mg

## 5. Benefits

### Summary

Information on patient benefits comes from the Patient Self-Evaluation (PSE) completed by patients prior to each medical cannabis purchase, from patient and health care practitioner surveys, and from pain scale information at certification by the health care practitioner. Results of analysis of these data indicate perceptions of a high degree of benefit for about half the patients.

#### Survey Data

Patients responded to a survey question asking them how much benefit they believe they received from using medical cannabis on a scale from 1 (no benefit) to 7 (great deal of benefit). There was a 54% response rate to the survey. Across all responding patients, 61% indicated a benefit rating of 6 or 7. A small but important proportion of patients indicated little or no benefit: 10% gave a rating of 1, 2, or 3. When patients were asked what the most important benefit was for them, 56% indicated pain reduction, 20% improved sleep, 7% reduction of other pain medications, and 4% reduction in anxiety. A total of 64% mentioned pain reduction as a benefit, regardless of whether or not it was the most important benefit.

An important part of this report is the verbatim comments written by patients, and the reader is encouraged to review these comments in *Appendix B: Patient-Reported Benefits from Medical Cannabis*. Examples of these comments include:

- “This program has opened up a world for me I thought I lost. I started on this just a few short months ago and am totally off my narco's and nicatin. I also have had less spasms and cramping through out my body. I even chanced getting on a motorcycle and going for a short ride with a friend before it snowed. Thought never do that again. It has also helped me gain weight. and silence some demons in my head from my PTSD. So, thank you. Now all I ask is make it affordable to stay on.”
- “At first, when I began using the medical cannabis for pain, I Definitely noticed a Drastic Relief in my pain levels - that was So Wonderful - I was So Hopeful. Then, unfortunately, after the first week of using the cannabis regularly, the efficacy for the pain relief I had been receiving began to steadily wane..., to the point of no noticeable pain relief at all within a 6 to 8 week period - even though I carefully "upped" the dosage and the frequency of dosing, etc... I'm so disheartened..., but I know others with the same type of pain that I have that are experiencing and sustaining far better pain relief.”

- “Medical cannabis has not made a difference for me. I have never used it before and was a little hesitant to try. When I did I found that I had no relief of pain and I didn't like the way I felt so I discontinued use.”
- “The vaporizer has increased my ability to relax and fall asleep, something I struggled with a great deal due to pain. I have not found the other methods helpful. I do not feel it helps my pain, but simply makes me think about it less?”
- “Reduction in migraine occurrence and severity, improved sleep, less overall muscle aching and cramping, pain relief from arthritic joints, reduction in GI reflux which also aids sleep.”
- “I have fibromyalgia. I lived my life in constant pain my daily pain on an average was an 8. I started taking medical cannabis in August. I now have a daily pain average between 2 and 3. After 2 weeks of cannabis I cooked my first meal in 15 years. My husband was doing all of the cooking and housework I am now able to help with it.”

Health care practitioners were somewhat more conservative in assessment of benefit to their patients: 43% indicated a benefit rating of 6 or 7 and 24% gave a rating of 1,2, or 3. Distribution of type of benefit was similar to patient survey responses. There was a 40% response rate to the health care practitioner survey.

Analysis of patient and health care practitioner benefit ratings by primary cause of pain suggests some differences by pain type. However, for all but a handful of pain types, the number of patients in each group is too small to be sure of differences. Among the more common pain causes, benefit scores are somewhat higher in both patient and health care practitioner results for fibromyalgia/myofascial pain, rheumatoid arthritis, migraine headache, and neck pain.

In addition to the 1-7 benefit rating health care practitioners provide on surveys, they also give updated scores on pain assessment tools. Pain assessment scores provided when they certified the patient for intractable pain were compared with the score given on the 6-month survey. A reduction of  $\geq 30\%$  was used to define clinically meaningful improvement, and 41% met this threshold (50% when the PEG tool was used; 39% when the 0-10 numerical rating scale was used – these were by far the two most commonly used tools).

A large proportion (58%) of patients on other pain medications when they started taking medical cannabis were able to reduce their use of these meds according to health care practitioner survey results. Opioid medications were reduced for 38% of patients (nearly 60% of these reduced at least one opioid by  $\geq 50\%$ ), benzodiazepines were reduced for 3%, and other pain medications were reduced for 22%. If only the 353 patients (60.2%, based on medication list in first Patient Self-Evaluation) known to be taking opioid medications at baseline are included, 62.6% (221/353) were able to reduce or eliminate opioid usage after six months.

#### Patient Self-Evaluation Data

The intractable pain patients included in this report had a high burden of symptoms. A majority had at least moderate levels of fatigue (94%), disturbed sleep (91%), anxiety (77%), depression

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(67%), and lack of appetite (53%) – as well as pain. For each of these symptoms except for pain intensity and fatigue, 30-40% of patients achieved and maintained  $\geq 30\%$  symptom reduction. Pain intensity (over the last 24 hours) showed lower levels of improvement, with 28% achieving  $\geq 30\%$  improvement and only 10% both achieving and maintaining  $\geq 30\%$  improvement over four months.

Data from responses to the composite PEG scale suggests higher levels of improvement. The PEG is a three-item scale that asks the patient to assess, over the past week, pain intensity and its interference with enjoyment of life and general activity. Using PEG scale data, 42% achieved  $\geq 30\%$  reduction and 22% both achieved and maintained  $\geq 30\%$  reduction over four months. The higher level of improvement seen with the PEG scale is likely a result of its capture of pain's impact on quality of life as well as pain intensity and, perhaps, its use of the past week's experience (rather than the past 24 hours). It is interesting to see differences in the three PEG component scores. A larger proportion of patients showed improvement in pain interfering with enjoyment of life (48.8%) and general activity (48.8%) than average pain intensity (35.1%). This finding is consistent with survey comments indicating a wider range of benefits than only reduction in pain intensity – including some patients who clearly expressed big improvement in their quality of life even though the pain intensity had not changed.

Analysis of change in PEG score by primary cause of pain showed few clear differences, though there is a suggestion that patients with migraine headache had relatively higher rates of improvement and patients with pain due to trauma were less likely to show improvement.

Medical cannabis products used when a patient achieved  $\geq 30\%$  reduction in pain scores tended to include Very High THC:CBD vaporization oil, often in combination with a Balanced THC:CBD enteral or vaporization oil product. Some patients used Balanced THC:CBD products only; use of high CBD:THC products was relatively uncommon.

## **Benefits Reported on Patient Experience Survey and Health Care Practitioner Survey**

Utilizing expertise within the Minnesota Department of Health, the Office of Medical Cannabis developed a Patient Experience survey, which captures information on benefits and harms of program participation. A parallel survey for each patient was developed for their certifying health care practitioner, which captures similar information from the clinician's perspective. In addition to this, health care practitioners were also asked to provide any clinical observations they noted about the patient's experience with medical cannabis. When intractable pain became a qualifying condition in the Minnesota Medical Cannabis program, a few additional questions were added to surveys sent for patients certified for intractable pain. Healthcare practitioners are asked to report whether the patient was able to reduce or eliminate the use of any pain medications as a result of medical cannabis. They are also asked in the survey, as they are asked during the initial certification process for patient enrollment, to report the patient's pain level as a score on a validated pain assessment. They can select from a number of common pain assessment tools or enter a score for a different assessment tool.

### **Survey Methodology**

The surveys are provided through an online platform; in the patient's first program year they are sent to patients three months, then six months after the patient's first medical cannabis purchase and are sent to healthcare practitioners six months after the patient's first medical cannabis purchase. Patients and healthcare practitioners access the surveys through the subject's registry page and through introductory emails containing unique links. To maximize survey submission rates, the survey can be submitted with incomplete responses to any of the questions. Each of the surveys is available online to the recipient for 45 days. Patient recipients receive reminder emails after one week; after two weeks with no response, paper copies of surveys are mailed to the recipient. For patients without online access the full process is accomplished by phone or mail.

### **Survey Data Preparation**

Patients and their certifying HCPs were asked to report the benefits and negative effects, if any, they have experienced as a result of medical cannabis treatment (in order of importance to the patient.) Survey responses from patients and health care practitioners on perceived benefits and perceived negative effects were reported in free-text format; each response was individually reviewed and classified into a category of benefit or negative effects. Reported benefits typically included either direct improvement of symptoms related to the patient's qualifying condition or more general improvements in health or quality of life, referred to in this report as global health benefits. Many responses included more than one type of benefit; in these cases, the first reported benefit was presumed to be the most important benefit. In this report, we examine both overall perceptions of benefit, as well as type of reported benefit. For

patients certified for intractable pain, reports of pain reduction, spasm reduction or improvement in neuropathy-related symptoms were considered to be direct symptom improvements; other benefits were generally considered to be global health benefits and were further classified into categories (Table 5.3.)

### Patient-Reported Benefits

Of 2,245 patients certified for intractable pain between August 2016-December 2016, 2,175 (96.9%) made a first purchase of medical cannabis before July 15, 2017 and were sent a survey three months after their first purchase. Among these patients, 1,173 (53.9%) responded to the survey. Response rates by age category varied somewhat, with a slight underrepresentation of younger patients (Table 5.1). Response rates by race/ethnicity also varied and tended to underrepresent minority groups, particularly black or Hispanic patients (Table 5.2).

**Table 5.1. Patient response rates by age group.**

Age Group	Total	Patient Responses
0-4 yrs	2	1 (50%)
5-17 yrs	8	3 (38%)
18-24 yrs	58	28 (48%)
25-35 yrs	299	140 (47%)
36-49 yrs	570	325 (57%)
50-64 yrs	823	465 (57%)
65+ yrs	415	211 (51%)

**Table 5.2. Patient survey response rate by race and ethnicity.**

Race/Ethnicity	Total	Patient Responses
American Indian	56	28 (50%)

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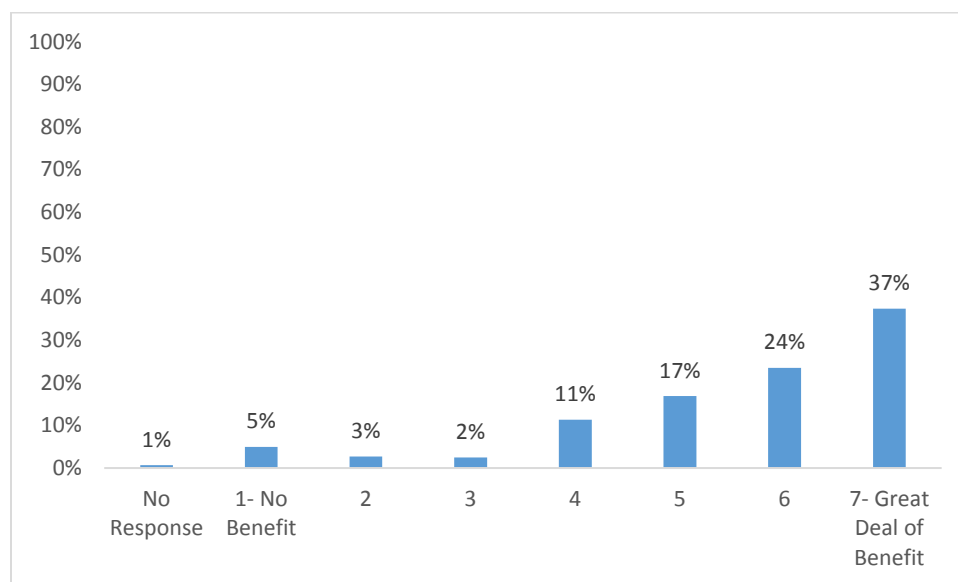
Asian	20	11 (55%)
Black	89	39 (44%)
Hawaiian	4	4 (100%)
White	1899	1058 (56%)
Hispanic	54	25 (46%)
Other	37	20 (54%)

**Patient Perceptions of Benefit from Medical Cannabis**

The Patient Experience survey asks patients to report how much benefit they have experienced as a result of medical cannabis, on a scale from 1 (representing no benefit) to 7 (representing a great deal of benefit). Patients are also asked to report the types of benefits they have experienced as a result of medical cannabis. Figure 5.1 shows the distribution of scores on the benefit scale from respondents- the percentages use the total number of survey respondents as the denominator, though in a small number of cases (n=8) surveys were returned incomplete and did not report a benefit score.

Of 1,173 patients who responded to the survey, 715 patients (61%) reported a benefit score of 6 or 7, indicating a high degree of benefit from medical cannabis.

**Figure 5.1. Patient-Perceived Benefit in Survey Respondents (N=1,173).**





Patient responses regarding types of benefits experienced as a result of medical cannabis treatment are shown in Table 5.3 and Figure 5.2. Table 5.3 shows the most important benefits reported by patients, as determined from the order of benefits listed. Figure 5.2 shows overall frequency of each benefit category, regardless of whether or not it was the most important benefit reported by a patient.

Of 1,173 patient respondents, 656 (56%) reported pain reduction as the most important benefit from medical cannabis (Table 5.3). Global health benefits not directly related to symptom reduction were also reported as the most important benefit: improvement in sleep quality/quantity (n=118; 10%), reduction of other medications or side effects related to other medications (n=78; 7%), reduction of anxiety (n=48; 4%), increase in mobility or ability to function (n=38; 3%), improvement in overall quality of life (n=21; 2%), increase in appetite or reduction of nausea or vomiting (n=17; 1%), reduced depression (n=3) and increase in alertness or improvement of cognitive function (n=3). Among respondents, 163 (14%) did not report any benefits (though in a few cases they reported benefit scores of  $\geq 2$ ). In a few other cases, patients reported a benefit without an accompanying benefit score; these responses are reflected in the total number of responses in each category but not in the breakdown of responses by scores. This included five patients reporting pain reduction and three patients reporting increased alertness or improvement of cognitive function.

A total of 753 (64%) reported pain reduction as one of the benefits experienced from medical cannabis (not necessarily the most important benefit) (Figure 5.2). Most commonly reported global health benefits which were not necessarily reported as the most important benefit were: improvement in sleep quality/quantity (n=315; 27%), reduction of anxiety (n=178; 15%) and reduction of other medications or side effects related to other medications (n=173; 15%). A full tabulation of patient-reported benefits can be found in *Appendix B: Patient-Reported Benefits from Medical Cannabis*.

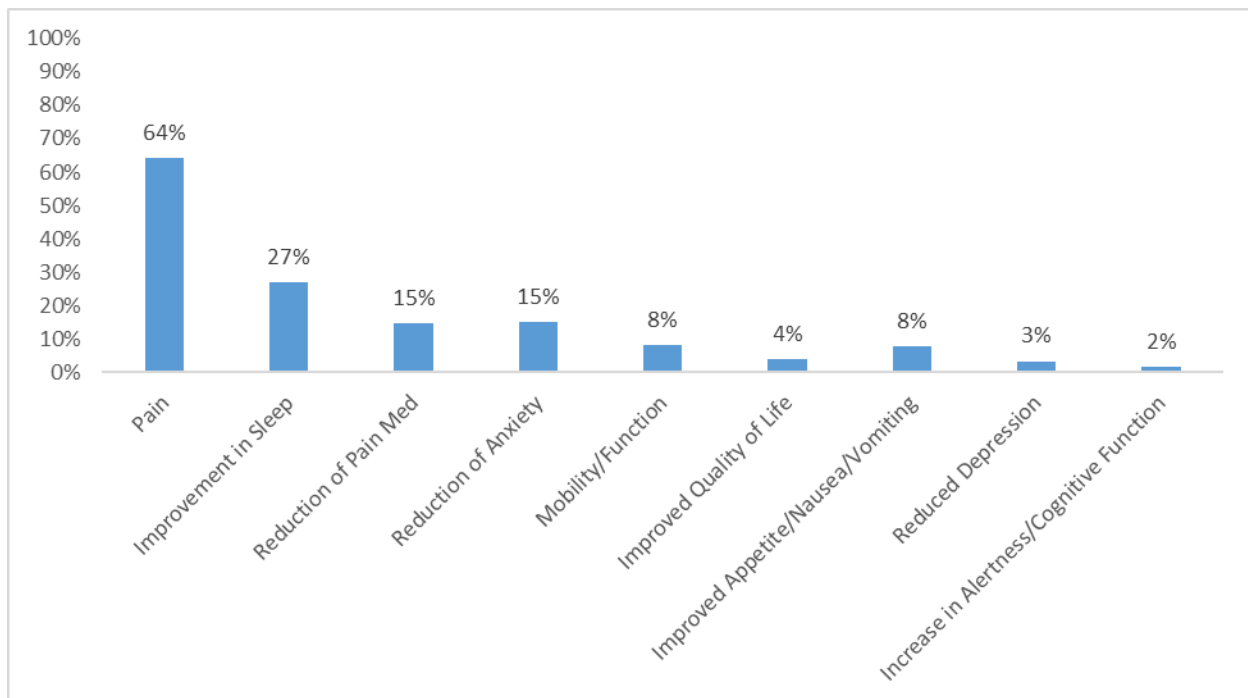
**Table 5.3. Most important benefits reported by patients, by type and benefit score.**

Most Important Benefit	Total	1	2	3	4	5	6	7
Pain Reduction	656 (56%)	0	9	11	80	113	174	264
Improvement in Sleep	118 (10%)	2	5	5	24	29	26	27
Reduction of Pain Medications/Side Effects	78 (7%)	0	0	1	1	11	19	46

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Reduction of Anxiety	48 (4%)	1	3	2	5	10	8	19
Mobility/Function	38 (3%)	0	0	0	5	4	8	21
Improved Quality of Life	21 (2%)	0	0	0	0	4	3	14
Improved Appetite/Nausea/Vomiting	17 (1%)	0	0	1	2	5	1	8
Reduced Depression	3 (0%)	0	0	1	0	0	0	2
Increase in Alertness/Cognitive Function	3 (0%)	0	0	0	0	0	0	0

**Figure 5.2. Frequency of all patient-reported benefits, by type.**



### Patient Suggestions

Patients were asked to provide feedback on the program; all responses submitted from the first year cohort are tabulated in *Appendix C: Patient Suggestions for Improving the Program*. Many patients used this space to elaborate on the program’s impact on their lives; others suggested

changes to the program’s administration or reported concerns related to product cost or access to cannabis patient centers.

### Healthcare Practitioner-Reported Benefits

Of 2,245 patients certified for intractable pain between August 2016-December 2016, 2,163 (96.3%) made a first purchase of medical cannabis by March 15, 2017 and their certifying healthcare practitioners were sent a survey six months after their first purchase. Of these surveys, 897 (40.0%) were filled out by healthcare practitioners. Healthcare practitioner response rates by patient age category varied slightly and tended to underrepresent younger patients (Table 5.4). Response rates by patient race/ethnicity also varied and tended to underrepresent minority groups (Table 5.5).

**Table 5.4. Healthcare practitioner survey response rates by age group.**

Age Group	Total	HCP Responses
0-4 yrs	2	0 (0%)
5-17 yrs	8	2 (25%)
18-24 yrs	58	15 (26%)
25-35 yrs	296	88 (30%)
36-49 yrs	569	177 (31%)
50-64 yrs	818	275 (34%)
65+ yrs	412	135 (33%)

**Table 5.5. Healthcare practitioner survey response rates by race and ethnicity.**

Race/Ethnicity	Total	HCP Responses
American Indian	56	15 (27%)
Asian	20	6 (30%)
Black	88	19 (22%)
Hawaiian	4	2 (50%)

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White	1891	617 (33%)
Hispanic	53	17 (32%)
Other	37	15 (41%)

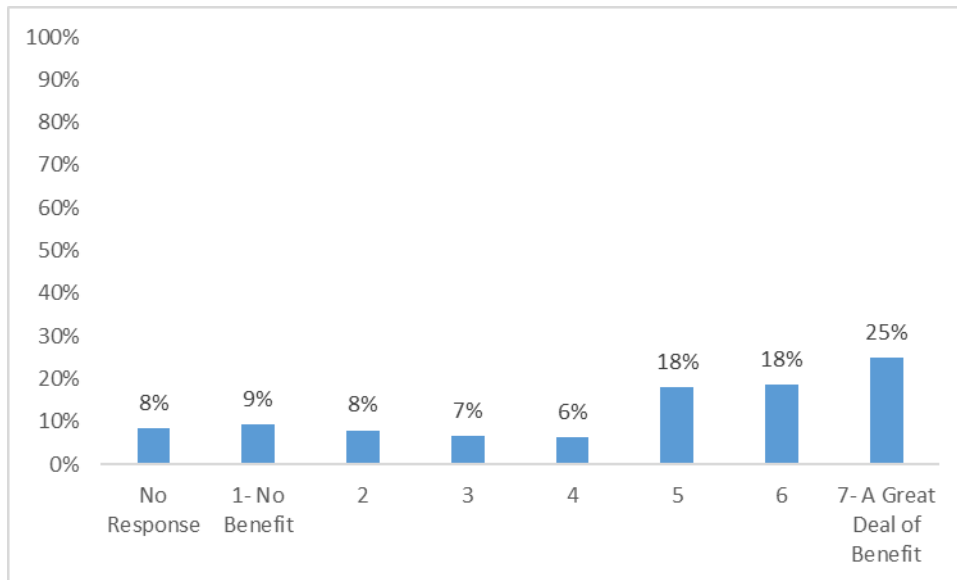
Review of submitted HCP responses revealed that in some cases, healthcare practitioners indicated they had not seen the patient since certification and therefore they had no clinical updates to provide; these surveys were eliminated (n=205), and the remaining 692 (30.8% of surveys) were included in analyses described below.

### **Healthcare Practitioner Perceptions of Benefit from Medical Cannabis**

The Healthcare Practitioner survey asks HCPs to report how much benefit they believe the patient has experienced as a result of medical cannabis, on a scale from 1 (representing no benefit) to 7 (representing a great deal of benefit). They are also asked to report the types of benefits the patient experienced as a result of medical cannabis. Figure 5.3 shows the distribution of scores on the benefit scale from respondents- the percentages use the total number of survey respondents as the denominator, though in some cases (n=58) surveys were returned incomplete and did not report a benefit score.

Of 692 completed surveys, 301 (43%) reported a patient benefit score of 6 or 7, indicating a high degree of benefit from medical cannabis.

**Figure 5.3. Healthcare Practitioner-Perceived Benefit in Survey Respondents (N=692).**



Healthcare practitioner survey responses regarding types of benefits experienced as a result of medical cannabis treatment are shown in Table 5.6 and Figure 5.4. Table 5.6 shows the most important benefits reported by patients, as determined from the order of benefits listed. Figure 5.4 shows overall frequency of each benefit category, regardless of whether or not it was the most important benefit reported by a patient.

Of 692 healthcare practitioner survey responses, 311 (45%) reported pain reduction as the most important benefit from medical cannabis (Table 5.6). As with patient responses, among HCP responses global health benefits not directly related to symptom reduction were also frequently reported as the most important benefit: improvement in sleep quality/quantity (n=73; 11%), reduction of other medications or side effects related to other medications (n=62; 9%), increase in mobility or ability to function (n=26; 4%), reduction of anxiety (n=14; 2%), improvement in overall quality of life (n=11; 2%), increase in appetite or reduction of nausea or vomiting (n=11; 2%), and increase in alertness or improvement of cognitive function (n=2).

A total of 409 (59%) HCP survey responses reported pain reduction as one of the benefits experienced from medical cannabis (not necessarily the most important benefit) (Figure 5.4). Most commonly reported global health benefits which were not necessarily reported as the most important benefit were: improvement in sleep quality/quantity (n=167; 24%), reduction of other medications or side effects related to other medications (n=110; 16%), increase in mobility or ability to function (n=72; 10%), and reduction of anxiety (n=71; 10%). In some cases, healthcare practitioners reported a benefit without an accompanying benefit score; these responses are reflected in the total number of responses in each category but not in the

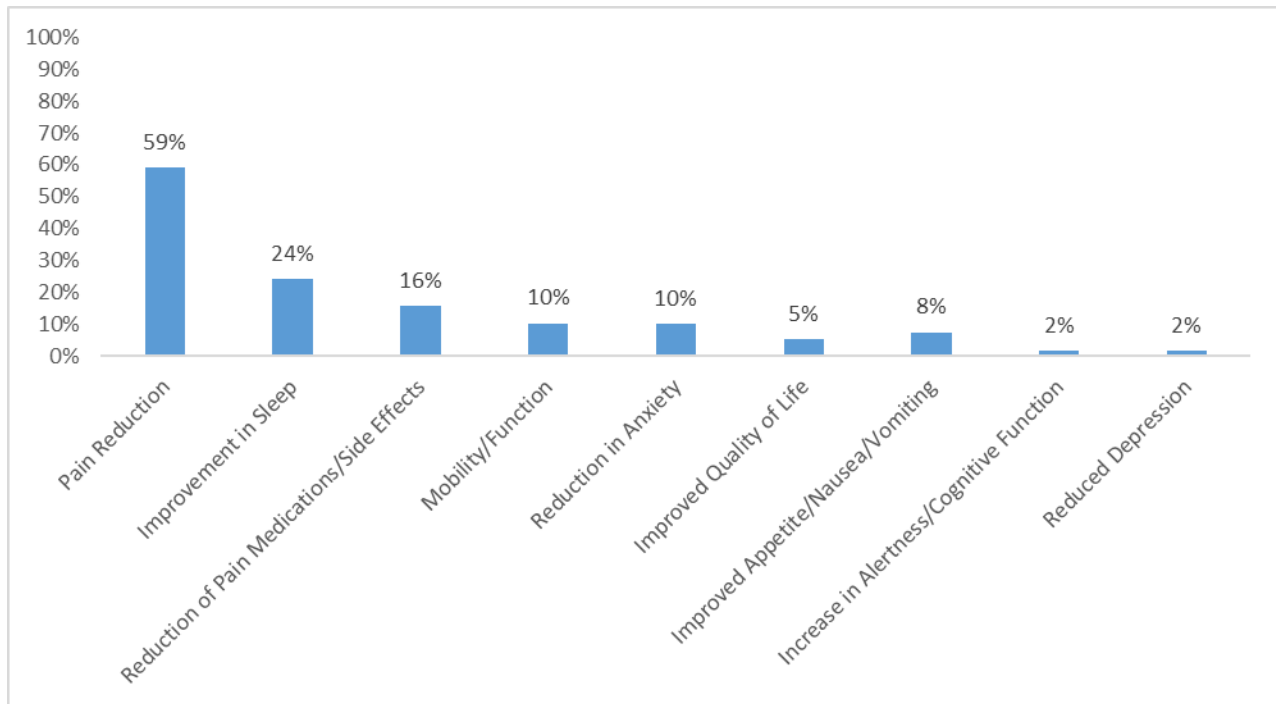
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breakdown of responses by scores (three reports of pain reduction, two reports of improvement in sleep, one report of improved quality of life and one report of improved appetite). A full compilation of healthcare practitioner-reported benefits is available in *Appendix D: Healthcare Practitioner-Reported Benefits from Medical Cannabis*.

**Table 5.6. Most important benefits reported by healthcare practitioners, by type and benefit score.**

	<b>Total</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Pain Reduction	311 (45%)	2	16	26	25	65	80	94
Improvement in Sleep	73 (11%)	1	7	5	7	16	16	19
Reduction of Pain Medications/Side Effects	62 (9%)	0	2	3	2	15	14	26
Mobility/Function	26 (4%)	0	0	1	1	10	5	9
Reduction of Anxiety	14 (2%)	0	4	0	1	1	1	7
Improved Quality of Life	11 (2%)	0	1	0	1	1	3	4
Improved Appetite/Nausea/Vomiting	11 (2%)	0	4	1	0	2	1	2
Increase in Alertness/Cognitive Function	2 (0%)	0	0	1	1	0	0	0
Reduced Depression	0 (0%)	0	0	0	0	0	0	0

**Figure 5.4. Frequency of all healthcare practitioner-reported benefits, by type.**



### Healthcare Practitioner Reports of Reduction in Pain Medications

Healthcare practitioners who certify patients for intractable pain are posed the following question in the survey they receive: “Over the past 6 months has this patient’s use of medical cannabis assisted in reducing dosage or eliminating other medications used for pain?” The three response options are: “Yes (specify change(s) in medication(s))” and the HCP is prompted to enter information in an open text field, “No,” or “Not applicable (patient not taking any medications for pain 6 months ago).” Of 692 survey responses, 68 reports indicated that the patient did not use pain medication six months prior and 38 responses were left blank. Of the remaining 586 reports, 340 (58.0%) reports indicated a reduction of pain medications and 246 (42.0%) reports indicated no reduction in pain medication use. Among reports of reduced pain medication use, 13 (3.8%) did not specify types or quantities of reduced medications. A total of 221 reports indicated that the patients reduced their use of opioids, representing 37.7% of all patients for whom we have information on reduction of pain medications since starting medical cannabis. If only the 353 patients (60.2%, based on medication list in first Patient Self-Evaluation) known to be taking opioid medications at baseline are included, 62.6% (221/353) were able to reduce or eliminate opioid usage after six months. Of these 221 patients, 127 (57.5%) were reported as reducing at least one opioid by 50% or more.

Sixteen reports indicated reduction of at least one benzodiazepine medication, with 10 surveys indicating a reduction of 50% or more of at least one benzodiazepine. Additionally, 128 reports

indicated that the patient reduced at least one pain medication other than an opioid or benzodiazepine, with 71 (55.5%) reporting a reduction of 50% or more of at least one other pain medication. Pain medications other than opioids or benzodiazepines reported in this section included a variety of pain medications, as well as generic references to “pain medications” without specifying a medication name or type. As a result, the proportion of reports describing reduction of opioids or benzodiazepines is likely an underestimate. A full compilation of HCP responses to the question of pain medication reduction from medical cannabis treatment can be found in *Appendix E: Healthcare Practitioner-Reported Reduction of Pain Medication*.

### **Patient and Health Care Practitioner-Reported Benefit Scores by Pain Cause**

Benefit scores from the Patient Experience Survey and Healthcare Practitioner Survey of  $\geq 6$  were classified as “high degree of benefit”; benefit scores of  $\leq 3$  were classified as “low degree of benefit.” The proportion of patient and HCP survey respondents reporting high or low degrees of benefit was stratified by primary pain cause, as reported at initial certification for Intractable Pain (Table 5.7) Among the most common pain causes ( $n \geq 100$ ), patients with migraine headache, neck pain, neuropathy and fibromyalgia/myofascial pain reported a high degree of benefit most frequently (74%, 66%, 60%, and 59% of patient respondents, respectively); patients with axial back pain reported a high degree of benefit less frequently than patients with other types of pain (35%). Healthcare practitioner survey responses for patients with fibromyalgia/myofascial pain, neck pain and osteoarthritis reported a high degree of benefit most frequently (54%, 49%, and 45% of HCP respondents, respectively.)

**Table 5.7. Patient and healthcare practitioner benefit scores, by primary cause of pain.**

<b>Primary Pain Cause</b>	<b>Patient Survey Responses</b>	<b>PES Benefit Score <math>\leq 3</math></b>	<b>PES Benefit Score <math>\geq 6</math></b>	<b>HCP Survey Responses</b>	<b>HCP Benefit Score <math>\leq 3</math></b>	<b>HCP Benefit Score <math>\geq 6</math></b>
Back pain, axial	260 (50%)	21 (8%)	90 (35%)	157 (30%)	60 (38%)	61 (39%)
Back pain, radicular	149 (49%)	22 (15%)	84 (56%)	77 (25%)	25 (32%)	31 (40%)
Fibromyalgia/myofascial pain	135 (58%)	15 (11%)	80 (59%)	65 (28%)	14 (22%)	35 (54%)
Neuropathy	102 (59%)	10 (10%)	61 (60%)	53 (31%)	21 (40%)	20 (38%)
Osteoarthritis	78 (47%)	12 (15%)	40 (51%)	53 (32%)	18 (34%)	24 (45%)



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Neck pain	56 (54%)	6 (11%)	37 (66%)	35 (34%)	9 (26%)	17 (49%)
Migraine Headache	43 (50%)	0 (0%)	32 (74%)	31 (36%)	6 (19%)	15 (48%)
Trauma	41 (51%)	3 (7%)	26 (63%)	39 (48%)	8 (21%)	20 (51%)
Rheumatoid Arthritis	42 (58%)	3 (7%)	25 (60%)	26 (36%)	4 (15%)	14 (54%)
Headache Other Than Migraine	31 (52%)	2 (6%)	19 (61%)	20 (33%)	6 (30%)	8 (40%)
Complex Regional Pain Syndrome	27 (63%)	0 (0%)	14 (52%)	15 (35%)	7 (47%)	5 (33%)
Spinal Stenosis	22 (61%)	4 (18%)	12 (55%)	11 (31%)	4 (36%)	3 (27%)
Postoperative Pain	21 (72%)	3 (14%)	15 (71%)	16 (55%)	5 (31%)	5 (31%)
Myelopathies	15 (54%)	0 (0%)	12 (80%)	2 (7%)	1 (50%)	0 (0%)
Pelvic Pain	11 (50%)	2 (18%)	6 (55%)	6 (27%)	2 (33%)	3 (30%)
Spinal Cord Injury	10 (45%)	2 (20%)	4 (40%)	9 (41%)	3 (33%)	2 (22%)
Disc (Vertebral) Herniation	8 (38%)	0 (0%)	3 (38%)	4 (19%)	1 (25%)	2 (50%)
Abdominal Pain	11 (65%)	1 (9%)	7 (64%)	6 (35%)	2 (33%)	1 (17%)
Cancer	6 (38%)	0 (0%)	3 (50%)	2 (13%)	1 (50%)	0 (0%)
Ehler-Danlos Syndrome	8 (50%)	0 (0%)	3 (38%)	5 (31%)	2 (40%)	2 (40%)
Connective Tissue Diseases (Excluding Rheumatoid Arthritis)	3 (20%)	0 (0%)	2 (67%)	3 (20%)	3 (100%)	0 (0%)
Pancreatitis	7 (58%)	0 (0%)	6 (86%)	2 (17%)	0 (0%)	1 (50%)
Arthritis, Other Inflammatory	4 (36%)	1 (25%)	3 (75%)	5 (45%)	0 (0%)	5 (100%)
Sciatica	4 (40%)	0 (0%)	3 (75%)	5 (50%)	1 (20%)	4 (80%)

### Health Care Practitioner-Reported Pain Assessment Score

At each certification and re-certification of a patient with intractable pain, the certifying healthcare practitioner is required to report the pain assessment tool used to evaluate the patient's pain symptoms, date of most recent assessment and assessment score. Options for

pain assessment tool are the PEG (Pain, Enjoyment, General Activity) 3-Item Scale (a three-question assessment on a 0-10 scale)<sup>2</sup>, the Pain Intensity Numerical Scale (pain intensity in the past 24 hours on a 0-10 scale), the Brief Pain Inventory- Short Form Pain Interference Composite Score or Pain Severity Composite Score (each is a calculated average of different 0-10 scaled components), the Oswestry Low Back Disability Index (questionnaire scored from 0%-100% disability)<sup>3</sup>, or the Neuropathic Pain Scale: Pain Intensity Score (pain intensity on a 0-10 scale)<sup>4</sup>. Healthcare practitioners also could opt to describe another pain assessment tool and provide a score using that assessment. In several cases HCPs reported a pain score using the Health Assessment Questionnaire- Disability Index (scored on a scale from 0-3). Table 5.8 shows the distribution of pain assessment tools used and proportion of patients in each group with a score considered to reflect moderate or severe pain. On 0-10 scales, a score of  $\geq 4$  was considered moderate or severe. Scores on the Oswestry Low Back Disability Index were considered to be moderate or severe if  $\leq 21\%$  per the tool's scoring instructions; scores on the Health Assessment Questionnaire-Disability Index pain scale of  $\leq 1.0$  were considered to be moderate or severe. Overall, 96% of patients in the Intractable Pain 5-month cohort had moderate or severe pain scores. Patients whose pain was assessed using the Oswestry Low Back Disability Index had an overall 75% incidence of moderate or severe disability.

**Table 5.8. Distribution of pain assessment types and moderate/severe pain scores at initial certification.**

	Patients With Baseline Pain Scores	Patients with Moderate or Severe Pain
<u>PEG 3-Question Scale</u>	909	902 (99%)
<u>Pain Intensity Numerical Rating Scale</u>	825	776 (94%)
<u>Brief Pain Inventory- Short Form/Pain Severity Composite Score</u>	238	235 (99%)
<u>Brief Pain Inventory- Short Form/Pain Interference Composite Score</u>	42	41 (98%)

<sup>2</sup> Krebs, E. E., Lorenz, K. A., Bair, M. J., Damush, T. M., Wu, J., Sutherland, J. M., Asch S, Kroenke, K. (2009). Development and Initial Validation of the PEG, a Three-item Scale Assessing Pain Intensity and Interference. *Journal of General Internal Medicine*, 24(6), 733–738.

<sup>3</sup> Fairbank JC, Pynsent PB. The Oswestry Disability Index. *Spine (Phila Pa 1976)*. 200 Nov 15;25(22):2940-52; discussion 2952.

<sup>4</sup> Galer B, Jensen M. Development and preliminary validation of a pain measure specific to neuropathic pain. The neuropathic pain scale. *Neurology* 1997;48:332-338.

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<u>Oswestry Low Back Disability Index</u>	128	96 (75%)
<u>Neuropathic Pain Scale: Pain Intensity Score</u>	50	50 (100%)
<u>Health Assessment Questionnaire- Disability Index</u>	50	50 (100%)
<u>Total</u>	2242	2150 (96%)

*\*Four pain score entries were not reported in usable formats and are not included above.*

The Healthcare Practitioner Survey sent six months after the patient’s first purchase of medical cannabis also asks HCPs to report an updated pain assessment score. Of 692 completed HCP 6-month surveys for the Intractable Pain 5-month cohort, 489 (70.7%) used the same pain assessment tool in reporting a pain score and therefore provided scores that could be compared to the initial pain assessment score at certification: 111 (22.7% of paired scores) used the PEG 3-Item Scale, 368 (75.3% of paired scores) used the Pain Intensity Numerical Rating Scale, 7 (1.4% of paired scores) used the Brief Pain Inventory- Short Form Pain Severity Composite Score and 2 (0.4% of paired scores) used the Brief Pain Inventory- Short Form Pain Interference Composite Score. One report used the Health Assessment Questionnaire Disability Index pain scale. Within the group of paired scores with matching pain assessment tools, 202 HCP survey responses (41.3%) reported a recent pain score 30% or more lower than the pain score reported at certification (Table 5.9).

**Table 5.9. Patients With Pain Score Reduction After 6 Months of Program Participation.**

	<b>Patients with Baseline and 6-Month Pain Scores</b>	<b>Patients with 30% Reduction in Pain Score or Greater</b>
<i>PEG 3-Question Scale</i>	111	56 (50%)
<i>Pain Intensity Numerical Rating Scale</i>	368	142 (39%)
<i>Brief Pain Inventory- Short Form/Pain Severity Composite Score</i>	7	2 (27%)
<i>Brief Pain Inventory- Short Form/Pain Interference Composite Score</i>	2	1 (50%)

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<i>Rheumatology Modified Health Assessment Questionnaire and Pain Scale</i>	1	1 (100%)
<i>Total</i>	489	202 (41%)

**Healthcare Practitioner Suggestions and Clinical Observations**

As with patients, healthcare practitioners were asked to provide feedback on the program; all responses submitted from the first year cohort are tabulated in *Appendix F: Healthcare Practitioner Suggestions for Improving the Program*. In addition, HCPs were asked to share any clinical observations they had on the patient, with provided examples including drug interactions. All responses were tabulated in *Appendix G: Healthcare Practitioner-Reported Clinical Observations*.

## Benefits Reported on the Patient Self-Evaluation

A separate source of information on benefits apart from the Patient Experience Survey (discussed in the previous section) is the symptom data provided by patients on the Patient Self-Evaluation. Completion of the Patient Self-Evaluation (PSE) is required prior to every medical cannabis purchase including prior to each patient's first purchase. This allows the opportunity to understand the symptom status of the patient at the outset of program participation (symptom baseline) and how it is changing over time with their medical cannabis usage.

Two sets of measures are collected on the PSE, which includes a standard set of questions that all patients receive (the "standard 8"), as well as condition-specific questions which a subset of patients receive depending on their certified conditions. In the case of Intractable Pain (IP) patients, they receive three additional questions beyond the Standard 8 to assess pain intensity and interference developed by Krebs et al.: the PEG Scale<sup>5</sup>. These two sets of symptom measures and results will be discussed in this section for IP patients enrolled in the program from August 1, 2016 through December 31, 2016.

### Standard 8 Symptom Data

All patients, regardless of their certified condition(s), receive a set of 8 symptom questions which are answered on a 0-10 numerical rating scale (NRS), with 0 indicating absence of the symptom to 10 indicating that the symptom is as bad as the patient can imagine (see Box 5.1). Therefore, higher scores indicate greater symptom severity. Patients are asked to rate symptom severity over the *past 24 hours*.

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<sup>5</sup> Krebs EE, Lorenz KA, Bair MJ, et al. Development and initial validation of the PEG, a three-item scale assessing pain intensity and interference. *Journal of General Internal Medicine*. 2009; 24(6): 733-738. doi:10.1007/s11606-009-0981-1

**Box 5.1. Listing of the Standard 8 symptom measures that all patients answer, including the responses options available to patients.**

<b><u>Standard 8 Symptom Measures:</u></b>										
Anxiety					Fatigue					
Lack of Appetite					Nausea					
Depression					Pain					
Disturbed Sleep					Vomiting					
<b><u>Response Options (0 – 10 NRS):</u></b>										
0 1 2 3 4 5 6 7 8 9 10										
Symptom not present					Symptom as bad as one can image					

### PEG Scale Data

The PEG scale is a three-item scale that assesses pain intensity and its interference with the patient’s enjoyment of life and general activity (P = pain; E = enjoyment of life; G = general activity). As a validated tool, it has been proposed as an alternative to longer pain assessments that are administered in clinical settings. The scale asks patients to think back on their *last week* and rate the following on a 0-10 numerical rating scale (NRS): their average level of pain, pain interfering with their enjoyment of life, and pain interfering with general activity. A composite PEG score is derived by adding the scores on the three items and dividing by three. The three individual items on the PEG can also be analyzed on their own. For this report, the composite PEG and individual items will be analyzed in a similar fashion to the Standard 8 questions.

### Research Objectives

To understand the degree of benefits each patient obtained during their participation in the program, the following three questions were explored for each Standard 8 symptom measure and PEG scale:

#### **QUESTION 1**

Of those patients who experienced moderate to severe symptoms at baseline (score of 4 or higher at baseline), what percentage of them experienced at least a 30% improvement in symptoms within four months of their first medical cannabis purchase? The threshold of  $\geq 30\%$  reduction on a 0-10 point scale was chosen for the Standard 8 because this threshold has been documented in clinical trials to represent clinically meaningful change – especially for pain

reduction and spasticity reduction. Examples of  $\geq 30\%$  change include moving from a score of 10 to a score of 7, from 9 to 6, from 8 to 5, from 7 to 4, etc. Similarly, a 30% threshold for symptom improvement on the PEG seems appropriate given that Krebs et al., 2009 (developers of the PEG scale) found that a 3-point change generally reflects improvements on the Pain Global Rating of Change.

### **QUESTION 2**

If a patient achieved at least a 30% improvement on symptoms within 4 months of their first medical cannabis purchase (determined in Question 1), what percentage of them will, on average, still maintain that level of improvement in the four months following that initial 30% symptom improvement? [Four-month follow-up period]

### **QUESTION 3**

What medical cannabis products were purchased just *prior* to the patient's first report of  $\geq 30\%$  improvement on the PSE? What was the average daily intake of delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) for these product types?

To address Question 1 the following procedure was adopted for each standard 8 measure and for the PEG: all patients who scored 4 or higher at baseline were identified as those experiencing moderate to severe symptoms, and all symptom responses that were submitted within 4 months of their first medical cannabis purchase were retained. From this dataset, each patient's standard 8 and PEG responses were compared to their baseline responses over time. The first instance a patient achieved at least a 30% symptom improvement was recorded, effectively demonstrating when – during the first 4 months following their first medical cannabis purchase – the patient achieved clinically meaningful symptom improvement, if at all.

Calculating the percentage of patients who achieved  $\geq 30\%$  symptom improvement within 4 months of their first medical cannabis purchase (Question 1) was done in the following way: the number of patients achieving  $\geq 30\%$  symptom improvement within 4 months was divided by the number of patients who made a first purchase (all patients with a baseline PSE submission). This allows for a conservative estimation of symptom benefit since a patient may have discontinued purchasing medical cannabis because of lack of effectiveness.

Since Question 1 examines symptom improvement within 4 months of their first medical cannabis purchase, patients who had not been enrolled in the program for at least 4 months since their first medical cannabis purchase were not included in the analysis. When PSE data were extracted in early November 2017, 2174 patients from this report's Intractable Pain cohort (96.8% of the IP patients enrolled between August 1, 2016 through December 31, 2016) had been enrolled for at least 4 months since their first medical cannabis purchase—results on the standard 8 symptom measures and PEG are reported on this cohort subset.

Question 2 was addressed by observing all symptom responses in the four months *following* the time point when the patient first achieved  $\geq 30\%$  symptom improvement. For each patient, all symptom responses identified during those follow-up four months were averaged together.

Patients who, on average, still maintained at least a 30% symptom improvement from baseline were defined as showing persistence in their symptom benefits.

For Question 3, products that were purchased just *prior* to each patient's initial  $\geq 30\%$  symptom improvement were identified and categorized by their THC/CBD ratio and intended route of administration (ROA). See Box 5.2 for definitions of these categories.

### **Box 5.2. Categories to describe medical cannabis products purchased by patients.**

#### **Medical Cannabis Products Categorized by THC:CBD Content Ratio:**

- **Very High THC to CBD** = 100:1 or higher
- **High THC to CBD** =  $>4:1$  up to 99:1
- **Balanced** = 1:1 up to 4:1
- **High CBD to THC** =  $\geq 1:1$  up to 99:1
- **Very High CBD to THC** = 100:1 or higher

#### **Product Routes of Administration (ROA):**

- **Enteral:** entry through the gastrointestinal tract via swallowing (i.e., capsules, oral solutions).
- **Inhalation:** oils vaporized into lungs.
- **Oromucosal:** sublingual sprays and tinctures absorbed through cheek/oral mucosa.
- **Topical:** applied to body surface (i.e., balms).

### **Results: Standard 8 Measures**

To view the distribution of patient responses at baseline on the Standard 8 symptoms, please see *Appendix H: Baseline Responses on Symptom Measures in the Patient Self-Evaluation*. Table 5.10 below lists the Standard 8 symptom measures along with results on symptom improvement and persistence in patients who experienced at least moderate to severe symptoms at baseline ( $n = 2174$ ). This table addresses Questions 1 and 2 of the research objective for this section of the report. The third column from the left shows the percentage of patients experiencing moderate to severe symptoms for any given Standard 8 measure—these are the patients that were followed through the course of the analysis. Results suggest that, apart from vomiting and nausea, the majority of patients experience high symptom burden. For example, as anticipated by the focus of this report (Intractable Pain), 99.6% of patients experienced at least moderate pain at baseline.



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The fourth column in Table 5.10 displays the percentage of patients (among those who experienced moderate to severe symptoms at baseline) who achieved at least a 30% improvement in symptoms within 4-months of their first purchase compared to their baseline measure. Interestingly, patients were less likely to experience at least a 30% improvement in pain compared to other symptoms. Just over a quarter of moderate to severe sufferers of pain achieved at least a 30% reduction in pain. Of those who achieved  $\geq 30\%$  pain reduction, roughly 40% were able to maintain it in the follow-up four months since their initial improvement (Column 6). Overall, of the 2165 moderate to severe pain sufferers, approximately 11% were able to both achieve  $\geq 30\%$  pain reduction and maintain it for at least 4 months (Column 7). Patients appeared to be more responsive to other symptoms, whereby roughly 50-60% of patients achieved  $\geq 30\%$  symptom improvement, with a greater proportion of patients who achieved the  $\geq 30\%$  improvement maintaining it in the 4-month follow-up as well. Out of all symptoms, patients appeared to show greatest response to vomiting symptoms, although the proportion of patients initially reporting this symptom was smaller overall.

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**Table 5.10. Standard 8 symptom benefits in Intractable Pain patients.**

			INITIAL 4-MONTH PERIOD	FOLLOW-UP PERIOD		
	Standard 8 Symptom Measure	% of Patients Reporting at Moderate to Severe Levels at Baseline (n)	% of Patients Achieving ≥30% Symptom Improvement within 4 months of First Purchase out of all Moderate to Severe Baseline Scorers (n)	# of Patients with Data in 4-mo Period Following initial ≥30% Symptom Improvement	% of Patients Who Achieved ≥30% Symptom Improvement that Maintained it for at least 4 months (n)	% of Patients that Both Achieved ≥30% Symptom Improvement and Retained that Degree of Improvement for at least 4 months.
<b>IP Patients (n = 2174)</b>	Anxiety	77.2 (1679)	57.6 (967)	832	58.9 (570)	33.9
	Appetite Lack	53.1 (1154)	61.4 (709)	614	60.9 (432)	37.4
	Depression	66.8 (1453)	59.7 (867)	741	59.9 (519)	35.7
	Disturbed Sleep	90.9 (1977)	55.7 (1102)	961	56.5 (623)	31.5
	Fatigue	93.7 (2036)	45.2 (920)	813	50.9 (468)	23.0
	Nausea	47.3 (1028)	64.4 (662)	571	62.4 (413)	40.2
	Pain	99.6 (2165)	27.9 (603)	540	39.3 (237)	10.9
	Vomiting	20.1 (437)	72.5 (317)	268	71.3 (226)	51.7

As discussed previously, it is important to keep the following in mind when examining results in Table 5.10. Calculations on the percentage of patients achieving/maintaining  $\geq 30\%$  improvement was performed to give a conservative estimate of benefit. Patients who did not make any additional purchases (and therefore did not submit any additional symptom data) were included in the denominator for the analyses in Table 5.10. It is reasonable to assume that some patients may have discontinued purchasing medical cannabis because of a lack of effectiveness, although they may have discontinued use for other reasons as well (i.e., affordability of medical cannabis, side effects, etc.). Therefore, calculations of symptom benefit are attenuated by including these patients into the denominator.

### **Medical Cannabis Use Preceding Initial Symptom Improvement**

To describe what medical cannabis products patients used just prior to their initial symptom improvement, all patients who achieved  $\geq 30\%$  symptom improvement were identified (patients in Column 4 of Table 5.10). The purchasing transaction immediately preceding each patient's initial improvement was extracted, with all products purchased in that transaction categorized according to the products' intended route of administration (ROA) and THC:CBD content ratio. Due to the sheer size of displaying this information and the complexity in interpreting it, full tables are displayed in *Appendix I: Medical Cannabis Products Purchased Prior to Initial  $\geq 30\%$  Symptom Improvement* rather than in this section of the report. This report will instead focus on the general patterns in medical cannabis consumption that typically preceded initial symptom reduction. [As a space-saving measure, please note that the Topical route of administration does not appear in the tables in *Appendix I: Medical Cannabis Products Purchased Prior to Initial  $\geq 30\%$  Symptom Improvement*; no topical products appeared in any transactions preceding initial symptom improvement].

Regardless of the Standard 8 symptom in question, the same product types generally appeared as the most frequently consumed ones in roughly 53-55% of all patients when initially achieving  $\geq 30\%$  symptom improvement. Inhaled products with a Very High THC:CBD ratio were most commonly consumed by patients, usually followed by a combination of a Very High THC:CBD inhaled product and Balanced enteral product. Other most commonly found products preceding symptom improvement typically paired a Very High THC:CBD inhaled product with something else—usually a Very High THC:CBD enteral product or paired with another inhaled product (a Balanced inhaled product).

Table 5.11 shows the most commonly consumed medical cannabis products that preceded initial improvements in pain, as reported on the PSE. The second column from the right displays the percentage of patients who consumed the same product types just before the initial report of symptom improvement (consumed product(s) are denoted with an "X"), with the average daily THC/CBD dose (mg) among those patients shown in the right-most column. [Note: Oromucosal route of administration is not shown in the table below as a space-saving measure; none of the top 5 most frequently consumed products were for oromucosal administration]

**Table 5.11. Top 5 medical cannabis product type(s) purchased by Intractable Pain patients just prior to achieving the initial 30% reduction in the Standard 8 pain measure.**

Enteral					Inhalation					% of Patients out of 602 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X					20.4 (123)	72.3 mg / 0.5 mg
		X			X					10.6 (64)	72.9 mg / 22.2 mg
X					X					8.6 (52)	120.2 mg / 0.6 mg
		X								8.6 (52)	35.0 mg / 30.6 mg
					X		X			7.8 (47)	214.8 mg / 22.4 mg

### Results: PEG Scale

PEG scale data were extracted during the same time period as the Standard 8 measures (early November 2017) which resulted in the same subset of the IP cohort being represented in the dataset (n = 2174). This subset reflected patients who enrolled under IP as one of their certifying conditions from August 1, 2016 through December 31, 2016. In addition, at the time of data extraction, these patients had at least a 4-month observation period since their first medical cannabis purchase.

Table 5.12 below shows the results on the PEG scale. The table shows the composite PEG score as well as results on the individual PEG items. Due to the IP focus of this report, it is not surprising to see that close to all IP patients scored moderate to high on the PEG composite (Column 3). Of those patients, 42.3% experienced  $\geq 30\%$  improvement (reduction) on the PEG composite score within 4 months of their first purchase (Column 4). In addition, roughly half of the patients who experienced  $\geq 30\%$  reduction on the PEG composite maintained it in the four-month follow-up period (Column 6). Overall, just under a quarter (21.8%) of all moderate to high scorers on the PEG composite experienced both improvements in pain management and maintained it in the following four months.

Some differences emerge when analyzing the PEG by the individual components (see Table 5.12). For example, a greater proportion of patients showed improvements in pain interfering with enjoyment of life (48.8%) and general activity (48.6%) than Average Pain (35.1%). This is generally in line with patient survey comments that, while some patients may not experience clinically meaningful reduction in pain intensity, medical cannabis may contribute to improvements in quality of life type factors.

A comparison of the Standard 8 pain responses and the individual PEG-Pain component also draws an interesting contrast. While speculative, the greater responsiveness of patients on the PEG-Pain component suggests that the differences may lie in the question itself. While the Standard 8 pain measure asks patients to rate pain severity at its worst in the last 24 hours, the

PEG-Pain component asks patients to rate their average pain in the last week. A smaller reference point on the Standard 8 pain measure (“last 24 hours”), as well as the emphasis on pain extremes may lead to responses that are susceptible to daily fluctuations; PEG-Pain may be a more robust measure of pain.

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**Table 5.12. Improvements on the PEG scale in Intractable Pain patients.**

	<b>PEG Scale and Components</b>	<b>% of Patients Reporting Moderate to High PEG Scores at Baseline (n)</b>	<b>% of Patients Achieving ≥30% Improvement on the PEG within 4 months of First Purchase out of all Moderate to Severe Baseline Scorers (n)</b>	<b># of Patients with Data in 4-mo Period Following initial ≥30% PEG Improvement</b>	<b>% of Patients Who Achieved ≥30% PEG Improvement that Maintained it for at least 4 months (n)</b>	<b>% of Patients that Both Achieved ≥30% Improvements on the PEG and Retained that Degree of Improvement for at least 4 months.</b>
<b>IP Patients (n = 2174)</b>	Composite	97.9 (2129)	42.3 (900)	802	51.6 (464)	21.8
	<i>Pain</i>	98.1 (2132)	35.2 (751)	667	46.9 (352)	16.5
	<i>Life Enjoyment Interference</i>	97.5 (2120)	48.8 (1034)	915	51.1 (528)	24.9
	<i>General Activity Interference</i>	97.1 (2112)	48.6 (1027)	904	52.9 (543)	25.7

Table 5.13 shows the most commonly consumed medical cannabis products that preceded initial  $\geq 30\%$  reductions (improvements) on the PEG composite score. The second column from the right displays the percentage of patients who consumed the same product types just before the initial report of improvements on the PEG composite score (consumed product(s) are denoted with an “X”), with the average daily THC/CBD dose (mg) among those patients shown in the right-most column. [Note: Oromucosal route of administration is not shown in the table below as a safe saving-measure; none of the top 5 most frequently consumed products were for oromucosal administration]

Similar to findings on the Standard 8 measure, roughly half of all patients consumed the same product types when they initially reached  $\geq 30\%$  reduction on the PEG composite score. Inhaled products with a Very High THC:CBD ratio was most commonly consumed by patients, followed by a combination of a Very High THC:CBD inhaled product and Balanced enteral product.

**Table 5.13. Top 5 medical cannabis product type(s) purchased by Intractable Pain patients just prior to achieving the initial 30% improvement on the PEG composite score.**

Enteral					Inhalation					% of Patients out of 899 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X					18.6 (167)	69.4 mg / 0.5 mg
		X			X					11.8 (106)	76.6 mg / 26.6 mg
		X								7.6 (68)	34.7 mg / 27.4 mg
					X		X			7.5 (67)	99.7 mg / 23.8 mg
X					X					6.2 (56)	88.5 mg / 0.5 mg

### Results: PEG Composite Stratified by Primary Cause of Pain

To examine for any differences in the PEG due to pain cause, the PEG composite score was stratified by the patient’s primary cause of pain. Primary cause of pain was reported by the patient’s health care practitioner (HCP) at the time of certification and adjudicated where appropriate for analysis.

Table 5.14 shows PEG composite scores as a function of pain cause. Overall results generally show similar PEG composite scores across individuals with different primary causes of pain (note that Table 5.14 omits thirty-seven primary pain causes from the list because they each consisted of one patient). However, with the exception of the first several rows of data, the small sample sizes in the table do not allow for reliable interpretation of the data. For patient groups with greater sample sizes, the most noticeable differences were observed between patients whose primary cause of pain was migraines (Row 7) and those whose primary cause of pain was trauma (including vertebral compression fracture (Row 8)). The migraine group had

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relatively higher rates of improvement on the PEG composite score compared to other groups with larger sample sizes. In contrast, those whose primary cause of pain was trauma were less likely to show improvements on their PEG composite scores.



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**Table 5.14. Improvements on the PEG composite score in Intractable Pain patients, stratified by primary cause of pain.**

<b>PEG Composite Results Stratified by Patient's Primary Cause of Pain</b>	<b>% of Patients Reporting Moderate to High PEG Scores at Baseline (n)</b>	<b>% of Patients Achieving ≥30% Improvement on the PEG within 4 months of First Purchase out of all Moderate to Severe Baseline Scorers (n)</b>	<b># of Patients with Data in 4-mo Period Following initial ≥30% PEG Improvement</b>	<b>% of Patients Who Achieved ≥30% PEG Improvement that Maintained it for at least 4 months (n)</b>	<b>% of Patients that Both Achieved ≥30% Improvements on the PEG and Retained that Degree of Improvement for at least 4 months.</b>
Back pain, axial (n = 503)	97.4 (490)	41.0 (201)	183	54.7 (110)	22.4
Back pain, radicular (n = 295)	98.3 (290)	45.5 (132)	116	56.8 (75)	25.9
Fibromyalgia/myofascial pain (n = 222)	99.1 (220)	42.3 (93)	79	46.2 (43)	19.5
Arthritis: osteoarthritis (n = 161)	100.0 (161)	42.9 (69)	61	49.3 (34)	21.1
Neuropathy: other (n = 128)	97.7 (125)	41.6 (52)	45	51.9 (27)	21.6
Neck pain (n = 103)	98.1 (101)	41.6 (42)	35	45.2 (19)	18.8
Headache: migraine (n = 83)	96.4 (80)	53.8 (43)	42	55.8 (24)	30.0
Trauma (including vertebral compression fracture) (n = 77)	94.8 (73)	27.4 (20)	16	45.0 (9)	12.3
Arthritis: rheumatoid (n = 72)	98.6 (71)	43.7 (31)	26	35.5 (11)	15.5
Headache: other (n = 60)	98.3 (59)	47.5 (28)	28	35.7 (10)	16.9
Complex regional pain syndrome (n = 42)	95.2 (40)	30.0 (12)	12	41.7 (5)	12.5
Spinal stenosis (n = 33)	100.0 (33)	30.3 (10)	7	50.0 (5)	15.2
Postoperative pain (n = 29)	96.6 (28)	53.6 (15)	14	53.3 (8)	28.6
Myelopathies (n = 27)	96.3 (26)	50.0 (13)	12	76.9 (10)	38.5
Neuropathy: diabetic (n = 22)	100.0 (22)	54.5 (12)	12	66.7 (8)	36.4
Spinal cord injury (n = 22)	95.5 (21)	4.8 (1)	1	0.0 (0)	0.0
Pelvic pain (n = 21)	100.0 (21)	47.6 (10)	8	50.0 (5)	23.8
Disc (vertebral) herniation (n = 18)	100.0 (18)	44.4 (8)	8	75.0 (6)	33.3
Trigeminal neuralgia (n = 17)	100.0 (17)	52.9 (9)	9	66.7 (6)	35.3
Abdominal Pain (n = 16)	100.0 (16)	43.8 (7)	6	28.6 (2)	12.5
Ehler-Danlos Syndrome (n = 16)	100.0 (16)	56.3 (9)	8	77.8 (7)	43.8

**Table 5.14 cont. Improvements on the PEG composite score in Intractable Pain patients, stratified by primary cause of pain.**

<b>PEG Composite Results Stratified by Patient's Primary Cause of Pain</b>	<b>% of Patients Reporting Moderate to High PEG Scores at Baseline (n)</b>	<b>% of Patients Achieving ≥30% Improvement on the PEG within 4 months of First Purchase out of all Moderate to Severe Baseline Scorers (n)</b>	<b># of Patients with Data in 4-mo Period Following initial ≥30% PEG Improvement</b>	<b>% of Patients Who Achieved ≥30% PEG Improvement that Maintained it for at least 4 months (n)</b>	<b>% of Patients that Both Achieved ≥30% Improvements on the PEG and Retained that Degree of Improvement for at least 4 months.</b>
Cancer (n = 15)	86.7 (13)	30.8 (4)	4	75.0 (3)	23.1
Connective Tissue Diseases (excluding Rheumatoid Arthritis) (n = 15)	100.0 (15)	46.7 (7)	5	42.9 (3)	20.0
Pancreatitis (n = 11)	100.0 (11)	36.4 (4)	4	25.0 (1)	9.1
Arthritis, other inflammatory (n = 10)	100.0 (10)	60.0 (6)	6	50.0 (3)	30.0
Foot Pain (n = 9)	100.0 (9)	55.6 (5)	5	60.0 (3)	33.3
Lupus (n = 9)	100.0 (9)	55.6 (5)	5	60.0 (3)	33.3
Sciatica (n = 9)	100.0 (9)	44.4 (4)	3	25.0 (1)	11.1
Hip Pain, non-arthritis (n = 8)	100.0 (8)	25.0 (2)	2	50.0 (1)	12.5
Inflammatory bowel disease (n = 7)	85.7 (6)	50.0 (3)	2	33.3 (1)	16.7
Multiple sclerosis (n = 7)	100.0 (7)	28.6 (2)	2	0.0 (0)	0.0
Shoulder Pain (n = 7)	100.0 (7)	0.0 (0)	--	--	--
Lyme Disease (n = 6)	100.0 (6)	33.3 (2)	2	50.0 (1)	16.7
Dystonia (n = 5)	100.0 (5)	40.0 (2)	2	50.0 (1)	20.0
Hand/Wrist Pain (n = 5)	100.0 (5)	60.0 (3)	3	66.7 (2)	40.0
Knee Pain (n = 4)	100.0 (4)	25.0 (1)	1	0.0 (0)	0.0
Post-stroke pain (n = 4)	100.0 (4)	50.0 (2)	2	50.0 (1)	25.0
Endometriosis (n = 3)	100.0 (3)	33.3 (1)	0	--	--
Neuropathy: post-herpetic (n = 3)	100.0 (3)	33.3 (1)	1	100.0 (1)	33.3
Reflex Sympathetic Dystrophy (n = 3)	100.0 (3)	66.7 (2)	2	100.0 (2)	66.7
Traumatic Brain Injury (n = 3)	100.0 (3)	66.7 (2)	1	0.0 (0)	0.0
Vascular disease (n = 3)	66.7 (2)	50.0 (1)	1	0.0 (0)	0.0

**Table 5.14 cont. Improvements on the PEG composite score in Intractable Pain patients, stratified by primary cause of pain.**

<b>PEG Composite Results Stratified by Patient's Primary Cause of Pain</b>	<b>% of Patients Reporting Moderate to High PEG Scores at Baseline (n)</b>	<b>% of Patients Achieving ≥30% Improvement on the PEG within 4 months of First Purchase out of all Moderate to Severe Baseline Scorers (n)</b>	<b># of Patients with Data in 4-mo Period Following initial ≥30% PEG Improvement</b>	<b>% of Patients Who Achieved ≥30% PEG Improvement that Maintained it for at least 4 months (n)</b>	<b>% of Patients that Both Achieved ≥30% Improvements on the PEG and Retained that Degree of Improvement for at least 4 months.</b>
Central Pain Syndrome (n = 2)	100.0 (2)	0.0 (0)	--	--	--
Cervical Radiculopathy (n = 2)	100.0 (2)	50.0 (1)	0	--	--
Elbow Pain (n = 2)	100.0 (2)	50.0 (1)	1	100.0 (1)	50.0
Hidradenitis suppurativa (n = 2)	100.0 (2)	0.0 (0)	--	--	--
Mast Cell Disease (n = 2)	100.0 (2)	50.0 (1)	1	0.0 (0)	0.0
Muscular dystrophy (n = 2)	50.0 (1)	100.0 (1)	1	100.0 (1)	100.0
Osteochondritis (n = 2)	100.0 (2)	50.0 (1)	1	100.0 (1)	50.0
Phantom Limb Pain (n = 2)	100.0 (2)	50.0 (1)	1	100.0 (1)	50.0
Scoliosis (n = 2)	100.0 (2)	50.0 (1)	1	0.0 (0)	0.0
Sickle Cell Disease (n = 2)	50.0 (1)	0.0 (0)	--	--	--
Sjogren's Syndrome (n = 2)	100.0 (2)	0.0 (0)	--	--	--
Thoracic Outlet Syndrome (n = 2)	100.0 (2)	100.0 (2)	2	50.0 (1)	50.0

## **Benefits Reported on the Patient Self Evaluation: Conclusions**

Results on the Standard 8 measures suggest high symptom burden on Intractable Pain patients. For symptoms other than pain and fatigue, roughly 30-40% of patients initially experiencing moderate to severe symptoms both achieved and maintained at least a 30% reduction in symptoms. Pain intensity (over the past 24 hours) showed less improvement; 28% achieved  $\geq 30\%$  improvement, and only 11% both achieved and maintained  $\geq 30\%$  improvement. Data from the PEG scale showed greater rates of improvement in patients on pain-related items compared to the Standard 8 pain measure suggesting that the two measures may be assessing pain impact differently. Using the PEG composite measure, 42% achieved  $\geq 30\%$  reduction, and 22% both achieved and maintained  $\geq 30\%$  reduction. When examining individual PEG scale items, rates of improvement appeared to be higher for pain-related quality of life type factors than compared to a measure of pain intensity. Analysis of overall PEG scores stratified by patients' primary cause of pain did not show strong differences between groups, although small sample sizes limited reliable interpretation of results.

## 6. Adverse Side Effects

### Summary

This chapter provides insight into the frequency and severity of adverse (negative) side effects through three sources of information: the Patient Self-Evaluation (PSE) completed by the patient prior to each medical cannabis purchase, patient and health care practitioner (HCP) surveys, and adverse event reports to the two medical cannabis manufacturers.

The three information resources tell a similar story – one quite similar to what was reported for patients who enrolled in the MN medical cannabis program during its first year of operation (July 1, 2015-June 30, 2016): a substantial minority of patients experience adverse physical or mental effects of some kind, and in the vast majority of cases they are of mild to moderate intensity. The proportion of patients with at least one adverse effect varied from 16% in the PSE data to 35% in HCP surveys to 40% in patient surveys. Most patients with at least one adverse effect experience only one. Approximately 90% of all reported adverse effects are mild or moderate in severity as reported on the PSE or a score of 1 through 5 on the 7-point severity scale used in patient and HCP surveys. The most common adverse effects are dry mouth, drowsiness, and fatigue. An assessment of the 75 patients reporting severe adverse events, meaning “interrupts usual daily activities,” found no apparent pattern in patient age, primary cause of pain, or type of medical cannabis product used. No serious adverse events (life threatening or requiring hospitalization) were reported for this group of patients during the observation period.

Some limitations of the data should be mentioned. For example, when the patient completes a Patient Self-Evaluation and has it reviewed in consultation with pharmacist staff, the completeness and accuracy of reported side effects ultimately depend on the attention and good communication of the patient. Perhaps a more significant risk for under-reporting through PSE data is the situation when a patient has an intolerable side effect and decides to make no more purchases of medical cannabis. If the patient doesn't go to a cannabis patient center for another purchase, the patient doesn't fill out another PSE, so the side effect is not documented through this mechanism. From anecdotal report and survey responses, we know this does occur. However, inquiries made of patients who have discontinued medical cannabis purchasing suggests this does not happen often. Finally, a weakness of the survey data is that many responders did not complete the question on the most significant negative effect and a substantial proportion who did indicated cost or access issues, rather than physical or mental side effects. Though physical or mental side effects were probably minor or not present if the respondent indicated cost or access issues as the most significant negative effect, we don't know that for sure. And we are unable to characterize most significant negative effect for those who did not submit a response.

Though the limitations mentioned in the paragraph above no doubt undercount the frequent of physical and mental side effects to some degree, their impact does not seem likely to significantly change the main conclusions of the analyses reported in this section: the safety profile of the medical cannabis products available through the Minnesota program continues to appear quite favorable.

## Adverse Side Effects Reported on the Patient Self-Evaluation

In addition to reporting on symptom benefits on the Patient Self-Evaluation (as discussed in the preceding section), patients also have the opportunity to report adverse side effects on this evaluation which is administered prior to every medical cannabis purchasing transaction. Information collected at this time include what the side effect is (patients can choose from a dropdown menu or write one in), the severity of the side effect (see Box 6.1 for definitions), and any additional comments they'd like to provide regarding the side effect (additional comments are optional). During a patient's visit to a Cannabis Patient Center (CPC) to purchase medical cannabis, the pharmacist can review the patient's completed Patient Self-Evaluation (PSE) and also discuss side effects that were reported by the patient to factor it into any recommendations on medical cannabis dosing and formulation.

### Box 6.1. Definitions on severity provided to patients for adverse side effect reporting.

#### **Adverse Side Effect Severity: Definitions**

**Mild:** Symptoms do not interfere with daily activities

**Moderate:** Symptoms may interfere with daily activities

**Severe:** Symptoms interrupt usual daily activities

Adverse side effects were examined among the 2,245 patients certified and enrolled in the medical cannabis program under Intractable Pain from August 1, 2016 through December 31, 2016. For this report, all side effect data submitted within 4 months of each patient's first medical cannabis purchase was analyzed. In the cases where patients had written in their side effects (as opposed to choosing a dropdown menu option), each entry was evaluated carefully and adjudicated as best as possible for analytical purposes.

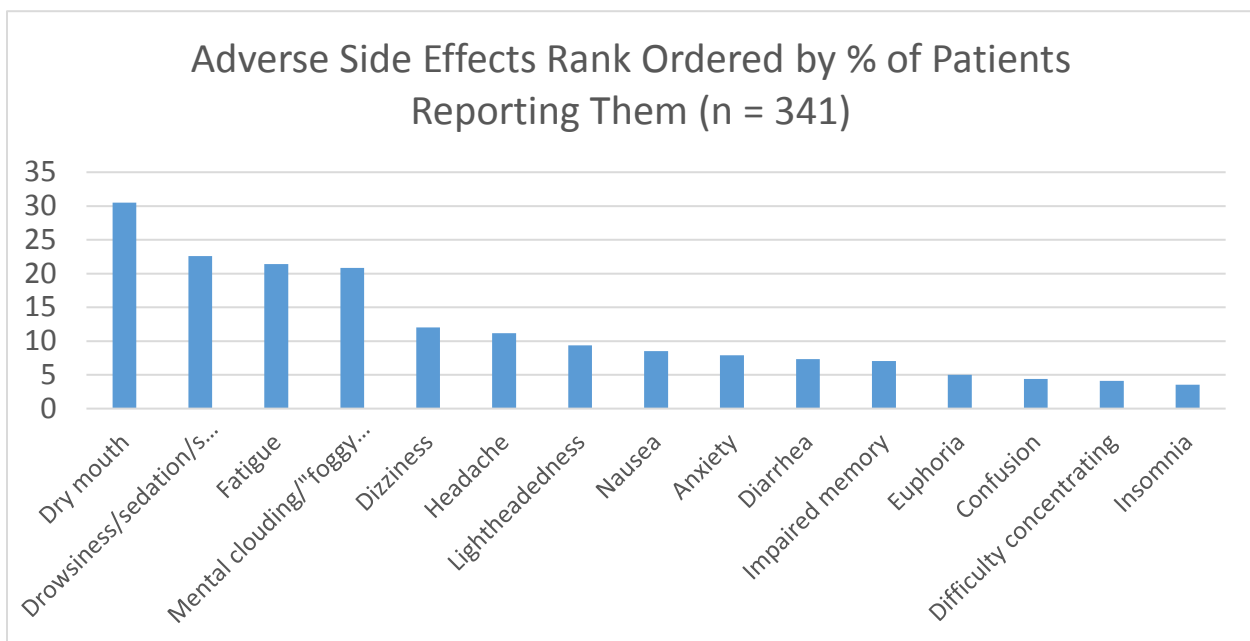
Of the 2,245 patients in this cohort report, 2,181 patients (97% of cohort) had submitted any PSE data within 4 months of their first medical cannabis purchase. Of this patient subset, 341 (15.6%) patients reported adverse side effects. These responses from the 341 patients were further processed so that each unique side effect was captured once in the dataset for each patient and at the highest severity level reported. In other words, if a patient reported the same side effect multiple times, only one of those responses was kept in the analysis at the highest severity level reported. This resulted in 730 side effect responses in that dataset from the 341 patients.

Of patients reporting side effects (n = 341), most (55.7%) reported one unique side effect, with 86.6% of all patients reporting three or fewer unique side effects within four months of their first medical cannabis purchase. This pattern is similar to data on patients who enrolled during

the first year of MN Medical Cannabis' program operation (patients enrolled August 1, 2015 through June 30, 2016).

The most commonly reported side effects amongst patients were Dry Mouth, Drowsiness/Somnolence/Sedation, Fatigue, and Mental Clouding/"Foggy Brain". Figure 6.1 shows a rank ordering of the top 15 most frequently reported side effects among patients. Overall distribution for commonly reported side effects is similar to patients enrolled during the first year of MN Medical Cannabis' program operation. Side effects reported by fewer than 3% of patients are listed in Table 6.1.

**Figure 6.1. Top 15 most commonly reported adverse side effects represented by the percentage of patients reporting them (out of 341 patients).**





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**Table 6.1. Adverse side effects that were reported by less than 3% of patients (out of 341 patients reporting side effects).**

<b>Adverse Side Effect</b>	<b>% of Patients out of all Reporting Side Effects (n)</b>
Disorientation	2.9 (10)
Asthenia (muscle weakness)	2.6 (9)
Constipation	2.6 (9)
Dysphoria (intense feeling of unease or unpleasantness)	2.6 (9)
Increased appetite (undesired)	2.6 (9)
Abdominal/epigastric pain	2.3 (8)
Coughing/lung irritation	2.3 (8)
Blurred Vision	2.1 (7)
Tinnitus (ringing in the ears)	1.8 (6)
Paranoia	1.5 (5)
Tremor	1.5 (5)
Panic attack	1.2 (4)
Numbness	0.9 (3)
Tachycardia (rapid heart rate)	0.9 (3)
Bizarre dreams or nightmares	0.6 (2)
Chest pain	0.6 (2)
Dry eyes	0.6 (2)
Eye redness	0.6 (2)
Heartburn	0.6 (2)
Increased sweating	0.6 (2)
Mouth irritation/burning	0.6 (2)

<b>Adverse Side Effect</b>	<b>% of Patients out of all reporting side effects (n)</b>
Sore throat	0.6 (2)
Weight gain	0.6 (2)
"Stoned" feeling	0.3 (1)
Acne	0.3 (1)
Body ache	0.3 (1)
Congestion	0.3 (1)
Decreased appetite	0.3 (1)
Eye pressure sensation	0.3 (1)
Fatty stool	0.3 (1)
Increased pain	0.3 (1)
Itching	0.3 (1)
Lethargy	0.3 (1)
Muscle spasms	0.3 (1)
Muscle tension	0.3 (1)
Nerve tingling	0.3 (1)
Personality/mood change	0.3 (1)
Post nasal drip	0.3 (1)
Rash on face	0.3 (1)
Skin rash	0.3 (1)
Slurred speech	0.3 (1)

## Severe Adverse Side Effects

The 75 side effect responses that were reported as severe were reported by 55 patients. See Table 6.2.

The most frequently reported side effect reported as severe was fatigue (n = 11), followed by headache (n = 8), dizziness (n = 7), drowsiness/sedation/somnolence (n = 7), mental clouding/"foggy brain" (n = 5), dry mouth (n = 5), abdominal/epigastric pain (n = 5), nausea (n = 5), insomnia (n = 5), anxiety (n = 3), and 10 additional symptoms reported once or twice each. This distribution is similar to the distribution of reported side effects overall, except for insomnia and abdominal/epigastric pain appearing relatively more frequently among severe side effects. For example, 62.5% of all patients reporting abdominal/epigastric pain as a side effect rated it as severe. Among patients reporting insomnia as a side effect, 41.7% of them found this side effect to be severe. The interpretation of these severity differences across unique side effects, however, is unclear as the number of patients reporting side effects are relatively low overall.

INTRACTABLE PAIN PATIENTS IN THE MINNESOTA MEDICAL CANNABIS PROGRAM: EXPERIENCE OF ENROLLEES DURING THE FIRST FIVE MONTHS

**Table 6.2. Number of patients reporting specific types of side effects along with the percentage of those respondents who indicated that the side effect was severe.**

<b>Adverse Side Effect</b>	<b># of Patients Reporting as a Side Effect</b>	<b>% of Patients Reporting Side Effect as Severe</b>
Dry mouth	104	4.8 (5)
Drowsiness/sedation/somnolence	77	9.1 (7)
Fatigue	73	15.1 (11)
Mental clouding/"foggy brain"	71	7.0 (5)
Dizziness	41	17.1 (7)
Headache	38	21.1 (8)
Lightheadedness	32	6.3 (2)
Nausea	29	17.2 (5)
Anxiety	27	11.1 (3)
Diarrhea	25	8.0 (2)
Impaired memory	24	0.0 (0)
Euphoria	17	0.0 (0)
Confusion	15	6.7 (1)
Difficulty concentrating	14	7.1 (1)
Insomnia	12	41.7 (5)
Disorientation	10	10.0 (1)
Asthenia (muscle weakness)	9	22.2 (2)
Constipation	9	22.2 (2)
Dysphoria (intense feeling of unease or unpleasantness)	9	11.1 (1)

<b>Adverse Side Effect</b>	<b># of Patients Reporting as a Side Effect</b>	<b>% of Patients Reporting Side Effect as Severe</b>
Increased appetite (undesired)	9	0.0 (0)
Abdominal/epigastric pain	8	62.5 (5)
Coughing/lung irritation	8	12.5 (1)
Blurred Vision	7	0.0 (0)
Tinnitus (ringing in the ears)	6	0.0 (0)
Paranoia	5	0.0 (0)
Tremor	5	0.0 (0)
Panic attack	4	25.0 (1)
Numbness	3	0.0 (0)
Tachycardia (rapid heart rate)	3	0.0 (0)
Bizarre dreams or nightmares	2	0.0 (0)
Chest pain	2	0.0 (0)
Dry eyes	2	0.0 (0)
Eye redness	2	0.0 (0)
Heartburn	2	0.0 (0)
Increased sweating	2	0.0 (0)
Mouth irritation/burning	2	0.0 (0)
Sore throat	2	0.0 (0)
Weight gain	2	0.0 (0)

**Table 6.2 cont. Number of patients reporting specific types of side effects along with the percentage of those respondents who indicated that the side effect was severe.**

<b>Adverse Side Effect</b>	<b># of Patients Reporting as a Side Effect</b>	<b>% of Patients Reporting Side Effect as Severe</b>
"Stoned" feeling	1	0.0 (0)
Acne	1	0.0 (0)
Body ache	1	0.0 (0)
Congestion	1	0.0 (0)
Decreased appetite	1	0.0 (0)
Eye pressure sensation	1	0.0 (0)
Fatty stool	1	0.0 (0)
Increased pain	1	0.0 (0)
Itching	1	0.0 (0)

<b>Adverse Side Effect</b>	<b># of Patients Reporting as a Side Effect</b>	<b>% of Patients Reporting Side Effect as Severe</b>
Lethargy	1	0.0 (0)
Muscle spasms	1	0.0 (0)
Muscle tension	1	0.0 (0)
Nerve tingling	1	0.0 (0)
Personality/mood change	1	0.0 (0)
Post nasal drip	1	0.0 (0)
Rash on face	1	0.0 (0)
Skin rash	1	0.0 (0)
Slurred speech	1	0.0 (0)

Compared to the whole IP cohort in this report, respondents reporting at least one severe side effect were more likely to be female (76.4% vs. 52.4%), but the average age of severe side effect responders ( $53.9 \pm 16.4$  years old) was similar to the whole cohort average ( $52.3 \pm 15.6$  years old). Roughly three-quarters of patients reporting at least one severe side effect had previously purchased a Balanced enteral product.

Each record (row) in Table 6.3 represents side effect responses from a specific Patient Self-Evaluation for a given patient. The right-most column indicates the severe side effect(s) that were reported. The product type(s) that were purchased just prior to their reporting are found in columns 5-8 in the table.

### **PSE-Reported Adverse Side Effects: Conclusions**

Less than a quarter of IP patients (~16%) in this cohort reported adverse side effects on the Patient Self-Evaluation within 4 months of their first purchase. The distribution of commonly reported side effects generally matched side effects commonly found in the clinical literature. Severe adverse side effects were relatively uncommon (~10% of all side effect responses) but were more likely to be reported by female than male patients.

INTRACTABLE PAIN PATIENTS IN THE MINNESOTA MEDICAL CANNABIS PROGRAM: EXPERIENCE OF ENROLLEES DURING THE FIRST FIVE MONTHS

**Table 6.3. Patients self-reporting "severe" side effects: patient age, gender, and condition, product types purchased at most recent visit, and type of side effect reported.**

Patient	Age	Gender	Conditions(s)	Very High THC Product(s)	High THC Product(s)	Balanced THC:CBD Product(s)	High CBD Product(s)	Severe Side Effect Reported
P1	57	F	IP	Enteral, Inhalation	--	Inhalation	--	Dry mouth, Insomnia, Mental clouding/"foggy brain"
P2	68	F	IP	--	--	Enteral, Inhalation	--	Fatigue
P3	38	M	IP	Inhalation	--	Inhalation	--	Headache
P4	46	F	IP, Muscle Spasms	Enteral	--	Inhalation	--	Insomnia
P5	51	M	IP	--	--	Enteral	--	Anxiety
P6	40	F	IP	Oromucosal	--	Enteral	--	Dizziness
P7	58	M	IP, Muscle Spasms	Inhalation	--	Enteral	--	Fatigue
P8	40	F	IP	Inhalation	--	Enteral	--	Dizziness
P9	73	F	IP	--	Enteral	--	--	Diarrhea
P10	53	F	IP	Inhalation	--	Enteral	--	Coughing/lung irritation
P11	26	F	IP	Enteral, Inhalation	--	Enteral	--	Headache
P12	51	F	IP	--	--	Enteral, Inhalation	--	Fatigue
P13	37	F	IP	Enteral, Inhalation	--	--	--	Abdominal/epigastric pain
P14	59	F	IP	Oromucosal	--	--	Enteral	Mental clouding/"foggy brain"
P15	50	F	IP, Muscle Spasms	Enteral, Inhalation	--	Enteral	--	Nausea
P16	33	F	IP	--	Enteral	--	--	Asthenia (muscle weakness), Drowsiness/somnolence/sedation

**Table 6.3 cont. Patients self-reporting "severe" side effects: patient age, gender, and condition, product types purchased at most recent visit, and type of side effect reported.**

Patient	Age	Gender	Conditions(s)	Very High THC Product(s)	High THC Product(s)	Balanced THC:CBD Product(s)	High CBD Product(s)	Severe Side Effect Reported
P17	77	F	IP, Muscle Spasms	Enteral	--	Enteral, Inhalation	--	Drowsiness/somnolence/sedation
P18	88	F	IP	--	--	Enteral, Inhalation	--	Drowsiness/somnolence/sedation
P19	30	F	IP	Inhalation, Oromucosal	--	--	--	Headache
P20	48	F	IP	Inhalation	--	--	--	Headache
P21	39	F	IP, Muscle Spasms	--	Inhalation	--	--	Dry mouth
P22	45	F	IP	Inhalation	--	Inhalation	--	Drowsiness/somnolence/sedation
P23	44	M	IP, Muscle Spasms	Oromucosal	--	Enteral, Oromucosal	--	Insomnia
P24	52	F	IP	Inhalation	--	Inhalation	--	Drowsiness/somnolence/sedation
P25	32	M	IP	Oromucosal	--	Oromucosal	--	Fatigue
P26	43	M	IP	Enteral	--	Enteral	--	Abdominal/epigastric pain
P27	74	F	IP	--	--	Enteral	--	Dizziness
P28	40	F	IP	Inhalation	--	Enteral	--	Nausea
P29	60	F	IP	--	--	--	Enteral	Mental clouding/"foggy brain"
P30	72	F	IP, Muscle Spasms	--	--	Enteral	--	Difficulty Concentrating, Mental clouding/"foggy brain"
P30	72	F	IP, Muscle Spasms	Enteral	--	--	--	Drowsiness/somnolence/sedation, Fatigue
P31	57	F	IP, Muscle Spasms	Enteral	Inhalation	--	Enteral	Insomnia
P32	52	F	IP	Oromucosal	--	Oromucosal	--	Headache
P33	84	F	IP	--	--	Enteral	--	Dizziness

**Table 6.3 cont. Patients self-reporting "severe" side effects: patient age, gender, and condition, product types purchased at most recent visit, and type of side effect reported.**

Patient	Age	Gender	Conditions(s)	Very High THC Product(s)	High THC Product(s)	Balanced THC:CBD Product(s)	High CBD Product(s)	Severe Side Effect Reported
P34	64	F	IP	Oromucosal	--	Enteral	--	Abdominal/epigastric pain, Diarrhea
P35	45	F	IP	Enteral	--	Inhalation	--	Headache
P36	76	F	IP	--	--	Enteral	--	Dry mouth, Insomnia, Nausea
P37	87	F	IP	--	--	Enteral	--	Constipation
P38	41	F	IP	--	--	Enteral, Inhalation	--	Anxiety, Fatigue
P39	61	M	IP, Muscle Spasms	Inhalation	--	--	--	Nausea
P40	82	M	IP	Inhalation	--	--	--	Lightheadedness
P41	52	F	IP	Enteral	--	Enteral	--	Abdominal/epigastric pain
P42	27	F	IP	--	--	Enteral	--	Dizziness
P43	54	F	IP, Muscle Spasms	--	--	Enteral	--	Dizziness
P43	54	F	IP, Muscle Spasms	--	--	Enteral	--	Anxiety, Panic attack
P44	44	F	IP, Seizures	--	--	Inhalation	Enteral	Fatigue
P45	74	M	IP, Seizures	--	--	Enteral	--	Asthenia (muscle weakness)
P46	53	M	IP	Inhalation	--	Enteral, Inhalation	--	Mental clouding/"foggy brain"
P47	46	F	IP	Inhalation	--	--	--	Dry mouth
P48	67	M	IP	--	--	Inhalation	--	Dysphoria (intense feeling of unease or unpleasantness)
P49	33	F	IP, Seizures	--	--	Enteral, Inhalation	--	Headache
P50	50	F	IP, Inflammatory Bowel Disease	--	--	Oromucosal	--	Fatigue, Headache, Nausea



**Table 6.3 cont. Patients self-reporting "severe" side effects: patient age, gender, and condition, product types purchased at most recent visit, and type of side effect reported.**

Patient	Age	Gender	Conditions(s)	Very High THC Product(s)	High THC Product(s)	Balanced THC:CBD Product(s)	High CBD Product(s)	Severe Side Effect Reported
P51	82	M	IP	--	Enteral	Enteral	--	Confusion, Dizziness, Fatigue, Lightheadedness
P52	70	F	IP	--	--	Enteral	--	Drowsiness/somnolence/sedation
P53	35	M	IP, Muscle Spasms	Enteral	--	Enteral, Inhalation	--	Fatigue
P54	38	F	IP	--	--	Inhalation	--	Disorientation
P55	66	F	IP	Oromucosal	--	--	--	Abdominal/epigastric pain, Constipation, Dry mouth, Fatigue

## Adverse Side Effects Reported on Surveys

### Patient-Reported Negative Effects of Medical Cannabis

For overall patient survey response rate and comparison of responders and non-responders, please refer to the Benefits chapter.

The Patient Experience survey asks respondents to report the degree, or severity, of any negative effects experienced from using medical cannabis, on a scale from 1 (no negative effects) to 7 (a great deal of negative effects). The survey then asked the respondent to describe, in their own words, any negative effects they experienced as a result of medical cannabis treatment, ordering the negative effects by importance to them. When patients reported more than one negative effect, the first negative effect was considered to be the most important. Table 6.4 shows the distribution of most important negative effects by severity score within three broad categories: physical side effects (including dry mouth, fatigue, headache, dizziness, blurred vision); mental side effects (including mental clouding, paranoia, sedation or symptoms related to “high”); and issues related to accessing the medications (distance to distribution center, inconvenient operating hours for distribution centers, etc. Though patients were asked to assess cost in a separate question, some nonetheless included cost as a negative effect). Figure 6.2 shows the overall frequency of all reports of negative effects by category, as described above. Among all reported negative effects, 18% were physical side effects, 17% were mental side effects, and 3% were access-related issues.

Among patient respondents, 513 (43.7%) reported at least one negative effect related to medical cannabis use that could be classified as either a physical side effect, mental side effect, or access issue. Most reported negative effects (64.7%) were associated with a negative effect score of 1-3; in many cases patients reporting a score of 1 (indicating no negative effects) described negative effects in response to the open-ended negative effects question and were therefore included in proportion of patients experiencing negative effects and in Table 6.4 below.

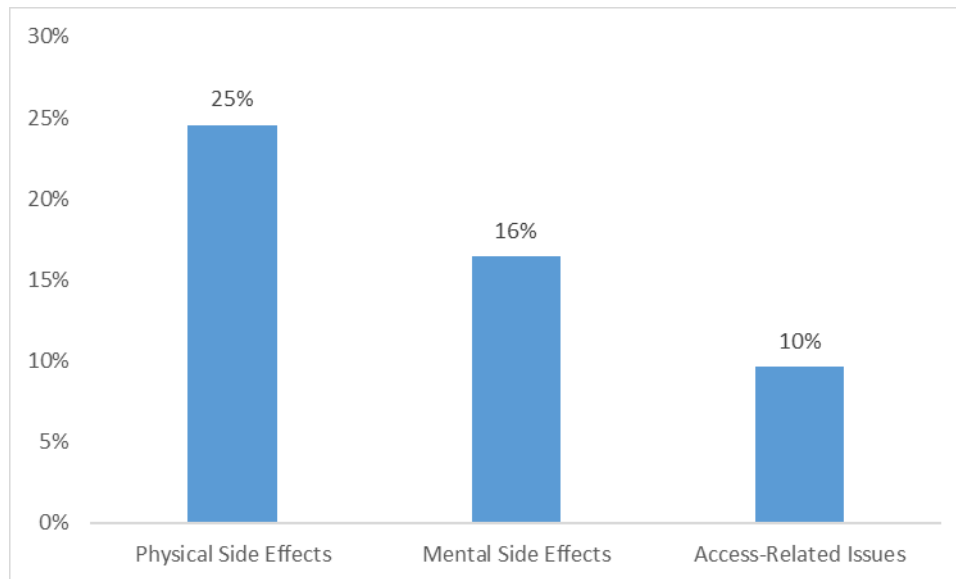
Overall, physical side effects were more commonly reported as the most important negative effect (n=257; 22%) compared to either mental side effects (n=154; 13%) or access-related issues (n=102; 9%). Total frequency of physical and mental side effects, regardless of whether they were considered to be the most important negative effect, were also generally low (24% and 16%, respectively). Overall, negative effects tended to be reported as mild or moderate: scores of 1-3 were more common than scores of 4-7.

A full tabulation of patient-reported negative effects can be found in *Appendix J: Patient-Reported Negative Effects from Medical Cannabis*.

**Table 6.4. Patient-reported most important negative effects by type.**

Most Important Negative Effect	Total	1	2	3	4	5	6	7
Physical Side Effects	257 (22%)	24 (2%)	99 (8%)	40 (3%)	56 (5%)	8 (1%)	12 (1%)	15 (1%)
Mental Side Effects	154 (13%)	7 (1%)	46 (4%)	28 (2%)	40 (3%)	15 (1%)	9 (1%)	5 (0%)
Access-Related Issues	102 (9%)	57 (5%)	20 (2%)	11 (1%)	9 (1%)	1 (0%)	1 (0%)	3 (0%)

**Figure 6.2. Frequency of all patient-reported negative effects, by type.**



### Healthcare Practitioner-Reported Negative Effects of Medical Cannabis

For overall healthcare practitioner survey response rate and comparison of responders and non-responders, please refer to the Benefits chapter.

In parallel with the Patient Experience survey, the Healthcare Practitioner Survey asks respondents to report the degree, or severity, of any negative effects they believe the patient received from using medical cannabis, on a scale from 1 (no negative effects) to 7 (a great deal of negative effects). The survey then asked the respondent to describe any negative effects the patient experienced as a result of medical cannabis treatment, ordering the negative effects by importance to them. When more than one negative effect was reported, the first negative effect was considered to be the most important. Table 6.5 shows the distribution of most important negative effects by severity score within three broad categories: physical side effects (including dry mouth,

fatigue, headache, dizziness, blurred vision); mental side effects (including mental clouding, paranoia, sedation or symptoms related to “high”); and issues related to accessing the medications (distance to distribution center, inconvenient operating hours for distribution centers, etc. Though patients were asked to assess cost in a separate question, some nonetheless included cost as a negative effect). Figure 6.3 shows the overall frequency of reports of negative effects by category, as described above.

Among healthcare practitioner respondents, 212 (30.6%) reported at least one negative effect related to medical cannabis use that could be classified as either a physical side effect, mental side effect, or access issue. Most reported negative effects (70.3%) were associated with a negative effect score of 1-3; in some cases healthcare practitioners reporting a score of 1 (indicating no negative effects) described negative effects in response to the open-ended negative effects question and were therefore included in proportion of patients experiencing negative effects and in Table 6.5 below.

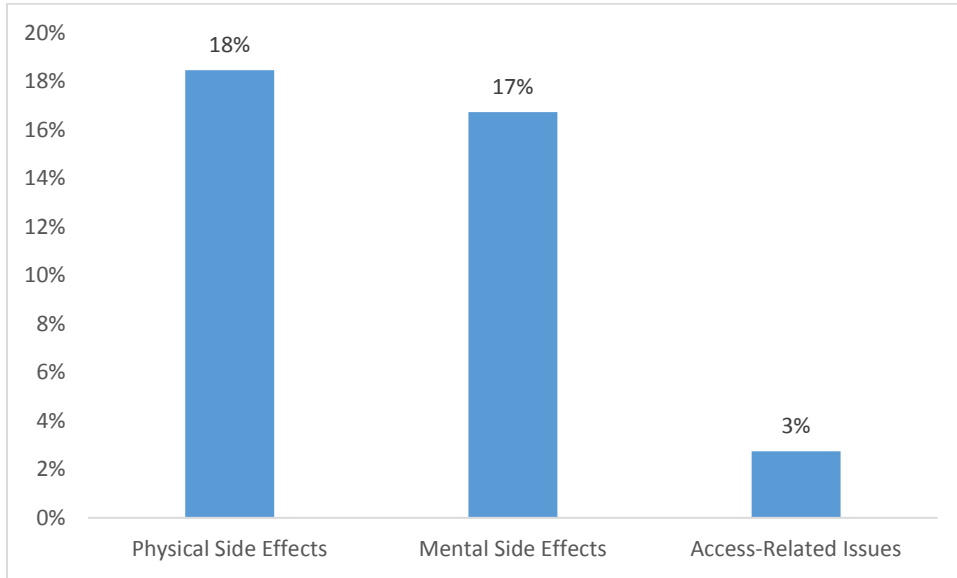
Overall, Healthcare Practitioner Survey results mirrored Patient Experience Survey results, though overall the frequency of reporting negative effects was lower in HCP surveys compared to patient surveys. Physical side effects were most often reported as the most important negative effect (n=121; 17%), followed by mental side effects (n=72; 10%) and access-related issues (n=19; 3%). Total frequency of physical and mental side effects were comparable (18% and 17%, respectively) and healthcare practitioners rarely reported access-related issues as a negative effect. This could be due to a more clinical interpretation of “negative effect. As in patient reports, negative effects tended to be reported as mild or moderate, with scores of 1-3 making up the majority of reported negative effects.

A full tabulation of healthcare practitioner-reported negative effects can be found in *Appendix K: Healthcare Practitioner-Reported Negative Effects from Medical Cannabis*.

**Table 6.5. Healthcare practitioner-reported most important negative effects by type.**

<b>Most Important Negative Effect</b>	<b>Total</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Physical Side Effects	121 (17%)	10 (1%)	61 (9%)	22 (3%)	7 (1%)	7 (1%)	3 (0%)	7 (1%)
Mental Side Effects	72 (10%)	1 (0%)	24 (3%)	17 (2%)	7 (1%)	5 (1%)	6 (1%)	9 (1%)
Access-Related Issues	19 (3%)	7 (1%)	5 (1%)	2 (0%)	0 (0%)	1 (0%)	1 (0%)	0 (0%)

**Figure 6.3. Frequency of healthcare practitioner-reported negative effects, by type.**



## **Adverse Event Reporting to Medical Cannabis Manufacturers**

Both Minnesota medical cannabis manufacturers have procedures for documenting potential adverse events via telephone and e-mail communication received from enrolled patients, the patients' family and registered caregivers, as well as health care practitioners. These adverse events are reported to the Office of Medical cannabis.

In the case of a "serious adverse incident" that may be attributed to medical cannabis consumption, it is the duty of patients, their registered caregivers, and health care practitioners to report them. These incidences are events that lead to hospitalization, death, sustained disability/incapacitation, or are generally life-threatening (see [program rules under 4770.4002](#)). No serious adverse incidents were reported for the intractable pain patients enrolled between August 1, 2016 through December 31, 2016.

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Appendix A: Healthcare Practitioner-Reported Primary Cause of Intractable Pain..... 1

# Appendix A: Healthcare Practitioner- Reported Primary Cause of Intractable Pain

**Table A.1. Intractable pain cohort patients by primary pain cause.**

<b>Primary Pain Cause</b>	<b>Count</b>
Back pain, axial	521
Back pain, radicular	306
Fibromyalgia/myofascial pain	233
Arthritis: osteoarthritis	166
Neuropathy: other	128
Neck pain	103
Headache: migraine	86
Trauma (including vertebral compression fracture)	81
Arthritis: rheumatoid	72
Headache: other	60
Complex regional pain syndrome	43
Spinal stenosis	36
Postoperative pain	29
Myelopathies	28
Neuropathy: diabetic	23
Pelvic pain	22
Spinal cord injury	22
Disc (vertebral) herniation	21
Abdominal Pain	17
Trigeminal neuralgia	17
Cancer	16
Ehler-Danlos Syndrome	16
Connective Tissue Diseases (excluding Rheumatoid Arthritis)	15



APPENDIX A: HEALTHCARE PRACTITIONER-REPORTED PRIMARY CAUSE OF  
INTRACTABLE PAIN

Pancreatitis	12
Arthritis, other inflammatory	11
Sciatica	10
Foot Pain	9
Lupus	9
Hip Pain, non-arthritis	8
Inflammatory bowel disease	7
Multiple sclerosis	7
Shoulder Pain	7
Dystonia	6
Lyme Disease	6
Hand/Wrist Pain	5
Knee Pain	4
Post-stroke pain	4
Endometriosis	3
Neuropathy: post-herpetic	3
Reflex Sympathetic Dystrophy	3
Traumatic Brain Injury	3
Vascular disease	3
Central Pain Syndrome	2
Cervical Radiculopathy	2
Elbow Pain	2
Hidradenitis suppurativa	2
Mast Cell Disease	2
Muscular dystrophy	2
Osteochondritis	2
Phantom Limb Pain	2
Scoliosis	2
Sickle Cell Disease	2
Sjogren's Syndrome	2
Thoracic Outlet Syndrome	2

APPENDIX A: HEALTHCARE PRACTITIONER-REPORTED PRIMARY CAUSE OF  
INTRACTABLE PAIN

Neck Pain	1
Neuropathy: HIV	1
Other: Addison's Disease	1
Other: Arachnoiditis	1
Other: Arnold Chiari Malformation	1
Other: athetoid/choreiform cerebral palsy	1
Other: Auto islet transplant patient. Gastroparesis.	1
Other: Autoimmune Encephalitis	1
Other: Autonomic brain dysfunction	1
Other: bone pain from increased erythropoiesis due to hemolytic anemia from hereditary elliptocytosis	1
Other: burning mouth syndrome, see notes	1
Other: chronic chest wall pain from bronchiectasis	1
Other: chronic pain in groin, chest, both legs unclear etiology	1
Other: Cystic Hygroma	1
Other: Diverticulitis	1
Other: Fibular Hemimelia	1
Other: giant cell tumor of bone: refractory	1
Other: hemophilia joint pains	1
Other: Idiopathic systemic angioedema	1
Other: inguinal pain	1
Other: Interstitial cystitis	1
Other: Joubert Syndrome	1
Other: Kidney stones	1
Other: Loin Pain Hematuria Syndrome	1
Other: lumbar spondylosis	1
Other: lymphedema	1
Other: Marfans Syndrome	1
Other: multifactorial.	1
Other: Multiple system atrophy	1
Other: Neurofibromatosis	1
Other: Polycystic Kidney	1

APPENDIX A: HEALTHCARE PRACTITIONER-REPORTED PRIMARY CAUSE OF  
INTRACTABLE PAIN

Other: Polyostotic fibrous dysplasia	1
Other: Raynaud's phenomenon	1
Other: SAPHO	1
Other: Seizures	1
Other: testicular pain of unknown etiology	1
Other: thoracic back pain	1
Other: TMD	1
Other: Whole body blistering disease—generalized severe form of recessive dystrophic epidermolysis bullosa.	1
Other: widespread	1

# Contents

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Score of 4 .....	6
Score of 5 .....	11
Score of 6 .....	20
Score of 7: Great Deal of Benefit .....	33

# Appendix B: Patient-Reported Benefits from Medical Cannabis

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons. Benefits are broken down by benefit score rating.

## No Benefit Score

- pain and it helps in sleep
- I had severe foot spasms that were completely out of my control before starting the medical cannabis and they have stopped completely. I find a lot of pain relief. I have a huge reduction in the amount of swelling that is normally in my foot, lower leg, ankle area every night-which results in a tremendous increase in blood flow to the area, and a huge decrease in pain. I have pain in my nerve endings and muscles that is greatly relieved. I am able to do more in physical therapy, push myself further and harder (because of pain relief, healing that is taking place, and less inflammation during and after)-which is having a huge impact in my recovery.  
My foot throughout the day and night will feel stiff like a stick to walk on, and then after physical therapy and walking on it throughout the day it will start to loosen up a lot after using it and I can walk on it without so much stiffness and tightness, the medical cannabis really helps this issue too. It makes the muscles, tendons, and ligaments in my foot and lower leg and ankle less like wood and more easily movable like taffy.  
I have not had an xray taken since starting the program, but believe there is healing taking place in my broken bone (nonunion at 9 mths last xray taken). I have also had a lot more calmness overall and can feel healing taking place.
- Just too expensive, doing the cheaper way, the medication was weak in my opinion but that's with the understanding that I had been using the drug for sometime prior, the liquid leaves you with a stomach ache and honestly not very strong, so I just tried it once and then just went back to the old way of getting it... thank you
- headache relief
- Less pain which means I can do other activities.
- Decreased chronic pain. Increased mobility.  
This the first winter in 20+ years that I have no symptoms of Seasonal Affective Disorder.

## Score of 1: No Benefit

- No Benefit
- None
- Medical cannabis has not made a difference for me. I have never used it before and was a little hesitant to try. When I did I found that I had no relief of pain and I didn't like the way I felt so I discontinued use.
- I have osteoporosis and have had no relief from the pain in my hip (bone on bone and knee)
- none
- Have taken 4 different formulations with no pain relief
- I only took it for four days before stopping, so I don't have any benefits to list.
- None; due to intolerance to liquid and spray. Tablet is desired but not available presently from [MANUFACTURER] as of April. [MANUFACTURER] pharmacist informed me that table would not be available until end of June.
- None
- Patient felt there were no benefits. Others observing saw more fluid, less painful movement.
- i HAVEN'T HAD ANY BENEFIT FROM THESE VARIETIES OF CANNABIS.
- no benefits
- none
- I get no relief from the [MANUFACTURER] products. I've gotten edibles from Washington and those helped.
- I did feel I was more comfortable socially (taking continuing education classes on my own), when normally I would not have considered due to social anxiety. However, I was taking it for pain which it did not help.
- Sleep very well
- None
- none
- The caper works good but not enough in vile for the price  
The capsule are to large for me to swallow
- None.
- No benefits
- No benefits
- No real pain relief
- The first two weeks started at the lower dose and when I picked up a higher dose, she couldn't take it anymore. Patient died in March.
- Took [HIGH CBD PRODUCT] for one month in the evening. 2.5 ml  
Next month took [HIGH CBD PRODUCT] 2.5ml twice a day along with [BALANCED THC:CBD PRODUCT] 2.5 ml once in the evening.  
ad a 15mg bottle of [HIGH THC PRODUCT] for immediate pain relief as needed.

I charted my pain for these two months and saw no relief from pain but believe I slept better.

- none
- Have yet to take medical cannabis in spite of the fact I purchased it.
- none
- Did not take after second dose
- No Relief of pain--extreme loss of Balance
- After two prescriptions I couldn't see any effects so I am giving up on the program.
- none that i can tell
- The first round of Cannabis, I had gotten, did not work well for me. It was to strong for my body to tolerate. Heart pounding, shaky, etc,,  
I am now going to try some with lower strengths, to it. I have been trying to get there for awhile, but I am in the middle of a bad pain cycle, so much I can't even ride in the car. I also found out, I had to pick it up myself, as my husband is not listed as a caregiver. So that is one thing I need to change, but not sure how to do it. I will have to check further into that. Sorry I can't give you better feedback at this point.
- none
- The expense prohibited me from trying other formulas. My nerves inflammation /irritation in way low back pain got worse with TCH; I believe. No money to try CBD. Could not take long enough to know on the multiple pain issues because of severe nerve irritation and cost.

## Score of 2

- Not much yet.. still trying to find as combination that benefits me. Cost is high for me being on disability.
- Maybe slight pain reduction, not enough to matter, though
- So far it has allowed me to sleep better throughout the night. As far as pain, not so much yet. Still tweeting the correct compound.
- may sleep better
- [HIGH CBD PRODUCT] helps me sleep somewhat.
- It helped me sleep
- Sleeping better
- It is hard for me to really know what benefits I am gaining as I have experienced extreme nausea and dizziness from the cannabis products I have tried except the [BALANCED THC:CBD PRODUCT] tablets... I must just be too sensitive. I think it probably would help if I could tolerate a higher dose, however the low dose [BALANCED THC:CBD PRODUCT] tablets have only helped by making me sleepy at night.
- decreased pain
- a little pain relief
- very little
- Slightly better pain control

- reduction in anxiety and better sleep
- more calm
- it doesnt help my pain in buttock and my feet with arthritis I might have some relief
- It does benefit me but it's very short term
- hope
- I noticed that my muscles and bones where much relaxed. Only if it wasn't so expensive then I could have gotten much relief longer!
- Perhaps one day when I used 5 very small puffs. Building up very slowly & finally am increasing amount. I'm on [HIGH THC PRODUCT], kept confusing on & off at first so leaving it on now. Think I experienced some calm, perhaps less escalation of pain between doses of oral dilaudid#4.
- A little less pain/discomfort  
The \$\$\$ prohibits me from really experiencing "MN" medical cannabis, cannabis does help!!
- Made me incredibly sleepy and not able to function.
- pain level was not quite as high  
I have had no relief the last 4 weeks. However, the first 4 days I tried the vaporizer (right after my last appointment) I felt great, but the from then to the present I have been back to a lot of pain and doing a lot of sleeping to escape the pain.
- I had side effects from [MANUFACTURER]'s products. I voiced my concern to them via phone call (they called me for a follow up) and they didn't seem to care- in fact, I voiced my concern 2-3 weeks prior to the first meeting with the dept. of health (I believe it was in September when the first meeting was) and they lied and said no patients have had side effects during their presentation (there was ample amount of time for the gentleman I spoke with to relay the information to the higher ups at [MANUFACTURER]- he actually called [MANUFACTURER] to speak with the higher ups about another question I had regarding why they didn't have bulk prices and got back to me later that day- so why didn't he rely the allergy/reactions I had to their products?). When I brought up my concerns, the gentleman was not interested in listening and didn't offer to take any info on what happened. I am not the only one who had issues like this- there are a couple other people I've met in the [ADVOCACY GROUP]. I feel you should be aware of this since having allergies to their product is not just a one person problem. I, along with others who have had a reaction to their medicine, did not have problems in other states where it is legal. It is something [MANUFACTURER] is putting in their products. I have had relief when I visited Colorado a year or so ago with their products and no allergy/reaction, which makes it clear it is something in [MANUFACTURER]'s products.
- The spray 4 times a day provided some pain relief.  
The drops made me feel disconnected and provided little relief.
- It definitely has improved my attitude by I don't know how much it has affected my pain as I also have a pain pump.



## Score of 3

- Increased appetite  
Decreased constipation
- It allows me to sleep through the night. Do not feel it is habit forming as with an Opioid. I do not use it daily.
- taken the edge off of my depression, my energy and the pain but it hasn't done as much as I gave it credit for, I was disillusioned
- 40-50% reduction in chronic pain
- It does help with the numbness, pain and tingling that I experience. Nothing else seems to make as much difference to that.
- distracts from pain sometimes
- It has helped to lesson my back pain.
- because I have epilepsy, the dispensary never gave me the [HIGH THC PRODUCT] product which I believe has the most pain reliever.  
I lost my engineering job and therefore cannot afford the product.
- some pain relief. Anxiety relief.
- some relaxation
- It has helped me emotionally get through the day when I have pain. CBD helps my inflammation.
- I didn't like how I felt. I used [MANUFACTURER] and they only offer one strain, which didn't work for me. I have thought of trying [MANUFACTURER], but do not feel comfortable traveling downtown. I live in northwest suburbs. It did help some with pain, but didn't like the high feeling.
- Minimized leg cramps.  
Helps with daily pain but wish it worked better for how expensive it is.
- Can sleep better  
sometimes may take the edge off of the pain but having trouble inhaling it.
- slight reduction in pain--but I need to try other options or methods with the medical cannabis--appointment tomorrow to discuss other options besides the starter pack
- better sleep muscles are more relaxed.
- Helped with some pain
- I can fall asleep better, doesn't go to the pain very quickly..
- Still working on getting the correct dose amount.
- Searching for an option without the use of opioids.
- Better sleep
- A little less pain. (But some constipation.)
- The survey I just answered explained this because I've only been taking it at night, due to that it's hard to answer these questions. Plus, over the holidays the methods are hard

to use for traveling for me. The scale on the syringe is so small I can't read it. Have to have help with reading it.

- My RA Pain is 80 percent gone.  
Other aches and pains are gone. I am so thankful for this program.
- The vaporizer has increased by ability to relax and fall asleep, something I struggled with a great deal due to pain. I have not found the other methods helpful. I do not feel it helps my pain, but simply makes me think about it less?
- Mild pain relief.

## Score of 4

- Improved sleep.  
Relaxation.  
Pain management.
- Some improved sleep, perhaps a bit decreased pain
- Sleep, tolerance to pain, ability of movement, gastro relief
- Less anxiety, improved appetite, less nausea, better sleep
- some taken with pain pills
- headaches less intense  
all muscles are looser so I can now start to exercise and do some stretching  
sleep is better
- Help with sleep, help with daytime pain
- I am able to enjoy my family again, in 2-3 hr sessions before I am all wiped out.  
I am able to read for a book club that meets once a month.  
I am able to create some greeting cards again, and show others.
- Assists in helping sleep at night. Helps during day as an addition to regular pain meds for pain during day and evenings.
- Some pain relief
- a lessening of the 24/7 burning and irritation of the neuropathy
- A reduction in pain and improved sleep.
- To have a calming effect
- It has reduced some of the pain.
- helps lower some of the pain I am in.  
anxiety from pain  
still in trail period of this.. wish there was more help with what exactly I should be trying for results. feel overwhelmed a bit on how to consume based on my conditions.
- Helps me get to sleep at night or back to sleep.
- When using the cannabis with 1:1 [CBD:THC] ratio, allows me to sit, stand, walk for a greater period of time (2 hours compared to 10 ratio minutes prior to using the medical cannabis program)

- The higher THC cannabis is recommended for my pain. It has been hard to find correct dosage between help or being kind of 'out of it' I'm cautiously optimistic that I'm beginning to feel effects , reduced pain, not that I have the dosing correct
- Pain
- pain
- Slept through entire night, pain doesn't wake me up as much.
- Sleep better Putting on some weight
- some decrease in pain symptoms
- nerve pain is better, sleep has somewhat improved,
- My pain is less or different. For instance, the pain from the neuropathy in my feet is changed. It is hard to describe. It is still there but manifests itself differently
- Helped by giving me some numbing relief in my high pain level from degenerative disks in upper and lower back.
- Pain relief
- Sleep better calms stomach eat better
- 1. Relieve the pain- nerve damage
- I can have no pain for awhile. Sleep better.
- My mobility is a little better.
- Increased appetite, easier to sleep
- I can walk a little bit more
- Decreased muscle spasms. Some general pain relief. Easier to relax.
- Not able to use it every day because I'm working  
Less spasms
- High THC products help greatly with pain management; it's easier to ignore/forget the pain and peripheral neuropathy symptoms. Better than oxycodone, in my opinion. High CBD products may help me with reducing inflammation, but I think the dose needs to be higher than what I have been taking. Cost is an obstacle and I would prefer to use plant material rather than extracts.
- noticeable reduction in pain  
occasional improvement in engaging in some normal activities
- less pain
- less pain, less muscle spasms, less depression, less anxiety
- The [HIGH CBD PRODUCT] product that I am using seems to reduce the number of body/leg spasms that I experience during the night. The THC product alleviates the vice like feeling that I have with my muscles.
- when the pain gets bad it takes the edge off. My sleep has been better since starting the program.
- Pain relief from my very severe facial injury. & multiple surgeries. I have less pain when talking, eating. Helps relieve the pain that comes on for no reason during the day. Helps relieve pain after sleeping on side of face on pillow. It's helping me regain weight & more uninterrupted sleep. Which makes for a better day.

- Some pain relief - though not consistent  
Some help getting to sleep - though not consistent
- Decreases muscle spasms, rescue drug
- Less arthritis pain  
Able to concentrate better  
Enjoy playing cards more
- Better pain control
- Reduction of pain, memory improvement, small motor skill improvement
- can accomplish more
- better quality of sleep
- Has helped lower my pain to a level where I can actually get up and get dressed for portions of most days. My pain and migraines are still chronic, however the marijuana helps me feel as though I'm getting back small pieces of my life again. It's also helped my depression and anxiety and seems to help me sleep better. I'd previously tried absolutely EVERYTHING and had found no relief, so the improvements I'm getting from this seem like a miracle!
- less severe facial pain.  
less anxiety.
- The intensity of my headaches has been reduced by 50% most days. I am sleeping better and have much less nausea.
- Less pain in back  
It got rid of severe back pain
- Pain relieve with a better mood and more motivation
- less pain during the day.
- Helped with pain  
Sleeping better  
Helped with anxiety  
less partial seizures
- Pain relief and stops spasms. Less anxiety. Increased sleep and appetite. Find the products in CO (where my old medical card is from) to be much more effective and gives patients a larger number of possibilities because more products are medically used and available.
- I have had trouble with side effects so have rarely used cannabis. However, I recently fell and have a spasming back. Nothing worked to stop the spasming pain so I used the cannabis product and this made a significant improvement.
- Less pain, with non thc formula, less anxiety.
- Sleep by far. Some pain but still too early to tell to what degree.
- Decreased pain and anxiety - lower stress
- Less joint pain
- less pain, more sleep, able to be up longer
- I have been in less pain at least for a time verses no break at all from it in the past.  
I have been much more focused, clarity of thoughts and intentions are more positive in

an introspective way!:) )

Internal health benefits.

It's giving me the ability to stay on task and helped me lose weight.

I've rediscovered many of my senses; taste, smells, mood, heightened awareness,

Nearly no side effects

Hope

Strength

- Pain generally reduced. If I have zero pain meds of any kind, my pain level is a 7-8. With Narcotics pain reduces to 3-4. With Med Cann pain is at a 5-6.
- Being able to sleep at night
- Still figuring it out now.
- improved mood. pain is lessened
- Reduction of pain from fibromyalgia
- Improved sleep
- Muscles are less tight so movement is less painful
- At first, when I began using the medical cannabis for pain, I Definitely noticed a Drastic Relief in my pain levels - that was So Wonderful - I was So Hopeful. Then, unfortunately, after the first week of using the cannabis regularly, the efficacy for the pain relief I had been receiving began to steadily wane..., to the point of no noticeable pain relief at all within a 6 to 8 week period - even though I carefully "upped" the dosage and the frequency of dosing, etc... I'm so disheartened..., but I know others with the same type of pain that I have that are experiencing and sustaining far better pain relief.
- Nausea vomiting anxiety depression
- Less pain; much better sleeping. This in 2 months of use
- Muscle spasms - low back, nausea, pain
- Better sleep
- Feeling of well being
- a Little Less pain
- i have not been able to take it much so I dont honestly know the benefits yet
- Pain relief.
- Relief pain
- 1) Less pain
- 2) Able to decrease dose of Clonazepam, a Benzodiazepine.
- 3) Better sleep (I wake up less often during sleep)
- Improved sleep which helps manage intractable pain.
- Reduced headaches, which helps manage the intractable facial pain that I experience.
- Reduction of neuropathic pain
- the night time ([HIGH THC PRODUCT] oral susp, 120ml) allowed me to fall asleep quicker and stay asleep longer.
- Lowered anxiety
- Some pain relief giving me the ability to get off other pain meds thereby being more alert.

- Less muscle spasms, helps with anxiety attacks, helps pain slightly.
- Some help controlling neuropathy pain.
- Better sleep which is beneficial with fibromialgia.  
Pain is not totally relieved but I think I am better able to focus on other things.
- Less spine pain when moving
- pain reduction,spasm reduction, appetite increase.
- Helps with my anxiety caused by my chronic pain.  
Helps with appetite.
- Gotten off some medications and tapering off others now with some withdrawal relief also.  
Some anxiety relief
- Less pain.
- Less dizziness than taking some other pain drugs.  
Don't have to take as much other pain meds.
  - sleep benefits- evening benefits
  - I am able to stay in bed all night. I do wake up and have to move around but I can return to bed and go to sleep again. Also, my sleep is more restful.
  - Lessening of most pain.  
Able to be more mobile.  
Some benefit to sleep quality.
  - I am now able to sleep all night without waking up in pain.
  - Sleep has improved, but my chronic pain shows very little daily improvement.
  - I have less muscle pain. I have reduced nerve pain, also reduced anxiety and stress.
  - Some pain relief  
Eases anxiety
  - did not see to many benifits
  - It helps the severity of the pain I feel 24/7
  - sometimes it worked for pain which was very helpful to me  
I opted for the oils which I feel was a good choice for me. I could remember to take my does that way, but I would not have remembered to take a pill.
  - Pain reduction.  
Calming.
  - My sleep has improved significantly. It has also helped me to manage my pain and made me less anxious overall.
  - Calming effect  
A little reduction in neuropathic pain.
  - Less pain  
Relief from pain
  - Less pain, fewer muscle spasms
  - Takes the edge off my pain but does not cover it.
  - Decreased pain.

- I'm finally able to sleep few hours due canbabis  
It also has helped with irritable bowel some  
Helps with nausea
- Has some what help with chronic pain
  - sleep better
  - Decrease in body pain, headache relief, help sleeping
  - Some pain relief although I had better relief with pain meds.
  - I use the pen primarily at night. Quiets the pinching, burning in my pelvis and has allowed me a full night sleep most nights. The high cannibinoids during the day help with the chronic inflammation
  - less diarrhea, calmer stomach, better sleep
  - Less awareness of my pain.
  - Reduced pain for a period  
Somewhat increased ability to do household tasks for short periods
  - Pain relief
  - I have neuropathy in my feet which create pins and needle sensations and burning feet. The cannabis helps some and after taking this I start having some relief. The cannabis has helped some with my fibromyalgia pain.
  - When I can afford the supplement I find I sleep a bit better.
  - higher pain threshhold  
faster recovery after pain excaberation
  - The medical cannabis helps some but is not strong enough OR the prescribed amount isn't enough to dull the pain. Higher dosage or more needed at a time?
  - Less pain
  - It's helping me deal with the horrible pain that I have. It also seems to help with the fatigue that I have as well.

## Score of 5

- Big reduction in average pain levels on a consistent and daily basis.  
A method to reduce break-through pain that works very quickly and without major side effects.  
Pain reduction and control without side effects from either the drug's active ingredient or inactive ingredients.  
Not having to worry that an inactive ingredient in my medication is causing me further symptoms or an allergic reaction (because there are generally only 1-2 ingredients in the products I use).
- Pain relief
- It's helped my stomach pain. Headaches a little My speech.
- It has helped with pain (THC), reduction of inflammation of intestine (CBD)

- Not so tired  
Takes some of the pain away  
No side affects
- Better appetite, better sleep, less anxiety, less pain
- i had constant pain before, now it is less intensive and some less.
- Helped my pain a lot  
On methadone and have been going down on my daily intake of methadone- 25 in the last 2 months
- has reduced my pain level  
less other medication
- It gives me a better personality to get along with others, it takes some of the edge off my pain, it allows me to sit in a recliner for a couple of hours which I could not do before
- decrease in abdominal craps-ulcerative colitis  
decrease in anxiety  
better quality sleep
- Getting good sleep after years of insomnia  
Less medications taken  
Instant relief from vaping oil
- I find relief for my pain in my knee, hip, wrist, and elbow. All of which need surgery that I cannot afford.
- Reduced pain  
Reduced anxiety  
Better sleep
- Sleep. Pain
- Less pain, less stiffness, better sleep
- Made me a little more relaxed
- less pain
- Sleep was a lot better and the pain relief was a little better. Seemed to make me a little tired.
- releif of back pain
- Was at a disadvantage cause pen never worked. Need to exchange.
- less pain when i wake up from sleeping standing working sitting it slows my muscle spasms
- Less pain, more energy, improved mood
- more active, less pain, stopped all pain meds
- Pain relief  
Focus
- Pain lessened, appetite improvement, spasms less obtrusive, less nausea and vomiting, better sleep, better mood
- Able to eat more. Helps reduce anxiety. Helps to reduce the internal tremor I had been experiencing. Kinda reduces pain, however I would need to use higher levels of THC to get better results and don't want the "high" effect.



- I haven't started the daily regimen yet b/c even if it's effective, I won't be able to afford the monthly payment. The spray-under-the-tongue form for emergency use takes the edge off my pain, but doesn't eliminate pain.
- Muscles and joints do not hurt as bad.  
Sleeping better
- Decreased pain  
Improved sleep  
Decreased anxiety (I was not specifically seeking that benefit, but it is a welcome effect)
- lesser degree of pain when taken
- Got me off other medications, Tramadol ,Methocarbamol, Cymbalta, working on lowering my Lyrica,  
More alert during the day on Cannabis than when on my old meds  
Starting to feel better, side effects are subsiding finally after a few months
- I am sleeping better and longer with the introduction of medical cannabis --capsules. I use the vape during the day. I am still trying to get a better sense of the vape related to how often, it's reaction with other pain and what is realistic to expect
- I've been able to get off addictive and harmful prescription medications.  
Less pressure/pain in my head  
Less overall pain (sore muscles and joints)
- less pain
- Less pain Less bowel trouble less chance of over dose
- Less pain. More movement. More energy. Less headaches.
- Less pain in back and legs.
- Reduction in pain, excellent sleep, minor reduction in anxiety.
- It helps a lot with my pain, some with my head aches, & I do sleep better too.
- Ability to sleep more hours at night.  
Some pain relief--still in process of discerning proper dosage and strength
- 1. Pain control  
2.Sleep
- × Less muscle spasms.  
\* Not so worried about the way I walk because of my hips and back.  
\* Able to relax
- the pain is nearly gone, walk just a little bit than before, move around, my life is still limited but it has gotten better.
- Peak pain is quickly eliminated. Vape,. capsules, bulk oil.
- Fibromyalgia pain has been helped
- Less pain, better sleep
- reduced pain level
- less muscle spasm's- spasm's are less in intensity -
- Better sleep and less pain
- pain level was substantially lowered but not as good as oxycodone

- Able to sleep more than 2 hrs a night.  
Fewer muscle spasms
- sleep better - muscles relaxed & less anxiety about pain
- Sleeping. Some pain relief. Better movement.
- 1) greatly reduced the amount of opiate medication I am taking and working towards complete elimination.  
2) better control of pain overall.  
3) mood and clarity have improved with far less medications  
4) better sleep  
5) helps with anxiety and depression  
As a side note I am also dealing with a new injury to my back. The medical cannabis has helped manage the increase of pain with out an increase of other pain management.
- Taking the edge off of Headaches I get daily  
Help with sleep
- Safer way for pain management, helps with nausea, better quality of sleep
- It is helping control .the intensity of the episodes. It also helps me fall asleep and stay asleep.
- It cuts down my pain considerably
- reduced pain, better sleep
- rare optic nerve migrains
- Less pain  
Able to cut back on other medications
- Helped with nerve pain
- Sleeping
- Relaxation & sleep  
Chronic pain relief
- The medical cannabis has helped a great deal with the stomach discomfort I have due to panceatitus
- Pain relief
- It relieves the headaches I get.
- some sleep less pain
- Sleep better and less pain
- My very day life has improved, missed less work.
- pain releif sleep good quality sleep
- Reduced anxiety, better sleep, aids in headache relief.
- Less pain, less restlessness when receiving dialysis. Some increase in appetite.
- It helps my body relax its a wonderful feeling
- Sleeping,being able to relax..pain is calm.....but flower form would be a hell of a lot better
- Medical cannabis is the only drug that we've found to reduce the pain my Mom experiences from Burning Mouth Syndrome, which she has been suffering from for eight years.

- pain relief  
better sleep
- Less pain  
more mobility
- Pain relief  
Take less gabapentin and no muscle relaxers  
Sleep better  
Less migraines
- more calm
- reduced my pain better than opioid medication that I was previously on.
- 1. more initiative to do things like social activities and household chores.  
2. Less worry about pain if i do something  
3. More spontaneity as opposed to having to plan things out to minimize pain  
4. Better sleep
- Sleep better due to good pain relief.  
Easier to get threw day when I can forget about all my pain.
- -chronic pain relief from psoriatic arthritis, osteo and rheumetoid  
-deeper sleep  
-no more flurry of thought at 3am...
- Less over all pain.
- Helps çreduce migraine pain from 8-9 to 6-7 also helps fibromyalgia pain, anxieties, and arthritic pain
- Less pain and stress
- Being able to reduce the amount of perscription drugs taken daily.  
More mood stabilty.  
Pain reduction
- I takes the pain away and helps with my anxiety wich helps my schizophrenia
- Less pain, better sleep.
- My abdominal pain causes problems releasing my bladder, among other things. This problem has bothered me less during the last 6-8 weeks. I still have significant pain issues and sleep problems. Hopefully they will work out in time. It took a few months for the bladder reflex to become more normal.
- Pain goes down Now
- Nausea  
Vomiting  
Nerve pain  
Appetite
- Spasm relief  
Pain relief  
Vaporizers worked great, oral product was too weak
- Much better sleep, some pain relief, some increase in calm
- Sense of wellbeing, less anxiety, less pain

- Night time pain has often been lessened, allowing me to sleep more normally
- calmer, not as depressed, need less pain med.
- I am getting enough sleep for the first time since about 2011. My absence seizures have gone from 3-4 a day to almost 0. It also has lessened the severity of grand mal seizures. The recovery time after has gone from around 12 hours to around 4.
- taken pain medicine less, instead of 3 -4 times a day to now 2 times a day. Its definitely a money maker they say take 3 - 4 puffs each time and sooner or later you want more puffs this is where your going to need more product.  
also I sleep through the whole night when i use to wake 3-4 times a night, so th more puffs the more you need to refill your prescription..
- Less pain, Better sleep, better appetite.
- Lowers the pain. I can move better but can't drive while talking the medicine.
- Less pain and less twisting of the neck  
Less muscle spasms  
Less anxiety
- Nausea and vomiting has vastly improved. Anxiety and sleep had improved slightly, and it's not doing a whole lot for pain with the dosage I can afford. Both of our cars broke down last month, costing us nearly \$1,000 we do not have. I have needed a refill for almost a month, but I can't afford it now. We barely have money to eat.
- Better sleep
- This program has opened up a world for me I thought I lost.  
I started on this just a few short months ago and am totally off my narco's and nicatin. I also have had less spasms and cramping through out my body. I even chanced getting on a motorcycle and going for a short ride with a friend before it snowed. Thought never do that again. It has also helped me gain weight. and silence some demons in my head from my PTSD. So, thank you. Now all I ask is make it affordable to stay on.
- I am taking less opiate pain medication. I sleep a little better.
- I can sleep through the night when I take the medical cannabis.
- The pills going into the [BALANCED THC:CBD PRODUCT] range are almost as good as morphine for back and shoulder pain; however, they do nothing for my pudental (sp?) pain; now that I'm almost weaned off the morphine, my butt and my all the areas around my rectum and vagina hurt most of the time. And the doctor doesn't give me enough Hydrocodone to get through the month comfortably, and that's a problem. If I could afford to buy the pills with little or no THC, I think they might help, but I can't. The [VERY HIGH THC PRODUCT] vaporizer is helpful at night, but it makes me goofy so I can't take it during the day if I'm trying to accomplish something.
- Less pain. Less servire, contorksiions.
- Helps me sleep
- A lessening in pain and anxiety
- Less pain
- quality of life  
lower pain and pain control

- My muscle spasms almost disappear and I can sleep more than 4 hours
- Less pain  
Sleep Better
- easing pain , sleep aid, stress relief
- Helps me forget about pain  
Muscle relaxation
- Pain reduction
- Some pain management, improved sleep, anti nausea, replaced muscle relaxers, relief of constipation, decreased anxiety
- Reduce in pain
- An overall sense of feeling better, recovered quicker after my Botox injections, normally feel very sick (flu symptoms) for a few weeks, less anxiety, more moments of being able to hold my head in a normal position
- Helps my muscle spasms and cramps alot from the fibromyalgia
- Has reduced my fibromyalgia pain by 50%
- My migraines have lessened in frequency and severity.
- I use mine when pain is high, and it calms my body down and helps me to sleep better. When I am home I am able to take it for pain and it helps. calming, muscle relaxation, Pain relief. I amunable to take it daily as it make it difficult for me to concentrate and makes me sleepy.
- Able to sleep with out constant waking from pain.  
A lot more even temperament.  
More rested.
- Better pain control  
Decreased nausea  
Improved appetite
- Less pain.
- helped me cut down on amount of opiate pain medications
- Better sleep  
Reduction of pain post-activity
- relieve pain and decrease nerve pain
- Helps decrease pain.  
Helps me sleep.  
Helps my anxiety.  
Helps my appetite.
- I fine the results for pain are ok but I get real good results for my PTSD
- Pain reduction; anxiety reduction.
- It helps with pain disconnect and sleep
- Decreased pain  
Better sleep  
Happier

Decreased nausea

Weight gain

- A reduction in pain resulting in less insomnia. Increased appetite and less overall nausea leading to increased weight.
- I have less pain in my shoulder joint, but more pain in the upper arm muscle, on the right side of my body.  
(Both shoulder joints have less pain).
- It relaxes me  
It takes some of the pain away, but not all, not even close  
I'm taking it for my back but it helps take the strain off my neck, it relaxes me but it doesn't take away the pain in the back. Hydrocodone works better and it's way cheaper.
- Helps me sleep better!
- Pain relief  
Relaxed muscles  
Less anxiety  
Less depression
- Pain Relief
- Sleep, relief pain
- better sleep , more of an appetite and a better sense of calm
- Ability to reduce my oxycodone usage that I use for chronic pain
- 1. Less overall pain  
2. Higher quality of sleep  
3. Less stress
- No hip impingement pain, not as many muscle spasms, significant relief in anxiety, less insomnia, more noble and able to get out and be active, less headaches, at times can take edge off my back in combination with other treatment.
- I need more time to see if it works, used right I think it will help.
- I can sleep better at night. I am able to stand longer, walk longer and I generally feel calmer. My blood pressure has gone down. I experience less pain overall.
- I get some relief from my chronic back pain
- 1. It helps to decrease my pain.
- reduced total daily pain medication by initial 30% (from 60+ mg down to about 40mg) with goal of continuing further reduction; provides calm mood with better ability to relax and go to sleep
- able to sleep, pain relief
- The cannabis is extremely helpful when I use it, but it's not something I use when I operate a vehicle, therefore I'm limited as to WHEN I can use it.
- reduced pain
- Take away the pain intense. Sleep improve. Depression improved. Anxiety improved. Able to visit with people and socialize with others in stores (big step). Just my overall life has changed for the better . I am able to go out of my home and feel good. I am no longer afraid of people but welcome to be in crowds(big step). I don't feel doped up just

nice and relaxed and able to deal with things in a rational manner. It has improved my life a great deal. I haven't had any back spasms since I have been on the cannabis and it's wonderful.

- less pain and went from 40 mg to 5mg of oxycodone per day, not sure but maybe helping depression starting to cut back on these meds
- less nausea, better sleep, less pain
- Reduced anxiety, pain level decrease, don't have to rely on opiates
- It has helped a great deal with pain,nausea,anxiety & better quality of sleep.
- Within 24 hours of taking two puffs, patient was able to lift her legs and move them much easier. She could actually feel her legs and they didn't seem as heavy or dead (her words).
- pain relief  
less anxious
- Reduction in pain
- Less pain
- Relaxation, no nausea from my anti rejection drugs
- Reduced pain  
Reduced inflammation  
Reduced spasm  
Reduced sticking of hands  
Reduced ptsd anxiety
- Pain, aching muscles, lower stress levels
- I no longer have to take laxatives and stool softeners. The first benefit I noticed was the break through neuropathy pain in my feet wasn't happening anymore. No burning or needle pain in my feet at all. I also sleep better.
- find that it helps decrease severity of my migraines
- using less oxy(pain med) & sleeping much better. No after effects from using medical cannabis in the A.M.
- Pain relief- it's unbelievable, I had no idea this could do this!  
Sleep improvement, overall everything is better
- Better sleep. Helps me calm down in time of high anxiety. Dulls the awareness of the pain.
- I am much more relaxed and able to sleep at night Because of using less oxycodone I am less shaky
- allows me to live with the pain  
helps me with my depression
- I'm able to stay on my feet longer.  
I feel so much better
- Pain, anxiety, decreased nausea
- The most important is that I am getting some sleep. Previously, I would wake 5-6 times a night because of pain. Now I wake once or twice.
- eliminate pain

- less pain  
less spasticity
- reduced anxiety  
helping w/sleep
  - Sleep is significantly improved. I have stopped taking Ambien after 7 years of constant use. Pain is improved. There have been a few times where I couldn't get my spinal and leg pain under control and had to use small doses of pain pills, but usually the cannabis will work.
  - 1) My attitude about the pain changes to a more positive outlook.  
2) My chronic Nausea is under control.  
3) I sleep better.
  - helps me sleep at night,  
relieves pain,  
gives me better balance and energizes me.
  - Less pain and inflammation more energy my joints feel  
Better from the rhumetoid arthritis and scleroderma

## Score of 6

- It help calm me down and dulls the pain. It also helps me want to eat.
- Relaxes my muscles helps pain
- Relief to pursue normal activites
- Reduction of symptoms, including pain.
- In need a lot less percacet. Instead of every 4 hours, sometimes I can go 5-6 and none at night anymore. Goal is to stop narcotics. It it will take much longer because the oil for the vaporizer is WAY to expensive. If the cannibis came in leaf and bud it would be affordable to replace the Percacet completely.
- Pain relief, anxiety relief
- Ability to sleep 9 hours instead of 4-6 without it(that alone is huge)!  
Helps with appetite- hungry at 10am instead of 4pm.  
My pain levels are high. So has been my tolerance to most pain meds. Capsules helped. Vape pen was instant relief but short. Tincture was fantastic, amazing, gave me my life back. But, I cannot afford it...
- Pain control, sleep, flexibility, mood, appetite
- It's helped a great deal with dealing with symptoms of dumping syndrome  
I'm sleeping better  
I'm less irritable
- It helped a lot with my stomach, my colonaria  
My bowel movements became regular  
I also have post-traumatic syndrome and it works really good with that- it helps me sleep  
I really believe in the program
- less pain, less inflammation, more energy



- Decreased flare ups in pain  
Increased mood  
Better sleep
- some pain relief
- Less pain, less stress, is a perfect alternative to opioids all the time.
- Decreased pain, decreased number of migraines
- Getting much better sleep at night, 6hours without waking. I have not taken any narcotics for pain since starting cannabis. I used to take massive doses of Vicodin daily.
- Reduces the pain  
Knocks down her anxiety
- I have more energy because I am NOT hurting all the time. I used to go to bed with pain, wake up with pain and have pain throughout the day. I still have pain but it's more tolerable. I don't get up everyday dreading how bad is my day going to be.
- Reduced pain, helps with sleep
- Less Pain while on the cannabis. Better sleep. Less Anxiety.
- Headache relief  
Tension reduction  
Shoulder pain relief
- It helps decrease my pain, helps me to relax more so that all of my muscles can get more of a "release" from being tight all the time which helps decrease my pain as well. Doesn't give me the bad side effects that some of the other medicine I was taking gave me.
- Helps with aches and some pain.
- Reduction in pain level
- Sold
- Reduced pain  
Reduced migraines
- Less pain, greater enjoyment in life as a result of the lessened pain  
My quality of life has been greatly improved, ability to move more freely and Get more of my daily activities done.
- I've felt a small amount of relief caused by cronic back pain. I'm also battling prostate cancer. I'm under going hormone therapy, lupron injections. The side effects are very intense. Medical cannabis has been a big help with constant hot flashes, anxiety, headaches, etc. Also I just started radiation therapy witch deprives me of energy. This also helps me become a bit more energized.
- Take care of my back pain and knees
- Less Pain  
Lower Anxiety
- a lot less pain in the stomach area.
- For the first time in 17 years, there have been some moments in my day when I can say I am not in pain. It is not perfect but it beats the 30 other treatments I have tried.

- muscle relaxing  
reduced spasms  
appetite  
mood enhanced
- I signed up specifically because I was only sleeping 4 hours per night because of pain. I now sleep much better, sometimes up to 6+ hours. This makes a big difference to me.
- Improves anxiety disorder symptoms.  
Improves joint pain.  
Helps to relieve PTSD symptoms.
- It has helped moderate the increasing pain I have every afternoon on into evening and has helped me sleep better.
- Inflammation reduction  
Pain relief
- has helped with neck/back pain and decrease muscle spasm....also sleep has improved
- Decrease in pain , not having the side effects from Opiates , helps with Muscle spasm , feel more hopeful , improved mood.
- Much more flexible in moving around  
reduces my inflammation - helps with my arthritis  
Can walk up steps verses crawling  
Getting back a sense of humor
- The first day I used the medication I had an immediate reduction in my overall level of pain. The chronic neuralgia that plagued me has lessened dramatically. This has changed my daily life for the better and increased my mobility and my productivity.  
My anxiety level has dropped overall and I have been able to cut my anxiety medications in half.
- I have been sleeping better and have decreased my use of sleep-inducing medications. I am also in the process of cutting back on Ambien.
- pain relief, muscle spasm relief, helps sleep, utilize other medications less, helps nausea, PTSD and depression
- Taking way less prescribed pain pills, helps with lessen my anxiety, and I have noticed I am having fewer headaches
- Less back pain  
Allows me to do more of my day to day activities
- Smoking the bud itself works better for my pain, but the [VERY HIGH THC PRODUCT] capsules did help with my sleeping. I was able to sleep more than a couple of hour, then up for to 2 to 3 days. I have been able to sleep more than I have in since 2008!!
- Immediate pain relief, sustained pain relief, ease of falling asleep, ease of staying asleep, nonaddictive, mood enhancement, muscle relaxation.
- I had a pain level 8 pain in my right shoulder due to a double tear in my shoulder.  
After taking the lowest level [HIGH THC PRODUCT] cap my shoulder pain is completely gone.  
My back is another matter that I am still experimenting with [VERY HIGH THC

PRODUCTS] plus my puff pipe and I believe I am making some headway but still have an ongoing spine& muscle pain. It seems the caps I take create some mind confusion as I try to cope with their effects but I have to keep looking for the right combination.

- Decreased cramping, flaring and trips to the bathroom due to crohns disease and malabsorption, I am able to go places for more than an hour without having to worry about where the restroom is. It's helped reduce my anxiety, which helps my gut as well as my chronic pain and constantly spasmed low back muscles. It hasn't helped my chronic pain as much as i was hoping but i have 38 medical issues so it's hard to tell and my body requires way more medication than a normal person who isn't constantly dying in pain and suffering every day like I am because Drs. don't believe me until they see my discolored skin on my back from living every minute of the last 4 years on a heating pad!! I love how open and honest i can be with my pharmacist, because i don't feel like I'm on trial and have to prove how much hell I have been living in for the last 10 years!!
- While making my pain tolerable is awesome, it has proven to help my issues with ptsd a lot. My wife told me that it is a world of difference.
- Pain relief without major side effects
  - Better sleep
  - Less anxiety
  - Less inflammation
  - Better mobility
  - Better asthma control
- I experience constant back pain, medical cannabis alleviates a great deal of my pain. More than any medication I've taken before.
- Migrains cut down by 90%,spine pain down,and a good feeling for the future
- calmed nerous system
  - better sleep
- Helps me treat chronic back pain, stress and anxiety, muscle spasms, nausea and with rest.
- Helps to ease chronic back pain and pain do to arthritis and it is legal.
- Reduced pain in hips and other joints. No more restless leg syndrome. Sound sleep for the entire night.
- Less pain. A lot less anxiety from the pain.
- Decreased pain, decreased gastrointestinal problems
- I'm actually able to sleep better. I normally didn't get much sleep due to pain. Less muscle spasms also.
- Pain relief, anxiety relief, insomnia relief. General feeling of well being. Depression relief.
- Little to no pain in legs. Prior to the medical Cannabis
- Less Pain, more social, more active, etc
- Less severe pain
  - Less muscle spasms

Better sleep

Less tense

Able to concentrate

- Greatly improved sleep, appetite has improved, helps with some of the pain.
- relieves pain in eyes, back,  
stress reduction
- My muscle spasms are not has painful  
I sleep better
- Less of other medications, discreet and easy not to forget , long lasting results, appetite has increased tremendously. Overall it's helped me a lot .
- i was finaly able to have somewhat of a normal life, with a majority of my pain manageable, and i didnt have to take so many opioids that i never wanted to take to begin with, i could concentrate, i was able to take short walks, and i was able to a c tually sleep a whole night
- Pain relief and greatly decreased anxiety
- Reduced my opioid consumption  
Reduced the muscle pain throughout the day  
Reduced the nerve pain
- Using the medical marijuana helps decrease headache pain
- Less joint pain and I'm sleeping better
- I am not in pain all the time. The cannabis helps to ease the pain about 40% better
- Major decreased neck spasms  
Comfort.  
Sleep well
- reduced pain  
improved sleep  
50% less opioids (and still reducing)
- Better Sleep  
Better Appetite
- able to sleep and get relief during the day from chronic pain
- Less pain/better apatite/general better mood/ ease tier to sleep.
- Diminished pain in my feet.
- Great Pain relief and unbelievable relief from PTSD sleep anxiety
- Increased tolerance to the pain
- less pain, less anxiety.
- Being able to sleep. Walking with little pain.
- I have been working on slowly weening off opiod drugs.It has been helping me to the goal of being free of prescription drugs for pain.
- The biggest benefit is sleeping better. Pain used to prevent me from a good night's sleep. Without proper sleep i was crabby during the day and didn't handle work and home issues as well as i would have liked. I think being crabby also made the pain

worse. I just feel better all the time now. The pain is significantly less than before cannabis medicine was used.

- Off 4 medications, no side effects at all. No migraine anymore.
- Drastic reduction in pain.
- Helps with anxiety that I have along with my pain. I am grateful for the NSAID benefit without stomach upset. Tapering down from the opioids was much easier with marijuana, too.
- Pain relief
  - Reduction in need for opioid
  - Improved social life
  - Muscle relaxant
  - May be helping a bit with depression and anxiety
  - Less stigma than opioid med and fewer negative side effects!
- I haven't been to my Dr. for pain related issues since I began using medical cannabis
- I have been able to recover much of my usefulness. I can participate in most activities and enjoy them. I have started an exercise program to regain the strength that I have lost through inactivity.
- Pain Relief
  - Better Sleep
- Pain Relief and dramatic cut in Meds.
- Better Sleep
  - Pain is more tolerable
  - Able to get out more than before
- It's helped a great deal with pain and anxiety
- Less soreness and tightness around my joints in general.
- Nausea has let up a bit, pain in stomach is still there but not as bad.
- Pain relief in multiple areas of my body
- Pain relief. Being able to sleep through the night, thats huge!!
- Less meds with harder side effects
  - Less discomfort
- Less pain
  - No opioids, no pain medicine
  - Got appetite back
- Less back pain, arthritis feels better, appetite is good and I sleep good.
- Migraines do not come as frequent, also lengths are less
- Less pain
- The medicine helps ease my pain on bad days
- Many,can' afford the price. I would still be using it if I could afford it.
- I wrote out a very long letter and your time out thing on the compuer kicked it out so im sending it to you
- Greatly diminished spasms in my neck & throat. Complete relief from severe anxiety that I suffered from daily.

- Decrease in pain  
Decrease in other meds
- Pain relief  
Depression relief  
Anxiety relief
- reduction in pain  
better mood  
easier to do activities of daily living
- pain relief, improved sleep
- has eased my muscle spasms and cramping. Has helped my visual issues. Has helped me to maintain healthy weight. Have been able to sleep much better and have cut other pain prescriptions way back. Seems to take pain away enough that I have been more active and am able to function on household tasks to a some what normal level. my brain seems to be working better as well i.e concentration/focusing and remembering.
- Able to sleep, generally less pain and stiffness
- pain management  
pain relief  
relief from stress caused by pain
- The cannabis has reduced my constant headache from a 10 to a 4. I still have 24 hour headache but it is more manageable now.
- Pain reduction, help sleeping, which was a problem, anxiety
- 1. I can play with my daughter without needing breaks or not being able to at all. 2. I can go to school/work because I can be on my feet without needing to rest every hour or more. 3. I can sleep through the night! 4. I can take my daughter to the zoo or park etc without worrying about if I'll be able to get through it without needing breaks. 5. I can get right up when I wake up without needing an hour or more to get the energy to move. 6. My anxiety has been better, so my life is overall easier to manage 7. It helps with my ovarian cyst pains I get monthly 8. I don't have migraines anymore 9. I can make plans again 10. I'm not nauseous all the time  
Honestly, I could keep going and going. The benefits I've experienced are overwhelming. I still have pain, but, it doesn't dictate my life. I feel like I finally have my life back.
- It lowers my pain to a level where I can focus on schoolwork and conversations.
- Lack of pain  
Better ability to concentrate  
Moving around much more freely
- Been able to fall asleep
- significant decrease in fibromyalgia pain.
- Greatly reduced neuropathy pain.
- Greatly reduced constant pain
- Pain reduction, relief of anxiety, less nausea, improved appetite
- Calms my body and my head; less anxious when I'm not feeling well.

- Pain Management has improved greatly. This has allowed me to assist with progression in my life to lead a healthier life. From the fibromyalgia aspect, it calms the inflammation and burning sensation when I have flair ups. It also helps with the anxiety that comes with chronic pain. This helps so much with staying on top of my pain and allows me to participate in my life, work and personal.
- Reduction of trigeminal pain.
- Reduced pain. Better sleep. Less anxiety.
- Better pain control.
- It has helped with headaches and shortened the time of muscle pain. Last month both of my dogs passed away within 20 days of each other (one of the dogs helped me with anxiety/depression) and I really believe that the medical cannabis has helped me get through this painful time.
- I have had less pain, esp sleeping and sitting  
some increase in energy and less fatigue  
have reduced pain medication from 4 to 0 per day  
not aware of any side effects so far
- takes the sharp edge off my pain from arthritis  
I'm sleeping better and for longer
- Allot less spasms in my feet from neuropathy in my feet.
- I don't have to take pain pills as often  
I can sleep better  
Helps joint pain  
Takes the edge off the pain
- Migraine relief, more able to lead a full life, migraine-associated nausea relief,
- mood is better, sleep quality, muscles much more relaxed, have not taken any other pain releavers
- Lidocaine patches did not help only minor on my feet, cannabis has made major difference to feet.
- I sleep with a lot less neuropathy pain at night and during the day I think that the feelings in my feet are more true and I feel more stable.
- Off my other medications including opioids. Helps with nausea and spasms. Family says have much less anxiety.
- It has helped my back spasms. Its just to expensive for me. But it has helped a great deal.
- effective pain relief without being a Narcotic.
- Faster pain reduction.  
Fewer side effects  
Reduce the amount opioids and other meds taken daily.
- It helps to ease my anxiety, soothing my mind and putting me in a much better mood.It also is easing the pain in my feet due to perifiial neuropoathy.
- less pain better eating
- Quality of life, less pain and no side effects

- Less pain
  - Less discomfort
  - Less muscle relaxers
  - Less opioids
  - Less nsaid
  - Better mood
  - Improved sleep
- - Lift in pain
  - Ability to relax
- Distraction from pain
- The pain is much more tolerable.
  - It has also greatly reduced my symptoms of neuropathy.
- I've been able to do more hip exercises that I couldn't do before.
  - I can stay in a crowded somewhat loud room longer.
  - I've been able to go out to movies without worrying I'll have a seizure due to screen flashing, camera shaking, etc.
- Less pain intensity.
- So far I have been able to take less pain medication, I actually can fall asleep (relax) . I have been able to gain a little weight.
- Relieve migrins
- 1. rapid release of spasticity
  - 2. improvement of quality of life
- Pain reduction
  - The burning nerve pain in my leg that crops up within 5 min of standing, walking and sometimes sitting is totally gone.
- Totally off the opioids and am able to control my pain using the cannabis oil.
- I find it very helpful, it also help relax my stiff mucels.
- Pain relief, better sleep , less anxious
- Pain , sleep, stress , helps my add / ADHD settles me down.
- Less pain able to sleep at night. Able to eat without getting sick. Cut my tramidol in half.
- Pain relief is significant both for back and arthrits. Side benifits have included better sleep and lessened anxiety.
- It reduces pain on bad osteoarthritis days. I have already had two total hip replacements and I can walk again but have discomfort in all body joints from the disease. It helps with pain, sleep, and sometimes mood can be uplifted to a degree. I mostly use it in the afternoon and evening depending on my needs for the day. I am careful as each person can have a different reaction. I like to remain in total control with mental and physical coordination, so I am very careful. I like the vapor vials for this purpose as eating or pill consumption may not give me as much fine tuning, but I have not tried other ways. This is just my calculated guess on the matter and with consul at my appointment.



- Increased sleep and rest  
muscle and joint soreness almost gone  
Happier in general with positive thoughts and mental well-being
- Not as many muscle spasms
- pain relief, mental at ease, body changes such as lips feel better( not swollen like from pharma medication), ankles swelling gone. reduced muscling "shaking" while maneuvering through the house. My legs used to shake and that would put the fear of falling into my mind. nerve wreacking experience.
- I can sleep almost thru the night.
- Pain relief, better sleep and control of the overwhelming muscle spasms and cramps.
- I've had about a 50% reduction in the pain I normally experience. When I'm able to use enough it helps with the anxiety/panic attacks I've been experiencing.
- Dont have to smoke a whole joint.
- it helps my anxiety, esp. in the car. it helps my depression. and helps with my neuropathy in my feet
- Can get some sleep at night  
less pain
- Way less pain than normal. Reduce of information
- Pain wise it is amazing with pain  
I still get the high off of it so I can only do it at night and it allows me to sleep a few extra hours but the anxiety just gets worse
- intractable pain relief
- A lot Less Pain. Fewer Headaches. When I do have a headache my migraine meds like Imitrix, etc. work much, much better to get rid of my migraine where as they did not before.
- My mood swings and anxiety due to chronic pain it started to become manageable again so that I can enjoy my eveningS My chronic pain has gotten to a level that I'm able to freely enjoy life again
- I'm able to be more productive in my work because the medical cannabis seems to dull my chronic pain or lets me give it less mental attention. That frees me up!
- Pain relief, improved joint movement.
- Pain Control
- Cannibus has lessened my nerve pain 2. I sleep better
- I can sleep at night because the pain of TN is much less
- has helped alot with pain and every day activities
- More enjoy life
- relax  
less muscle spasms  
not irritable from painkillers  
pain relief
- Pain reduction to manageable levels.

- My pain level in my arms has dropped from 5/10 to 4/10 on a regular basis which is great relief for me!
- pain control, anxiety control, depression control, increased quality of life
- I no longer take high doses of benzos and opioids. I have the bug to "do something" now DAILY , result is a sense of self-worth that I can do more tasks.  
I no longer sleep in the day. I have increased appetite and gaining weight I've lost from being so ill.
- Pain relief from neuropathy. Ability to begin tapering of prescription drugs.
- lessens severe pain
- I can sleep better  
I can better tolerate pain  
My appetite is better when I hurt  
I am more socialable acceptable
- immediate migraine pain relief.
- Marked reduction in both inflammation/pain and in anxiety.
- Greatly decreased the need for pain meds.  
Reduced strength and frequency of spasms  
Allowed for more consecutive hours of sleep
- Sleep is better along with appetite. Pain is manageable without risk of physical dependency and withdrawal. Mood is better. Hope has been restored and that is huge.
- Pain is better controlled and no more narcotics
- 1) It lessens the throbbing pain and shooting pain from my peripheral neuropathy.  
2) It also allows me to go to sleep more easily, and to stay asleep for a full night.
- Its not eating my from the inside out as pain pills did. Its doesnt make me moody and I can function with everyday tasks, unlike i could with pain pills
- Better sleep and some improvement in pain management
- 1. My overall pain level is less when I am able to take it regularly  
2. I feel more normal than I have in over 10 years.
- Helps my pain and helps me sleep
- Flexibility and sleep
- It lessens my chronic pain  
When used at night it helps me sleep
- Inflammatory  
Stiffness
- decreased pain  
better sleep  
decreased stress from the above 2!
- Less daily pain when I can afford cannabis.
- Pain relief  
Relief of depression and anxiety
- Pain is less, my legs don't jump at night, I sleep better, anxiety is improved, mood is improved.

- Reduced narcotic use for my arthritis and severe headaches
- It helps to reduce the spasm symptom I get.  
I am not taking narcotic pain medication as often  
I don't have as much problem with nausea or constipation.  
I am not as tired.
- chronic inflammation has been reduced, thereby reducing headaches and chronic pain.  
Reduces stress, helps me sleep better at night. When migraines hit, it helps to reduce the symptoms. The cost is high, therefore I need to use it sparingly unfortunately.
- Less painful and less often joint pain.  
Better mood.  
Better sleep.  
Used makeup and curled hair! Somewhat of a social life now, it's nice to see and catch up with old and new friends again!  
Cleaned some of the house more deeply after years, boy that felt good.
- no pain
- - Anxiety level decreased  
- Allows me to usually fall asleep where as in the past 3 yrs. or so I had great difficulty in falling asleep.  
- Takes away my immediate pain
- Soothing of achiness, Relaxation, less cramps, less severe headaches
- Really helped with inflammation of my fibromyalgia. Really helps sleep. Really helped Nausea
- Takes the pain away
- Reduced pain (sciatica) down legs, decreased spasms from buttocks to knee. When used I am able to sleep for more than 15-30 min and it is easier to fall asleep!!!!  
I feel less anxiety and less suicidal thoughts.  
UNFORTUNATELY I CAN'T AFFORD IT. I had to sell personal property to help pay for it.  
So now I have no longer have access to it.
- I sleep longer without interruption from pain.  
I move around more during the day and feel much better than before.
- Urgency and frequency  
Esophageal spasms  
Insomnia
- Less pain and less muscle spasms
- I was able to drop all of my pain meds so I don't have to feel like I am going to throw up all the time have the sweats all the time field dizzy due to being on pain pills. It helps with my pain and is still allowing me to do daily activities
- Better Sleep  
Less Pain  
Discontinued all pharmacueticals
- Pain relief
- Less pain and inflammation in joints

- Decreased Pain in my legs.
- 1- cut down on pain  
2- feel much better  
3- sleep better
- Lowering my oxycodone intake
- Seizure control and pain relief
- It has relieved my headaches and given me an appetite.
- Decreased muscle spasms, decreased pain levels, decreased ptsd, increased appetite
- Less pain and cramping, pain in "easy" tasks was lessened
- I have cut down on medications
- Mygrain inflammation pain muscle spasm nausea depression anxiety all better
- I have gone from 3-4 pain pills a day down to 0 pain pills a day
- Makes pain tolerable. It doesn't make me as drowsy and void of energy as prescription pain relievers. If I choose not to use it, I don't have withdrawals versus prescription pain relievers.
- Can get around with little pain..don't have to take as much aspirin or pain killer as much
- helps me sleep better.takes a great edge off my inflammation of my arthritis. it also helps with the steady chronic pain.all that I have listed above has added a greater quality of life than what I used to.
- Less use of opioid pain medication
- Pain relief, mood stabilization, anxiety reduction
- Better sleep - Pain reduced
- lessened the pain taken edge off  
makes some days more bearable  
helps me sleep  
helps with cramps
- Relieves lower back pain and helps me sleep thru the night
- Pain relief, little better sleep,
- less pain and cramping
- Less pain (almost none), possible seizure prevention
- Better sleep, pain reduction, Enhanced calm
- I have experienced a decrease in migraine FREQUENCY from 3-4/week to 1-2/week. The INTENSITY and DURATION of the headaches has improved to the point that if I use the [HIGH THC PRODUCT] (high THC) vaporizer, at the onset of an aura or pain I can abort a headache. If I can't abort the headache, I am using less Fiorinal capsules per each headache incident.  
I have CRPS and have completely weaned off methadone. I was taking 5 mg three times/day. I am currently working on a Lyrica taper as I increase the medical cannabis dose.
- Given me a huge help in controlling pain. It's giving me a new outlook on cannabis. I was skeptical at first but have seen first hand that it's no joke! People who know me have

been asking what has changed in my life because I am more outgoing, participating in events, basically have a new outlook on life thanks to it.

- Lessening back pain
- It eases the intractable pain I have from a intestinal issue. I further believe it aids in the reduction of time it takes for my system to "reboot."
- Decreased pain, decreased anxiety.
- I sleep much better. It helps my over active bladder. It relaxes all my muscles as I have anxiety issues. It helps my arthritis pain. I would have to get up every 20 mins all night to urinate so I wasn't sleeping. Now I do. I really need the cannabis so I can have a more normal life.

## Score of 7: Great Deal of Benefit

- 1. Significant reduction of opioids & their side effects
- 2. Great for pain relief & management
- 3. Bonus: Helped me quit smoking cigarettes (recommended)
- My back, neck and muscles hurt everyday and sometimes I would throw my back out now I have zero pain and if my back goes out I vape and in about 15 min the pain is completely gone. I sleep good at night and I do not get constipated anymore also my therapist (bipolar disorder) said that my personality is alot better and things seem to be leveling out. I feel good everyday. I am a mother of 4 with a full time job and I go to college full time the cannabis does not interfere with my studies or motivation to get things done. I have a better quality of life than I did four months ago.
- Less spasms better sleep little less pain
- well rested!
- Less chronic neck and back and knees. Pain also fibromyalgia. And restless leg syndrome also anxiety and stress and sleep.
- Pain relief, increased mobility, decreased muscle tension, improved quality of life.
- Pain relief  
better sleep  
help with my depression
- I have been able to taper off of pain medications
- Pain Control.  
Muscle relaxation.  
Helps with nausea.
- Pain relief
- Pain reduction; decreased depression and anxiety; increased quality of life
- Reduced Pain  
Less Cramping  
Better Quality Sleep  
Reduced Twitching

- Helped relieve my pain from rheumatoid arthritis. I was on prednisone for 8 years and was in the process of weaning off of it. I then took the cannabis to help me with my severe pain. I'm happy to say that I am no longer taking prednisone which took forever!! The Cannabis truly helped me with dealing with my rheumatoid pain.
- Lower stress levels and ease of muscle tension
- Having way less pain ,Wanting to live .Way less depression.Being able to do more (quality of life ),
- reduced neck pain  
less anxiety
- Helps my anxiety
- More consistent pain relief and better sleep quality and quantity
- Relief of chronic spine, hips,hands etc.from osteoarthritis.
- Pain management, I have suffered from pain for many years. And have taken way to much ibuprofen. Pain interfered with my sleep everynight. Medical cannabis has helped control this pain. It has reduced my ibuprofen intake greatly. Which is helping my nausea stomach and ulser . I'm also sleeping much better, and that has improved the quality of life. Thank you
- It has helped ease migraine pain quite a bit
- No Vicoden - pain has been taken care of thru cannabis
- I sleep better. I have better pain management. It has brought my pain levels down dramatically. I have been able to live a more productive happier life.
- I have Ehlers Danlos syndrome (EDS) a genetic collagen deficiency. I experience significant joint and muscle pain, muscle spasms or twitching, gastric upset and digestive problems as well as other problems from having weak connective tissue. The most significant benefit I have experienced is longer endurance for everyday activities. A specific example has been the pain and weakness I feel going up stairs, I have been expecting to need to sell my home and move to a single level home/condo in the next year or two. Using the cannabis, I may be able to postpone that for several years.
- temporary pain relief  
more energy  
PTSD is controlled  
less depressed  
reduced anxiety
- muscle spasms, pain, anxiety, depression, inflammation and Mind though resolution on issues I normally would put off until another time !
- Quality of life, energy am able to get daily things accomplished
- feel better while on med pot
- Near cessation of nerve pain, numbness and tingling throughout my body while taking medical Cannabis. Reduced panic and anxiety attacks. Dramatically reduced pain. Reduced markedly feeling like I will pass out because of the constellation of pain and nerve pain.
- Relieved pain, inflammation, stress, it's been wonderful.

- Helping sleep  
Killing pain with out taking 90 pills per month  
Down to 1p or less. I was very nervous about my future  
Now I am not thank God. This has help my marriage because  
I am less irritated and less pain. My pain levels have been through the roof  
Now I have more control
- Lessens headaches, reduces pill medication use by 50%, helps maintain even moods and lessens mood swings from traumatic brain injury, get a more restful night sleep on a regular basis.
- Pain relief, anxiety relief, body healing and mental health
- I can take when I'm in between other meds and it works for me so well.
- Less pain and inflammation, less spasms. Helps with eye pressure, sleep less pain overnight. Also stopped taking norco.
- Less pain  
Lower blood sugar  
Better sleep
- Pain reduction; able to stop taking other pain medications  
Sleep improvement
- Many,there is less pain ,I can sleep and all around I just feel better.
- Taking less opioids.
- #1. 99% decrease in arthritic pain allowing to more fully partake in activities of daily living. Increase participation in family activities with my young son!  
#2. Eliminate numerous prescription medications previously used for pain, depression and anxiety, saving my medical plan hundreds of dollars each month.
- relax  
pain
- It helps with my sleeping  
It helps with my appetite  
It helps with my spasms  
It helps to motivate me to move more which results in a domino effect as it relates to  
My overall health
- gained 8 pounds, were able to decrees his lorazpan until he ran out then had to increase, have cut out all pain medication.
- My back pain is way less and also always me to sleep for more than 1 to 2 hours at a time
- Pain relief, less anxiety, relaxation and much better sleep.
- Pain is in controlled
- Lower pain when I can control it.
- It has helped with my anxiety and depression. I felt so hopeless prior to using this medication and now I feel hopeful.
- The pain interfering with my life goes away and over all social activity improvements

- Was able to lower my dosage of opioid medication. Sleeping better, less anxiety, better appetite and less nausea. The [BALANCED THC:CBD PRODUCT] helps with the nerve pain in my hands. I have less overall pain and an improved mood. I have seen improvements in all areas of my life
- Better Pain Relief  
Better Sleep  
Decrease in other medications
- Pain relief in my knees and the ability to control my anxiety
- Sleeping, eating, being pain free, leading a wonderful happy life.
- LESS PAIN  
BETTER SLEEPING  
BETTER SPIRITS CUZ OF LESS PAIN  
MORE CLEAR BRAIN
- Reduced pain, increased mobility, much better quality of sleep
- it has reduced my pain levels significantly, relieved me of muscle spasms and allowed me to sleep.<sup>4</sup>
- Pain management- I have been able to maintain a fairly normal lifestyle with less pain, allowing me to do activities that I would normally shy away from or not be able to do. Pain mitigation- The CBD oil allows me to work longer during the day without the psychoactive effects of the THC dominant strain.
- Decreased chronic pain/migraines/fibromyalgia flare ups, calms my anxiety and PTSD, gives me the boost I need to get my appetite back, calms my severe muscle spasms and restless leg syndrome, makes me more social and be around my family much longer and enjoying time versus being in pain in bed 24/7 in a miserable state, weaned myself off nasty medicines, etc.. My list of positive results will keep continuing on.
- Pain relief and appetite stimulation
- pain relief Better sleeping ,not having to go to the bathroom in the middle of the night
- Helping with my anxiety  
I don't have to take as much pain pills- oxycodone- as I used to  
It's helping with my sleep a bit
- I was able to not have to use pain killers as frequent, my nausea is way better, I can eat and enjoy food.
- Pain management sleep help ability to move around better
- 1. I was having trouble sleeping due to pain. Using the cannabis, I am now able to sleep.  
2. Pain is not as bothersome, I am able to focus on things other than the pain.  
3. It helps me relax so I don't tense up as much. Pain seems worse when I am tense.
- Much less pain, muscle fatigue, fibromyalgia much better, spasms mostly gone
- pain relief ( with that has come a lot more activity), muscle spasm relief ( I'm having none to very small spasms), anxiety relief,
- Back pain greatly lessened.
- Less pain, sense of wellbeing, sleeping better.



- Pain relief
  - Sleep better
  - Less anxious
- I am now able to control my pain that was no longer working with opioids and neurological meds.
  - No more migraines
  - Improved sleep
  - Helped with nausea from opioid withdraw
- Improved mood
  - i have more energy. not so depressed and sad.. i feel like i have more to live for.
  - Reduction in my chronic pain.
    - Helps with sleep.
  - Pain relief. Lower anxiety. Ability to relax. Less opiates.
  - Back at the gym exercise it has me do more then any medications I have taken for the last 8 years.
  - Reduction in pain
    - Able to discontinue use of other medications
  - Mentally, I feel much better, nausea & vomiting much less, appetite is btr, it helps my attitude, sleep patterns seem to be improving, has been a very welcome alternative to add'links opiates.
  - Pain relief/distraction
  - Less pain, less metal stress, and reduction in other pain medication usage.
  - helps with intractable pain and PTSD
  - sleep,pain
  - Help with anorexic effect of cancer
    - Eases spasms without bad side effects
    - Able to work part time w/ pain management
  - No nerve pain and problems with my cervical spine neck issues
  - 1. Less pain
    - 2. Better Sleep
    - 3. Happier Lifestyle
    - 4. Better Mood
    - 5. Increased ability to do more
    - 6. Increased Appetite
  - Pain relief, ability to sleep, & reduced nausea.
  - I no longer have anxiety, my PTSD is not in a active status & also for the first time in years, I'm actually able to sleep for more than three hours at a time. It's giving me my life back.
  - Relief from back pain i can get out and walk
  - Relief from chronic pain
    - Relaxes tight muscles
    - Better range of motion

All the benefits provide relief from the stress and anxiety of trying to live with chronic pain

- I am finally able to get a restful night of sleep ! Before cannabis, even with FIVE prescriptions to help, I woke up every 1-1/2 hours from stabbing or aching pain - was therefore unrested and tired every morning. With cannabis I get restful sleep EVERY night and have cut from 5 to one additional prescription for pain/anxiety/insomnia (& side effects of prescriptions).
- Pain in my brain has gone from a 8-10 down to a 4-5 or 5-6 most of the time my flare ups are greatly reduced with Medication. Irritable bowel syndrome has stopped no more diarrhea. I stop all my old sleep meds because Medical cannabis works wonders for sleep also.
- -Less pain  
-significantly higher quality of life
- Pain relief. Relaxation. Alert
- decrease in pain during a Cluster headache,
- More relief for fast onset pain than with opiates.  
Less GI side effects.  
Better sleep.
- Less pain  
Able to actually eat food  
Better sleep
- Pain relief without the awful side effects of narcotic pain killers. I have been able to sleep so much better since starting my medical marijuana prescription.
- Pain reduction, major decrease in depression, increased appetite, increased libido & I am more mobile.
- Off all other [MEDICATIONS]. pain is under control.
- fewer migraine headaches
- Pain relief  
Muscle relaxation  
Reduction in joint swelling  
Eases my social anxiety, due to my disability.
- 1. Less pain. 2. Less stress. 3. reduction in anxiety. 4. Overall sense of well being.
- Decrease in pain and anxiety
- Reduction in migraine occurrence and severity, improved sleep, less overall muscle aching and cramping, pain relief from arthritic joints, reduction in GI reflux which also aids sleep.
- I have been able to go off all of my epilepsy medication and medication I was taking for my chronic pain and nerve pain with the exception of the Percocet I am being decreased off of it.
- I am able to function. Before i started medical cannabis i was bed ridden. I was extremely depressed and anxious and both have been under control. I can do the things I enjoy!!

- I can take care of myself without being in severe pain
- Pain relief that I could not get from other prescribed and over the counter medications. Being able to sleep through the night.
- My nerve pain is greatly reduced, I don't worry nearly as much. The cost is so high, I find myself experiencing pain, and not using it to conserve, due to costs. This drug has virtuliy no side effects, and it can't kill you, why you don't open it up to more medical conditions, to bring costs down, my zero sense.
- I do not need to take narcotics on a daily basis for pain anymore, only for acute times which is rarely. My muscle spasms are less, I sleep better, my nasuea is reduced, my anxiety and depression is much better and I do not need meds for that either, cannibis has allowed me to go off of 5 different meds that had horrible side effects.
- I have 5 conditions that I am approved under the MN Cannabis program.  
All 5 have been helped.  
When I travel out of state all my symptoms return.  
We need a program that offers reciprocity between states.  
Regards Ben
- reduction in pain and inflammation, reduction in muscle tension. less muscle spasms
- Much less pain, controls my panic resulting from the pain, I can walk, swim, do my farm chores.
- Almost all pain is gone  
I feel more relaxed  
I function better during the day  
improved sex
- Help with my pain in my joints my feet my hands ankle
- 80%relief in pain & overall sick feeling  
Little to no nausea  
Wounds healing faster then ever
- Pain,spsasems,consapation!! Sleepç opiate amounts loaded ,still feel OK.thats great.i also don't feel driver or high! I really need a dr.that will let me do both to lower the call [PHONE NUMBER]!!
- Better quality of life  
Muscle relaxation  
Easy sleep  
Better mood
- pain management and suppression of cluster and migraine headaches
- Sleep 6 hr w/o waking  
NSoftens chronic pain  
Lessens anxiety  
Cut opoid use.. Percocet 10/325 ... from 6 per day to 3
- It has helped me cope with intense acute pain from self-massage therapy to deal with chronic pain. It has helped me sleep much better.

- Being able to work with a qualified pharmacist who offers guidance toward my most effective dosage has enhanced my ability to manage my chronic pain levels. Increased ease to perform personal care, home management, water exercise, family and social activities. By incorporating rest breaks, as needed, and knowing my limits, prevent me from exacerbating my symptoms, both physically and mentally, to include widespread chronic pain and fatigue.  
I have lost 28 lbs. since Jan. 3 by adopting a healthy diet and increased activity tolerance.  
My doctor took me off my low dosage of blood pressure medication and cut my cholesterol med in half to 20 mg, both due to the improved results of my last metabolic work up. She will be rechecking this in mid May.
- Health has improved and I have broke away from death so far
- reduction of chronic back and joint pain  
reduction of muscle spasms  
reduction of insomnia incidents  
I have been able to stop taking ALL of the prescription narcotics I had been prescribed for chronic pain.
- I would use it more if didn't cost so much but it works and I will keep using it
- i experience less pain - my appetite has greatly improved - and i sleep for longer periods of time at night
- Cannabis is relieving most of my symptoms from:
  - 1 - fibromyalgia
  - 2 - muscle tightness / cramps
  - 3 - back pain
  - 4 - depression
  - 5 - insomnia
- helps my headaches  
helps with the pain
- less pain on a daily basis, reduction of pain medications, better qol
- 1) Effective pain relief with fewer opiates (would do strictly Cannabis if it was more affordable). 2)MUCH better sleep. 3)Much better appetite.
- I can sit and stand longer. I can sleep without pain.
- Pain free  
Zero and I mean zero opiates
- Relief of my arthritic pain, neck fusion pain, back pain,realy helping with weight lose.
- very reduced neurological pain  
somewhat reduced spasticity pain  
better sleep with reduced urine leakage  
reduced depression  
reduced falling
- The bottom of my feet use to be rigid with arch cramping/tightness, this eased GREATLY the very first day I used the [HIGH THC PRODUCT]. :) I hate taking pills, so I didn't use to

take anything for my pain..Heather vapes work wonders! ALSO, I have reduced my tizanadine dosage by 1/2 Yay!

- I am able to sleep without waking up 5 times a night, only get up 1 time a night now. I am for the most part pain free when I have the cannabis available to me otherwise I struggle quite a bit with pain all over.
- Eases pain & helps me sleep longer
- Great improvement. Better sleep, less pain.
- Able to control pain without opioids
- Pain relief and significantly reduced muscle spasms
- pain relief piece of mind
- Greatly reduced pain, no more opioids, mood is better
- reduced pain symptoms, my sleep is much more restful that has been a constant struggle since suffering debilitating back injury 15 yrs ago.
- tremendous help with fibromyalgia and sleeping
- Considerably less pain  
More alertness or not feeling tired and groggy
- Able to stay out of bed and get more done during the day. Able to set out and accomplish goals. Can count on relief when in extreme pain. Less anxiety and depression. Sleeping better.
- 1. Stops shaking on right side of body that I have had for 20 years.  
2. Focus on task at hand is significantly better.  
3. Chronic pain for last 20 years since 1st stroke has overnite reduced to a livable level since August 2nd when I was 1st prescribed medical cannibus. I have not been able to take any medication for pain because of an instant serious reaction. In 2015 A DNA swab was taken from me & one of the results was a high resistance to any drugs.  
4. My family is grateful to not see their mom in so much pain.  
5. Anxiety/depression brought on by the after effects of 2 strokes has significantly reduced.  
Thank you.
- significantly less back spasms
- i suffer from cluster headaches ...and get them a lot....but since i started treatments with [MANUFACTURER].....i have had a substantial decrease in them.....along with my back spasms...
- I have fibromyalgia. I lived my life in constant pain my daily pain on an average was an 8. I started taking medical cannabis in August. I now have a daily pain average between 2 and 3.  
After 2 weeks of cannabis I cooked my first meal in 15 years.  
My husband was doing all of the cooking and housework I am now able to help with it.
- I am now able to get sleep - good sound sleep.
- Less pain  
Less anxiety

- The best way I can explain it is that I always feel like the tin man in the wizard of oz all locked up and stiff and unable to move since I've begun taking medical cannabis I feel like my joints are lubricated and the tin man FINALLY got his oil can :) it doesn't kill my pain completely but I don't think there is anything other than an epidural that could truthfully but it does make it tolerable n I have been able to take significantly less of my tramadol to function it has also made a huge difference as far as eating and digestion since I have persisting ulcers in my stomach and small intestine so food literally hurts me and I'm hoping that the cannabinoids do in fact slow the degeneration of my osteoarthritis I could go on and on and on expressing my gratitude for such a miraculous natural n effective medicine but u've other surveys to go threw ill just say this being a women wt as many physical issues as I have coupled with the list of drug allergies I have I am forever grateful for medical marijuana
- It's the ONLY thing that has made a significant reduction in my migraines. I am also able to sleep better, which makes a difference in my levels of pain.
- Back pain is more tolerable I can enjoy walks and pick up my daughter (weighing at 32pounds) with less strain. I sleep amazingly throughout the night with a good 6-8 hours. I've started to gain my appetite back. I can also stretch again without pausing.
- Pain relief associated with my chronic migraines. Also, taking the medical cannabis reduces, and alleviates nausea.
- Reduction of pain and muscle spasms, decreased anxiety, better sleep
- She is calm and hungry. She was screaming and waking up in pain. its like night and day. i am shocked. we are only on day 1 and we can see a differnce.
- I have been able to almost completely stop taking the narcotic pain medicine that I have had to be on for the last several years.  
I am able to participate in social activities again without feeling drugged all the time. Prescription pain medications had many negative side effects which the cannabis does not have for me.
- Since taking medical cannabis, i have been able to become a wife and mother again. Before i havent been able to walk well, eat, cook or do things a wife and mother should do. I am disabled and am in a lot of pain all the time. This has helped me relax, not have much anxiety, helped rid of the pain and also helps me to be able to stand and cook in my kitchen for a long period of time and be a mother again.
- Pain relief  
Tension relief  
Good sleep
- Pain relief, muscle spasms have decreased.
- Pain relief! The vaporizer pen gives relief in a short time span this is great. Calming when my pain levels are elevated and I get anxious when my body can't do what I want. THC and the CBD oil is so expensive but it works well when taken on a consistent basis, the pain and sensitivity in my tissues is lessened and I feel less pain in my digestive system. It has allowed me to get my pain to a lower level and given me more days on average to actually leave my house as an example where I would otherwise stay home, as well as

allowing me to accomplish normal daily tasks, such as personal hygiene and some food preparations.

- Pain in my hands and feet are tolerable . Able to fall asleep faster as a result.
- Relief of neuropathy pain  
Relief of chronic pain
- Too many benefits to list, but the biggest one for me is being able to get off opiates and all of the other medicines I take for the side effects to opiates. I was taking 8 medications when I started medical cannabis and when I can afford my full dose (of cannabis), there are only 3 prescription medications I need to take.
- relieves neck and back pain and inflammation
- Pain relief allowing me to seriously cut back on narcotic use.  
Better sleep.  
Stress relief from chronic pain.
- pain relief
- Life  
Pain  
Sleep  
Pleasure
- pain relief  
abdominal spasm relief
- It's reduced my pain greatly
- pain relief joint swelling gone down
- Reduced pain, reduced side effects as coated to synthetic narcotic medication, increased mobility, increased function,
- Reduced pain, can do daily chores without having to stop, increase of quality of life.
- Better nerve pain relief.that I had over all morphine and methadone. I had taken large amounts of pain killers for over twenty years. Now seldom do I need to add a break thru painmedication .
- Better muscle relaxer than the medications doctors prescribed for my muscle cramping pain  
It's helped with my lower back pain and doesn't have the side effects like narcotics  
Helping me sleep better
- Reduced pain, spending time with family and getting to critical doctors appointments more consistently, reduced nausea and vomiting, reduced muscle tension, anxiety from pain and not knowing if I can take care of my daughter due to pain etc.
- better, safer pain management  
increased appetite  
less spasms  
less anxiety
- Walking upright at the same pace as my kids!¿ It's helped with both the pain and actual spasms in my neck and shoulder... It's helped with my frustration and has (when I get

the dosing and timing right) helped me to have clarity in thinking rather than my brain be a jumbled mess.

- It really gives my back pain a lot of relief and it's nice cause it lasts for like 5 hours. And it also helps with my anxiety, I have really bad anxiety and when I take my cannabis my anxiety goes down a lot. I love it.
- No more back spazim, joint pain is tolerable
- Less pain, less anxiety, less depression, more of an appetite. No side effects/withdrawal at all if I do not have the money to get my medicine.
- Has enabled me to cut down on my sleep meds by 75% and pain meds by 50%.
- Less pain, sleeping better,
- Off one of my medications
- Pain Relief  
Opiate Withdrawal  
Anxiety  
Nerve Pain  
Sleep  
Quality of Life
- calms me down ,,stops nervousness, racing thought and fatigue.help me focus,,
- Less pain, less cramping, not as depressed.
- reduction of severe crippling pain
- Relief of pain, inflammation, muscle spasms, nausea, muscle/nerve twitching.
- Medical cannabis helps me significantly with the intractable pain in my ankles (previous cartilaginous fractures and multiple ligament ruptures in both ankles). It helps me with my allergies/angioedema and bronchitis (particularly oral oil and vaporizer oil). Moreover, medical cannabis does help me with anxiety.
- 1)My anxiety has decreased greatly  
2)decreased muscle spasms a small amount
- Pain, Nausea, Appetite, Sleep, Neurological Symptoms (shaking/trembling)...
- My intraocular pressure dropped from 26 to 17. I have a a significant drop in muscle spasms and pain. My moods are also more even.
- Less overall pain in effected areas.  
Less spasms  
It also seems that some new nerve functions are coming back online in previously inactive tissues.
- My feet have been numb for 5 years and I can feel them again at times. The swelling has gone down in my feet. My numb leg I can feel at times. My muscle spasms in my butt have almost disappeared.
- I'm able to go about my daily tasks much easier, help with mood and depression issues, stomach feels better not as much nausea, able to sleep through the night and not feel hungover in the morning,
- After serving in the Marines from 2005-2009 my body has many ailments(athritis, IBS, Pinch nerve, fused disk, and others) and my ptsd was not always easy to handle. This



program helps me a great deal in living a normal life that is comfortable and being able to continue my professional career. Before Medical Marijuana I was miss work too often and also miss out on life's daily joys now I can do much more.

- i experience less pain, i am able to sleep through the night again. I can move better, i am not as stiff.
- Too many to list
- More flexible. Able to recover quicker. Ability to work improved dramatically.
- For many months before starting to use cannabis, I hope before bed I wouldn't wake. Now, I generally wake before my alarm and look forward to starting my day.
- Pain is starting to become more manageable / u still feel the pain it's raw feeling ""BUT"" cannibis helps over time, it dose not num the pain completely that you over exert your injury/issue. You just know that this is your limit and if you exert anymore and your pain will be out of control.

Muscle spasms have stopped :)

Inflammation markers (lab test, crp ana, sed rate exc...)are starting to decrease :) my inflammation markers have been on a steady incline for the last few years and now finally with cannibis my inflammation is decreasing!!! This is a nice feeling decreased stiffness in the joints :)

My family says i am less crabby :)

I'm not tired feeling, I wake up refreshed :)

- Pain relief.
- Much less pain, less insomnia, less nausea
- I've been able to reduce the amount of medications I need to take.
- Greatly reduced pain
  - Reduced tachycardia
  - Improvement of mood- previously had severe depression and no longer consider myself depressed clinically
  - Reduction in chronic nausea
  - Reduction in vomiting
  - Reduction in digestive pain
  - Reduction in diarrhea
  - Reduction in constipation
  - Elimination of opiate use for pain
  - Menstrual cycle regulation- have had severe, debilitating uterine cramps, extremely heavy bleeding with large clots since beginning of menses at age 11. Since starting on the CBD tincture, the last 3 cycles have been cramp and clot free, with lighter bleeding. My cycles are also every 30 days now instead of varying from 20-60 days.
  - Increased sex drive
  - Less pain, more and better sleep, all out happier person, enjoying life again, just wish it was more like Colorado because the medicine isn't as good and way to expensive.

- 1. Used to be on oxycontin 80 mg BID extended release. Now has gotten off 40 mg in AM, working on getting rid of 40 mg at night.
- 2. Not near as tired as I used to be
- Calming pain caused by Polycythemia Vera such as extreme itching and intestinal pain etc. General calming of nervous system. Reduction in the frequency of the need for anti-histamine. Sleeping better as a result.
- Sleeping much better, getting to sleep and staying asleep. Muscles are a little more relaxed and it's less pain when trying to stretch them. My overall pain has decreased
- Pain relief, stops spasms, improve appetite, improved sleep and better sexual function.
- Reduced pain and sharpness of pain. Able to get a little sleep. Moods aren't so negative
- Reduced pain, reduced opioid reliance, sleep improvement
- Off RX medication - all of them including opiates  
Feeling normal for once again and not feeling like I am ready to jump out of my skin due to the amount of constant pain  
no swelling  
Didn't know this would happen but weight loss without trying
- Less pain, better sleep, muscles more relaxed
- My chronic back pain is still present, but much more manageable. I was extremely doubtful when I started on cannabis, but it has changed my life. I allowed narcotics to overtake my life and never felt the relief that cannabis provides. I even ended up in the emergency room with hyperalgesia because the narcotics ruined the creation of natural pain killers. I am grateful to have found this.
- I am extremely grateful for the pain relief. I have suffered with chronic pain and spasms for years and nothing else has relieved my pain like this
- -I can move around more freely without feeling like I'm falling apart  
-I actually feel alive for once in my life  
-I can't even notice my pain anymore  
-I feel happier, clarity in thought  
-I'm more aware of my surroundings
- same pain relief as opioids with no side effects
- Not having to take as many pain pills as I used to have to take. Helps me maintain my pain so I can do a few things (physical things).
- Less anxiety and depression, better sleep, pain management, muscle spasms, appetite
- Reduced pain, no narcotic use.
- no pain no puking no feeling like death is the answer increased activity 8to12hours from less than 1hour in increased pain with any and all opiates prescribed
- joint pain reduction. eliminates my headaches. need to reduce costs. can't afford what I need.
- Pain relief
- Pain reduction

- Pain Relief
  - Anxiety Relief
  - No Disturbing Side Effects
- pain relief sleep
- I've been able to stop taking 8 prescription medications since I've started medical cannabis. I am sleeping better because my pain is better controlled. My anxiety has decreased as a result of better pain control
- 1. reduced pain
  - 2. less nausea
  - 3. less depression & anxiety
  - 4. better quality sleep / less insomnia
  - 5. muscles more relaxed
  - 6. better focus
- I can do the following more often and longer than before I started back in Aug. 2016.
  - I can stand longer
  - I can sit longer
  - I can walk a bit longer
  - My recovery time from over doing things is faster
- pain control
  - appetite stimulation
  - sleep better at night
- I have had great relief from my fibromyalgia pain. It has allowed me to live my life more fully. To me this is a miracle.
- The pain is reduced to a point that I can rest at night.
- My quality of life is better.
  - I'm able to do more things.
  - I wake up with no pain.
- Less nausea
  - Less anxiety
- ability to get pain relief, from muscle spasms in my back and legs
- Help with pain and focus on things better.
- My daily pain level has decreased significantly. Evening dosage of [HIGH THC PRODUCT] Oral Suspension has helped tremendously for sleep.
- Pain relief
- My pain had been brutal for quite awhile. The Medical Cannabis has changed my life! There is so much relief from the pain it's amazing! Nothing worked before. I took narcotics for awhile but the side effects (and the fear of abuse) made me need to stop those meds. My doctor recommended the Medical Cannabis, and thank you Dr. LaFond!
- Pain Relief, Sleep, increased appetite, gets rid of nausea immediately, over all I can exercise and do things to help me live longer/live a regular life.
- Reduced pain and spasms, better sleep
- Pain relief...also great for my anxiety, nausea & insomnia

- Less depression, more motivation, less noticeable pain, improved mood, less digestive issues
- When using the [HIGH THC PRODUCT] vapor in addition to my meds it gives me additional pain relief. When using the [VERY HIGH THC PRODUCT] vapor when the pain is most severe I am able to sleep until pain lessens.
- Decreased the pain from Trigeminal Neuralgia.
- It has allowed me to function much more easily during the day and greatly reduce the amount of medication I am taking from my health provider.
- pain relief, off of all other medications
- I have not had to take some of my more dangerous medications such as prednisone or pain medication
- Playing with my granddaughter  
going out with my wife  
good nights rest  
less anxiety
- 1) Restorative & uninterrupted sleep from the first night - muscle spasms even with Rx medications were relentless. I now sleep every night w/o spasm.  
2) Significant reduction in opioid Rx  
3) Daily activity level has boosted significantly.  
4) Depression symptoms also lessened.  
5) Chronic pain is more tolerable
- Pain relief  
Improved sleep  
Less stiffness and fatigue
- 1. Vision, less eye irritation  
Less headaches associated with my vision difficulties
- solves insomnia and restless sleep  
sleeping better and longer
- my back pain is manageable and my spasms have stopped once I use the medication. I have also found that I sleep better at night and my agitation has stabilized. I seem to be getting along with this medication and it has given me absolutely no problems, but rather benefits. I am also doing very well in school now that I can focus on the capstone courses that I am taking at [COLLEGE] instead of having to shift and turn and be constantly bothered by my pain and spasms.
- taking less pain meds anxiety meds.
- Pain relief  
Less anxiety  
Help with PTSD  
Help with sleep
- Reduction of methadone, percocet, muscle relaxers and klonopin.
- Sleep better, less anxiety, have gone off 2-3 meds, works for pain MUCH better plus I'm able to manage pain easier with having flexibility on dosage.

- No headaches or migraines
- Overall greatly reduced joint pain, all over muscle tension and spasm(s) have been reduced (re: EDS and coccydynia), IBS issues seem to be practically eliminated totally when using daily, lessened amount of headaches experienced and lowered any migraine intensity, complete reduction of transient/frequent nausea issue, regular increase in frequently lacking appetite sometimes associated with nausea, lessened the significant amount of nighttime awakenings during my sleep (re: Night Eating Syndrome/Sleep-Related Eating Disorder), and also seems to be for me somewhat energizing for during the day hours and simply relaxing during the evening hours. Highly recommend.
- I was able to stop taking all opioids and only use cannabis for pain relief. I no longer need to take Zofran daily for nausea as cannabis helps ease my nausea. My anxiety is controlled without having to use a benzodiazepine. My quality of sleep is better; I sleep a solid 8-9 hours per night uninterrupted.
- Being able to function at my highest possible level for my age explanation mark
- Finally able to sleep. Less muscle pain in neck back arms legs
- I've been able to discontinued multiple medications including my narcotic pain pills and my anxiety medications.
- Helps me sleep, helps the pain in my feet, helps my headaches, helps my mood
- Has taken my intense pain away when I get it.  
This helps me to not have severe fainting spells.
- Off all other meds, can participate in a normal life without pain/side effects from all the othe prescriptions
- Significant temporary relief of pain and movement in all extremities and alters depressive mood and restores hope for the future.
- \*less physical pain
  - \* Morning nausea and difficulty eating due to nausea improved
  - \* Better sleep and less sleepwalking
  - \* Less anxiety and nervousness
- It helps the pain I have ion my back
- I have a higher quality of life. I used to be very down and in pain most of the day. Cannabis makes my day possible to enjoy with my family.
- I have less pain when I use the medication.  
I can concentrate better when I use the medication.  
I have less anxiety when I use the medication.
- Helps relax me .. which helps with the stress of being in pain!!!which I am in today!?
- It does relieve more of the pain than the narcotics did. However due to limited income (disability only) I haven't been able to buy the cannabis. I Wish there was a funding foundation those of us that can't afford it. Instead I have to resort back to the narcotics prescribed cuz I only pay 2.65 co-pay. If you find a way to help with the cost of the medical cannabis Please let Me Know.  
Thank You for your time

- Instant pain relief  
Restful night of sleep
- Reduced hernia pain  
Reduced arthritis pain  
Reduced migraines  
Reduced depression feelings and symptoms of PTSD when able to afford taking my dose BID  
I had reduced at home the amount due to cost and was in significant enough pain that I had to use opiate and barbiturates medication that I do NOT want to take due to side effects and risks.  
The medical cannabis program, when I can fill and use regularly, work much better and without the hazing feeling.
- pain relief  
I can take medicine that helps me without being a criminal
- Less ""white knuckled"" dealing with pain.  
Less anxiety about how I'm going to keep going, more of a sense that ""I can do this!"
- 1. Pain relief/management  
2. Able to sleep through the night
- My lower back pain is tolerable instead of debilitating. I also do not experience pain as much from grinding my teeth at night, causing my TBH pain to flare-up.
- I Have No Inflammation When I Have My Oils.
- 1.a P A I N R E L I E F of types: Burning, Sharp, Tender, Stabbing, Aching, Throbbing, Numbing, Continuous  
1.b Sleep is greatly improved  
2. Replaced prescriptions: methadone, hydrocodone, oxycodone, tramadol, pregabalin, gabapentin, simvastatin, colestipol, nexium, zolpidem, tylenol, slo niacin, aspirin in large quantities  
3. Medtronic spinal cord pain stimulator: using FAR less often. Usage went from daily to once every two weeks - as needed for activity level. Electrical/stimulation levels had been typically set at 8 but is now down to 2.5 the rare times I do need to use it.  
4. Eyesight improvement: one eye had cataract surgery & no longer needs salt drops to reduce pressure, other eye also has improved vision.  
5. Constipation from multiple prescriptions has been eliminated!!  
6. Losing weight (positive result) due to lowered, healthier appetite. BMI reduced. Cholesterol reduced.  
7. Skin cysts and psoriasis healing more quickly with topically applied 50/50 CBD/THC liquid from [CANNABIS PATIENT CENTER]. [CLINIC SYSTEM] dermatologist-prescribed skin creams have had less positive effect.  
8. Myofascial release and other forms of massage were attempted for decades with various practitioners. The pain reduction was slight in comparison to cannabis.  
9. Chiropractor visits have been cut in half. Was going weekly, now down to bi-weekly.  
10. Acupuncture - have spent \$ thousands in search of pain relief. No longer need to

drive 180 miles round trip for weekly treatments.

11. Posture is greatly improved: less frequently stoop when walking which is my body's reaction to pain in my hands, feet, legs, hips, low back, upper back, shoulder joints, and neck.
  12. Leg swelling has been reduced; much less often have need for compression socks. Had been wearing them 24/7.
  13. Able to attend social functions more frequently; able to stay longer due to greatly lessened pain. I am not very social but at least this allows me to show up & not be a complete hermit.
  14. Pain Classes at [HOSPITAL] no longer required since I quit opiates the FIRST DAY I STARTED CANNABIS. Classes are required every three months (for those on opiates) in [CITY] - 180 miles round trip. Blood tests were also required to demonstrate levels of opiate usage. This lessens my exposure to needles.
  15. Improved balance
  16. Acid reflux greatly improved
  17. Lung congestion reduced
  18. Increased mobility so able to be more productive.
  19. Fewer doctor visits
  20. Able to hold one position longer with less discomfort
- Ability to sleep through the night without pain, ability to manage pain and anxiety during the day while still being able to drive and manage day-to-day tasks. lessened pain response overall, less anxiety when pain flares up occur,
  - consistent significant reduction of pain to a more manageable level  
improved sleep duration staying asleep  
improved appetite  
improving digestion of foods i can eat  
improving mast cell activation disorder....stabilizing  
improving breath and breathing  
decreased muscle pain  
decreased joint pain  
improving mobility  
improving cognition  
decrease anxiety  
beginning to do more activities like vacuum change bed laundry without severe fatigue
  - better control of my pain and over all health benefits with being able to quit taking 530 some od pills a month to manage my pain that were also killing me in the process
  - It calms me so im not so yense and relieves some of the pain.
  - Better wellbeing a positive attitude I also don't need any other medicine
  - Off opioids, muscle relaxers, anti depressants, anti anxiety meds.  
Big Decrease of migraines.
  - Less pain killers

- Helps tremendously with my cornic back pain that I've had to deal with since I was 12 years old. Helps my anxiety, as well as my sleep too. I have a very hard time falling asleep and haven't had to take any of my prescribed sleep meds anymore.
- Distraction from pain  
Calming effects at time
- Reduced stress levels, better sleep, reduced pain.
- Pain relief from my back but most importantly it also helps my ptsd symptoms tremendously!
- I find it beneficial in regards to the pain. And it's very important to me because it helps me continue my day to day life but the cost is high is there a punch card for frequency or something we can do to help with the cost a little. Thank you so much.
- I have been able to discontinue the use of 60mg of morphine and 15-20mg of oxycodone per day. I'm a different person, much happier (even my granddaughter noticed the change)!
- When I can afford to take it regularly I don't have to take any of my Ibuprofen or muscle relaxers. I don't have the terrible stomach aches that I get from the Ibuprofen. It really does help reduce the paint level.
- - My prostate problems are completely under control and gone.  
-Has really improved all of my joint problems.  
- I am sleeping way better and not waking up, Wich has led to me being able to go from 8-9 hours of sleep a night to 6 hours and having more
- Pain  
Spasms  
Sleep better ""so good"" no more headaches
- Severe Pain of all joints and also pain in spine
- I can do more things, don't have to eat every time with this medicine, just more freedom to be with my family and be confident with what I need to do for the day.
- My headaches are almost completely gone when I use it
- It's aloud me to move again. Just normal cooking and laundry. I has also decreased my migraines. I still have some pain but nothing like before. I feel like I'm starting to get my life back.
- More mobility in neck and have completely taken pain meds off my med list
- much less pain, therefore greatly reduces need for opiate pain medication  
far less nausea, better sleep
- better pain control , less muscle spasms
- Pain relief, improved sleep, less cranky parent and wife
- I am finally able to sleep. My lymph edema in my lower legs has reduced 95%.
- eliminats almost all of my back pain, and makes it so i can get a full night sleep!!
- I was able to get off of all pain pills I was taking. Without medical marijuana I would be in to much pain to do anything. I can live my life again !
- Less dependence on opioid pain medicine and less dependence on Psychiatric medicine



- sleep  
pain relief
- no more narcotics. clearer thinking. less medicine. better hair!
- I'm in way less pain than I have been in years. It has allowed me to ween myself off of vicodine. I take 1 a day if I'm really having a bad day (pain wise). I am on so many pills that I am hoping to get off a lot more. The pain relief that I get from cannabis is so much better than the pills and I relax a lot more which is crucial. When I am tense that causes more pain. I have only been on this for a short time but it has made me so much happier. Thank you
- It works well for my flare ups but the soreness never go away
- Constant pain is reduced/removed  
Able to participate/do more  
Physical activity (work & play) is more successful
- I have chronic pain, since starting this program I have eliminated opiate pain relievers!
- Less pain less stiff muscles
- pain relief,
- Great reduction in anxiety & depression. Better sleep.
- Less pain, less anxiety, and can sleep much better.
- relive pain from diververticulitus,  
provide ability to eat by increasing appatite  
helps me sleep at night
- No longer on pharmaceutical drugs
- 1.Works great for my pain. 2. Dissipates anxiety. 3. Helps me go to sleep and sleep all night.
- more mobility,less pain by a lot. quality of life is greatly improved because i am in way less pain. i function way better with this med. a little costly but to me well worth it.
- Pain relief...stops spasm...lowers blood pressure..
- Relaxed state decreasing chronic neck pain
- pain relief lower buttox & ;ower back  
my walking is better
- 1. Pain relief  
2. Able to be up and walking and doing my household chores most of the day- very seldom did I ever have to lay down and take a break
- Sleep with no pain, tingling sensation in feet and hands, Charlie horses, and has helped my mood and sometimes pain.
- nausha, pain
- Less pain.
- My pain has pretty much stopped. The inflammation in my hip seems to be gone.
- Great sleep, feeling well rested without a hangover feeling next day. Great pain management. Great for my anxiety also
- sleeping during night  
Pain relief

- While it does eliminate the pain, it makes it more bearable
- reduction in pain
- Reduce my chemical pain killers needs  
Provide pain relief  
Reduce my alcohol consumption
- I am much more active!  
Sleeping much better.  
Positive attitude.
- Blocks most of my pain receptors, relaxes my muscles and calms my spasms, allows me to focus, relieves my anxiety and calms me.
- Less pain, better mobility
- My anxiety has lowered Then pain in my ankles have died down It would be better if I could afford a regular dose
- I was able to get off all the opiates!!!! MOST IMPORTANT  
I have a lot more interest in life  
My mind is clearer  
It enables me to relax and take care of pain in a more natural way.
- Was able to within a few days completely stop taking any narcotic medication that I've been on for the last 5 years. It is also helped me greatly with some of my depression that comes along with my disability and giving me some ability to do things that used to hurt a little more comfortable to do.
- 1. Less pain - to temporary No pain  
2. Able to get a good nights sleep so I can heal
- Able to function  
Much better mood and positive attitude  
It's wonderful not being on Vicodin anymore.
- Stops pounding during migraines.  
Reduced migraines. Reduced arthritis pain.  
No longer on Ativan or Celebrex. Sleep is better.
- This has changed my life. When I used to get an episode I would be stuck at home laying in bed. Now I have something to manage my symptoms and I feel in control of my life again. Management of pain is so much easier with medical cannabis in my life.
- I was able to go off my monthly medication I have to take the rest of my life. I feel better, more energy, controls my pain and I haven't missed any work since I started using the cannabis.
- reduced pain and discomfort  
clear thinking  
better sleep  
all around happier  
more productive day to day  
better appetite  
no longer have to make myself eat everyday

- As a result, I have reduced my intake of oxycodone medication.
- Pain relief and ability to sleep well .
- I was able to get off Oxycodone without severe withdrawals.
- Helps with appetite and pain relief.
- I have had great results with pain control. My low back right leg symptoms are lessened and i am able to do more physical exercise. Cant believe how much it has helped with the pain.
- Tolerate my pain much better!!!!
- Reduces Pain, Manages Nausea, Enables reduction of other medicines
- I was able to quit other pain medications that have side effects like Vicodin and muscle relaxers. I also am in a better mood. And have better mobility;
- Sleep  
Digestion  
Reduce pain by 50%+
- My pain has been under much better control with very little breakthrough pain and a significant reduction in the use of otc pain medication
- Numbed chronic pain, able to sleep at night with chronic pain, relaxed, positive energy to start the day, works throug the day to be able to do what I need to do during the day, does not keep me up at night and allows me to sleep through the night with chronic pain.
- I have more control over my pain
- Less pain, able to do more, less crabby, better sleep
- no headaches can sleep better,
- Pain reduction  
A wonderful learning experience
- Reduced pain and not dependent on prescription pain meds.
- My nausea is gone and it manages my pain with out the very harsh side effects of hard pain killers and my sleep has improved greatly
- Pain relief. Control inflammation, Settle sleep patterns. Positive mood modifier.
- Relevies the pressure of the migraine, relaxes me from the tension of the stress of the mirgaine.
- I have CRPS and it helps me sleep
- In taking medical cannabis I am off fentanyl 50mg, gabapentin 800mg, baclofen 10mg, movantic and diapers
- Pain is almost non existent. I haven't taken my colitis meds for several weeks and the colitis is soooo much better, this is something I didn't expect, but I am very very happy that this happened.
- Pain is relieved much quicker and i have to take less pharmaceutical medications.
- - Anxiety Relief  
- Pain Relief  
- Insomnia Control  
- Appetite Control

- helped transition from opioids; helps with anxiety and panic; helps me focus on where the "problem" is and what it is
- Help less the pain and muscle spasms some
- I have has less pain at night so I have been able to sleep better. When I have had a bad exposure due to my chemical sensitivities, it has helped.
- Able to calm down and sleep. Helps when my pain is at its highest.
- Lessened pain
  - Life quality
  - Attitude
  - Weight loss- water weight gain from opiates has been eliminated
  - Overall health
- I have stopped taking 8 different prescriptions, and If I could afford to take the proper amount of cannabis, possibly could get off some more.
- It has allowed me to reduce the amount of pain medication I use - I survived two bone marrow transplants for cml leukemia which also allow me to reduce the amount of the three medications I need to go #2 - I feel it has allowed me to be more active - helps depression I felt good regarding the information and consultation I received - I have a new outlook for the future
- Everyday quality of life is much better. Tolerance for pain without taking opioids and less need for NSAIDS.
- I can sleep thru the night without pain in hips.
- Helps Pain ALOT, makes me able to have a huge positive change in my quality of life.
  - Helps a TON with nausea and appetite
  - Helps a TON with muscle spasms and anxiety
- instant pain relief
- Reduced pain
  - sleeping
    - all muscle cramps eating
    - mind is better, feel like a whole better person rather than when taking opiates, feel healthier
- No nausea helps me sleep makes me feel happy and uplifted
- Decrease in pain
  - Relaxes my muscles
  - Better quality of life
- Helps my neck and back muscles relax a lot.
  - It helps me walk more upright.
  - It distracts me from pain.
  - Helps me fall asleep easier.
- Time without a migraine is huge. I do sleep a little better as well.
- Pain Management, Better Sleep, appetite, productivity, energy, patience.
- Decreased my Anxiety. My muscled relax and allow me to feel less pain.

- I feel that my mental health issues have found a cure. I had no need to touch my prescribed as needed mental health meds while on medical cannabis. However, as far as my pain issues it does take the edge off and I have noticed again a decline in my use of prescribed pain medication. I would love see Minnesota take the Colorado stance. The amount I would need to sustain my medical needs is by far too expensive to maintain. So why be legal? If what I read is true Minnesota is the worst as far as helping us, who are in need of medical cannabis, making it unaffordable.
- Pain control, helps to relax
- 1) significantly reduced pain level  
2) significantly improved sleep
- I have my life back.
- Reduced pain, inflammation, anxiety. Better GI function.
- Less pain, no opiate risks, easy to take
- The benefits I have experienced are tremendous. They go beyond just the physical relief of symptoms. I in particular have muscle spasms, paresthesia, and other nerve issues as a result from Guillain Barre syndrome. The cannabis seems to negate much of the paresthesia and spasms. As a result from not feeling physically bad, my quality of life has substantially improved. I use the ecig method of titration and believe that this is ideal as it allows the dosage to be increased by such a minute amount that you can achieve the positive effects without getting a "high" or "stoned" feeling which is certainly not the case with pills such as Norco, hydrocodone, etc where the titration increases by hundreds of mg at a time.
- major pain relief
- Complete pain relief  
controls essential tremor  
better balance  
elevated mood
- It has reduced my back pain and overall pain significantly. I'm able to be more active and get more rest at night. Overall it has helped my quality of life.
- Pain relief sleeping and appetite all have been benefits from using it just cost a lot which makes it hard to have the amount I need to make it a month
- Immediate pain relief, lower anxiety, little to no depression, the will to get out of bed.
- pain relief  
I am able to get more accomplished  
life is more enjoyable when the pain is more controlled  
I use far fewer other pain meds  
I feel better
- Reduction in nausea and other Crohn's symptoms.  
Huge reduction in neck and shoulder pain related to degenerative disc disease.
- Pain relief.  
Insomnia relief.  
Anxiety relief.

- relaxing and a lot less pain
- Pain subsided, nausea gone
- pain relief

Quality of life. Before I started I was house bound, stayed in pjs all day

Medical Cannabis relaxes me. Before I started I was taking Xanax with debilitating side affects.

Helps me sleep. Before I started I couldn't sleep & now I am sleeping @ night.

# Contents

Appendix C: Patient Suggestions for Improving the Program ..... C-1

# Appendix C: Patient Suggestions for Improving the Program

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons.

- I would not recommend cannabis program to anyone because of cost and taste. I would rather buy edibles like Colorado has, very disappointed with Medical Cannabis through Minnesota
- Medical Cannabis was my last resort for relief of intractable back pain, but 4 different formulations have not helped, so am in a quandary about what to do next.
- The strains of medical cannabis I tried were higher in THC. I'm going to try it again with a strain that has almost no THC to see if that will help me.
- I haven't had the opportunity to used the Office of Medical Cannabis.
- Manager at [CANNABIS PATIENT CENTER] was helpful but I just got only negative results from the cannabis
- For those naive to cannabis and smoking it would be much more possible to use medical cannabis if there was a quick acting product besides vaping. It's also difficult to wonder if you are causing damage to your lungs by inhalants.
- Would like to see a lotion/cream option.
- I was very sure this would help me!
- Get the medicine that works- this cannabis is not addressing the pain and it's expensive.
- I get edibles mailed to me in Washington and I grow my own cannabis. I can't understand why Minnesota doesn't do what other states do. I was taking 180 oxy a month and I got tired of being tired all of the time and I know pot doesn't do any damage to your body. My doctor actually suggested trying it. I just wish in Minnesota you could get something other than oils. I want more effects without the high. I've given it time to work the narcotics out of my system and it doesn't help.
- I was a little surprised at the lack of guidance given when I picked up my supply. Such as being asked which medical cannabis I wanted and what form of delivery. I said I had never used it, and knew nothing about it but heard that some people took it and smoked it with a vaporizer and since I had problems with getting my lungs to expand fully I felt that would not be good for me. So I took the liquid form. I also was surprised that the referring doctor was not asked for suggestions regarding dosage, or even supplied the information (except by me).
- I am sorry that this treatment did not help me. I think it could be helpful to some people.
- I do believe that medical cannabis is helpful to many and should be maintained or even expanded. It just wasn't helpful for my problems.



- I recently sprained my right ankle & fractured my foot in 3 places. Unfortunately I won't be driving for several weeks & won't be able to visit the pharmacy in the next few weeks. However, I will contact the pharmacist & come up with a plan for trying my medical cannabis again.
- I wish, I would get a sample before applying. Spent so much money for something that didn't help me but made me sick!!!! Doctor appointment cost, license cost, the cost of medications....
- I had high hopes that the program would work for me but it didn't to this point. I wish I could communicate with you over the phone or by mail instead of by the computer.
- We need dabs & edibles
- Yes, it would be really helpful if the state of Minnesota could provide specific strains of marijuana that cater to the patients needs. i believe marijuana could be an effective means of treating my very significant neuropathy due to my spinal cord injury I suffered in an elective spinal surgery 22-years ago. This pain has required me to use significant narcotics that have caused significant Opioid Induced Constipation. I believe the ability to choose from different strains more suitable to my bodies brain chemistry would likely cut my narcotics use by at least 50% if not remove my need for narcotics entirely, which would be a much safer alternative to what I currently need to live. Not to mention I just had to have surgery on my gastrointestinal system due to 22-years of massive constipation as a consequence to the narcotics use. Parts of my intestines and colon had collapsed on itself and required repair.
- What do I do with this \$135 product that I cannot use
- I wish that the cannabis would hae worked better for my husband
- Where can I get info about EVERYTHING I don't know anything about alternate methods for results- and I don't think they care around here. Please give me something to hope for- thanks
- Patient passed away.
- Cost is of great concern.  
Even if it worked for me it would still be a hardship.  
I'm not happy at ALL with having to pay the State \$200 a year for what?  
The privilege of being in the program? If it was a one time payment I could see that. To make sure the patient was serious but every year is excessive.
- Cost to come down- every time they try the next level or etc- cost goes up! Can't afford it!!
- When are you going to get cannabis working for the pain?
- As a retired OB/GYN physician used to giving patients information with suggested reading to adi in their understanding of their conditions, etc.  
In the brief intake session at my first visit, I was quickly instructed as to the properties of the products available, with oral instructions as to how to take the cannabis preparations. Nothing written was given to me. I was told I did not ever need to return for follow-up. I left the office confused and unsure of my ability to use the product properly. I did call the [CANNABIS PATIENT CENTER] and was seen again once for help

with the use of the inhaler. Other phone calls were unhelpful. I experienced no relief from the cannabis, as I used it.

Suggestions:

More online information available to people prior to registration

Specific written information given along with the prescription including directions for administration of the different products, possible problems with each route of use, and side effects

Follow-up appts in 1-2 weeks or sooner if necessary.

Required follow-ups with physicians for patients with anxiety disorders

More materials for medical personnel who will need to follow-up patients, such that they may have adequate answers for them, and may also be a source of help.

- My concerns were exacerbated after my initial "consult" and review of the types of cannabis. No clue what the colors actually mean, and the fact that I was told I could "increase the dosage if you feel you need to..." is very concerning.
- Charge lower prices
- I have found +CBDHemp oil at the [STORE] and am trying that. Too soon to tell. Could the the reaction I had have been from the [HIGH THC PRODUCT] cream leaking all over my hands as I tried to remove it from the bottle with he syringe. The insert seemed to be cracked. Thank heaven for lemon zest and lemon juice!
- not going to take any more
- Just wondering how to get my husband listed a a caregiver. Thank you.
- Just not for me.
- would like some money back, it was suppose to work so wonderfully and it was not a good experience and way to expensive and im sure that wont happen. you need more experience with this medication to see WHAT IT DOES DO FOR HELPING PEOPLE, I FELT IT WAS OUR LAST RESORT AND WE DIDNT GET A THING OUT OF IT  
THANK YOU [NAME]-CARE GIVER  
THEY WERE SO SURE IT WOULD DO THE TRICK=FALSE HOPE
- I just wish not so expensive and they would give a small trial dose with less expensive of formulas to try to find if one works before people have to loose money.
- Just the fact that the lack of effectiveness and the cost I think they feel like they want you to try everything ( vapor, oil and liquid haven't help but can't get answers if some people are just immune to cannabis.. I think it's just disheartening that I haven't gotten any relief. Just me feeling disappointed..
- The [CANNABIS PATIENT CENTER] offered next to nothing in information or follow-up. The [CANNABIS PATIENT CENTER] was very professional and had excellent follow-up care via phone. Still, I did not find the side-effects worth the benefit.
- I wish they were open more than 2 days a week. Sometimes hard to get a hold of.
- I'm interested in finding a combination that doesn't make me lose balance.
- There need to be more options. It should be available for more medical conditions and should not be so restricted. It makes it a hardship because you have to pay for the full dose, which is expensive, and if it doesn't work, you are out the money and I am

reluctant to try the only other option available - which is the one my doctor recommended. It's too expensive - over 300 dollars a month and I am not able to pay 300 for something that I may not use. There should be samples available for patients to use until they find what dose and which option works best - you would have more people able to try it to see if it worked for them. If I could try samples and find out what worked best for me, I would continue using it, but I may not continue due to cost and concern about side effects.

- I just wonder if there is a topical cannabis or other forms that I could try to get benefit from this product.
- I've found it difficult to find someone to talk to about the negative side effects and what to do because no one knows. I realize this is because federal laws prohibit studies being done, so we don't know either the good or the bad, but I think it's time physicians/researchers be allowed to study the effects of medical cannabis because it is a viable choice for people who need relief from symptoms of some medical conditions.
- Please bring the price down for patients who are labeled disabled.
- Not yet; I need to attempt to continuing increase in amount and frequency of dose for awhile longer before I return to dispensary and arrange consult with my pharmacist.
- To be consistent in the information that is provided. I received different info. from my provider and then different info. from the Med. Cannabis site, pamphlets, instruction/info. from staff and pharmacist and finally what was printed on the container that the cannabis came in. It was very confusing and frustrating. There needs to be better continuity of info. The right hand needs to know what the left hand is saying across all of the platforms.
- More research and different products need to be offered
- I would like to see it available in other forms such as food, drops, etc
- let me grow my own plants. maybe that would bring the cost down.
- I had side effects from [MANUFACTURER]'s products. I voiced my concern to them via phone call (they called me for a follow up) and they didn't seem to care- in fact, I voiced my concern 2-3 weeks prior to the first meeting with the dept. of health (I believe it was in September when the first meeting was) and they lied and said no patients have had side effects during their presentation (there was ample amount of time for the gentleman I spoke with to relay the information to the higher ups at [MANUFACTURER]- he actually called [MANUFACTURER] to speak with the higher ups about another question I had regarding why they didn't have bulk prices and got back to me later that day- so why didn't he relay the allergy/reactions I had to their products?). When I brought up my concerns, the gentleman was not interested in listening and didn't offer to take any info on what happened. I am not the only one who had issues like this- there are a couple other people I've met in the [ADVOCACY GROUP]. I feel you should be aware of this since having allergies to their product is not just a one person problem. I, along with others who have had a reaction to their medicine, did not have problems in other states where it is legal. It is something [MANUFACTURER] is putting in their products. I have had relief when I visited Colorado a year or so ago with their products

and no allergy/reaction, which makes it clear it is something in [MANUFACTURER]'s products.

- I have not tried [MANUFACTURER] yet as I cannot justify the price of the medical cannabis- it is way too expensive compared to the rest of the nation. And what if I have an allergy/reaction to their products? It will be wasted money and when you are on a limited income, it's just not doable.
- Our program is a failure for the majority of us patients. My 86 year old grandmother would love to try the program instead of illegally purchasing hers on the black market but she would never be able to afford the current prices. She has problems with pain medicine due to side effects and likes to use cannabis as she does not have side effects. As long as the prices and product stay as is, I will not be participating in our program (I've spoken with many people who will not be returning to the program until changes happen). I hope the program will expand to where there are more delivery methods and manufacturers available (driving an hour to obtain medicine is not doable for those of us who are chronically ill). With these two changes, I believe the program would be on the road to success. Of course more changes would need to happen, but this would be a great start.

Another problem is lack of providers willing to register patients. My rheumatologist is retiring at the end of this year and she has somewhere around 20 patients who are participating in the program (maybe even more patients now). I spoke with her this past week and she is having a difficult, actually an impossible time, finding a provider who is willing to register her patients after she is retired. She works for [HEALTHCARE SYSTEM]. She's has been trying for months to find a provider and has come up with none because as she said "no one is willing to look outside the box to treat patients". This is very disturbing to hear. The question is, is it because providers believe medical cannabis is of no help to patients, or is because of workload, or something else? When I was working as a nurse for [HEALTHCARE SYSTEM], the providers had such a heavy patient load- I'm guessing it's they do not want to take on extra work. What is the solution to this problem? How can the MN department of health educate providers on the benefits of medical cannabis? How can we help providers think outside box and not overload them with extra work? Can we do what some other states are doing- having providers who certify medical cannabis only? If we had even 2 or 3 in the state who certify everyone, this would help solve the problem.

- The cost is prohibitive for us at this time. \$383 every 2 weeks is beyond the average persons reach. Let us know when the pill for becomes available.
- Cost  
She was offered the vaporized oil, which she did not want to do.  
She was uncomfortable using that option.  
She tried several dosages of the thc and also cbd, which did not work for her.

- There needs to be a reduction in cost, and with the yearly fee. I may not enroll for 2017 unless I can get a topical or get the symptoms of drowsiness under a better control. I do believe there needs to be more conditions approved soon. I believe overall it is a safe product to use, and is not habit forming. I wish more Doctors would certify themselves. They seem to think they are doing the dosing, when all they are doing is following the patient's symptoms. They need to be better educated. I am very thankful my Doctor is following me in this experience.
- Very friendly and professional staff. The [CANNABIS PATIENT CENTER] (the only one I have visited) is very nice -- the atmosphere, the privacy afforded to patients, discreet on-site parking and the ease of access to an ATM are all positive aspects for me.
- I would like to see a stronger availability of product and growers and a significant decrease in the cost of the product. \$400 to \$500 is to the point of cost prohibitive and long term not sure it will be affordable even if it is effective. The fact that it is out of pocket and so expensive and that I have to pay cash so I am carrying quite a bit of cash around with me, which I am also not comfortable with.
- Program was run well, just out of reach financially.
- I haven't used the Office of Med Cannabis, but think I'll try it. I would like to see more strains available to help with specific symptoms and also I've heard that edibles are a more beneficial method of ingesting cannabis.
- It seems like a weak medicine. I can tell it helps for sure, but not enough to justify the cost.
- I am getting low on my vapor pen. I am saving up the funds for after the holidays, to visit the lab and purchase the spray and try that this time.
- site should have links to info on how cannabis affects other meds. If the info even is knowing.
- It does help in some factors with dealing with pain and managing it it is just hard to follow office visits when Insurance cannot cover the cost
- Need more Education
- Question....If recreational marijuana is approved in state is the cost less expensive
- I believe you must have been hacked. Since I signed onto your registry, I've received spam from various cannabis-related advertisers, and I don't believe I had logged onto any other sites like yours, devoted to cannabis. I think it must be you.
- Before answering the whole survey it should only apply if you been able to use the product on a regular basis. Due to cost I only take it once at night.
- I appreciate the opportunity to use cannabis as an alternative treatment for my chronic pain. At this point, I have reduced my opioid dosage by 50%.
- I'm going to try the pill form next. If that doesn't work for my CRPS, I'm not planning to use MM anymore. It is WAY too expensive and I'm not getting the pain relief I wanted. The [VERY HIGH THC PRODUCT] vape oil (even with discount for SSDI) is more than \$330 per month, and I only get just over \$1,200 a month for SSDI. I am fortunate to have a working spouse.  
The vape causes a weird taste and feel in my mouth, plus a strong head buzz when I am

looking for a body buzz to help my feet and body pain. Hopefully, the pills will provide a different solution. I don't want to go back to full-time opiates but I may have no other option. I want to die. I should be able to legally end my life and collect my life insurance -- without the suicide clause kicking in -- no one should have to live in this much pain every minute of day.

I'll try the pills in January 2017 when I have some money. Who has any money in December? I just eat inadequate Dilaudid and suffer the worst pain known to science without respite. CRPS is the worst disease in the world and its ruined my life.

- Better access. Shipped to me.
- I use the [HIGH THC PRODUCT] oil vape prefilled.  
It is not strong enough to control the pain anymore than 50% so I have tried to [VERY HIGH THC PRODUCT] wax, way to difficult. I want to be able to buy the [VERY HIGH THC PRODUCT] in a oil form so I could buy the prefilled cartridge, please respond personally to me regarding this question, thank you very much
- I am very awestruck that the Doctors keep on trying to get this to everyone who needs it.
- Wish the price would go down.
- Wish it was stronger to help with my pain.
- I am struggling with what to take for my condtions
- I want to use the vapor but it is hard to get there.
- The rubber access /stoppers on bottles wear out too fast.
- I think it's a good option for some people, and anything that can benefit people in unexcessarily high amounts of pain should be available.
- Glad we have this option. Hope to reduce dependence on methadone for pain
- I have been going to the [CANNABIS PATIENT CENTER] the information both verbal and written that I received was helpful,,,,,I would truly like to see more written information about the products to better understand how it is used....I would like to have the staff give out more info about what new products they are working on and how they may help myself who has intractable pain x 30+ years related to arthritis....  
At this point, I am not sure these products are able to help me over long term use.
- Is there hope for some cost relief and when,
- The taste of liquid is bad would like capsul form to be available
- I think it is a good program and I'm glad it was expanded to include chronic pain people. It just didn't work in my particular case.
- Former marine, injured overseas and spent a month in the hospital in Italy, and I feel that the state and others are profiting from my injury and making money off this. Also the locations are too far away- the closest is two and a half hours away.

- When we get back to Minnesota I would like to attend a meeting like you had in January with other patients to see how they handle it.
- Your Minnesota Cannabis Registration Fee is way too much!!
- I feel like capsules are too strong; increased options in dosing would help. How much is "a puff"? I find wildly varying results from vaporizer.
- This program is entirely too restrictive about what types of products are available and from where. The result is high cost for patients. Please change the program to reduce cost, improve availability, and QUIT PUTTING PHARMACEUTICAL INDUSTRY PROFITS AHEAD OF PATIENT HEALTH NEEDS.
- Our caregiver son has just accepted a better job much closer to us but not convenient to any of the pickup points we have been using (Rochester, Bloomington, Minneapolis). We would like to see a dispensary in Mankato.
- There needs to be an easier way to find certifying doctors
- I wish there was a way that patients would be talked to individually to have a more customized product. What works well for one, may not work for another. This could be very beneficial to all patients. I would love to be the advocate for this type of research.
- I'm sure the cost of cannabis has deterred a certain amount of people.
- I'm happy with the website and program. It would be nice if there were more options in forms of how the medicine can come in. Like edibles, drinks or the raw flower or hash ect. Like in some of the other medical cannabis states. It would lower my cost of the medicine per month. Thank you.
- It was very hard finding out who I could go to to get certified. There should be a list of participating physicians.
- Very helpful responses
- I currently use the cannabis with the low THC content, and the higher CBD content. This is the product that has lowest psychoactive effects- and they charge approximately 5 times more for it. I think it's disgraceful.
- For me, it has been a great blessing. But I live below the poverty line and am concerned how long I will be able to afford it. That is my primary concern.
- I have read that some strains are better for sleeping and relaxation but there is no basic indica/sativa type information, only thc and cbd ratios. The higher thc to cbd content makes it difficult to fall asleep for me and I wonder if a different strain with the same ratio may work better. There is a energizing that helps me focus and work during the day as it takes my mind off of the pain with the higher thc content but I switch to a lower level of pain relieve (thc) at night to avoid even more sleeping issues. I would like to have more information and maybe be in a sample group to access pain relieve not just by thc- cbd content but also by the strain.
- Have had very good experiences with medical cannabis products in CO since 2013. Moved to [CITY] this year for pain management and my specialists are there. Have been disappointed in effectiveness compared to the other products that I have used in CO as well as the way things were handled by [HOSPITAL] for my certification. It took 9 months !?! Please call if I can expand or explain!

- the [CANNABIS PATIENT CENTER]y I go to is very professional. I really appreciate that this medicine is available. Even though I've had trouble adjusting to the side effects, I am still grateful that this is available.
- Lower the price and get the bud form
- I'm hoping the prices become more affordable.
- Thank You so very much, my life and my families lives are better, less volatile by 100% compared to pharmaceuticals.
- nope. Just happy there is a safe alternative option to lessening my chronic pain.
- [CLINIC] is not honest or completely checks patients they are diagnosing. my initial visit there, while waiting i heard 3 different people talking to there person with them about getting registered just to get it for both of them. its also in a rundown old motel office where the attached rooms and walkways were falling apart. the place takes your money registers you and off you go! it is a scam
- My dad is not technically savvy & he would have been so frustrated without my help. Because of the expense, we haven't picked up additional medicine.
- Have a option to change your password. I can't find my password and you can only try five times without being locked out. There is not a button that allows me to change my password. A big problem.
- Well, this isn't going to sound very sensible, but I have found that smoking cannabis, like in a joint or pipe-type of delivery system, is Far more effective for the joint/arthritis/autoimmune troubles I have.
- I have been encouraged to increase my use to assist in pain relief (the main reason I am trying this) but it is too costly
- I am not totally on cannabis as my body is so sensitive
- everyone i met was awesome!
- To minimize the paranoia effects I must take a very small dose of which does not adequately address my pain.
- Thank you for offering a "hopefully" healthier alternative to dangerous and addictive pain medications. I was highly skeptical of Medical Cannabis and didn't get relief right away, but after about 7-10 days, I realized it was helping. Though it's not a cure, nor is it perfect (can't use while out of my house, dry mouth, dry eyes), it's better than opiates and/or benzodiazepines.
- A difficulty with using Medical Cannabis as the sole pain control medicine is that I cannot bring it out-of-state, especially by airplane travel. For family reasons, I travel out-of-state numerous times per year.
- I would like more research done so that more people that are suffering from various forms of pain to be able to have equal access to medical cannabis when alternative forms of pain relief are not efficient or effective at relieving the patient from pain. Also, more research to create new forms or formulas of the cannabis to assist patients with their specific pain relief needs.



- I think medical cannabis is a great treatment. Hopefully more people will soon be able to take it. I know people who would like to get it prescribed but cannot afford it. Thank you.
- I have an appointment to address these concerns tomorrow.
- I am a 65 year old who unfortunately due to bills must continue working. I pay a horrible high medical insurance deductible and now all these thousands of dollars don't even matter on my medical. If I could retire I would get a break. If I were a veteran I would get a break. If I was on welfare I would get a break. The cost of this medication is theft from those like me trying to work 40 to 60 hours a week to get by.
- After coming off some medications and going through some of the withdrawal symptoms, I did notice the cannabis helped ease some of the symptoms. Which is good. It helps people get off the other medications more easily. Something to think about. :)
- Thanks
- I am confused in the two distribution centers and the differences in medicines. If it would be worth trying a different "brand" for daytime from the other center?
- lower prices please.
- I will be making a follow up appt. to discuss my use so far and to discuss any future changes.
- The [CANNABIS PATIENT CENTER] I go to monthly has a very nice crew that work there. The Pharmacist is very good at what he does, explains everything fully, and the rest of the crew is very friendly and willing to help. Nice going [CANNABIS PATIENT CENTER]!
- Make it more affordable, or let Us patient's grow our own.
- have stopped taking the cannabis due to the dizziness and mental fatigue I call Cannabis brain.
- Make the product more affordable.
- first of all, I do not have internet access, my daughter has been facilitating the online portion for me. That being said, it has sometimes been challenging at the dispensary I go to when it comes to the online evaluation. I wish that the dispensary personnel could be cognizant and more patient when it comes to patients without internet.
- This has been worth trying. I love that I can titrate the dose myself, according to the pain level
- The benefits outweigh the side effects.
- Be helpful if had a card (like drivers license)  
Really need solution for the vapor batteries keep a charge, and easier way for replacing other than going to nearest clinic  
Solution help with cost especially with being on SSI only medication take is cannabis,  
The staff at the [CANNABIS PATIENT CENTER] are wonderful. So welcoming.  
[PHARMACIST] is amazing, Fully explained and suggested mixture to treat my condition.  
Love her.

- I was very frustrated that the MC office couldn't provide a list of doctors who can certify patients. Both of my mother's (patient) doctors (GP and pain Dr. refused to assist in certification). I had to resort to a Google search.
- Need to get out insurance involved  
Costs are way to high
- I hope to remain with the program but I have to travel some distance to get the treatment. If there is action to address with the legislature it is to work on getting the product to the patient easier. Of course sending it to the pharmacy I go to or by mail. I'm sure this isn't in the future planning. Also the cost hopefully will go down?
- Pricing needs to come down to make this affordable for people who truly need this to help with pain management. The government is leaving people with no alternatives for pain {i.e. prescription pills, etc.} so if this is the solution, it needs to be a better program for everyone involved.
- As a patient I think there needs to be way more information about what different strains we are getting. Certain strains of THC can better assist patients if we had options to choose from. We have no idea what we're getting when we're using the CBD/THC product. I can't stress enough how much this would help. This program would be a lot more successful if patients knew exactly what they're getting. We're paying for this stuff, we should be able to customize our strains.
- I wish the rules/guidelines about where patients can and cannot use medical cannabis were stated more prominently, or had their own link and webpage, so it was easier to track them down.
- i am glad i am able to use this, it helps me.
- Never had any problems, no complaints. The whole program is very good.
- The cost, I pay \$590 per month. That is crazy high.
- This has to be more affordable and cannabis needs to be used in many more forms.  
Using flower material would be cheaper
- Consistent dosage is key
- Expensive, limited options.
- It's just really hard for me to do this computer stuff because my computer has glitches it would be nice if you guys could just send me paperwork
- Thank you for Cannabis, for making such a difference in my life!
- cost exceeds benefit keeps increasing to where it's not affordable
- I am immensely grateful for this program and like the safety precautions taken to supply safer medicine to people who suffer. I would like to see more access and lower costs to the patients.
- The product is way too expensive!!! However, it's a great alternative to strong pain meds or muscle relaxers.
- I would like to get a newsletter giving me info such as the likelihood of medical cannabis being covered under insurance one day.

- The cost of medical cannabis needs to decrease. I expect the OMC can do nothing about this, but I am saying it everywhere it is appropriate to do so. I delay getting refills because of the cost, and then I experience more pain than I have to.
- Please offer or allow topical medication. Topicals are a wonderful way to aid in pain relief while not impacting the brain in any way. Please also consider a patch. I've had gastric bypass surgery. I don't metabolize things the same as normal people. Vaping is the best option for consistency, however I will not vape in public, therefore my use of it is restricted to home use. Also patches are long lasting and bypass the stomach, so I wouldn't have to worry about if I'm metabolizing it all. There are lots of people that have had stomach surgeries that have a hard time with regular medication dosing. I can't solely rely on cannabis because it's not legal for me to travel with it outside of the state. My hope was to completely get off of Vicodin, but that's not realistic. I do think cannabis is helpful in that I haven't needed to increase my dose/strength of Vicodin or # of pills per day, so it works well in conjunction with it. The pain relief isn't as complete, but I wonder if there was a different delivery method (patch) or different combination/strain, would work better for me. Please considering introducing a wider variety of options. 6 or 8 types is not enough to help ALL people with ALL pain.
- The doctors [NAME] and [NAME] (pharmacist) at [CANNABIS PATIENT CENTER] have been extremely helpful. Very willing to help and listen.
- Thank you for adding PTSD to your list of covered conditions.
- It's been working good so far but I'm still trying all the types of ways of taking it so as I go longer with it I'm sure I'll see what is going to work the best for me.
- Na at this time. I am glad this program has started in this state, as I am a member of it from an injury almost 30 years ago. As a result of that accident I have permanent spasms, Degenerative Disk Disease, Arthritis.....  
The Medical Cannabis help with the pain, the inability to sleep, and many others
- Encourage our State to lower the price.
- There need to be other forms of medical cannabis available than e-cigs and oil.
- Quit over regulating the product so the costs can come down.
- It helps!
- The cost needs to be lowered so that those who need it can afford to buy it.
- This medication works, however I can not afford the amount needed to truly manage my pain. I have to ration out the medication based upon how much I can afford. That makes for difficult periods and has hampered the ability for me to totally leave my other prescriptions behind. In the first month, it was so effective I was able to eliminate 6 other medications I was taking as part of my pain control. When you compare our program to other states? It is a shame to see how much our program is set up not to succeed. It is also very unfair to patients who get there, hoping for relief only to find out even if it works.... theres a whole new stress of "how do I afford this?" This medication works for me. My doctors are stunned at the cost. We are all disappointed by something that has worked so well.... and yet placed such a heavy burden on our lives simply because of economics.

- It is frustrating that one of the best treatments for chronic pain and I am unable to legally take it with me to visit my family, most of which live in Iowa.
- The people at the [CANNABIS PATIENT CENTER] are wonderful.
- I have been very appreciative of the opportunity to use medical cannabis. Thank you.
- More choices would be great. Also choice of actual plant vs.oil
- A prescription should be paid for by insurance.
- THANK GOD WE HAVE THIS OPTION TO OPIOIDS!!!!
- If I didn't have this I would be disabled. Or on some stupid narcotic that would disable me.
- edibles would be a good thing
- Find a transdermal patch.
- #8 I indicated that it is very difficult to use because there was an issue with registering a caregiver via the website that could only be resolved at the state level. Otherwise it's been very easy to use.  
Please keep up the good work!
- Im very pleased especially when im so sensitive too medications
- Flower form is better and much much cheaper
- We appreciate the option to take cannabis for pain from Burning Mouth Syndrome.
- It would be very helpful if you had more info and connections to the vapor buying process. You can't ask the store people questions and you people don't seem to have a hole lot of knowledge on the using bulk and the stuff the patient has to get to use their medication.
- no not but as my experiences continue, I will not be bashful in requesting some help! :) thx!
- Good program ÷÷
- More products please...
- This treatment seems to greatly help with morning nausea and foot pain.  
Thank you.
- I took Marinol for 16 years and did well with my digestive problems using it. The Medical Cannabis is helping most with my digestive issues. I didn't know what to expect on the pain relief issue. I am disappointed. I also didn't know what to expect on the psycho-active issue. I did not feel affected by the Marinol, and I am surprised how little I am affected by the MC. I don't have frequent emesis, but I still have the feeling of possible emesis. This keeps me close to home.
- Reduce the price of the medication.
- Products offered are quite limited - does not include products to help many people
- I have received far more benefits from other states' plant based med-can programs. The oils and such that MN allows must be missing some of the chemicals that the plant based products have. Please allow for plant based products to be used. Especially for pain, cancer, etc.

- maybe lower the price on the prescriptions for medical cannabis. i am on Social Security Disability and i am very limited on cash flow due to bills.
- Make new products available to people on medical marijuana. Like lotions and stronger vapes
- Please try to reduce the prices further. I know there has been some reductions thus far, but for those who need higher levels of THC, it seems unlikely I'll ever be able to even try the correct dosage.
- It's too expensive!! It certainly doesn't work the same as my pain meds and I JUSTcan't afford plain CBD oil to just try it. I think the Mn. laws are WAY too restrictive. Marijuana NEVER killed anyone and it's illegal. Booze is MUCH worse... In my opinion. Thank you
- Help me find a way to afford this and live a active life in little pain. Not laying on the couch in pain. I don't live a fancy life. Please, Id be grateful!
- Please make the medicine more affordable. I am retired. I live on a fixed income.
- I want to tell you what a great place the [CANNABIS PATIENT CENTER] is that distributes the medical marijuana. The staff is wonderful - warm and friendly and very knowledgeable and helpful!
- The program is extremely expensive. Paying doc visits out of pocket plus cash only for the medicine, then added travel expenses just to see one of the certifying docs in Mpls(they require follow up visits) has put it out of financial reach. I would love to be able to get the medicine more often, but balancing the expense of being chronically ill is high enough. Its very difficult
- It's so expensive that I can't afford to find the right combination that works for me. You shouldn't have to purchase a full bottle of 30 pills when most will go to waste cause they dont work. You know within the first few days if it works or not. Smaller quantities should be available when trying to find the formula that works best for you.
- Please make cannabis available to more diagnoses and available in other states, particularly to transport a personal supply across different states. I travel for work and not having access to it when I'm traveling (the worst pain I experience) makes things much more difficult.
- It is too hard to get doctor certified.  
The annual registration fee is a barrier to patients.
- I'm incredibly thankful for cannabis instead of taking such strong medication that knocks me out. Much better quality of life with cannabis!
- I appreciate the opportunity to have medical cannabis. It has decreased my pain and increased my well-being.
- More locations.
- Far too expensive for people on a fixed income i.e. disability.
- Being disabled and on a fixed income the price is way to high. On my insurance program I can get pain killers for less then \$5.00 a month medical cannabis on the other hand is closer to \$200.00 a month

- I am very grateful for the amount of pain relief I have received. Hoping for mental cloudiness and blurry eyesight to improve. I had my ears and eyes tested to see if there was a problem. No problem.
- The cost is too high. I talked to my doctor and said I would get more out of the program if it wasn't so expensive but for me to take that out of my budget, with being retired now, I can't. Hydrocodone is so much cheaper. I don't need the medicine all the time- whenever I want to go out or do housework, I need it. When I don't do much and I'm not in much pain, the cannabis works best.
- It would be helpful if research and production could bring the price of the blends in which CBD is the main component down as that is quite a bit more cost prohibitive.
- Respectfully, the cost of the medicine is quite high. And to be truthful, I don't know if I will be able to continue with the program at the current cost structure, at the very least I will have to purchase less or look for an alternative. I know I don't fully understand the business and financial aspects of this industry. But I would hope that in the years to come that Minnesota would be able to mirror the prices we are seeing in other medical marijuana states.

Other than the cost, I am quite happy the medical treatment I have received. The folks at [CANNABIS PATIENT CENTER] at great!

- Possibly lower the cost, stay open a little later or a day of the week.  
Pharmacists to be more aware of what other narcotic /opioids that patients are taking and to have a plan of one or the other. Medical Marijuana OR pain pills liquids etc. for safety of the patient.
- I left a message or thought I filled out the for right and did not get a response from the office, so not sure what to do at this time.....fill it out again??
- The cost of the medication is so high that I cannot afford (even with the discounts for buying a months supply and for being on social security) to take as much as I need. I am still having unneeded pain because of this. I am literally being forced to choose between paying bills and buying my pain meds.  
We need to find a way for insurance to be able to cover this for people who are in poverty.
- Keep on trajectory to legalize recreational use for more to benefit and eliminate the stigma.
- Thank you for all your help
- my wife had cancer 5 years ago I wish she was able to take even if it would only help with appetite.
- was not aware of "Office of Medical Cannabis Website". Please send me the link.  
Would like to hear of experiences of other cannabis users, positive or negative.  
Thank You
- I am changing what I am going to take, but I will continue taking the [BALANCED THC:CBD PRODUCT] capsules as they are a fair price. I'm going for the stronger CBD content, [HIGH CBD PRODUCT]. I had heard that the prices were going down because it's \$5 a pill and you need two pills a day. I want more pain relief and less of a high so I want

to totally get off the [HIGH THC PRODUCT] and move to the [HIGH CBD PRODUCT] which is the actual pain reliever but continue the [BALANCED THC:CBD PRODUCT]. The [HIGH CBD PRODUCT] is not even the highest CBD- the highest one is \$10 a pill.

- Need to include more conditions and bring down the price
- The types of products available are limited in comparison to other states I've researched. Certain products would make it easier to take this medication "unnoticed & unannounced" during business and/or work hours.
- It is very liberating to be able to treat my chronic pain without the use of morphine and all that comes with prescription meds. No side effects that take a toll on my body.
- The price is a SERIOUS problem.
- Do not understand or why the State of MN requires a large renewal fee, yearly.
- I'm really new at this and I haven't been able to try everything they have to offer, so I don't have an answer to this or any concerns. Things are good for now.
- Will you ever consider shipping the product
- I would like to see them allow other products because I don't like the oils, they are hard to deal with. This will also bring the cost down. The majority of patients in this program are on disability like me, and the biggest problem is that I can't afford the product that helps me.
- Low the price.  
It is very helpful n allowing me to live and be active
- We need to try to lower the cost of medical Cannabis due to the amount of people eligible that are on Social Security (fixed income) It is not very accessible to those who could benefit the most.
- I'm glad I have this service. I am off opioids because of medical cannabis.
- Mostly just pricing and strain issues. There are so many variants in other states that can be used in so many other ways that I think more technology needs to be involved in the entire process Minnesota currently entertains. Edibles need to be addressed as well since the delivery method is enjoyable to patients that really dislike smoking.
- It would be good to offer more types of cannabis products.  
Lotions, balms, edibles would be good to have available.
- I hope one day insurance would help cover the costs so that I could continue to afford it.
- The initial consultation with a pharmacist was disappointing. After some product explanation, I asked for assistance in choosing what might best address my issues. She responded "you can try everything," which was disappointing and financially challenging. This woman was from [CANNABIS PATIENT CENTER] and helping out in [CANNABIS PATIENT CENTER] in August. The pharmacist who fills prescriptions offered more info. On my second visit there, staff were all more helpful ([CANNABIS PATIENT CENTER] pharmacist not present) and I told the same filling pharmacist about the first experience and that the products are cost prohibitive. She offered some direction on reducing some of the cognitive effects, and corrected info I'd been given by the [CANNABIS PATIENT CENTER] pharmacist, looking forward to implementing her

suggestion. She seems very knowledgeable and willing to help. Is there any way of reducing the cost??

- There should be a list of Drs who examine for program. The Dr. Bill to get the recommendation for cannabis program is WAY too expensive.  
The pharmacist in [CANNABIS PATIENT CENTER] is very kind and well informed about the difference between the products and the way they worked. Gave me good advice and share what other patients results were, anonymously as well.  
I was very pleased with the young woman behind the desk who took my money. She was very informative about cleaning and maintenance of vaporizer led and offered to help me clean it each time I came in. And really thought the vaporizer I bought in the dispensary is perfect and very low priced.  
The whole experience was very nice, I felt respected and enjoyed the coffee-tea bar. Every appointment was prompt and professional. Great atmosphere and staff at front desk was pleasant as we..  
Please get the leaf and bud cannabis.
- I have heard that there is a price difference between the two different organizations that dispense so far. The price has me locked out of getting what I need cause it's too expensive. It makes me so sad to know that so  
Many of us that actually need relief are already broke because of health issues. Is it true that what I do in [CANNABIS PATIENT CENTER] for \$400 a month. Can be done at [MANUFACTURER] for a flat \$50 fee once I can prove and get on disability?
- I submitted my VA papers for reimbursement of the yearly fee and haven't received word back or reimbursement. All disabled Veterans should receive free enrollment. (I was told).
- I can't take it across state lines, so I can't go visit family, so I had to go back to my other medicines because if I don't use it regularly as the doctor recommends, I get out of whack.
- I am very grateful I am able to have access to this medication. It has really improved my quality of life. As a wife and mother of 3 small children, I can say my whole family has benefitted from my overall health improving!
- the cost is very high
- This has helped me so much. Please do not take it away.
- This program has allowed me to treat my chronic pain without the use of opioids. I am so much more healthy and rested than I could have predicted. The program makes sense, and I believe it has saved my life.
- I needed more instructions on using the vaporizer. But overall the program needs some tweaking.
- It would be helpful to have [CANNABIS PATIENT CENTER] handicapped accessible.
- Program should have established the products and potencies available and standardized pricing. Once this was done, vendors/growers/processors could have competed to provide products in the state-owned medical cannabis dispensaries so that you didn't have to go to different locations and work with different companies to gain



access to their products.

- This is an extremely inefficient system and must be prohibitive to entry as there are only 2 approved distributors. These are just some of the basic comments I have at this time.
  - It would be much easier to obtain and keep the benefits of medical cannabis if the cost were more affordable. Especially when on a low/fixed income.
  - I've tried many medications and treatments for my chronic pain. The medical cannabis is undoubtedly the best. Unlike all of the others, it does exactly and only what it's supposed to do: it dulls my pain without causing any as yet apparent nasty side effects.
  - They have been very helpful and have made my life much better as a result!
  - Thank you for being here.
  - Its helping
  - The ability to obtain cannabis has made my life much better.
  - Nothing comes to mind.
  - Parking is challenging  
\$\$ is tough
  - cannabis has helped with my chronic pain where I have been able to cut back on opiate pain medications
  - I have struggled for years to find an option for pain management. I can't tolerate most Opiates, and it's hit or miss ,as far as side effects, even with the one or two I can . It is a blessing to have something I can use for pain relief if I need to without getting sick from using it.
  - OUR VET'S that served our country CAN NOT get this aid to help they with all their issues that they have from serving and fitting for us.
  - This drug has given me greater mobility and decreased my anxiety. I am so grateful.
  - not right now, I was not expecting this change in questionnaire.
  - I would like transdermal patches and ointments high in CBD and low, to no, THC become available. I have used them in other states and they work EXTREMELY well for chronic back pain. I also have a relative who suffers from Fibromalagia and she says the ointment works better than pain pills.
  - It is WAY TOO EXPENSIVE!! The oil DOES NOT work as well for the pain as smoking the bud itself.
  - The cost of Cannabis, the lack of strains, the lack of Sativa only products, and the inability to leave Minnesota once completely dependant on Cannabis for pain relief prohibits me from completely replacing opioids with Cannabis. Nevertheless, I am thankful for the option to add Cannabis to my pain relief options.
  - Would like to see insurance coverage for these Meds. Otherwise get the pricing under control .
  - It would be a lot more convenient to do the registration and these surveys on my phone than having to find a computer. When i tried registering on my phone, I got kicked out of my account and can't access it on my phone.

- It would be nice if there was a list of providers , as it is I moved and only by chance I was sent to a place that was part of the cannabis program. If not I would still have issues with PTSD and pain. Narcotic pain pills have an adverse reaction with me so when doctors would say that is all there is I would just suffer in pain. Also if I can't find a doctor in the program that is near me I will have to find other means of getting cannabis.
- Just would like to thank state of MN for allowing medical cannabis to be used by people who experience chronic severe pain.
- Please lower the prices, Thank you
- Would be nice if some financial help were available for seniors who are only covered by Medicare and are forced to work to supplement Social Security in order to even consider partaking in the Medical Cannabis program. Due to high cost of product, most of my senior friends find it less expensive to keep buying weed off the streets. Knowing the cost of manufacturing medical cannabis must be extremely expensive, there must be some way of making the product more available to persons in need.
- Please make it more affordable or be able to be covered by medical insurance
- Make it more user friendly for phone application
- just wish it was more affordable, i am currently unemployed and cannot purchase
- It would be helpful to have pure CBD oil in vape form; I have heard from people in Oregon (where cannabis is fully legal) that having CBD in vape form has been extremely helpful for those with severe chronic back pain
- Cost needs to be brought down . It makes it hard for us patients to get the medication we need when pharmaceutical drugs that are worse for your body are 1/10th the price .
- the cost resulting from insurance not paying for our medicine, makes it impossible for someone who is disabled such as myself to pay for an entire month of medicine, at most i am only able to afford 5 days of medicine, which takes away from my other needs such as shelter etc. the cost hurts those who need it the most, and those people are usually dependant on disability, which is hard enough to live on without having to pay 300 to 500 dollars a month, for a plant they should be able to grow on their own
- Lower prices!
- I think that they should be open more than once a week.
- Do I just call for a refill or need a new order?
- this is life saving; gives hope for improvement; cost is by far the biggest negative issue
- Improvement in my COPD (not expected)
- should be used to treat more illnesses
- Would like to see more support groups, speaker meetings.
- We appreciate how kind and understanding everyone is in the office and on the phone.
- Please lower the cost of the cannabis product.
- The product I use is [HIGH THC PRODUCT], the highest THC level. I think someone needs to check the content and active ingredient percentages. There isn't anything stronger than [HIGH THC PRODUCT], it's not as strong as it could be and it's not affordable living on \$200./mo.
- Thanks you

- I hope that the price will drop at some point.
- There should be a delivery service. thank you.
- Seems a bit expensive and I cannot afford a whole month at a time.
- I know people that need the medical marijuana ,but cant afford it . The people in this world need it . Have to go green .
- I wrote a letter to tell you how i feel and why but i got one thing to say, well really two one it works. two what is holding things up. this is so much better than the other meds
- For certain patients, there needs to be a stronger dosage, so I can get off narcotics (my goal). Such as, RSO (Rick Simpson Oil) in Washington State. RSO would make it possible to eliminate all of my spasms, AND control my pain, which is uncontrollable, at this time.
- Please lower prices, make other forms of cannabis available, and make it available to other types of illnesses.
- Concern about the financial aspect of the program- he's losing so much quality of life due to the inaffordability.
- Medical cannabis has improved my quality of life and reduced my pain level.
- yes! Please deliver. Please lower costs and to have more user friendly products to use with the medical marijuana. Again little measuring cups for syrup and better vape pens. Thank you!
- A dispensary in Mankato would be great
- reduction of cost needs to be priority in growing this program. It is life changing!!!
- The people at [CANNABIS PATIENT CENTER] are outstanding!
- I am no longer a patient. But thank you for your help in the past. Everyone was kind and helpful! Can't thank you enough. It is just too expensive.
- There needs to be more options. The cost is insane and there is no reason we can only have oil, pills, and tinctures. If the state doesn't want to bring the flower of the plant (which is the cheapest in price for patients) than we should at least have edible options and infused salves and lotions for chronic pain patients.
- I was unable to access the first survey (the link was incorrect and said session was timed out and to log in) and tried working with IT to access, but the process to longer than two weeks so I missed my chance at taking the first survey. The same thing happened this time around as well, but the 'Click Here' link worked. Last time both links were down.
- Make it simpler for us older people
- Patients ought to be able to buy from either distribution center in Minnesota. One is cheaper per mL, the other has stronger solutions (more THC and/or CBD per mL.
- I am grateful to be a part of the program.
- I appreciate the work put into this program. I do feel that the quality of my life has improved with this. Thank you.
- I was diagnosed with Parkinson's five years ago.
- I found the medicine from one of the suppliers to be different from the first time I went to the next. not happy with it i went back and was told I signed something that gives them no responsibility and wouldn't exchange it. I was told if I wanted a different one I would have to buy it. I probably wouldn't have complained but they were completely

different the second one took 3 times as much to get any pain relief. ( not very good quality control )

- Nothing everything is good.
- I would like to see and topical application added to the product line.
- It would be nice if there were a list of doctors who will treat patients in the program.
- Please make the website simple not fancy.
- This program is a great introduction to medical cannabis, but the cost is so high. My doctor would like to take me off all of my old meds and put me on a cannabis only treatment, but I can't afford it.
- lower price meds would help alot
- I would like to see my art on the walls of their offices
- Thank the commissioner for approving it for intractable pain! Thank you!
- I am grateful to have this treatment as an option as I creatively manage irretractable pain. I have removed all narcotic pain medications because of this! I would like to have more options to refine the cannabis formulas to the specifics of my pain. While I get some lift in the level of pain, I would like to be able to have a greater impact on pain level.
- So far I've pushed the biggest "smiley face" button every time I leave! They don't treat me like I'm an idiot or an inconvenience (sometimes i get treated like that at Drs offices, which is a pet peeve of mine).
- I wish the cost was more affordable.
- I wish there was some alteration in the medication components that would male me feel more relaxed rather than anxious!!
- I am very pleased to be off of opioids, I feel the medical cannabis works well for me.
- Do I get a certificate, saying I'm certified?
- Try to get the cost down for people that are on
- Need to get it affordable so it can be more beneficial to more people. Example Tramadol- \$10.per month vs cannabis-\$500.00 per month.  
Get lawmakers to declassified as class1 to class 2 drug. It would cheaper to drive to CO. Which wouldnt be legal!
- When I first signed up for the annual license, I had some confusion on the website in the clarity of the area concerning my disability qualification therefore I ended up paying 4 times the cost related to my condition. \$200 I think it was, rather than the \$50 I should have paid. Fortunately, it was important to me. I had the money and did not think it was worth it to seek a refund from the state, as I do believe in the program. Next year I will know better and I made this known to the program license headquarters and Patient Center.
- I live in Bemidji and need to travel at least 2+ hours to find a Cannabis Clinic. Living in a rural community hurts my ability to refill at my convenience.
- you need to make it more affordable

- I can't access this web sight. I am a braille user...if it were sent in a email letter that i could write out my responses then i could do it independently but as of today i need an interpreter to fill it out with me.
- I'm a snow bird and I have no access to my medicine because you won't Mail me what I need... Even though CBD oil is legal in every state and you need cash and will not accept a debit and or credit cards. This only leaves me with the toxic narcotics and over the counter crap. My health insurance is good in every state,so should my canabis. You need to fight the RICO laws that make it impossible for me to get my medicine in states where it's legal. I'm not a criminal.
- The registration was easy to do but it was a bit complicated trying to find the survey
- They have been very helpful so far
- We need to bring edibles to the state of MN
- I think if they had more options to take it, that would be really helpful. With the vape, the kids can smell it. With the drops under the tongue that are supposed to be immediate release, they are definitely not immediate release and it's easy to overdo it. I talked to my sister from California who's on it for fibromyalgia and she explained how there are different products for different types of conditions and I wish there were more than two types.
- It just helps. And I'm trying to get the people who caused the pain to pay for it.
- It would be nice if this was more affordable and more Doctors could approve this under health insurance.
- Medical cannabis has a phenomenal effect overall Mental Health greatly stressed in pursuing insurance companies cost of this wonderful and unique gift from
- I was unable to find out how much the annual fee would be for a patient enrolling in the program until I was literally at the screen where I entered my payment information. I'm unable to use a credit card and must pay cash or use a debit card to buy my cannabis (I can see how this would be difficult for lower income folks). I was able to get HSA reimbursement for "over-the-counter" medications for my cannabis, but unable to get reimbursement for annual fees, since there was no confirmation screen that showed the price and that it had been paid, nor did I receive a receipt of any sort.  
My doctor felt underinformed in trying to get me enrolled, and I feel uncomfortable that it is a representative of the supplier who determines what they think my initial dosage should be; I think they are very above-board, but I still found that, with my initial pick-up, what was meant to be a one-month supply has actually lasted me through four months. My doctors only know what I tell them about the program, which seems a bit appalling; I'd like my medical teams to remain integrated (as a chronic pain patient, I've assembled quite a team over the years!).
- It was so hard finding a Dr who prescribed medical cannabis. Wish that part would have been easier.
- I am immeasurably grateful for this wonderful service. At last the terrible pain in my face from trigeminal neuralgia is reduced at night, giving me an opportunity to sleep. This is so very helpful. Now I can be more functional with my responsibilities during the

day. Before I had cannabis, I would spend the night putting cold packs on my face and doing breathing exercises just to calm down the pain. I also needed to take NSAIDS and tramadol during the day and before bed and was experiencing stomach disturbance from these. I still take tramadol along with the vapor form of cannabis before bed but no need for ice packs or NSAIDS any more. Thank you so much

- cost is too much. specific strains of plant could be more beneficial (uplifting, energetic, pain, etc.). should add dried plants for smoking. different forms of extraction/different parts of plant should be legal. add more conditions.
- You are doing a great job
- COST needs to come DOWN! It is so much more preferred over opioids, which everyone knows. However, I may have to go back to those since medical marijuana is too much for me and my family. My I feel like I cost too much to maintain. Also, it seems so secretive. Doctors are asking me how it works or how to help their patients with chronic pain. It's sad that I, a disabled woman with brain fog, has to be the first one to teach these doctors. But I am happy to do it!
- There should be a state identification card for patients. Keep asking for feedback from patients !
- i feel the positives out-weigh the negatives.
- I am so very grateful to have found an all-natural medication that is so effective at reducing my pain and also my anxiety. Thank you.
- The cost is the major problem, in order for this to be a viable option for long term care it needs to be affordable. Not many sick/injured people have an extra 2-4 hundred dollars per month.
- I am pleased that the legislature finally understood the need for medical marijuana, and can only hope that Minnesota's politicians will put forth their efforts to reform the federal laws, as well.
- Get with it. There are cheaper ways to get the medicine to people. We have seen it in other states. Why is our state govt not seeing the positive from this and created more types of product?
- Being able to use medical cannabis has improved my life for the better.
- ned to work on adressingthe COST it is horrific- other states are so much cheaper I cannot afford this every month
- Cannabis is too costly.
- Dispensing of medication is inadequate (vape pens) and makes it difficult to monitor dosage. Dispensing the actual plant buds would make it much easier to ingest and would allow me to better regulate the amount I take.
- Less surveys please.
- If this is tax deductible since it's through the state. I think it should've like license tabs, etc....
- I really appreciate my stomach feeling better. I used to use anti nausea medicatins because my stomach felt so bad. I have lost 10# and feel

like much of my body is functioning better than on narcotic pain medication and muscle relaxors.

- This product should be more easily available to people in need and it should be covered by insurance. It is very expensive and I take a lot of medications and health supplements to help with my chronic pain and migraines, all add up to a lot of money I have to spend per month.
- I'd like some edibles. I hear it lasts longer. Probably would be better for reflux.
- I don't like the way the Cannabis oil is put into a large container and then needing to get 2 ml. out of it with a syringe. Basically, what I do is put some of the oil into a a smaller container and that helps.
- Thank you.
- I think it needs to be opened for the plant to be used also because I have in the past used the plant and it has a lot of different effects that work better. I do not use the plant form now.
- The price for medical cannabis is to much for 3 to 5 day supply or a 15. Day supply it needs to be lowered for the lower income people
- TOO EXPENSIVE PERIOD, NO IKNOWN NSURANCE COVERS IT.
- I appreciate all your efforts and time you all spend on this thank you
- Why does someone have to "allow" me to use a plant? Why is it cheaper for me to purchase so called legal pain killers that have side effects that include death?
- I think we should legalize it all. I was in Portland and Washington on vacation and I bought some ginger snaps and one of them was enough for 7 hours whereas the vaporizers say 1-2 puffs every few hours which is way too much  
I am taking some stuff on the side and it works better than the vaporizer.
- I live in [CITY] I wish there was a closer pharmacy.
- Edibles would be nice
- 2 significant barriers to patient access is the cost of products. Cost is a major barrier and this program in reality serves privileged people with substantial income, or as in my case it's growing debt. 2nd: that medical companies such as [CLINIC SYSTEM] do not support confirming patients qualifying conditions because they are financially motivated to block access to medical marijuana, insisting upon disgustingly expensive treatments that are far more toxic. For example, [HOSPITAL] refuses to verify migraine patient for med cannabis and instead insist she do their Botox treatments for cost of \$4000 ([HOSPITAL] gets 1800 for administering, plus likely kickback perks from drug company that gets 2200 for Botox) every 78 days. Ridiculous!!! If State of Minnesota wants this to be a viable program then you should tie this into efforts to confront the politics of pharmaceutical industry and financial/ in kind incentives to clinics and Drs. I'm so sick of hearing about our nations huge healthcare costs and yet common sense, effective without toxic side effects; far less expensive health care options are available.  
Also, I do not like that I can't access the whole plant form dried, in capsules. I think there

is vital nutrient loss in all the processing. It would be far cheaper to manufacture and it worked great for me in Oregon.

- The annual fee to continue to be a medical cannabis patient is outrageous and a 50 fee would seem reasonable and a list of all registered doctors would be nice to see
- I feel like cannabis is a better alternative than prescription meds for many reasons. My only complaint would be, it's too expensive. If my medical insurance would cover some of it, or if I could use my HSA, then I would be able to use the medical cannabis versus my prescription pain meds.
- Gave me life back  
..gave my wife her husband back
- I would like to see more variety of product like chocolate bars yet I am glad we have what we have, thank you
- I need to use far more than I can afford to get actual relief. It would easily cost me over \$1000/month and I'm disabled. I would think most people that require this help either aren't able to work, or at least not much. I can't imagine most people who need it can afford it. I have to pick and choose when I get to have a little relief in order to save for worse days since I can't afford to stay stocked. It's so sad that it's so readily available on the street and at such less expensive prices. I wouldn't be comfortable with that and not knowing what you are getting or have any quality control. That would be scary to me, but I don't understand why we can't move things along a little quicker to make this a possibility for the people who really need it. If I could afford what I need, I could say I could get at least 75% relief from my pain symptoms with the added benefit of being so much happier and less anxious to boot. It's an amazing program and worth the work everyone is putting into it. It just isn't realistic for many at this time...at least not me (due to cost and accessibility).
- We need some help with cost and also more ways of taking the Cannabis.
- If the cost was lower I would be able to afford more of the product . It costs over \$300.00 a month for the small amount I use.
- Pens clog making it difficult to inhale the product a flower based product would be a much better delivery system than the vapor and a flower based product would also cost less to use.
- Advertise more, get more people on this program!!  
The [CANNABIS PATIENT CENTER] is very polite and professional.  
I am glad to be on this program. Thank you.
- Advocate! I'd be willing to give testimonials!
- Lessen the cost
- I think that this program is a wonderful asset for individuals like myself who have complex pain conditions. I am working full time as a college professor and at this time in my life I can afford the medical cannabis without too much financial hardship, however, I can imagine that disabled individuals or those who are in lower income levels may not be able to afford this program.



- Some of my pain management group have brought up the fact of how hard it is to get certified for cannabis. Meaning they aren't able to find an open doctor to help them. Almost all they tried were not taking new patients. Keep doing what your doing but make it more accessible for patients. LOWER THE PRICE PLEASE!!!
- It would be nice to receive meds through the mail. I live in Bemidji and it is very inconvenient to get to a dispensary.
- I would like more options for treatment including specific strains of medical cannabis.
- I qualified for this program under intractable pain, but I have bipolar disorder and I've tried everything on the markets except lithium and nothing helped without terrible side effects. The product I get from the dispensary is the 1:1 CBD THC and I feel good everyday since I've started the [BALANCED THC:CBD PRODUCT] I don't cry or get angry or have anxiety every once in a while I will get a very low buzz anxiety but I use my medicine and it's gone immediately so I know this can help so many people suffering to be normal productive people. Thank u
- Different forms of cannabis legal
- I truly believe that cannabis needs to be covered under insurance if oxycodone is and rather addictive and alcohol is on every corner and is available to almost everyone and addictive. The government should provide affordable is.
- This is a great program but the costs are high. \$250 per year for the doctor's prescription, \$200 for the state registration fee and \$100 for a half gram of medicine (1 weeks supply). The cost in other states for a half gram of comparable medicine is \$10-15 with no state registration fees.  
The pharmacy I pick up the medicine from is very high end and obviously costs a ton of money to run. They have a large waiting room with expensive furnishings including a high end cappuccino machine, designer furniture and flat screen tv's.  
The state should consider allowing more than 2 companies to operate pharmacies. The increased competition would directly benefit the patients in the form of lower drug prices.  
Thank you for your help and efforts in making this life changing program possible!
- I just wish I could afford it, so I could use it more than I do
- Thank you for believing in what you can't always see.  
Thank you for your hard work and dedication for so many of us.  
I would like to see more dispensary and more competition to bring the cost down. I would also like to see more Delivery Methods to allow patient to have more choices and lower prices.
- I wish that the cannabis would be covered under my medical coverage. It is very expensive to purchase which makes it hard for me to afford. I truly would rather be taking the cannabis but being my rheumatoid medication is covered under [INSURANCE PROVIDER] I keep taking this drug only because it's covered. I believe people that live in Canada are covered by there providers for cannabis, we need to be too.
- Need more dispensaries or provide shipping

- I am so glad this has been one of my miracles in life for me and is a great program and should be more affordable for everyone that would benefit from it .I feel very saddened that it stops so many who cannot afford it that could benefit from it . ,, I also think its unfair that it cannot be written off for medical expenses on our taxes .
- It is WAY to hard to navigate the Dr's that prescribe
- [MANUFACTURER] is treating like a business and the pharmacist that prescribe. are phony they don't care really what a person us going through all they try to do is sell more and more for outrageous prices
- This is a miracle. Please continue the program and review other conditions that should be added to the treatment list.
- I have had sciatic nerve pain since I was 17. In my forties I started constant back neck etc pain.I had been on opiods for 17 1/2 years and had stopped getting any chronic pain relief.  
Now with medical cannabis I have almost no pain.
- Continue to work on the cost. Thanks
- The meds I was on for many years were not good for my system in general but worked. I have DDiscD and my back now feels better with out all of the side effects. The joints in my fingers feel good when I wake up after a hard day working with my hands. When I have an anxiety flare up it seems to calm me down - my old meds made things worse. I wrote a report to my Dr that I wish I could attach saying how much things have improved he said see you in a year when I used to be at the clinic 4-8 times a year for meds/back/neck/anxiety ect. needs to be cheaper and easier to get with a bad back - a 1.5 hr RT car ride does not help.
- I am so grateful that this is available in Minnesota. Keep up the good work. THANK YOU!!!!
- There is still stigma about medical cannabis. There a doctors who are misinformed. There a doctors who want to certify their patients but their overall governing practices won't allow it.The barriers need to come down.
- There need to be more options for products such as edibles, tinctures, and oils as well as flower.  
The program has very limited participation because of high cost and narrow list of qualifying conditions.  
Not easily accessible, health care providers need to be educated about the program and how to access the registry.
- I have stopped using the medical cannabis because it has put me in the Poorhouse I cannot afford to purchase the medical cannabis which now puts me back into taking the viel drugs I have been taking for number of years to deal with my issues ! ¿ ¿
- med pot is an alternative to opiods,its not as strong as the Vicodin for pain,wish I could get stronger dose of med pot for pain
- Thank you for being so helpful and respectful. This process is scary enough without bullying and discriminating attitudes. I have been very pleased with the professional

treatment I have received. I am a human being who is trying to remain working, rather than giving into the pain and feeling no hope.

- It's too expensive
- This has given me so much hope for the future  
Thank you for making this available
- I'd like to see the program expanded for the medical assets if offers to those who can benefit a higher quality of life from it. I'm thankful for it, it helps me.
- Please let us grow, and have choices thanks
- I would like to know if this coming Monday around 1:00pm would be an OK time to come and get what I got last time. Could you let me know through e-mail? Thank you.
- It would be nice if the State could cover cost of medication with their health insurance to those whose on medical assistance and/or general assistance
- The out of pocket cost, in conjunction with cash only payments have been the only detriment I have encountered. Thank you!
- Great job
- Need to expand qualifying conditions and increase participants in order to bring cost down. Also the limited choice of products (strains) is ridiculous  
Need to allow home cultivation..
- Since I've been using medical cannabis my A1c has dropped 3 points.  
The taste of the medical cannabis is left to be desired but the overall benefits outweighs that.  
I want to thank the office of medical cannabis for this opportunity to use the medical cannabis treatment compared to opiates I would choose Medical Campus over opiates for various reasons as relates to side effects and so on  
Thank you
- Would be nice if prices could go down some!
- I just received an MRI and my lower back is worsening. It does require a temporary use of Percocet to combat the severity of the increased pain. I would like to increase the cannabis dose to replace the opioid.
- They are super great people!!!!!!
- If I used the vape product to the degree that I get the most benefit (3 0.5 cartridges per week) it would cost me \$971.00 a month from [MANUFACTURER] using their 28 day discount of 15%. The same amount from [MANUFACTURER] is half that cost but the product is not as effective for me and I had side effects with that product. I am having trouble maintaining the cost and am not sure how long I will be able to continue to use this medication.
- I am so thankful that this medication has been opened up to pain patients as it has made a huge difference already in the little time I've used it. In addition it is so much safer than opioid medications and much more effective for pain. I would like to see pricing decrease as it is expensive and there are no discounts available to middle class patients who end up paying out of pocket for a lot of medical expenses. I would also

like to completely get off of my other pain medications, but I cannot afford to increase the cannabis enough to do that. Either way I'm thankful for the relief I am getting.

- Thank you, thank you and thank you!
- When will you offer edibles?
- Open more clinics for us people in the northern woods of MN or create a delivery system of some sort! Otherwise this programs AWESOME and has helped me tremendously!!!!!! Thank you for all that you do!!!!!!
- I just can't believe I'm a veteran of the United States of America, I went to Vietnam and I can't believe that we have this disagreement about whether this is legal or not. People don't have good benefits anymore- I used to be a union guy and we used to have good benefits that we paid for. I don't think Colorado should have different rights than Minnesota, I don't think individual states should have individual rights.
- I just wish the cost could come down. Thank you for being our voice...this is way better than being on strong pain meds that you can accidentally overdose on. With cannabis that could never happen. It has helped me a lot
- Every person working in the medical cannabis program that I have had contact with have been extremely helpful and professional, it is greatly appreciated.
- This medicine has changed my life!
- More strains and edibles would be nice. A dispensary in Duluth or Two Harbors would be more convenient.
- As with all patients at this time cost is considerable to be part of the program, dr recommendation, registry, and medical cannabis but to get a good part of my life back is hard to put a price on. If costs come down in the next 6-12 months it is survivable but longer I do not think I can handle.
- You don't have to send so many survey reminders. I was out of town and had 3 requests over a short period of time over a busy holiday season.
- Approve more conditions to lower cost
- I could not be happier to have access to this medical alternative! The only downside for me is the cost, as I live on SS disability. This limits the amount I am able to purchase each month. If I could afford more of the medical cannabis, I am confident that I would be able to significantly decrease the amount of opiate-based meds I would require. Thank you so much for considering my input!!!!!!
- The cost is the absolute worst part without any assistance and due to the lack of competition in the market it doesn't seem that will change.

I don't feel that this is a pain reliever in the sense that the pain is gone but it's definitely a very helpful distraction from the pain.

A study regarding precision dosing would be helpful for patients like myself that aren't comfortable being medicated at work. It seems like the same dose will have a different affect given different everyday variables (sleep, food, hydration, etc.). I'd like to be able to have a healthy balance of pain relief and cognitive function as I start the day, but I'm not confident that I'd be getting the same results each time for reasons started above and as a result I wait until I get home. It's still 10x better than nothing and 100x better

than the risk of using opioids, so a big thanks to everyone that has worked or is working to make this option available to myself and others with continuous back pain etc.

- Consider allowing patients to use or grow their own pure leaf form of the medicine.
- need a closer dispensary and lower costs
- I wish there were more products to choose from. I'd love a transdermal option. Or edibles that are equal in strength to inhalant cannabis
- The price is outrageous. \$160 for a 5 day supply. That's just unacceptable.
- The pharmacist and all of the technician people at your [CANNABIS PATIENT CENTER] are absolutely fantastic. They are truly beyond helpful and I hope they all know how much of a difference they make in some of our lives.
- You should add the whole plant to the program please and thank you
- Affordability is a huge issue.

I have a small settlement after being hit by a drunk driver. Soon (sometime in 2017) that money will probably be gone and I'll have no way to pay the \$400-\$500 a month.

The stress of knowing I may not be able to afford medical cannabis can cause even more anxiety and depression.

- This has been such a lifesaver for me that I am now concerned about Minnesotans who cannot afford the products, such as those on Medicaid because of the severity of their conditions. How can they be helped to receive the benefits I have received? I hope the Office is addressing this issue aggressively.
- I think this medication is the best ever, I used to be on fentanyl and Vicodin and the two combined left me completely zombie like and very sick from it. Medical Cannabis has helped me very very much and no bad Side affects.
- I want more options for how the medicine comes including marijuana flowers available for vaporizing. I would also like to see more companies to purchase the medicine from.
- I love this wonderful drug. It's saving my life!
- I'll be purchasing again soon ☺
- Now that I know how effective Cannabis is, moving to another state with better prices and plant availability is more likely than not.
- Don't tell possible participants to Google certified doctors. I was not comfortable Googling and spending \$200 on a name that Google provided. How do I know it is an actual doctor? Have a complete list of those certified. I scared me to death to have to go to a doctor I Googled. POOR TASTE AND RESPONSIBILITY ON YOUR PART!!!
- I'm very thankful to have this medicine in my life!
- I cannot read so the website isn't a big help. I go down to the medical office or call when I have questions. A better, like business card-size, registry card would be nice.
- Would appreciate more ways of ingesting cannabis. I would like to know more about the strains being used in the [MANUFACTURER] products I vape.
- A longer lasting capsule form would be helpful.
- I think we should be issued a medical cannabis card. Just in the event that I was ever questioned about it, I can prove that I'm a patient.

- Please keep this legal and expand the program, make it cheaper and easier to get, it could be helping so many more people if Minnesota got more on board with this program!
- Produced more so it can be cheaper for the patient
- I need help.
- try to get the cost down
- Keep up the good work!
- Thank you for all that you do and your efforts to enhance the program with the help of the patients.
- I live in Rochester, so the local dispensary has very limited open hours. Makes it more difficult to plan around for follow up and refill appointments. Also, the recent reduction in price for the medicine was greatly appreciated!
- i can't afford to get the amount that i really need so i have to make do
- Best thing I could of done, to legally be on Cannabis, for pain. I wouldn't be here if this was not available.  
Thank you for making it happen!
- very difficult to certify w/o going to marijuana doctor, hmo are not participating as of now in certification
- I have had my doctor correct my email address with the Dept. Of Health/ Medical Cannabis. Now I cannot log in (to do the patient self-report before getting refills) on the website using my correct email address. Once again, I must use the wrong email address to log in. It was corrected for a while, now it is wrong again. I wish this would STAY corrected in the system.
- Lower cost somehow ppppppplllllllease
- Opioid free and would also like to see program expanded its great opioid free
- LOVE the results...Thank you!
- The cannabis is the best thing that has happened to me since my injury, nothing else has worked like the cannabis has and I am so very thankful I am able to get it when I can.
- Would be nice to have a dispensary in southern MN. I have to drive 3 hours to access a dispensary.
- Thank you.
- This is probably the best thing that has happened in the way of pain control ever.
- This should be open access, not a pharmaceutical drug
- I have migraines and when I took the liquid medicine it brought the pain down from an 8 to a 3. I also get really bad nausea with the migraines and none of the medical cannabis would help with the nausea and it also doesn't work (vape pen) on anything higher than a pain level of 6 for. But when you knock the pain down you don't have as many days when the pain is an 8. I have had street marijuana which helped with the other stuff and I'm wondering if there's something in the plant that gets taken out in the extraction. The costs need to come down or insurance needs to cover it, I pay \$600 a month and I'm on a fixed income.

- I would like to be able to use this every day without worrying about the cost. On good days I go without it but would feel more comfortable with it. It has really made a difference in my attitude about day to day living. I have hope again that maybe I can get something done.
- hopefully someday having the option like Colorado will happen ...instead of only 3 oils
- It would be nice if there was a way to provide a list of doctors to go to for the initial application
- Please keep the program going - this has been of great help to me to control my pain at night.
- You need more qualifying conditions.  
It is too expensive.  
Intake options should include at a minimum flowers, but edibles and smoking concentrates should also be options.
- I strongly believe in this program and am trying my best to inform qualifying people so as to help it be successful and grow but the cost is a little steep as far as vaporizing oils are concerned otherwise I've not one single complaint and truly I'm just so happy to have relief and to be able to not be in pain every hour of everyday
- This has made a significant improvement in the quality of life for me. The only downside is that I am now taking a lower dose than suggested of the CBD oil due to price. But symptoms are less under control. If only there was a way for the CBD oil to be more affordable - it's the one that has almost no THC, which makes it great for daily use and to not feel impaired in any way. On the individual market, our healthcare expenses will be exceeding \$30,000 this year, which makes it hard to spend the necessary money to get the product. And without the product, I am not able to have a "normal" life - one that is not severely restricted by pain. So it's tough.
- Try and reduce the costs for medical cannabis itself. I love what it's done for me cost aside this is the best medicine I've taken in years and that I have been able to fully benefit from with one minor rare side effect -headaches. I appreciate this program and hope to see expanding of the medical cannabis line very shortly. Thank you.
- This medicine has helped me reduce the amount of prescription medication that I used to take to control my migraines. My migraines can last up to 5 days. The only negative to this medicine, is that it is very expensive. Can you bring the cost down?
- I have had a hard time getting my caregiver signed up. His information somehow got mixed with mine and the office person didn't know how to fix it.
- It is very hard to find time to drive the long hours to get medical cannabis. Is there ANY way we can look into mailing it to the patients pharmacy for extra charge? That we can save gas and money? And maybe this way you guys can require every 6 months we drive to the center for a required face to face check up? the long drive is hard on my body and I am sure it's hard on other patients.
- I would like the Office of Medical Cannabis to know that topical applications of cannabinoids are very effective for pain relief and I think this route of medication should be researched and products for topical application should be developed. I have used hemp

eze with good results. The cannabis root is also rich in CBD and should be considered as well.

- Make CBD oil less expensive. I wish there were more than just 2 manufacturers/companies/pharmacies to choose from. I wish that more than one pharmacy had prefilled cartridges that do not have any fillers (coconut oil derivative) I wish the plant was legalized for medicinal usage, there are more cannabinoids in the "whole plant" that also have health benefits (I think 113 different, I read when researching) (although I'd prefer not to smoke due to pulmonary concerns)
- Legalize flower please. Buying concentrates from the legal vendors is too expensive. Would much rather buy it off the black market since it is cheaper. You guys are missing on huge amounts of revenue.
- They have to make the price reasonable for veterans on a fixed income.
- Just that the medication has been amazing, life changing even. Unfortunately, I had to go back to using mostly opiates for pain control because the cost of cannabis has negatively affected my family.
- I think our program is way too restrictive compared to other states. Different strains work different on people giving different levels of relief. We are not given that option.
- To allow the state police the ability to help set price points is Criminal.
- I wasn't aware of how very different the 2 providers in this state really are. One is very professional and offers a larger variety of products. The other seems to be not much more than a dealer
- Create a link that's easy to find survey
- I suggest in oral suspension that the dosing be more frequent than twice daily. A 3ml dose is effective without dizziness. But twice a day requires me to take the max 5ml twice a day to get pain control. 2.5 ml 4 times daily would be more effective without the s.e with the same total dose
- I am very thankful that the state made this option available to me rather than another couple decades of tons of pain killers as Morphine or Methadone.
- I wish the cost was a lot more affordable for people who are on Social Security disability. Right now it's hard to pick up the medicine I need.
- You all are doing something wonderful with this program! THANK YOU!!!
- I just think it shouldn't be so expensive. I'm on a fixed income and medical cannabis really helps me but I can't afford to have it every month.
- Taking medical cannabis off of Schedule I would leave so many opportunities for the medical field to explore the many medical uses of cannabis. This medicine has truly changed my life, and I after 10 years of being on and off of strong medications like Klonopin, xanax and sometimes Vicodin for pain, I have been off of all of them for at least 3 months.
- The office was great when I called. They just would not give me a name of a doctor to begin the process of getting enrolled in your program. Pretty stupid and pathetic not to have the balls to provide a name. I had to go through third party endorsements and eventually found a doctor. But a needless exercise. Who are you trying to kid?



- I am so thankful for this program. The only negative feedback I have is the cost. It's very expensive, especially since I'm on disability, as I'm sure a lot of people who are in this program are. There has to be a way to make it cost less. A 10% discount doesn't do much when you're still spending \$300 /month and you only make \$1000 /month in income. It makes it hard to decide...if I want to buy the medical Cannabis and feel better, or be able to pay bills. I know other people feel the same way.
- Just keep up what you're doing. I hope things keep going the way they're going. Financially it could be better but it's working well for me.
- cost too much for people on disability
- Cannabis has been extremely helpful in treating my chronic migraines. Relief is now within hours, not days and my quality of life has improved dramatically. I have also been able to stop taking two other medications I have been on for the past 15 years for anxiety and depression!
- I am finally getting some relief!
- Thank you so very much for having this program. Words can't express my gratitude. My deep, crippling pain is reduced therefore has lessened deep suffering.
- Please help spread the word of the numerous benefits of medical cannabis. Please help bring the costs down. Thank you very much!
- The state is losing millions due to partisan constraints imposed on the program by a conservative Republican legislature. By following other states and allowing REAL medical marijuana, the profits will soar immediately, once the expensive and unneeded processing is eliminated. With a Democratic legislature back in place, this should be able to be accomplished yesterday. Unfortunately, the product quality that MN provides its patients pales in comparison to other medical/recreational state run dispensaries, solely because they have an all natural product. As someone fighting gastrointestinal cancer, I don't need other unnecessary ingredients to worry about. Also Rick Simpson oil would be a MAJOR benefit to many. You don't have to say that it cures cancer, even though research shows that it does. Just make your oil according to the RSO guidelines and let the patients who understand make the choice on their own. We're all grown-ups and adults. Lastly, a sincere "thank you" to all who have helped to coordinate and facilitate this program. Your daily efforts are greatly appreciated. Best regards to all.
- I think it's important we fight to keep this program. This has really been the difference between me becoming totally disabled and being able to work. This has also saved me from going blind by lowering my intra ocular pressure. The war on drugs shouldn't be about taking medication away from the sick.
- I would like to see more research and clinical trials specific to certain conditions. Also would like to see patients have access to raw plant. Also would like to see lower prices for medications.
- I wish wish wish with all my heart that insurance would cover it, and if not at least affordable for patients.
- The price needs to come down it is hard to pay for this out of pocket, when many other states have much looser regulations. Common sense would say to move forward and

stop regulating this too much. I am glad the state is moving forward but it needs to listen to the people it helps, not the people that think they know what's best for everyone else.

- When there is meeting about Medical Cannabis, PLEASE MAKE AN ANNOUNCEMENT MORE THAN 1 DAY IN ADVANCE....
- I would like you to know, In my opinion, keeping people from cannabis that suffer from depression, not controlled with standard treatment, is despicable. I became a cannabis patient because I live with chronic pain. Three months after using cannabis, I no longer need my anti-depression medication, not that it worked all that well to begin with. For someone with severe depression, cannabis could be the helped they've been seeking for so long. Thank you
- With the cost of the amount of medical cannabis I won't be able to continue on medical cannabis for much longer cause 3mls of [BALANCED THC:CBD PRODUCT] x3 doses a day 2 [BALANCED THC:CBD PRODUCT] cartridge and 1 [HIGH THC PRODUCT] a month is my monthly supply cost is around \$500.00 to \$600.00 a month I have been on it for little over 3 months now, I can't continue paying that much a month.:(  
This is heart breaking for me,cause I have seen provement in my health and don't want to go backwards because I can't aford a natural based medicine that is better for my body then all these pharmaceutical medications that has all these fillers and chemical compounds that have such worse side effects.  
Why is the cost so high that only the wealthy are able to aford a more natural based medicine.
- Medical marijuana is useful, natural and effective. Cost will prohibit many from acquiring medication. If costs can be lowered, or enough dispensaries become available to drive the costs down. Currently we have 2 choices when it comes to the actual medications and neither of them are very affordable.
- Access to medcan has allowed me to experience life again.
- Expand this program to more people and help it to be more accessible to more patients. I happen to have the financial means to pay for it because my husband has a high salary, but many people that may qualify for this program are ill and do cannot afford to buy this. Help more health care providers receive continuing education on the benefits of medical cannibas to drive down the stigma. I had never used marijuana in any form, or any recreational drug, ever before in my life. I had no idea how wonderful this plant was. The media consistently portrayed users as lazy criminals who get the munchies. This plant is a miracle. It is saving lives!
- Yes, this program needs to be broadened we need the option of several different varieties of medicine like in Colorado that would help with the cost and help us patients pick and choose what works best for us cuz with what you have we build a tolerance quite fast and this medicine is very weak and has little benefit compared to Colorado
- I think the program should be expanded to other medical needs. Anxiety and depression and TBI for instance. More forms of cannabis should be allowed such as full plant rather than isolated CBD and THC because there are benefits from other substances in the

plant. There are states that allow caregivers to grow a limited number of plants which would help reduce costs. I would be greatly increasing my dose if the cost allowed for it. I would also use a greater CBD product which at present is the most expensive formulation in Minnesota. I am grateful for the benefits I am receiving. Thank-you

- I do think medical cannabis should be available in its native plant form.
- Would like locations for North Metro patients and lower costs!
- The pricing of the meds according to your dosages are outrageous to be honest! You need to either adjust the pricing to match your dosing better, or increase the amount of supply for your current pricings of medicine. Thank you for taking the time to read these!!
- need to get prices down and sell vaporizer that works good with the [VERY HIGH THC PRODUCT] bulk oil.
- I would like to see the price go down, especially for people on fixed income like me. I would like to see more locations.
- Please allow patients to access more types of medicine such as whole flower or concentrates or edibles, it would be incredibly helpful.
- More strains needed to match symptoms/time of day. Coat is too much.
- please consider everyone on opiates is on a downward spiral ending in stupidty i have sufferd since 1987 with spine /muscle pain only time i didnt smoke pot for this is while under legal problems prohibiting the 0 releife i was so fond of what i ask is the problem pill companys have made enough\$\$\$\$let the people choose not the government,please do not let those who use any cannibis for any reason got to prision thank you for the positive efforts to make pain releife possiableç
- we need a dispensary further west. have to drive 250 miles.
- I wish that insurance would be able to cover some of the cost of the medical marijuana it is the only thing that has helped with my pain but being on a fixed income makes it very difficult to afford. It not insurance then It would be nice if there were a program set up to help those who need it and are on fixed incomes to help with the cost of their medication, at least once a month.
- My primary care physician wanted to recommend cannabis for me but her network would not allow her to. It would be best for patients, especially those with limited resources or mobility, to know in advance which doctors are permitted to prescribe cannabis. The program advises people see their primary doctor first but they should be aware that most primary care doctors are not permitted to recommend due to their employers' regulations. Unfortunately, this requires extra money and time be spent in order to meet with a participating doctor. Please encourage large networks like Health Partners to reconsider their position on medical cannabis. Thank you!
- The new caps with the rubber seal for the bottles works awesome.  
After taking the oral medicine i encounter for about 10 minutes a scratching feeling in my throat.
- please open a center in Mankato, MN.
- You are doing a great job. Thank you

- I wish we could use my HSA or Flex account to pay for my prescription.
- Make it easier to find a physician to get certified.  
Have an area in Duluth to buy cannabis.  
Get the cost lowered, and or have insurance pay for part of the cannabis.
- Need more availability
- Help drop cost or if any insurance can cover most of the cost.
- I would like to say since the beginning the usage of Medical Cannabis I am a much happier person with the relief of Fibromyalgia pain, Chronic back pain, arthritis pain and how it has addressed my sleeping issues. I love not having to take opioids anymore!
- I had begun to feel that horrible chronic pain was going to be my constant companion for the rest of my life. Medical Cannabis has given me my life back!
- I would like a dispensary a little closer to the Southwest Corner of Minnesota, If not, then possibly some sort of strict/highly regulated grow license that can be similar to what Michigan offers, thus legalizing Medical Marijuana in the State of Minnesota. As you know it is just Cannabis Oil and other methods for now.
- I am very pleased with the results, but I would like more options of different strains.
- I find it to be very beneficial to my quality of life.
- The use of cannabis was so helpful for my pain.
- For someone like me who is on disability and has a very limited income having to make the choice between pain medications such as opiates that are covered by my insurance and medicinal cannabis which isn't covered is very difficult for me because the cost of the medicinal cannabis is really extreme but I find it more effective and I'm not as scared of the side effects as I am from pain medications and steroids but I can take those pain medications and steroids at a cost of \$1.20 for a one month supply compared to an excess of \$300 for a monthly supply of my medicinal cannabis
- This is a great program. If I miss a dose or do not need to take one my body does not crave it like an opioid does.
- As a low income participant I cannot afford the dosages that would bring me even more relief. I sincerely appreciate the discounts that are given by [MANUFACTURER], my research has told me that I could get better Intractable Pain relief from some of the [MANUFACTURER] products, but they are out of reach of my budget. Still, I am VERY pleased with my results, I know that no amount of therapy, treatments, TENS, Rx, injections has ever brought me to days like I have now! I am so grateful - and truth be told, I smile more because of it!
- I am so grateful for the opportunity to purchase medical cannabis. It is a lifesaver when I think of the side effects of the medications I was using.
- When will it be legal? When will insurance cover cost of med?
- Please protest for the flower or get more petitions for the flower and possibly lower the costs a tiny bit. I think these suggestions will bring you a better financial outcome and a better outcome for me as well. You Help Me- Help You!
- open up to all people in pain. that should lower the cost.

- This needs to be an option to ALL patients!!
- Minnesota has one of the most strict medical marijuana programs in this country. Patients not being allowed access to the available benefits of these medicines that utilize the full spectrum of therapeutic compounds that cannabis presents to us. Marijuana is known to found abundant in cannabinoids and terpenes that are contained within it; and each of these therapeutic agents that are processed out of THC- and CBD-only medicines, have so much to offer patients treating a wide breadth of symptoms and conditions.

FULL access to this whole-plant medicine can be made available by smoking or vaporizing medical marijuana; a delivery method still not yet ready in this state. Minnesota Medical Marijuana Patients instead right now can only consume medical marijuana as in vapor or edible form. Many conditions that qualify a patient in other states will not qualify a patient in Minnesota. Nearly every issue I deal with that is associated with my Ehlers-Danlos Syndrome, I have found to be impacted by this program in a very astounding way.

With that being said, I believe Ehlers-Danlos Syndrome should be looked in to as potentially being considered, or possibly recognized under the same category-umbrella as Intractable Pain. For a great majority of this conditions symptoms and manifestations happen to fall under or lie within some of the other qualifying categories individually, but yet not specifically under either the ""intractable pain"" or ""non-malignant chronic pain"" category. I understand this specific issue has been presented to the State before in recent years, with a fellow Minnesota EDS advocate sharing her story and her discovered potentials with trying MMJ. Her message then is the same as mine now, with this as being potentially a very beneficial ADDITIONAL option or avenue for within an EDS patient's individual health and treatment plan.

If there's a medication that has the ability to solely eliminate the need for several prescriptions a patient is taking, while at the same time adding quality of life for said patient, that specific medicine should be made available for those people with conditions see the most benefit. If the Minnesota MMJ Program were to officially recognize and qualify the EDS spectrum under the qualifying conditions list, I think it could be seen as a very progressive and upstanding consideration to make for a very large herd of genuinely hurting but very hopeful and disabled peoples.

- My family and I are very grateful for medical cannabis. Thank you!
- Medical cannabis has really helped me in function work patience all around life is 100%
- I really feel like this is saving my life and allowing my body to heal. For the first time in years I feel like I finally have a quality of life. I will always be different, but this is helping me become an active participant in my life.
- Thank you for blessing me with the opportunity to have the medical cannabis. My severe pain and severe fainting / convulsing spells have very much decreased when using this.
- This has been life-changing!

- More product to last the month would be highly appreciated and is needed to maintain a higher level of functionality."
- This is an extremely helpful medicine. I have chronic pain with many of my conditions as well as nausea and difficulty eating. I have a sleep disorder, along with anxiety it helps all of these conditions in some way. I wish this was federally accepted so those who travel whether for work or pleasure can still use there medication, especially since on this program even if you don't have access to your medical cannabis you can not get pain medication even for these situations. Also federal acceptance would open up the ability to incorporate the insurance and banking system.
- In order for this program to succeed the cost needs to come way down. Also strain specific medicine needs to be available along with whole plant cannabis. Whole plant availability will dramatically reduce cost and make it easier to implement strain specific medicine.
- Why dont you accept Insurance?  
There needs to be more locations to pick it up.
- Make affordable... I am disabled on fixed income.
- Just financial funding help
- [PATIENT] had some of the physical side effects as she was working on best dosing. Clinic was very helpful in giving direction on how to deal with this.
- I had no idea it would be as helpful in other areas as it has. I believe it has saved my life. Being more accessible and affordable would help so much more in reducing medication abuse and accidental death in my opinion. I have not functioned this well in decades.
- I feel that the cost of medical cannabis is the number one issue in a lot of patients minds. This could be remedied by allowing patients to grow a small number of cannabis plants for their own consumption.
- Deeply grateful to be a part of this program.
- The cost is quite pricey; especially, when a lot of the oil sticks to the syringes, the pen can leak, and a number of other factors which can cause overall waste. I would hate to be in the position where I would require more medicine or else I'd never be able to afford it. Other than that, I'm very happy with the medicine.
- 1. Make it easier to find physicians who certify patients for the program.  
2. Legalize cannabis at least on the level of alcohol regulation. At most, legalize it so citizens can grow their own. There must be thousands of financially strapped Minnesotans who would benefit medically from cannabis they could afford to grow at home.
- I am so very thankful for this program. I am able to manage my pain everyday without effecting my ability to be a great mother, wife and active member in my community.
- 1. change the law to allow more vendors to participate in the medical cannabis program.  
2. the interface between the office of medical cannabis and the stores and processes to fill out surveys, register, find the stores could be a WHOLE LOT EASIER. the multiple

logins etc are really confusing, inefficient and could be much more user friendly.

3. for those of us on disability and medicare it is time to find assistance for those who are in need and truly cannot get the product....

4. the publicity or lack thereof is also a concern. more education for the legislature, police, medical community and the general public and outreach for those who would benefit from knowing we have a program.

thank you for making a start and creating the space to grow!

- The list of medical provider that perscribe medical cannabis needs to be listed on your web site for easier patient access to them.
- Thank God.
- Should offer more choices and edibles. Lower prices.
- Awesome Program. Changed my Lifestyle. Thank you.
- It would be helpful to know who the doctors are in our area to go to for this program. I have to drive 600 miles round trip just to see a doctor who charges me \$300 just to see him and also \$320 to refill my pain medication each month. Why doesn't our medical insurance take care of this. Not many people can afford this on a monthly basis. What about renewing your prescription online and having it shipped to your residence.
- The cost is very high. Anything that can be done to reduce costs would be appreciated.
- The cost of the medications are absolutely ridiculous. We are paying three to four times the amount for medications then most other states are for recreational. Medical Cannabis does work and could improve my life tremendously. Please, make this medication accessible.
- Is there a way we can get a card or do we just carry the bottle around thank you
- It would be nice if there were more options. If they offered different strains of oil because one plants oil can help with different problems than another's. I would also like to be able to use creams or topical oils.
- This has help me in so many ways  
Very surprised no pain at night thank you so much for giving me my life back. No more pills for me.
- Expand Cannabis for more conditions
- Ty 4 giving me a wonderful alternative 2 big pharma.... Please as a patient who is on disability/ssi... Bring dwn the cost.
- more affordable for oils, more distribution sites to reduce travel distance for patients in rural Minnesota, more vendors to increase competitiveness of price, more public awareness of benefits of medical cannabis to reduce stigma
- I only use mj in 2012 I was on 12 medications starting with paxil er twice a day Xanax ambien blood preesure medication stomach medications . In 2012 I went to Colorado because I was in a clinical depression doctors in Minnesota refused to take me off medications just wanted to keep adding them I was 234 pounds. In 2013 after getting off all medications I got diagnosed with fibromyalgia . I react and have allergies to a lot of prescriptions . I just wish Minnesota was more cost effective If I don't buy a month supply with dicounts from [MANUFACTURER] I cant buy any at all . I already spend 600\$

a month I work part time my gross income so far for 2016 is 9,900 . Im not sure if I can keep paying that and my bills .

- Thank you for fighting for this right for patients to have access to medication that works without unnecessary side effects of traditional pain medication. I look forward to the topical treatment in the near future.
- I love it !!! I can live my life again !!!
- Need to be more affordable
- Thank You very much!
- I just want you to know that I have had this pain for 14 years and little hope of anything changing. This program has given me hope again and I am so grateful Also the people that I am working with are the Best!
- Office of Medical Cannabis should consider dispensing at local establishments (liquor stores, pharmacies, etc.)
- I would rather have a natural product then oils and pills. I think we should be able to grow our own marijuana. Thank you
- Thank you.
- The hardest thing is finding a Dr. to prescribe cannabis. The state needs to advise who will do this.
- Thank you for helping me get the pain and emotional relief I need.
- The thought of going through the process of applying was very intimidating. In fact you have made it very easy and for that I thank you. This product has changed my life for the better.
- i think it is a good program and easy to use.
- Please...please allow the medical cannabis program to supply Us with the choice of purchasing the flower to smoke. Having the Flower to smoke would be soo much cheaper. I can go visit Colorado and purchase a whole ounce of medical cannabis flower for only \$99. Please give us patients a choice. Much more affordable for us.
- The appointment online registration doesn't always work
- I do not think with my system having MS, I should have to be re examed annually to be re qualified. my MS has no cure. I do not understand that I should not have to pay annual fees to the state & DR's to keep me qualified to continue me to receive the cannabis. It feels to me like a money grab, especially by the qualify DR'S in the program. I think the State should have exemptions for certain health conditions. I am on SOCIAL SECURITY & MEDICARE. My financial resources are very limited. I think the law should addres this issue.
- It was very difficult to find a doctor that would prescribe cannibus and to figure out the process.
- The price is way to high



- Stay open in [CANNABIS PATIENT CENTER] more days. Not have to do this survey every time I pick up cannabis.
- My uncle is a drug felon. He has cancer. He doesn't qualify because drug felons aren't allowed to participate. Wouldn't denying him medicine be against his civil rights? I don't think anyone being a drug felon should matter. People get OxyContin as drug felons and that's way worse than marijuana
- I do not believe I'm going to be able to continue this treatment for long, my health insurance costs are going up, and I may have to cut this because of it.  
That being said, I find it incredibly sad that this treatment is, in a way being withheld from its patients.  
We are told to look at it as a medical treatment but our insurance doesn't recognize it and the costs are astounding due to the processing our state has required. I honestly feel like this program wasn't given a fair chance to succeed by the strict regulations put in place.
- Thank you for helping me live a better life
- It needs to be legalized and the cost needs to drop so others can share in the benefits for medical conditions that are not yet covered. Migraines, Nausea, IBS, etc..
- Make it cheaper, it works great.
- I wish my Insurance covered it Or it was more of a discount with Insurance
- Please continue your efforts and helping others in situations other than mine to have better access to this medication, and bring down the prices as it is very difficult for me as a disabled individual to afford the medication and it is not fun having to flip back and forth from narcotics 2 cannabis oils when I can afford it
- I didn't know about this website until I saw the Dr in [CITY]. After that, things went smoothly and I was giving the information I needed to answer my questions. The cannabis has helped so much but since I can't travel with it, it's not something I can use consistently.
- Thank You from Me and My Family
- Make it more affordable
- With Cannabis I am a happy, healthy, and productive parent and employee. Looking at alternative treatments the addiction and inability to function day to day made me not want to use my prescription. Down with ops, up with hope!
- like it offered in different turpine forms
- I found it would cost me over \$600 a month to treat my chronic pain with cannabis and it's not as effective as Oxycodone which costs \$0 with insurance. I'd still like to use it occasionally, but cost and availability is a huge negative.
- It would be nice to have the costs come down!
- It so frustrating because I truly need this product as it helps me a lot. My issue is the COST is way to High I live on a fixed income and I have been not paying important bills so that I can buy this to help lessen my pain and symptoms! Please find away to make it more affordable? Please allow my insurance to help me?

Thanks

- Push for insurance coverage for this wonderful program. Doctors and insurance companies need to recognize this treatment as a very viable medical option.
- It would be nice to be able to grow a few plants of your own. This would be the best most cost effective way to get the medicine.
- You need to be able for people to find doctors to approve me before I even get to you. [CLINIC] pain specialist is an example where they told me they are behind and waiting to see what others do.  
Also I used to take 4-8 525 oxy and now take 1-4 per month. This cannabis program is bringing back my life. And with less pain. Accepting ones pain is the first step.
- costs too much
- Medical cannabis brings me up to about 50% of the energy and activity level I was at before my chronic pain syndrome. It gives me the energy to allow my PCA to assist me to complete my daily activities. It wears throughout the day where I am able to sleep at night with my chronic pain. New pain needs more medical cannabis, but old chronic pain is managed well with medical cannabis.
- EXTREMELY nice, easy to work with staff from the front desk to the pharmacists--all are great at the [CANNABIS PATIENT CENTER]
- What I would like to see is a space for blogging where everyone in the program can find space for authentic discussion & exchange of information. We learn best from each other! (-:)))+
- Needs to be available in more places with lower prices.
- This medicine has made it possible to move around with out feeling like a pill zombie and has helped me with my anxiety as well
- Make sure if what you are giving the customer is what they expect. If you don't have the flavor or run out make sure to tell customer
- I feel that with the ongoing opioid epidemic, medical cannabis should definitely be used instead of the opioids!! It's a "No Brainer"
- Sometimes I have difficulties getting to a dispensaries, the closest one for me to go to is 40 minutes away and I don't not drive. So hopefully dispensaries will expand to more parts of the state!
- The cost is not sustainable for me. I'm glad I quit oxy, but now I'm a little lost on my next step. I'm not sure this is a permanent solution unless the cost comes down. I'm getting pressure from my spouse about the cost. It's true I paid a lot to test each product (about \$1k). I settled for [HIGH CBD PRODUCT] pill but now the nausea is so bad I am gagging and retching all the time and have to take Ondanestron several times a day. I skipped taking it yesterday but needed to take it today for the back pain that returned. It's a great lifesaver but you are bleeding us dry in the process. :(
- The medical cannabis program is a good program. I feel that medical cannabis should be also covered under medical insurance, because some people who are on medical assistance or government assistance cannot afford the medication all the time. Some people who require higher doses to minimize their pain has to settle for less affordable

meds that they can afford. Where as all other medications that cost twice or three times as much is covered by medical assistance or insurance. Just my opinion!

- I was very skeptical that the medical cannabis would help me, but it definitely has.
- Keep giving people's conditions studies because it does work.
- We need pill form in [CANNABIS PATIENT CENTER]
- Look at California, different strains for different pains. Way overpriced.
- I'm glad you guys did it.
- I would be able to get my medicine more of the things that worked (vape) weren't so expensive.
- I love this stuff!
- Nice to have same day pick up apts for refills.
- Thank you for helping me.
- Since I was able to use medical cannabis, I have been able to quit taking vicodin. I have used vicodin for my Chronic pain for 14 years. I discussed with my family physician that I am a cannabis patient, and he was fully supportive. He stated that he would rather me use cannabis for my pain over vicodin.
- Maybe take into consideration of cost to those on SSDI, or Disabled Vets, and those alike.
- Medical cannabis is the first thing to work for pain and sleep in eight years of trying prescriptions, herbs, etc.
- I am happy to help fighting to have the state of MN to force insurance to pay for cannabis oil. My daughter was on heavy narcotics ALL of them substituted with cannabis oil. I can have oxycodone for free but instead I pay for the oil. This is wrong and needs to be addressed. My daughter's doctor, [NAME] is willing to help advocate.
- It would be very helpful if there was a bigger effort to change public perception about using MC. As it is, I have found it very helpful but I don't feel comfortable telling people I am using it, which means other chronic pain sufferers are not hearing that this is safer and more effective than opioids.
- Thank you all for helping patients access a medicine that does not have the side effects, dangers, and highly addictive properties of such drugs as the opiate family.
- Expand the qualifying conditions. There are so many who could benefit from greater availability for additional symptoms
- It is much easier to come up with 20 dollars than 100 and this is why it is hard to purchase what I need otherwise I have had a good experience so far...
- this helps me with shakes as well
- Would love to see price drop.
- 1) The cost of the current products are extremely cost prohibitive.  
2) Consideration for a 100% indica product needs to be compared to the efficacy of a 100% indica product such as Afghani Kush.
- Thank you for this program.....
- Somehow make it affordable

- Not being able to take meds on airplane forces me to stay here in Minnesota. SW Minnesota has no dispensary. I have to travel 3 hours to any Minnesota dispensary. I have been in pain since car accident in 2012. Medical marijuana is the only pain relief med that works!  
I have been prescribed many many opioid meds that didn't work.
- Thanks for helping me with my pain  
I wish it was also approved for depression / anxiety / diabetes neuropathy of pain i've never done cannabis in my past but it sure is help me since I started
- As more and more states legalize this process, the overpricing in MN of cancer and chronic pain patients will be glaringly obvious within the next few years. It will not look good for the state to take advantage of the sick and dying.
- I no longer use this product. Had a severe reaction to the Medical Cannabis.
- the restrictions on the program are making it difficult, eg the cost is too high, I don't like the cannabis pills (don't help) and liquid vapor form seems unduly complicated and expensive
- Per conversation with patient: \$90 for half a mL is too expensive, I don't care how pure the quality is, no one will be able to buy it. Vets with PTSD who are relying on the program will be in trouble because it's too expensive and it doesn't work. The prices need to come down, the quality needs to go up and you need to make it easier to find a doctor. Every other industry has a feature on their website where you can enter your location and find the nearest location- we need that for doctors in the program. I had to pay \$250 to be certified and another \$200 to the state to join the program. I don't want to see it on the news that a bunch of vets with PTSD committed suicide because they tried the program and it didn't work for them.
- Will there be other ways to use this pot, not smoking but maybe edibles?

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# Appendix D: Healthcare Practitioner-Reported Benefits from Medical Cannabis

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons. Benefits are broken down by benefit score rating.

## No Benefit Score

- According to Pharm D notes, the patient is using 4/7 days to help with sleep and pain level.
- As of her last assessment, she had not yet found a formulation of medical cannabis that she could tolerate taking regularly.
- Deceased - Sepsis
- did not tolerate
- improved nausea from opiates, relieves pain moderately although she takes opiates on days with pain flares
- More comfortable
- none that I know of, but things might have changed from [DATE]
- patient discontinued cannabis due to lack of improvement. Reported she was unable to afford the recommended cannabis
- patient is continuing to take suboxone in conjunction with medical cannabis
- Patient only used medical cannabis for one month and stopped using it because she felt it wasn't working for her.
- Patient sees a partner in clinic.
- Patient states that he only went to the dispensary twice but did not continue to get medical cannabis because he did not like the psychoactive effects from the THC.
- Pt has not been able to afford the cannabis so he has not been taken it in several months
- Pt has not been able to afford the cannabis so she has not been taking it
- Reduced pain  
Ability to rest
- The patient was experiencing nausea and other GI symptoms. She discontinued use for a short time. She is still not using this consistently in order to see if this will be beneficial.
- No benefit. Used it once and "did not like it" so is now using it "the old fashion way".
- Pain, but patient stopped after 3 months due to blurry vision.

- Patient believes it works better than opiates. He is no longer constipated due to recent cannabis use and is lowers his pain levels dramatically.
- Patient uses cannabis for sleeping mainly. It does help with pain as well but she is not using it as much as she was in the past due to job searching.
- Reduced constipation.

## Score of 1: No Benefit

- Tried medical cannabis for 4 months without relief, so stopped taking in April.
- could not tolerate any of the cannabis products
- Did not help with pain
- Did not tolerate side effects
- Did not work for patient at all
- discontinued because it was not effective
- finds that she sleeps well
- had no pain relief with cannabis
- Has not helped with pain.
- He did not ever get any benefit.
- He quit taking due to cost
- it did not work at all at low dose and caused severe side effects (HTN and tachicardia) at higher dose
- no pain relief benefit-she has discontinued taking
- No pain relief; patient discontinued use
- No results after trying 4 different preparations.
- None  
She is not sure if it has any effect on her chronic pain status
- not effective
- not much benefit for pain relief
- Patient did not utilize it long enough to experience any benefits.
- Patient discontinued taking medical cannabis after trying it due to ineffectiveness
- Patient discontinued use after trying pill form due to negative side effects
- patient had intolerable side effects with only a couple of doses, and did not return because of a bad experience with the cannabis distribution center
- patient no longer using
- Patient stated that she only went to a dispensary 2 or 3 times and she did not find the cannabis to be helping her at all so she hasn't been back since.
- Patient stated that she tried capsules and vaping, and oil and none of the forms worked for her pain at all.
- Patient stopped taking medical cannabis 2 months ago because he felt no pain relief from it.
- Pt tried cannabis on and off a few times, did not get better and stopped trying

- Pt tried cannabis x 2 weeks, did not feel better and stopped trying
- PTSD and depression gone. Pain much better, More active, can walk now
- She did not feel it was helpful for her pain.
- She did not feel like the cannabis helped with her pain.
- She states it helps her forget about the pain but doesn't reduce the pain severity as she reports that it causes her to "feel high"
- still had pain and did not have relief. Did not concentrate on seeing if there were any benefits, just focused more on the pain.
- No benefit. Used it once and "did not like it" so is now using it "the old fashion way".
- Pain, but patient stopped after 3 months due to blurry vision.
- Patient believes it works better than opiates. He is no longer constipated due to recent cannabis use and is lowers his pain levels dramatically.
- Patient uses cannabis for sleeping mainly. It does help with pain as well but she is not using it as much as she was in the past due to job searching.
- Reduced constipation.

## Score of 2

- "Numbs" the pain  
Improves sleep
- able to sleep better, headaches sometimes better
- Able to wean off of fentanyl, but pain is inadequately controlled now.
- benefit with sleep
- cannabis did not reduce pain nearly close to her opioid
- Denies that the cannabis is helpful but was not very receptive to medical cannabis in the first place since his narcotics were going to be weaned. But medical cannabis is a safer way to control his pain.
- Did have some pain control but does not feel this was significantly better then prescribed medication. Not actively using cannabis.
- did not tolerate
- discontinued the cannabis as it only helped with sleep - still needs opioids for pain
- eating better, able to relax, has not cut down opioids
- Effective for pain, but not affordable. Pt is considering moving to CO or OR. He tried product in CO, whole plant extract, it worked better than MN products and was significantly less expensive.
- For this patient, it was not helpful enough to reduce his opioid need. Thus, we mutually agreed to stop the cannabis.
- has improved sleep little benefit pain
- helped some with anxiety
- Helps some with pain
- Helps some with pain, but does not last long -- only about 3 hours.



APPENDIX D: HEALTHCARE PRACTITIONER-REPORTED BENEFITS FROM MEDICAL CANNABIS

- Helps some with pain.
- helps with nausea, not yet with pain
- It does slightly help him sleep better at night, otherwise he does not feel like it is helping during the day at all.
- It helped relax, but not pain. Pt didn't want to try higher THC product, so titration was not carried out.
- just starting to use, less anxious, no change pain, to use different forms
- Less frequent and less painful UTI's.
- makes oxycodone dose last longer
- Mild sense of wellbeing
- Mild to moderate pain reduction
- Minimal pain relief with medical cannabis
- Minimal pain relief. Pt could not get in enough THC due to side effects
- No help for pain, some relief of nausea
- No relief with pain
- no significant relief
- Not sure if providing pain relief.
- Patient did not get adequate pain relief
- patient discontinued after not much pain relief
- Patient discontinued use after 1 month due to fogginess
- patient gets mild relief on occasion but it does not last
- Patient has been unable to utilize medical cannabis regularly secondary to cost.
- Patient has more relief with opioids
- Patient reports that the product obtained from his vendor was inadequate to treat his pain symptoms. Quantity necessary to get him to relief . was too expensive. He felt the CBD did help somewhat with his anxiety.
- Per PCP note sleeping better, less anxiety
- Possible minimal help for pain, not definitive. Probably did not get to sufficient dose.
- Previously taking Percocet 5mg/325mg BID. Tried medical cannabis in addition, but found Percocet to be more effective for pain. Has stopped medical cannabis.
- Reduced back pain slightly.
- reduced pain
- Relaxation in the evening; calming effect
- Slightly reduces cervical pain.
- some benefit pain, ready to try to taper
- Some relief of pain, but too much side effects, so she does not like it
- [HIGH THC PRODUCT] helps him sleep better at night.
- The liquid form has helped her nausea and appetite.
- The patient is not certain how helpful the cannabis is.
- unclear results

## Score of 3

- 20% pain relief
- Able to be active longer without pain.
- Able to reduce pain med.
- Analgesia and spasms, to a very small degree, after much discussion with the pharmacist and alterations to the "traditional" [MANUFACTURER] pathways. She also noted some reduction in her anxious symptoms.
- Assisted in managing his pain.
- Better sleep, less pain
- Decreased opiate dose, pain relief
- decreased pain, had to stop due to side effects
- did not offer enough pain relief to allow decrease of pain meds
- does help with pain, spasms sleep, using different forms, plans to decrease Dilaudid
- finds some pain relief
- has been able to eliminate prn lorazepam for extreme pain episodes
- He did not feels as sedated
- He did not get benefit on his #1 pain complaint, but did get benefit on his #2 complaints
- He does feel that this is helping with his chronic pain symptoms. Unfortunately, around the same time as starting medical cannabis he acquired a new acute pain problem that is longer lasting, so it will be difficult to understand full benefit.
- He takes the medical cannabis at night which seems to help with pain and anxiety.
- Helped pain, but he stopped it due to mental status changes.
- Helped with pain but he didn't tolerate so he stopped taking it.
- helping pain, mood, sleep
- helps him take his mind off the pain, helps him sleep better
- Helps some with pain
- Helps with mid to upper back pain, but not low back/leg pain.
- helps with sleep, anxiety, racing thoughts
- Improved function, reduced pain, improved sleep, reduced opioid pain reliever need
- Less pain, sleeps better
- marked improvement in nausea  
25% decr pain
- mild improvement in pain
- mild pain relief, is able to manage pain better
- Pain better for 1 day
- Particularly helpful with sleep. This is true for many patients. THC dominant formulations particularly useful for this indication. Although no reduction opioid pain relievers, function is improved by 10% by cannabis.
- Patient experienced slight relief of muscle spasms.

- Patient has not yet found benefit from medical cannabis but is trying all ratios and may ultimately find no benefit once completes all trials.
- PCP note indicates some benefit
- reports did help pain , short trial at visit, vaporizer hurt lungs, to try other preparation
- reports less pain but still has daily HA.
- reports some benefit with pain, periods better function, has not wanted to decrease dose yet
- Sleeping better  
Decreased night time pain levels
- some improvement in pain for 3-4 hours each dose
- some pain relief
- some relief with pain
- THC particularly helpful for sleep. CBD seems to help reduce pain/inflammation during the day

## Score of 4

- pain relief
- "Lets me forget about my pain."
- "I would be able to reduce my opioid use if I could afford more medical cannabis."
  - 1. Takes the edge off his pain.
  - 2. Improves his sleep hygiene.
  - 50% pain relief with medical cannabis
  - Able to do more physical activity with less pain. Very helpful with arthritis.
  - Better pain control. Improved sleep. Improved quality of life.
  - Better sleep, less pain
  - Decreased pain  
Improved sleep
  - Feels better when he can afford it, but can't afford enough.
  - fewer muscle spasms
  - Fewer spasms, lower generalized pain
  - He reports it helps him sleep better at night, but it has not really helped his daytime pain.  
Overall, he considers it a success since quality sleep is so important for pain reduction.
  - helped sleep m headaches, decreases opioids about 25%
  - helping to take edge off of reducing fentanyl patch
  - Helps pain somewhat. Too expensive to be able to afford high enough dose.
  - Helps with general body aches and pains but does not help with sharp axial back pain
  - improved pain, decrease spasm more function
  - Improved prevention of HAs but did not assist with breakthrough headache pain
  - improved sleep, less pain

- Improvement of burning and tingling of peripheral neuropathy, but not back pain. Dose probably low
- It was difficult to figure out the type of product. It is helping his brain. Less hallucinations, nightmares, disorientation. Not waking up confused anymore. Pain is bad, cannabis distracts from pain somewhat. He does not care about it as much. No side effects, once the right product was figured out (sleepiness). Pain 6/10, down from 8-9/10. Opioid use reduced slightly
- less back spasms, better sleep
- Less fibromyalgia pain, more sleep
- less muscle soreness
- Less pain medications
- LESS USE OF RX OXYCODONE
- Not sure if it is benefitting him much at this time.
- pain relief
- Patient has experienced pain relief from the medical cannabis.
- Patient states that he sleeps through the night now with the use of medical cannabis.
- Patient states that medical cannabis helps with pain relief.
- Patient states that that the medical cannabis helps him sleep at night.
- Patient states that the cannabis makes him more relaxed and helps take the edge off the pain.
- Pt reports much better sleep and relaxation. improved quality of life, overall function improved
- Pt states: "Nothing bothers me, even pain. I don't think about it". This is when she takes cannabis. She can't afford it on a consistent basis. It appears to reduce sensitivity/reaction to pain, not pain itself.
- reduced pain  
more functionality
- Reduces pain levels.
- Relaxation when pain is extreme.
- Some pain relief. Side effects interfere w/ dose adjustment. But pain drugs reduced: tramadol down from 8 to 5 a day

## Score of 5

- It helps a little w/ pain, sleep, eating. D/c'd valium. Oxycodone same dose. Pain 2/10 on cannabis w/ oxy. Off cannabis 4/10.
- 60 % less pain, sleeping well
- Able to assist with pain, nausea and vomiting. Neck and back pain has been more tolerable with cannabis. Less anxiety and more sleep throughout the night. Feels he's been more active and back to his normal routine of life prior to pain.

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- able to relatively decrease opioid analgesics while on cannabis but could not afford to continue it
- Able to sit longer, able to do activities longer now with medical cannabis.
- Able to tolerate pain better, improved activity level
- Assists with taking his mind off of the pain
- better function
- better function, fewer meds,
- better function, fewer pain meds
- better function, less pain, less need for other medicine
- better sleep
  - reduced pain levels
  - reduced headaches
- better sleep, less pain in his legs and neck.
- better sleep, more alert during day at work, less medication
- Can do more activities
  - More mobility
- Cannabis did assist with anxiety and stress from pain.
- Cannabis helped pain a lot, but due to high doses required for good results, pt had to stop it and resume full dose of oxy. He is feeling worse on oxy than when he was on cannabis, with pain going from 6/10 on cannabis to 9/10 on oxycodone. Infusion pump is being considered. His pain clinic is also refusing to give him oxycodone if he takes cannabis
- Cannabis makes pain tolerable and probably reduces it some. Pt was also started on prednisone and plaquenil at same time
- consistent pain control
- Decr pain, better sleep, less nausea, better appetite
- decrease dose oxycodone benefit several hours
- decrease in migraines and nausea
- Decrease in pain
- Decreased migraine days
- decreased naproxen and really helped with inflammation
- decreased opioid use
- Decreased pain and increased functioning.
- Decreased pain, able to increase activity level.
- Decreased pain, better sleep and better appetite
- decreased pain, coughing has gone away (doesn't smoke tobacco anymore)
- discussion pending F/U
- does not feel like needs to increase dose opioid as did before, helps sleep, anxiety, mood

- eliminated vicodin  
reduced nerve and muscle pain  
reduced stiffness
- Feels better and able to manage her pain symptoms better
- Finds that she sleeps better, pain is tolerable, and alleviates her hip pain.
- getting off of medications, pain is tolerable, and she's more active. Has had lost of weight since.
- Good help with pain, especially at night so pt can sleep. Use is limited by cost. Uses PRN only.
- has been helping decrease the methadone from 180 to 50 mg day
- Has helped him be more comfortable with his pain level. He was on high dose opioids which weren't helping his pain level. Now with medical cannabis he is more comfortable again. So pain meds have not been decreased, but without medical cannabis they would have needed to be increased.
- Help with muscle spasms and sleep
- Help with sleep and pain reduction
- Helped improve sleep and pain control
- helped with sleep, not much with pain
- Helps manage his pain better, improved appetite and healthy weight gain. Overall better quality of life.
- Helps with her glaucoma and anxiety. Pain is manageable. Finds a lot of relief for her stomach pains
- helps with sleep, appetite, feels can focus better more calm, not that helpful yet with pain, trying different forms
- Improved quality of life
- Improved sleep
- Improved sleep and decreased pain at night. Decreased muscle spasms.
- Improved sleep, pain relief
- Incomplete but significant relief of pain and joint swelling, limited by diarrhea (side effect). Worse now as he is in TX for last 2 months and was afraid to smuggle cannabis with him across state borders. Pain is 8/10 off cannabis and swelling significantly worse.
- Incomplete pain relief, likely due to insufficient cannabis dose. Pt was encouraged to talk to the pharmacist to adjust the dose
- increase in daily activity, decrease in symptoms of PTSD, decrease in pain.
- Increased functioning and participation in family life and activities.  
We have discussed his pain level and effects of medical cannabis but has not retaken PEG scale.
- increased pain relief
- Increased sleep throughout the night which significantly decreases his pain throughout the day.
- It has allowed me to use minimal doses of tramadol and cyclobenzaprine

- It has helped some, but unable to reduce opioids as of yet....challenging patient.
- It is difficult to determine as the patient has missed three follow-up appointments for evaluation. She is on my cancellation list to be seen in the near future.
- less pain
- less pain and no side effects
- Less pain in neck and shoulder muscles
- less pain, less nausea with pain, better mood
- Less pain, more active, sleeps well
- less pain, not having to take pain meds
- less spasms, used as adjuvant to other prescribed meds
- less, pain, better function, far less opioid
- Makes pain more bearable and patient experiences a more positive attitude as a result of the medication.
- Manages her arthritis and fibromyalgia pain much better than her oral medications.
- Manages pain
- Migraines controlled on the medical cannabis.  
Helps significantly with both the pain management and stress due to his small business. Pain level improves from 9/10 to 6/10 with cannabis.  
Was able to stop NSAIDs completely after using cannabis.  
Side effects- reports minor ""grogginess"" which improves with a cup of coffee. Lasts less than one day. Might be harder to get up early the next morning if he uses cannabis the day before.
- more active without pain, sleeping better
- More consistent pain control with fewer lows between med doses
- no longer dependent on opiate for pain
- Not taking pain medication has helped reduce opiate induced constipation and other stomach issues. Makes pain tolerable.
- Noted that cannabis helps with pain management and anxiety.
- now off narcotics
- Off of opioid medication. Concern is around now considering getting pregnant and no evidence weighing risks of MC use during pregnancy
- Pain control via a remedy the patient considers natural and that "keeps my head clear."  
Helped with nausea and improved her appetite so that she has increased her BMI from 19 to 22.5.
- Pain in arm is significantly reduced. However, pain in neck is not relieved and movement in neck muscles continues.
- pain level decreased  
increased sleep  
improved relaxation
- Pain not as intense, easier to live with it.

APPENDIX D: HEALTHCARE PRACTITIONER-REPORTED BENEFITS FROM MEDICAL CANNABIS

- Pain reduction (peripheral neuropathy), anxiety reduction, relaxation. Too expensive to afford adequate dose for optimal relief
- Pain reduction from 9 to 7/10, off opiates which did not work real well and caused side effects.
- pain reduction  
can sleep
- Pain reduction, namely of neuropathic-quality pain
- Pain relief
- pain relief and drug use reduction
- Pain relief not as good as from tramadol, but good enough, and pt feels better using cannabis
- pain relief, less dependence on opioids
- Patient states that his pain and stress have gone down significantly since starting medical cannabis.
- Patient states that medical cannabis has helped increase his appetite and get better sleep.
- Patient states that medical cannabis helps with pain relief, less muscle spasms, and helps him sleep better at night.
- Patient states that medical cannabis helps with pain relief, sleep, appetite stimulation and anxiety.
- Patient states that the medical cannabis has helped her insomnia, anxiety, pain, migraines, muscle spasms, and nausea.
- Patient states the medical cannabis helps "relieve pain, relaxes his brain, and decompresses his body".
- Pt has chronic pancreatitis w/ pain and cachexia. Pt had less pain and improved appetite and gained some wt when using cannabis. She reduced oxycodone. Then her pain dr refused to treat her if she was on cannabis and she stopped. I encouraged her have the pain dr talk to me to coordinate treatment.
- Pt states:  
" It helps pain, sleep better, more relaxed, less anxious.  
Pain 6/10 on it, down from 8-9/10.  
Side effect: increased tinnitus.  
Meds: Percoset reduced from 6 to 3 a day. "
- Reduced muscle spasms, helps takes his mind off of the pain, assists with napping throughout the day.
- Reduced pain for a while. However, last 2 weeks pt is experiencing more side effects and stopped cannabis. She attributes the change to onset of menopause
- Reduced pain, helps sleep
- reduction in dosing of narcotic. However, cost of the medical cannabis may cause her to d/c the program.
- reports more physically active due to less pain, sleeping better, stopped trazadone



- resting better, sleep, neuropathic pain
- she feels more confident in ability to reduce prescription opioid
- She is eating and sleeping better, getting out of bed and functioning daily. Significant but not complete pain reduction. "It has made a major difference" in the life of patient and her family
- Sleeping well, less pain
- sleeps better, helps with digestive and stomach issues, and headaches.
- Some pain relief and muscle relax
- Spasms greatly improved. Knee and back pain significantly improved. Appetite and sleep improved
- Starting to help more for pain after transitioning from SL spray to oil liquid.
- stops phantom pains almost completely  
makes irritable bowel pain bearable  
increased appetite
- The pills helped with minor pain control
- Tried cannabis x 1 mo. Felt better. Could not afford more.  
It helped w/ pain a lot, not perfect (6/7) and sleep
- Was able to stop all opiate use and is able to manage pain just with cannabis.

## Score of 6

- It helps body to relax, sleep is improved. Pain better. No change in drugs. Better feeling of wellbeing. Titrating slowly. No perfect relief yet, but still, very happy with the results
- "Amazing results". Pain is not fully controlled due to cost. However, off all pain drugs and feels good enough. Sleep much better. Migraines much less.
- "it's making all the difference" Pain less, sleep better, general wellbeing better
- 1. Marked decrease in narcotic use.  
2. Totally off all anti-anxiety meds  
3. Reduction in pain scores and anxiety
- 50 percent reduction in pain and muscle spasm in amputated leg
- 70% relief of pain with medical cannabis  
Independence from opioid medications
- able to improve function, working 6-70 hours week and decreasing opioids
- Able to manage pain much better
- Adequate pain reduction with PRN use of vaped cannabis. Happy pt
- Being able to sleep.  
Being able to relax.  
Having an appetite.
- being more active without pain
- benefit for headaches, stopped suboxone, decrease butalbital
- better appetite, less sweating, decreased pain levels

- Better sleep, Off pain meds
- Cannabis has improved her attitude greatly and she is in a healthier mental state due to use.
- Cannabis made a huge difference: pt can sleep, has better appetite, pain a lot less and she is able to do much more. No side effects.
- Car accident has caused a lot of pain in leg and nerve pain, but using cannabis helps alleviate the of the pain. No longer on medication. Anxiety is controlled along with depression.
- Decrease in pain and ability to relax. Most of throbbing pain is in the evening and it helps calm that and is able to sleep better.
- Decrease in pain and spasms
- decreased pain
- decreased pain and decreased use of opioids
- Discontinued muscle relaxant and nerve pain medications. Assists with some pain relief
- Dramatic but incomplete pain relief. Mother states: "cannabis has been a godsent". Very grateful.
- Eases pain
- Eliminating opiates and controls pains so she is able to work
- Feels in control of her pain management.  
Sleeps much better, using less sleep meds
- He feels it is helping his pain enough that he has been able to wean down and off 2 medications that he had been taking for a long time
- Helps ease some of the pain, muscle spasms, and with sleeping.
- Helps nerve pain and some with sleep
- helps with managing pain, glaucoma, relaxing/sleeping, and anxiety/stress. Better appetite
- improved pain relief, better rest
- improved physical functioning with less drug use otherwise
- Improved quality of life in regards to fibromyalgia and IBS. "Feeling much more comfortable"
- improved sleep, decreased pain
- improvement of pain and anxiety
- It has helped her daily pain and sleeping. She stopped cannabis for a period of time as she wasn't sure it was helping, but she learned it did help
- Less despondency about chronic/intractable pain  
He loves having another ""tool in the toolbox"" when dealing with pain  
The vaporized version works within 5-10 minutes  
Less prn breakthrough opioid pain medication use--really, almost none
- less need for hydrocodone
- less need for NSAIDs, not on opioids
- less oxycodone, improved quality of life, decreased nausea and pain

- Less pain and less spasms
- Less pain
  - Less severe pain
  - Better stress management
  - Better sleep
- less pain, improved function
- Less pain, less stiffness and able to get out more
- less severe headache
- Migraines are reduced with use of cannabis. Drugs used for migraines in addition to cannabis are much more effective when used in conjunction with cannabis
- Moderate pain reduction. Significant improvement in sleep.
- MP pains are relieved. Pt is able to socialize, get out of the house better.
- Much less pain, sleep much better, demeanor much better
- Muscle relaxing, sleeping better, and managing pain.
- No need for pain killers when on cannabis
- Off narcotic analgesics however remains on Lyrica.
- opioid med reduction
- Pain control
- pain control
- pain control, better mood, mental clarity, anxiety and depression reduced
- Pain control, including managing breakthrough.
- Pain is a lot more manageable and frequency of headaches have decreased
- Pain is able to manage pain much better, improved quality of life in terms of activity, eliminated negative side effects from opiate use
- Pain management
- Pain Management and reduces muscles spasms
- Pain management, appetite, sleeping,
- pain relief
- pain relief, sleep improved
- Pain was interfering with him falling asleep. Cannabis has provided good pain control and additional benefit of helping with sleep
- Patient has a better outlook on life and gets a good nights sleep.
- Patient has experienced less pain and stopped smoking cigarettes.
- Patient has experienced pain relief and less anxiety.
- Patient has experienced pain relief, anxiety relief, and sleeps better at night.
- Patient has experienced sleep at night and is able to cope with the pain a lot better.
- patient states much better sleep and decrease in pain. Pain more "stable" than it has been in months.
- Patient states that CBD completely wiped out back muscle spasms, increasing his mobility, while the THC seems to just mask the pain.

- Patient states that he is able to sleep through the night.
- Patient states that her pain and muscle spasms have decreased drastically.
- Patient states that her pain relief is manageable now.
- Patient states that medical cannabis has reduced lower back pain and arthritic pain all over his body.
- Patient states that medical cannabis helps her get a good night sleep, and pain relief.
- Patient states that she is able to sleep through the night and has no sharp pains anymore.
- Patient states that the medical cannabis helps greatly with her pain relief, sleep, anxiety, and depression.
- Patient was able to return to work and increase productivity.
- prevents rebound headaches and does not get headache migraines as frequently anymore
- Pt had better pain control
- Pt reports increased ability to walk and exercise, better quality of life, Still using opioids
- Pt says: Very happy w/ it. It saved me many times. It takes away 85% of pain. Helps sleep at night.
- Pt states: " It is helping a lot: pain relief, sleep, appetite, food tastes better, smell is waking up slowly, less stuffy. Pain: 5/10, down from 8/10. Off almost all tylenol, naproxen, ibuprofen. Still on Enbrel. No major side effects. Some dry eyes. Blinks more. Less nocturia: from 2 down to 1 or 0 x a night."
- Pt states: "" It's helped a lot: reduced pain, improved sleep, more energy. No side effects. Occ a bit drowsy., less now. Stopped gabapentin. Pain 3-4/10, down from 7-8/10.
- Pt states: Did great the first month. Used 50% less narcotics. Pain was 6/10, much more tolerable. Opiate constipation improved. Agoraphobia also improved. It was great! Grand slam home run! Off medical cannabis now due to high price.
- Pt states: It is helping. Less pain. Oxycodone amount reduced from 3 to 1 a day, Sertraline dose reduced from 100 to 50 qd. Pain 2/10. No side effects. Head is clearer, more energy. Very happy with the results.
- Pt took it for 2 weeks. He reports gentle pain relief, he liked it a lot. Unfortunately, he could not afford the dose necessary for pain relief on sustained basis
- Quicker pain relief, less side effects. However a bit more fatigue than before on opiates
- reduced anxiety, manages pain, and helps with relaxing which gives him more feelings and emotions besides the pain
- reduced pain
- reduced pain Eliminated chronic opioid use
- reduced pain levels
- Reduced pain. Rare use of NSAIDs. Previously used regularly.

- reduces muscle spasms greatly, no longer needs to take pain medication
- Reduces pain and assists greatly with sleeping patterns. Patient notices a better quality of life while using cannabis. Reduces muscle spasms.
- reduces pain and assists with sleeping patterns
- Relaxes muscles to avoid spasms and sleeps better.
- relieves pain
- Resolution of numbness in arms, good reduction of pain, memory improved since off Lyrica, no cramps in feet
- Significant migraine pain reduction. IBS not improved. Anxiety improved
- Significant reduction in pain.
- Significantly decreases pain
- Sleep and pain better, more relaxed
- Sleep improved, pain improved. Decreased nausea, better appetite. Decreased anxiety. Decrease in PTSD/flashback and nightmares she used to have.
- Sleep improvement, pain reduction
- Sleeping better. Less anxiety. Reduction in pain medication use.
- Sleeps better, not depressed. Pain very effective for being able to manage pain till 8-9 PM. Has a 50/50 liquid and THC vap. Controlled with blend till evening then needs vaporizer. Not on any pain meds. No longer needs venlafaxine for depression. Doesn't have cognitive changes, is energized and focused with CBD. Has lost about 50 lbs because active again. Sleep better. Pain 4/10 minor HAs. But evening HAs can go up to 10.
- sleeps much better and assists with pain. Reducing medications and relaxing.
- spasms are less frequent
- stopped fentanyl patch, off opioids, helps sleep, nausea, appetite "Awesome"
- The patient cannot afford to buy it with enough regularity. but when he does take it he feels it helps the pain.
- The patient stated that she has had difficulty affording medical cannabis, although has noted significant benefit from medical cannabis in regard to her intractable pain and muscle spasm. She has had significant relief from muscle spasm. She also acknowledged that her anxiety and nausea have decreased significantly with the use of medical cannabis. Secondary to decreased muscle spasm and pain, her mood has improved significantly. She stated that she has not been utilizing medical cannabis for 3 weeks secondary to inability to afford her medications and has noted increased symptoms
- The patient's pain, anxiety, and sleep have all dramatically improved. His mother states he has experienced a "very good" response to medical cannabis.
- Took some pain symptoms but mainly stomach pains have been relieved more than neuropathy.
- Use of Medical Cannabis is allowing the patient to be stabilized with her pain medications and does not need to increase her dosaging

- Very grateful pt. Good relief of pain without side effects. Unfortunately too expensive, so pt can't get enough for full relief and has to take some pain killers too
- Very happy with results: migraines managed much better with cannabis
- Virtual visit. Pt is using cannabis and doing quite well. Pain much more tolerable. Both Klonopin and Vicodin reduced 75%. Pain around 4/10, reduction of 20% compared to full doses of narcotics. No side effects.  
Pt's pain doctor is supportive of cannabis use. However, the company she works for apparently has a policy against allowing THC in pt's urine if they are on narcotics, even if it is legal. So they are threatening to cut him off Vicodin completely
- When pt can afford cannabis, he takes it for pain and to relax. It works well. Pain before use 9/10, after use 5-6/10. No side effects

## Score of 7: Great Deal of Benefit

- Doing very well.  
Was on oxycodone 10mg 5x a day. By Oct he was off oxycodone. Off naproxen. Testosterone was reduced by opioids, so he was started on testosterone. He was able to stop that as well once levels came up. Life-changing treatment.
- It helps a lot. "I couldn't say enough about it" Much better than the pain pills. No side effects. Pain level from 10/10 to 1/10 with vaporizer use. Sleep much better. No waking, no tossing and turning. Very happy pt.
- It is helping a lot.  
Pain is relieved when she has a flair, from 9-10 to 0-1/10 in minutes. Taken prn.  
Side effects: munchies.  
Prednisone is reduced by half
- - sleep cycle greatly improved
  - able to go 6 miles on recumbent bike with spasms under control
  - falling less"
- Able to be more active and do physical therapy. He is able to focus on tasks that need to be done at home and work.
- Able to be more active, pain is decreasing.
- Able to be more active, spend time with family, decrease medication burden
- Able to exercise again, pain is tolerable most days, and she notes that
- Able to get off of medication, more productive now that her pain is tolerable, and better quality of life.
- Able to sleep. This is big for him
- Able to wean off narcotic pain medication, fentanyl patch and oral morphine. Nausea controlled and able to stop Zofran. Sleeps better.
- alleviation of pain, feels more alert since he is not dwelling on the pain
- Allows patient to be a lot more mobile than he has been in the past and continue working and stabilized pain immensely.

- Almost complete relief of knee pains when using it. Drug use was already very low, that's why no change
- APPETITE
- assisted with pain management, more frequent and consistent bowel movements, decreased anxiety symptoms and improved appetite.
- Assists with managing pain levels greatly
- Assists with the day to day pain and prevents him from resorting back to opiates to cope with pain. Aids in digestion and sleep schedules.
- back pain is actually better now with medical marijuana and then it never was with hydrocodone.
- barely noticed pain, helped sleep throughout the night, and assisted with other conditions
- better pain control
- Better pain control, can be more active, sleeps better at night.
- better pain relief and improve rest/sleep
- better sleep, less pain, easier time with physical therapy
- better sleep, less pain, more relaxed, more normal function than on pain medication
- Cannabis use has completely eliminated her anxiety and reduced muscle spasms.
- Colitis is better and migraines are less. No longer has to miss work!
- Daily pain scores down to 2-3 from 8 on average. She has been able to be more physically active and play with her son which she could not do before. She is now exercising daily and has lost over 25 pounds
- decreased pain
- decreased pain
- decreased pain and improved overall function, patient is able to weight lift, work with a trainer 2x per week and swim.
- decreased pain, improved sleep
- Decreased pain, sleeping better at night
- Decreased pain, sleeping better.
- Decreasing medications. Pain better controlled, able to be more active. Decrease in arthritic pain. Walking without a cane.
- Discontinued medications for pain, decreased pain, stable mood.
- eliminated all pain and use of pain medications
- Eliminated medications, including ambien which was 10 mg nightly, helped with nerve pain, and losing some weight.
- Eliminated the use for opiates, and it has alleviated a lot pain, sleeping has improved, he has gained 5 pounds
- eliminating anxiety
- reduction in pain
- elimination of pain, return to function
- Fewer headaches, not as severe, sleeping better, improved appetite.

- Finds a lot of pain relief, increase appetite, and more comfort in overall quality of life.
- Flare ups don't last as long. Able to sleep better and muscles feel more relaxed
- great relief of pain
- Greatly reduced pain and muscle spasms
- Has helped a lot with sleep and no pain when he sleeps.
- He feels better when he uses it. He uses it as needed. It helps sleep and anxiety as well besides the back pain. Pain 9-10 down to 2-3/10, instant relief on cannabis. It works much better than narcotics.  
Stopped hydrocodone, ketorolac, tramadol, gabapentin.
- He has seen a lot of improvement in pain and as a result, his activity level has improve. He can stand, sit, and walk longer because his pain is better controlled. He also has improved sleep, appetite, and vision.
- helped a lot with managing pain and was able to discontinue medication. feels that her immune system has improved too
- helped assisted with pain management
- Helped mainly with pain management and allow the patient to be more productive on a day to day basis.
- Helped with a lot of his pain and was able to decrease anxiety medication for his anxiety
- helped with appetite, sleep, anxiety, and pain.
- Helps manage pain more and helps decrease mood swings
- Helps patient manage his pain more efficiently, Patient has lost about 30 lbs, he states that it takes the edge of but does not alleviate pain completely. Patient feels very clear headed on the cannabis as opposed to how he would feel on the opiates. His sleeping patterns have improved greatly.
- Helps relax, sleep, and alleviate pain and muscle spasms.
- Helps with his insomnia, pain management, and appetite.
- helps with managing pain and relaxing. Sleeps much better and better quality of life with social events now that his pain in manageable.
- Helps with managing pain, depression, and muscle spasm. Was in chair for 2 years from over 2 surgeries, and now she is able to be independent and on her feet again. Has her quality of life back because her anxiety has been eliminated.
- helps with pain and inflammation. helps with sleeping as well.
- Helps with pain, joint aches, restless legs. Sleeps much better at night. Able to be more active because of improved pain.
- His pain can be debilitating, this is a helpful resource without concern for physiologic dependence. He reports has used it appropriately as guided by his pharmacist. His pain being treated has allowed him to function well at home and work and has limited health related anxiety that stems from this ongoing issues with pain related to spondylitis arthropathy.
- Improved muscle spasms and ROM of neck. Decreased frequency of cluster headaches (previously 20/day now 2/day).



- improved pain control
- improved pain control with less narcotics, patient feeling better and more alert on less narcotics. and less anxious and less constipated
- Improved pain symptoms with better quality of life and improved ADLs
- Improved sleep, nausea control and pain control
- Increased activity. She was rarely walking before because of pain, is no longer needing a wheelchair because she can walk further distances on her own. Does use a cane at times but has increased her activity level and ability to walk substantially since starting medical cannabis. This has made a remarkable difference for her!
- Incredible pain relief and better relief
- interestingly, patient's psychiatrist was also able to decrease psychotropic medication usage as well. Patient is doing very well.
- Less frequent headaches, decreased neck pain, "relaxes brain and on even keel", decreased angry outbursts
- Less pain, able to be more active. Pain is much more tolerable.
- less pica, better able to communicate, improved fine motor skills and development
- Manage pain without opiates, improved sleeping patterns, relieves anxiety and depression due to pain
- Managing pain
- Managing pain completely and no longer feeling nauseous
- More relaxed, not needing to take as much narcotic pain meds.
- Muscles spasms are less frequent, pain tolerable, calms patient down and helps with decreasing other medications.
- No longer has opiate induced constipation. Reduced medication and immediate pain relief and muscle relaxing.
- no longer on depression medication, pain is more tolerable, and less frequent muscle spasm
- no longer taking a lot of medications and has found a lot of pain relief
- No more constipation due to opiates and better sleep.
- no more medications and side effects from medications.
- Not on oral medications and reduced pain in half.
- Pain and anxiety relief
- Pain control has been excellent, and she reports being able to return to normal function
- Pain control. Helped clear is skin condition.
- Pain controlled and increased quality of life.
- Pain for Crohns has been relieved however pain for Back is a 2-3. Still needs more relief.
- Pain meds reduced 90% (tramadol and flexeril). No side effects. Very impressed w/ results. Pain level 1-3/10 on cannabis, 5-6/10 before.
- Pain relief, reduction of inflammation, improved general well-being. Very happy with results

- Pain under control off all pain meds, most of the time. More energy, feels much better in general due to removal of medication side effects.
- Patient states that medical cannabis greatly helped alleviate her pain.
- Patient has been able to taper down on opiate medication and manage her pain better and perform her daily duties more efficiently. She has also been able to continue working.
- Patient has experienced a loss of use of alcohol and pain medications, more exercise, sleeps through the night, and quality of life has improved.
- Patient has experienced an improved quality of life and does not have withdrawal symptoms when he runs out of medicine.
- Patient has experienced his pain levels are down, he is more comfortable with his pain, his anxiety has gone down, insomnia is not an issue anymore, and positive thinking.
- Patient has experienced lack of muscle spasms, sleeps through the night, and quality of life has drastically improved from use of medical cannabis.
- Patient has experienced less anxiety and greatly reduced pain.
- Patient has experienced less frequent not as intense or long of migraines.
- Patient has experienced muscle relaxation and pain relief.
- Patient has experienced pain relief, appetite stimulation, and better sleep.
- Patient has experienced reduction in muscle spasms and cramping, pain relief, and gets better sleep at night.
- Patient is able to completely manage his pain on just the cannabis alone. Patient have lost 70 lbs and is just living an extremely healthier lifestyle all around. No longer has symptoms of sleep apnea.
- Patient is able to walk without pain in his foot and has increased activity while using cannabis. He spends quality time walking with his grandchildren. He can stand in his kitchen and do dishes and prepare food which she has great difficulty with without the cannabis. Quality-of-life and sleep is greatly improved.
- Patient notes improvement in pain and pain tolerance
- Patient said medical cannabis helped a lot with pain relief.
- Patient said: " It is working wonderful!  
Now I can sleep due to pain reduction. No side effects. Have not been using any other pain meds: off naprosyn and vicodin. Amazing! Can't say enough good about it. It's been such a life saver!".
- Patient says: Life changing therapy: no pain, good sleep, no anxiety, no depression, nausea much better. No side effects. Pain 0/10. Condition: connective tissue disease.
- Patient stated that medical cannabis has helped greatly with her pain relief.
- Patient states he has been experiencing a better quality of life.
- Patient states that A1C has dropped significantly since using medical cannabis.
- Patient states that he can move while on the medical cannabis and he's playing hockey again, he is fully functional compared to how he was on opioids.
- Patient states that he can tolerate pain and quality of life is so much better.

- Patient states that he has experienced increase in sleep and appetite, and decrease in anxiety and pain.
- Patient states that her quality of life has improved, she is more mobile, and nausea has decreased.
- Patient states that his muscles are very relaxed and his mood is uplifted when he uses medical cannabis.
- Patient states that medical cannabis has greatly helped reduce her pain and intake of other medications she was previously taking.
- Patient states that medical cannabis has helped with her anxiety and insomnia tremendously, and helps a great deal with pain relief as well.
- Patient states that medical cannabis helps his mind forget about the pain and makes him drink more water.
- Patient states that medical cannabis helps increase his appetite, decreases his pain and anxiety, and helps him focus.
- Patient states that medical cannabis helps with pain relief as well as anxiety relief.
- Patient states that medical cannabis is not as addictive as other medications he was previously on and helps quite a bit with his pain relief.
- Patient states that medical cannabis soothes him, calms him down, and helps stop him from thinking negative things.
- Patient states that she has experienced reduced pain, muscle spasms, headaches, nausea, and increased appetite.
- Patient states that she has felt relief from insomnia after 25 years, anxiety, and pain management.
- Patient states that the medical cannabis helps greatly with pain relief, making him more active, and increasing his appetite.
- Patient states that the medical cannabis helps with pain relief and sleep. He states it also calms him down and makes it easier to focus on things.
- Patient states that vapor cartridges helps her feel immediate pain relief compared to the capsules.
- Patient was unable to walk for any distance. She is now able to walk several miles per week.
- Patients mood and depression have improved. Patients pain has improved.
- Pt is not on cannabis currently due to inability to afford it. When used, it was doing wonders on pain of FM and RSD, mood much better, appetite better, wt gain, sleep better.
- Pt is very happy w/ the results of cannabis tx.  
Using vaporizer. She says: "It's amazing. Sleep and appetite better, not moody, much better able to move due to reduced stiffness. Pain much reduced: 2/10".
- Pt reports:  
It is helping a lot. It's helping pain, GI issues (gastroparesis w/ reduction of wt), anxiety, depression, sleep. Weight up from 108lb to 125lb due to improved eating and less gut

problems.

Pain 5/10, down from 9-10/10

No longer needs Xanax, need for sumatriptan is much less, and it helps a lot better. Off all opiates (occasional Vicodin, tramadol).

- Pt reports:

It is life-changing. Pt really likes the pharmacist guidance in MN compared to CA.

Abdominal pain completely resolved.

Joint pains much less, now 3/10.

No meds, no change.

Side effects: none.

Sleep and appetite better.

Very happy pt

- Pt says: "Off opiates. Sleep awesome. Digestion normal.

Pain was around 7-8 on opiates. On cannabis, pain is still present, but not as intrusive.

5/10. I don't care about the pain as much. Attitude is much better. Pain is ~50% less.

Pills and oil are easier to regulate than vaping.

Wife knows when I didn't take my pills and tells me to go take them".

- Pt states: "It has been life changing. Not one migraine since starting it.. Occ every day HAs handled by the vaporizer immediately. Fairly minor side effects, only w/ vaporizer. Has not tapered off the chronic meds yet, but planning to start soon. Off the triptan.
- Pt states: It is working well.  
It helps sleep at night. It calms my overactive bladder, relaxes me. It helps pain, relieves spasm. It helps a lot! Pain 3/10, down from 6/10.  
No side effects.  
Meds: stopped amitryptilline, methotrexate. RA is in control off methotrexate!.
- Pt states: " It is working very well. Much better than any meds. Back pain and HA improved. Pain 4/10, down from 9-10/10. I don't know what I would do without it.  
Depression, anxiety improved  
Stopped antidepressants."
- Pt states: "Doing really good. Colitis and arthritis is much better, PTSD and depression much better. Much worse when off cannabis for a couple weeks due to inability to afford. Immediately better in all respects on resumption. Pain 3/10 at worst when on cannabis. Meds: stopped Norco, Ativan. Much less migraines, so Fioricet stopped when on cannabis". Pt sounds excitedly happy when reporting this.
- pt very pleased off Oxycodone 15 mg day and methadone 15 mg day, less anxious, better function, hoping to get workcomp to pay
- quality of life has improved greatly and is able to function. Pain is much more manageable and she is able to go to the gym on a more regular basis. Improved sleep patterns, reduction of irritability
- Really helped with managing pain

- Really helped with pain management, slept better, increase an appetite.
- reduced pain levels, reduces swelling related to arthritis
- Reduced the frequency of migraines drastically- prior to cannabis patient was getting 1-2 migraines a week and is now only getting one a month at most.
- relaxed muscles  
less spasticity
- relaxes muscle spasms/knots, swelling in the ankles, and relieving pain.
- Relaxes muscles and alleviates the pain.
- Relieved stomach pains
- Relieves with pain and is able to get off of opiate medication. Is able to control his pain better with cannabis than when he was on opiates.
- she has been able to stop opioids, and wants to stop some of the neuropathics. She feels better on medical marijuana than other treatments.
- significant improvement in pain with little or no effect on cognitive functioning
- Sleep at night, participate with duties and kids much longer.
- Sleep much better and pain is 75% better
- Sleeping and pain control
- Sleeping better at night, pain is better controlled with medical cannabis.
- Sleeping better, decrease pain, decrease fogginess, less anxiety, less muscle tension and strain, no shaking or muscle twitching. Helps cope with pain. Able to function much better.
- Sleeping much better at night, pain no longer wakes him up. Can walk and climb stairs better with much less pain.
- Sleeps better throughout the night and pain is manageable
- Stop opiate use, no longer experiencing left leg numbness and cramping
- Survey done based on pt's taking cannabis for 2 months following certification. He can't afford it and is now worse. When on cannabis, he felt much less pain and had much better outlook
- The assessment is made on prior experience of taking cannabis, up until 2 mo ago. Pt can't afford it last 2 months
- There has been a great deal of benefit - a decrease in the amount of scheduled medications - able to sleep better - able to function and work.
- Very good pain control.
- Very good pain relief. Too expensive to afford enough for complete relief. Stopped narcotics
- Was able to stop using medication and sleep better. Anxiety was under control

# Contents

Appendix E: Healthcare Practitioner-Reported Reduction of Pain Medication ..... E-1

# Appendix E: Healthcare Practitioner- Reported Reduction of Pain Medication

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent.

The Healthcare Practitioner Survey sent to all healthcare practitioners who certify patients for intractable pain asks them to report whether the patient has been able to reduce their dosage or eliminate any pain medications as a result of using medical cannabis. If they answer “yes,” they are prompted to describe the change in pain medications. A compilation of all submitted responses for intractable pain patients enrolled from August 1-December 31, 2016 is included here.

- Opioid pain reliever dose did not need to be increase d/t medical cannabis
- Tapered off of Vicodin 5-325 TID down to once daily- still working towards getting off opiates all together
- same dose fentanyl , decrease oxycodone 3 to 1 tab
- Dose of MS Contin 90 mg tid and he is trying to wean by 30mg daily
- Discontinued gabapentin. 2 tablets TID - 300 mg caps
- off of lyrica, oxycontin as break through pain, and cut dosage of clonazepam in half
- Reduced dosage of Oxycodone
- Less pain medication some days and reduced the amount of Gabapentin she uses daily
- Patient is no longer taking ibuprofen.
- OXYCODONE DECREASED
- d/c Vicodin, RX strength ibuprofen, orphenadrine
- did decrease morphine and oxycodone
- No narcotics have been prescribed and he is rarely using ibuprofen.
- off Klonopin and Zofran, almost off Maxalt
- Was able to discontinue Nsaids, flexeril, and vicodin
- Originally taking MS Contin 45mg BID and hydrocodone 10/325 2 tablets TID (6 per day), now currently taking MS Contin 15mg BID and hydrocodone 10/325 TID (3 per day).
- initially oxycodone 10mg 5 tablets per day, now oxycodone 7.5mg 4 times per day.
- Patient is off of Gabapentin
- discontinued Vicodin 5-325 mg 2 Q6H, flexiril 10 mg QID, and cyclobenzaprine 5 mg QID
- discontinued methadone!
- Eliminated Fentanyl
- eliminated lisinopril and reduced norco in half since use of cannabis
- Decrease in Fentanyl patches
- Discontinued Percocet 5mg/325mg

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- off narcotics
- No longer on any medications. Was taking OTC medications for sleep as well.
- reduced oxycodone
- Has stopped taking Hydrocodone 7.5-325 mg
- hydrocodone decreased from 10mg to 5mg
- eliminate diazepam, cut immediate release morphine by 2/3
- stopped opiates
- No longer using oxycontin
- Patient completely stopped taking Oxycodone
- able to discontinue Cymbalta, slightly decrease tramadol
- no longer on pain medications. decrease in trazadone and lorazepam
- no longer takes- Oxycodone Q4H, hydromorphone BID
- hydrocodone 5/325 1 a day as needed
- 25% reduction of hydrocodone need
- reduction in MS-Contin
- Eliminated codeine
- Discontinued Percocet
- hydrocodone 5-325 mg BID- down to one daily
- Does not take ibuprofen 800 mg tablets anymore for his pain.
- Do not take any medications anymore; aspirin, tylenol, etc.
- oral pain meds
- Transitioned completely off Tramadol ER and IR.
- Patient does not take percocet and flexerol anymore.
- Tylenol-
- discontinued percocet, hydrocodone, and patches.
- Reduced hydrocodone from 4 times a day to BID
- Lyrica decreased from 150 mg TID to 100 mg TID
- Decreased methadone
- Stopped taking flexeril ibuprofen altogether
- Previously taking Oxycontin 40 mg TID and Vicodin 20 mg daily- No longer takes either medication
- Patient's total oxycodone use fell from 210mg/day to 120mg /day. We also stopped his anti-anxiety med Alprazolom 2mg ER twice per day. Now he is on no anti-anxiety med
- hydromorphone
- Discontinued Percocet 5-325 mg and Gabapentin
- reduced opioid by small amount
- discontinued oxycontin, reduced oxycodone
- hydrocodone continued
- decreased Percocet
- decrease oxycodone 95 to 40 mg day
- oxycodone no longer using daily until recent hip fracture
- GABAPENTIN DECREASED



APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- less opioids
- Decrease in his MS contin - now using noon dose prn
- decreased Norco and Tramadol
- Had some relief but did not tolerate side effects
- less use of narcotics
- able to titrate oxycodone off
- decrease in opioid use
- meds rx by pain clinic, but using fewer narcotics
- has cut current opiate medications in half.
- oxycodone 10mg 6 per day, gabapentin 600mg TID, baclofen 20mg TID --- currently taking percocet 5/325 TID (max 3 per day), gabapentin and baclofen DCd
- less need of Maxalt
- Was able to decrease in Naproxen
- Patient completely stopped taking Gabapentin
- stopped gabapentin.
- Stopped Lyrica
- Patient has decreased her intake of Tylenol greatly.
- predisone dose halved
- Hydrocodone has been discontinued
- Decrease in Ultram use.
- decreased opioid use
- Tramadol and Aleve
- Reduced Percoset from 6 to 3 a day
- stopped all opiates
- Discontinued all pain medications
- MS Contin initially 30mg BID & Percocet 7.5/325 about 4-6 tabs per day. Now has weaned completely off of MS Contin. Continues with Percocet, same dosing.
- Discontinued Vicodin 5/325 1-2 tabs at HS
- Patient has reduced intake of Vicodin and ibuprofen
- discontinued all medication besides cannabis
- Patient used to take oxycodone, now he only takes it PRN.
- during time on cannabis, was able to go off oxycodone (continued her butrans patch)
- Off hydrocodone and 800 mg advil TID
- was using mainly otc drugs, but using fewer
- discontinued flexeril. Oxycondone 5 mg for break through pain. Oxycontin 20 mg BID, and then tapered. Tramadol 4 tablets daily, cannot recall the dosage. 800 mg gabapentin
- gabapentin 300 mg 3 TID down to 1 cap BID, reduced motropolol
- stopped Valium
- decrease in percocet - using only PRN
- Tramadol reduced to PRN
- Has decreased oxycodone from 10mg QID to 5 mg TID since starting medical cannabis.
- No longer on any pain medications. Oxycodone.

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- amitriptyline discontinued, decreased gabapentin from 300mg TID to 100mg BID
- No longer taking opiates- Methadone Morphine, Oxycodone
- Tizanidine reduced by two thirds
- Stopped use of hydrocodone product, reduced use of otc nsaid
- Percocet use reduced slightly
- Percocet decreased from 6x daily to 3x daily
- less ibuprofen
- decreased and eliminated narcotics
- Patient has drastically decreased intake of Tylenol and Alleve. Still takes them when needed.
- discontinued vicodin and muscle relaxant medications
- Tramadol and Flexeril dose reduction about 90%
- Stopped oxycodone, naproxen, testosterone
- Tramadol 100 mg decreased from QID to TID
- Greatly reduced amount of Tylenol taken daily
- Patient reports she rarely has to take a percocet
- off xanax, much less sumatriptan, off opiates
- Stopped all pain meds: vicodin and naprosyn
- Patient has significantly reduced Percocet dosage
- came down on his oxycodone but then stopped medical cannabis because it wasn't enough to cover his pain
- Eliminated gabapentin 600 mg cap 6/day.
- went down from taking percocet 5-325 BID to only as needed- has made 60 pills last for 3 months
- MS Contin 15mg bid to no MS Contin
- Discontinued Naproxen
- less narcotics
- eliminated gabapentin
- decreased oxycodone
- Eliminated gabapentin, 800 mg tablets, 2 tablets TID, when he was on cannabis but is not back on it.
- oxycodone 5 mg- has cut down- does not want to give me this information over the phone.
- He has decreased the Oxycontin by 2 of the 60mg tablets.
- hydrocodone 7.5/325 TID, now 5/325 TID
- Stopped taking Oxycodone completely
- no longer taking oxycodone 5 mg 2 Q6H, currently tapering off of Gabapentin 1600 mg daily
- Cannabis has helped reduce gabapentin 300 mg cap to 4 tablets instead of her 9 per day. Baclofen has been eliminated for her spasms.
- Now off seroquel, mirtazapine, paxil, xanax, and allopurinol
- tramadol use reduced to almost none
- Pain medication, tapered on. Advil as needed has been discontinued because pain is in control

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- Only taking Percocet once daily
- able to discontinue narcotic pain medications
- Reduction of clonazepam
- Klonopin and Vicodin doses reduced 75%
- decreasing opioids
- Hydrocodone 5-300 tablets tid, qty 90 for 30 days has been eliminated
- Off almost all tylenol, naproxen, ibuprofen.
- hydrocodone 5/325 4/day, completely off now.
- Discontinued oxycondone
- Not able to reduce pain medications of oxycodone and oxycontin secondary to inability to afford medical cannabis on a daily basis
- on a minimum of opiates now Tylenol #4 only at 1-2/day
- patient has been able to stop ibuprofen
- Reduced lorazepam and pain medication
- I was able to essentially wean the patient off of hydrocodone.
- Patient completely stopped taking Excedrin
- oxycodone 5mg q6h PRN -- now completely off
- Patient has stopped Baclofen
- Off venlafaxine because no longer depressed
- only rare oxycodone down from frequent use
- discontinued Vicodin 5-325 mg BID
- stopped oxycodone
- Reduction in opioid pain relievers
- Yes, she was able to stop fentanyl patch the hospital had started.
- Percocet, Vicoden, Norco
- Pt using breakthrough meds less
- Maxalt use down from 5 to 1 a month. Butalbital use down from 2 to 1 a month
- Discontinued all opiate use
- Eliminated Valium and ibuprofen
- reduced oxycodone
- Patient completely stopped taking Vicodin, promethazine, robaxin, verapamil, and decreased dosage of carbamazepine and topiramate
- Patient was able to successfully taper off of oxycodone 10 mg MAX 4-5/day
- came off long acting, reducing percocet
- Vicodin and muscle relaxants were used as needed but he no longer uses.
- no decrease in oxycodone, has decreased muscle relaxants
- was able to switch from oxycodone to hydrocodone (less potency)
- stopped trazodone
- no opiates and decreased naprosyn
- Oxy 10 mg qd. now only as needed for knee pain.
- oxicodone use down from 100mg/d to 50mg/d
- Oxycodone decreased from 50/month to 12/month, Methadone 2mg BID has not decreased dosage.

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- Discontinued tylenol/ibuprofen
- hydroxyzine less
- Taking less narcotics - percocet
- Eliminated Vicodin
- off narcotics
- stopped taking hydrocodone
- vicodin went from daily to 2-3 time a week, tramadol went from 4 a day down to 1 daily
- Oxycodone 10 mg tid. One month supply lasting now 6 weeks.
- hydrocodone 10/325 max 5 tabs per day down to 7.5/325 5 per day.
- decrease morphine tid to bid, oxycodone 4 to 2-3 a day
- Aleve - discontinued; diphenhydramine - discontinued;
- Taking tramadol 1x per week now
- hydrocodone use down by about 50%
- stopped oxycodone
- gabapentin was stopped
- No longer takes Trazadone nightly,
- Taking no narcotic pain medications now
- reduced Vicodin from 5-325 mg QID to once a day
- Weaned off hydrocodone/APAP 10/325 mg 3 times a day; methadone 5 mg 1 b.i.d., 2 at bedtime for pain.
- discontinued oxycontin 15 mg QID, gone down to tramadol TID from Q4H
- Discontinued tegretol 200 mg, took 6 per day.
- Pt stopped cyclobenzaprine, meloxicam and tramadol. Off all pain meds except cannabis
- Hydrocodone-acet 5-325 mg Q4H- eliminated
- reduced lyrica by 25%
- Stopped taking percocet, vicodin, and hydrocodone completely
- stopped suboxone
- decreased opioid use
- Taking almost no indomethacin
- Off long acting oxycodone, but oxycodone unchanged
- stopped hydrocodone, ketorolac, tramadol, gabapentin
- stopped tylenol
- Off Oxydocone 15 mg, off Methadone 15 mg
- stopped gabapentin
- none
- Decreased use in Vicodin
- pt states that his PEG scale decreases from an 8 to a 1 when he can afford his cannabis,
- off naratriptan
- Pt is taking 1-2 less of his oxycodone per pday on occasion
- able to discontinue tramadol and cyclobenzaprine

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- Off opioids and antihistamines
- Norco 7.5 mg-325 mg MAX 6/day to Norco 7.5 mg-325 mg MAX 4/day
- Reduced dosage on suboxone by 2mg
- Patient stopped taking Oxycodone
- Discontinued Tylenol, 8 tablets within 48 hours.
- Less pain medications
- oxycontin 20mg BID, oxycodone 10mg 4/ days; now oxycontin 15mg BID, oxycodone 10mg 4/day
- Decrease in cymbalta
- elimination of opioids- was on ~20mg of oxycodone/day
- stopped Norco, Ativan. Much less migraines, so Fioricet stopped when on cannabis.
- Reduction in long acting morphine
- No longer on percocet medication anymore
- No longer taking ibuprofen and tylenol, she stated she was on some high dosage
- reduction of use of imitrex and vicodin 40%
- reduced hydrocodone
- hydrocodone 10/325 TID, now using none. Aleve -- no longer using.
- Off of oxycodone and narcotics, only taking tylenol for pain now.
- Decreasing oxycodone
- none
- Eliminated over 560 pills a month- have a copy of all the medications on file at our office
- Reduced dosage of Tramadol
- Patient has stopped taking Tramadol Lyrica and amitriptyline
- Stopped Narco, reduced ibuprofen and lorazepam to infrequent prn
- Reduced morphine from 9 times a day to 6 times a day
- stopped NSAIDs
- was taking OTC medications to assist with his pain relief but is no longer using anything but cannabis.
- MS Contin 30mg BID down to MS Contin 15 mg BID. Continues with hydrocodone/APAP 10/325 max 4 per day which is unchanged.
- decreasing opioids
- Now taking narcotics only prn. Not scheduled .
- Off xanax, clonopin, mirtazapine, quetiapine, and paxil
- stopped fentanyl, oxycodone, tizanidine
- off antidepressants. Ibuprofen amount reduced over 50%
- decreased use of norco
- Off of opiates now; 10mg oxycodone and trying to taper on lyrica
- decreased use of opioids initially including dilaudid and fentanyl; still requiring Percocet PRN
- Fentanyl, Norco, Flexeril eliminated
- Off percocet and naorco, less sleep meds

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- stopped hydrocodone which was being used 2-3 daily, 5/325. currently entirely off opiates
- Previously taking OxyContin 30mg BID and oxycodone 30mg QID, now currently taking oxycodone 25mg QID
- reduced oxycodone by half
- Reduced medication for his migraine medication; Gabapentin and diclofenic
- Lower dose of pregabalin
- Has been able to reduce on Oxycodone from 30 mg daily to 10 mg daily now.
- Decreased morphine short acting
- Did not tolerate weaning down of opioids
- 50% decrease in Oxycodone
- eliminated Gabapentin 400 mg tablets TID
- Oxycodone dose and frequency
- fentanyl patch 25 mcg, able to DC. Intermittent Tramadol.
- stopped hydrocodone
- Using less Oxycodone most days
- Hydromorphone 2mg, Tramadol 50mg stopped taking both completely
- decreased dosaging of pain medications
- stopped antidepressants
- discontinued oxycontin 20 mg QID
- decreased tramadol
- Patient reduced hydrocodone by half
- Switched from oxy to MS, unclear if less
- Tramadol 30 mg as needed, but no longer taking unless she has severe pain
- He has been switched to oxycodone, he has not felt the need to use medical cannabis. He complains about its high cost
- decreased Norco & Tramadol
- no further RX for oxycodone or tramadol
- Eliminated Vicodin, hydrocodone, flexeril
- reduced meloxicam use
- tramadol and gabapentin intake has been decreased.
- Percocet decreased by quantity 1/3
- Discontinued Oxycontin
- reduced gabapentin and 500mg aleve
- Patient has stopped all opiate use
- All narcotic pain medications have been discontinued
- Nerve blocks for headache and other medication for stomach pain
- weaning off of Fentanyl patch is active
- reduced hydrocodone usage
- tapering lamictal
- reduced oxycodone 15mg from 3 to 1 a day, reduced sertraline from 100 to 50 a day
- Gabapentin was taken only as needed. Usually takes 600 mg bid and 900 bedtime.
- Almost no use of prn hydromorphone

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- discontinued tramadol and lyrica and other muscle relaxants
- stopped narcotics
- STOPPED ALEVE
- off oxycodone
- reduced oxycodone from 3 pills a day to 2
- ibuprofen and humira
- Completely stopped taking ibuprofen
- Reduced dosage of naproxen
- stopped Adderal
- decreased use of ibuprofen, tylenol, aleve
- no need for narcotics
- far fewer narcotics
- switched from naproxen to celebrex
- Reduced consumption of pain medications
- Able to decr morphine sulfate from 30 mg TID to 30 BID
- Reduced hydromorphone 8 mg which was previously used sparingly
- less oxycontin-from BID to BIW and downward
- Hydrocodone reduced from 150 per month down to 20
- At last visit, mother report d/c cannabis as felt made anxiety worse
- reduced tramadol
- Methadone 20mg TID, Percocet 10/325 q4h (was taking regularly); now taking Methadone 10mg TID, Percocet 7.5/325 q4h (6 per day)
- tramadol reduced from 8 to 5 pills a day
- Decrease in gabapentin and opioids
- Decrease in scheduled medications
- decrease gabapentin dosing
- reduced excedrin migraine
- No longer on oxycodone or soma
- MS Contin 15mg BID, Percocet 10/326 q6h PRN (took pretty regularly) -- now completely weaned off of both. Takes 1/2 Percocet on rare occasion now.
- Discontinued Percocet for 4 months
- down to 1 or 2 tramadol tabs for flareups
- Percocet - reduced to only as needed so he does not take anymore unless he needs to
- Tapering off Oxycodone
- no longer taking Vicodin
- Decrease in Oxycontin -
- hydrocodone 10/325 4 tablets per day, now takes hydrocodone 5/325 very rarely (maybe 1 tablet every few weeks).
- PCP note indicated deceased oxycodone and muscle relaxant
- reduced alprazolam
- Eliminated effexor and lyrica for her nerve pain. Lyrica 150 bid and effexor 75 mg bid.
- decreased amount of opiates necessary
- Essentially off prednisone

APPENDIX E: HEALTHCARE PRACTITIONER-REPORTED REDUCTION OF PAIN  
MEDICATION

- decrease fentanyl dose
- Dilaudid 2 mg 4/day to Dilaudid 2 mg up to 2/day, 15 tablets provided for 30 days
- decrease oxycodone 5 mg eight a day to six a day
- decrease oxycodone about 20 % though had recent surgery
- Stopped taking oxycodone and hydrocodone completely
- oxycodone 5 mg - tid now down to 1-2 daily prn
- not taking as much Ativan (which I do not prescribe to her, so I don't know what she was taking before compared to now)
- Lyrica stopped taking completely, Tizanidine reduced dosage significantly
- stopped amitriptylline and methotrexate (!!! taken for years for RA)



# Contents

Appendix F: Healthcare Practitioner Suggestions for Improving the Program ..... 1

# Appendix F: Healthcare Practitioner Suggestions for Improving the Program

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons.

- This did give her great benefit and relief of her symptoms.
- Discontinued use due to price and caring for ill mother
- Better understanding of the different levels of THC and CBD.
- This patient is deaf and partially blind and we were not able to communicate with her. We've tried communicating via email but were unable to get a response.
- in hospice care. had not been using due to price. did not find much relief because she was very ill after getting certified.
- cost appears to be the biggest barrier for patients
- Patient only used medical cannabis for one month and stopped using it because she felt it wasn't working for her.
- Patient states that he only went to the dispensary twice but did not continue to get medical cannabis because he did not like the psychoactive effects from the THC.
- no she thought the [MANUFACTURER] pharmacist was very knowledgeable
- [PATIENT] really enjoys meeting the pharmacists and the dispensary but she would like to see other alternatives, besides the oils. Possibly topical or other routes.
- The doses provided were not effective, the electronic device provided was of poor quality, and the drug was too expensive. The program would benefit from better quality control, more thoughtful dosing, and increased competition to make the cannabis more affordable. The program seems to have little clinical utility and seems more like a "novelty" than a serious attempt to deal with the pain crisis we are facing. I would like the program to continue, but it is hamstrung by our inability to conduct meaningful research in this space.
- None. Besides the cost
- Has always had issues with oral medications, would prefer cream for her pain and not have to deal with the upset stomach. Felt rushed at her appointment in [CANNABIS PATIENT CENTER], but felt that her concerns were not addressed accordingly. Has not used since, but may reconsider since she heard that cannabis helps with inflammation. Would like to go back again and meet with a pharmacist again.
- I am unclear why [HIGH CBD PRODUCT] is not offered to more pain patients
- Expense continues to be a concern.
- Cost needs to decrease for many patients.

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- the distribution center that she used in [CITY] at the time was very unprofessional and she was uncomfortable with the care she got there from the pharmacist. this was some time ago now so I'm not sure if they have since improved things.
- Patient stated that she only went to a dispensary 2 or 3 times and she did not find the cannabis to be helping her at all so she hasn't been back since.
- Patient may try cannabis again in August when the topical form becomes available.
- Pills dont work and knock him out.  
Better form,, and smaller dose in pills, so can take a smaller dose  
Less expensive.  
Smoke it
- Patients need additional education on the THC/CBD spectrum, they are often unaware of what the different formulations mean or how they differ.
- No I think the program runs well. I must admit I am not completely convinced on the benefit of medical cannabis
- I wish I could de-certify a patient, such as this patient, when its decided to no longer use cannabis. While this was a mutually agreed decision, I can imagine a scenario where I would like to discontinue a patient who may not agree and I have no way of doing so.
- It would be helpful to see if the patient is following through with medical cannabis via a tracking mechanism on this website
- in the medical world, when a primary care provider refers to another provider, receiving a copy of the documentation (updates on progress) is extremely important. something to consider.
- Cost continues to be a concern.
- The pricing has been an issue with patients participating in the program.
- Medical cannabis is on hold for the patient at this time due to cost, he cannot afford to continue to try it at this point. Unsure if he will resume and try again in the future or not.
- Too costly, he will likely not continue.
- I think continuing to support each individual as an individual is very important. This particular patient spent many hours and dollars advocating for herself to have a potent enough strain to control her complex symptomatology. The antics of the company that was providing her with the initial cannabis was quite frustrating as she clearly had knowledge and experience with strains that were much more potent than anything that was available in Minnesota.
- Advertise the vape form as a short-acting cannabis, while oil and pill as more long-acting.
- Better way to evaluate which dosage will work better, rather than doing it on your own. It's difficult and patients are not educated enough about cannabis to use. Spent a lot of money going back and forth.
- Bring down the cost!!
- This patient isn't going to be able to continued regular use - has concerns about cost.

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- The main barrier for most patients is cost. Some form of medical assistance would be helpful if feasible.
- too costly, not covered by work comp
- Reduce cost. Currently, the program is unjust in that patients w/o significant disposable income are unable to purchase it.
- too expensive
- Has missed it for last 2 months because of cost
- Price continues to be the primary obstacle for many patients, as most are on disability payments.
- Patient would like to see topical applications as a delivery method and more warning labels on medical cannabis bottles.
- would like information about how often pt getting refills/actual use
- Difficult for a patient to obtain when traveling
- Improved subsidies for disabled people
- Decrease cost if possible.
- More education with facilities
- This patient would welcome a topical CBD for use during her work hours. (She works from home.)
- Ckiser facukuty  
LESS EXPENSIVE
- Stop because too expensive even though it helped a lot with sleep and pain.
- Cost
- Reduce cost, make more affordable for patients.
- Patient would like to see [MANUFACTURER] have pill form.
- Patient would like to see price reduction or insurance coverage.
- Patient says that he would be very sad if Minnesota's medical cannabis program was taken away.
- Patient would like to see some diversity in product variations.
- Patient states that the program is cost ineffective, and would like to see insurance cover medication.
- Patient reports that her pain clinic does not support her use.
- be able to transfer a small amount from state to state
- get Medicaid to pay for it so my patients who need it can afford it.
- Too expensive
- More options in terms of edibles or something that is longer lasting.
- costs continue prohibitive for many cannabis candidates...
- decrease pricing, see insurance companies start covering medication.
- more dispensaries
- Pt suggested to get insurance to cover the program
- None besides the cost.

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- Expensive
- Patient stopped medication recently because of cost. If this could be reduced it would be beneficial for this patient.
- Turned to opiates since cannabis didn't help with the pain so much and the price on cannabis was expensive when he wasn't having much hours for work.
- patient lives in southwest corner of MN and lives 180 miles away from nearest dispensary so he needs a dispensary closer to him
- cost and distance to travel to the dispensaries
- Patients often need help with paying for this medication. If it was less expensive that would help.
- Cost has been an issue with patients involved with the program. They tend not to take as prescribed due to cost.
- none besides the fact that she is unable to financially pay for her oils.
- More centers
- I would be interested in knowing more about drug interactions as the patients I have that are dealing with chronic pain are often also dealing with mental health issues and psychoactive medications. What are you finding about interactions and/or positive/negative effects on mood of medical cannabis?
- Patient would like to see more a variety of products become available and more affordable.
- I think the patient survey's are more important than what I say.
- Can pharmacists encourage follow-up with their certifying clinician. I think this would be helpful and a collaborative approach regarding the use of medical cannabis.
- Expensive, pills too strong and don't work well, need lower doses on pills
- get insurance coverage
- Patient would like to see more dispensaries open up so he is not forced to drive over an hour to obtain medication.
- none. is very impressed with the program
- Patient needs f/up to re-evaluate. No longer a patient at our clinic.
- North West Metro dispensary and more conditions for use of cannabis because she has many family members or friends who would benefit but do not have the qualifying condition(s).
- The cost is very high and has affected going into to get refill. Possibly, growing cannabis to save the trip.
- [CANNABIS PATIENT CENTER] has very limited hours and she has gone days without cannabis and was in a lot of pain and has gone to the ER a few times.
- it works well
- Needs more of a referral source on finding provider who certifies, etc.
- No way to track if patient is indeed refilling/receiving the medical cannabis; you have to depend on patient report
- Patient states there should be a reduction in cost for those on fixed incomes.

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- Patient states that it should be easier for caregiver certification and that background check is not necessary.
- Patient suggests more delivery methods.
- Patient would like to see a variety of different cannabis strains used for the capsules and oils.
- Would like to see prices decrease for the cannabis and would like to see the program become more popular.
- Program is expensive.
- Expensive
- Besides the cost, offering more options on taking cannabis.
- More options or alternatives with form of taking cannabis.
- Expensive
- cost is still a significant barrier
- Patient's only concern is the cost.
- Has been pulled over from cops and taken to jail and court. He shows them his card, and they handcuff them, then they search his car. Got ticket and fine for medical marijuana. Had his card and it was dropped.  
Need to do education with the cops.
- more dispensaries
- besides the cost, everything has been very pleasant and easy.
- Besides the cost, more locations for others who have to travel further.
- make products more affordable
- Expensive
- Bring down the price of medical cannabis. I have had many people inquire about it but when they find out it is roughly \$500 + a month, they can not afford it.
- Was recertified and feels that cannabis does help. Some months he cannot afford it or does not take as much but uses when able to but is expensive.
- reduce cost  
insurance reimbursement
- It would be very helpful to know when these questionnaires are required so they can be done at the time I am seeing the patient. Is there a time frame in which the report needs to be completed?
- The rigid pain scale being used doesnt allow for the fact patients, like this one, can have a big range of "pain scores" day to day.  
I did enter this fact this patient will range from 0-5, but was blocked by the entry only allowed a whole number, ie no additional comments....especially that pain can vary wildly day to day, week to week based on activities, sleep quality, etc
- costs, as usual
- Would like to see the cost go down (2 responses)
- would prefer patients to have access to the regular plant products / leaf, etc due to control costs better

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- [CANNABIS PATIENT CENTER] has very limited hours and would like to see more hours of operation. More edibles to take rather than just vaping.
- cost is a problem for this patient
- cost is an issue for this patient
- more education for non-cannabis providers
- Would like to see this turn into a federal law.
- Patient would like to see costs go down, and availability of dispensary hours increase.
- Patient would like to see the costs go down so the medical cannabis products are more available to everyone.
- Patient would like to see price reduced and more dispensaries open.
- Patient would like to see more information on the product labels.
- Patient states that annually re-certification fees and seeing pharmacists every visit is an inconvenience.
- Patient states that the certification and registration process is confusing and tedious and should be made easier to complete.
- Patient would like to see topicals as a delivery method.
- make it more affordable.
- More convenient locations
- Decreasing the cost. That is the highest barrier to use.
- Would like to see the state expand the program and not have a "cookie cutting" program with dosage on medication. More case management per individual.
- More dispensaries in her area
- None, she is happy with the current program
- Patient would like to see them open up more dispensaries in the southwest region of Minnesota. The closest dispensary to them is about 100 miles away.
- Besides cost and wanting insurance, he has no other suggestions.
- Besides the cost, she feels that the program is great. Insurance coverage would be beneficial for those who are on disability.
- The decrease in expense has been good
- I would like an e-mail or some sort of notification when the patient starts the program after I certify them.
- Beside the cost, the dispensary has limited hours and is over an hour away, Rochester location.
- The Copay is making regular use for chronic pain for this patient unattainable unfortunately. He has severe spinal stenosis and may end up getting surgery.
- Continued concerns of patients ability to afford medical cannabis.
- Decrease cost (easy for me to say).
- just the cost
- She would like to see them expand the forms of medication such as patches, creams, lotions.

- Would suggest having the medical cannabis office have the patient call the practitioners office at the time of refill to complete the practitioners surveys in a more productive manner as patients are not easy to reach when they have no vested interest in calling back (i.e. they can get the med without going through our office for a script)  
The program needs to ensure that at the dispensary level if there are concerns they are redirected to the practitioner right away. Practitioners without “prescribing power” can not ensure patients will follow up but the dispensaries can. This is a difficult situation but can be easily resolved if communication between the Medical Cannabis Offices and the Practitioner are open.
- Cost is an issue
- Feels that refilling the 2 mL oils is not enough, she stated that usually only 3/4 of the vile is full but there's still room for more and the cost is so much for such a small amount and that adds up eventually.
- Health Insurance coverage would be beneficial for patients with Disability and more varieties on ways of taking cannabis.
- I will be retiring and the patient will need to find a new provider who is able to recertify.
- Can not use it as often as he would like due to financial reasons
- Make products more affordable.
- More dispensaries. Travels over an hour to Hibbing each time to get refills.
- Patient suggests that there be a stronger dosage available for severe pain patients.
- just the cost
- I am very pleased with how this worked.  
Cost is still a major issue and I would like to. See that  
Drop for patients
- None, would like to see cost come down.
- I would review the process for certification of medical cannabis. I would prefer when a patient was certified - my list of patients were not viewable on my computer monitor.
- Cost is quite a lot compared to using insurance but tries to manage as best as she can, sometimes it's not enough to help with her nerve pain.
- Besides the cost, he would like to see more options. He's very pleased with the staff members and their knowledge on cannabis.
- drives an hour to the dispensary, which is the closest, the Rochester/Bloomington.
- Easier access besides online, especially, if they do not have access to website.
- Does not tell people about cannabis use because of the stigma of cannabis and how others believe it's a drug and not for use, so she would like to see the MN DEPT OF HEALTH educate people and look at statics or studies on use and how it can improve quality of life.
- discontinued due to the cost and he relies heavily on his disability checks.
- [CANNABIS PATIENT CENTER] has very limited hours and this is an elderly patient that is dependent on family members taking him. Price is a bit expensive, but we did urge him to go back since the prices have dropped a bit since he last went in in October of 2016



- More varieties; topical.
- Besides cost, there doesn't seem to be anything he can think of. Possibly better ways to reach out to individuals on cannabis use. He knows that advertising is not the correct term but that seems to be the only term he can come up with.
- Financial help for cannabis. Also, mail out medication due to winter weather since he does travel a bit far. More access to the dispensary for locations.
- more options on taking cannabis besides the oils and capsules.
- besides the cost, she travels 3 hours to a dispensary.
- The cost of the medical cannabis is the main issue for most of the patients who would be a good candidate for this.
- This patient is very happy with medical cannabis and feels it has been very beneficial for her.
- Lowering the price and having more convenient dispensaries. [PATIENT] drives over 2 hours to the dispensary in St. Cloud.
- none besides being able to grow your own to save having to travel
- More variety on the cannabis choice, such as the actual plant itself
- more option on how to take cannabis - edibles
- feels that the quality of the product is not as well. More alternatives on how to take cannabis.
- None besides cost
- Patient was unable to continue using medical cannabis because of the cost, she would like to see prices be lowered so more patients have access to it.
- More feasible as far as the product pricing goes.
- Patient states that he thinks more qualifying conditions should be added to the program.
- Patient would like to see the costs go down so all patients have access.
- Patient would like to see more dispensaries opening and more qualifying conditions added to the program.
- Patient would like to see edibles added as a delivery method.
- Patient states that the medical cannabis products are too expensive for disabled low income patients.
- Patient would like to see costs reduced and more dispensaries open up.
- Patients have reported it is cost prohibitive.
- Patient would like to see medical cannabis covered by insurance or reduced prices.
- Patient would like to see less regulation on Minnesota's medical cannabis program.
- Patient would like to be updated on new changes and laws in the program.
- Patient states that he would like to see more products offered than the current ones.
- Patient would like to see less regulation in the medical cannabis program.
- Patient would like to see insurance cover medications for patients on disability or fixed incomes.
- Patient states that he would like to see flower as a delivery method.

APPENDIX F: HEALTHCARE PRACTITIONER SUGGESTIONS FOR IMPROVING THE PROGRAM

- Patient wants to know if the VA will ever get involved with helping cover costs for the medical cannabis since she is a disabled veteran.
- Patient states that the price is too high.
- Patient states that prices should be decreased if the program wants to succeed in the future.
- Patient would like to see the cannabis flower be dispensed as another option for a delivery method because the flower would be a lot less expensive than the cartridges.
- Patient states that she scheduled a consultation because she had medical questions about side effects she was having with the medical cannabis and the person who she met with could not answer her medical questions. She suggests a better online scheduling system for the program.
- Patient states that cost is a big issue in product, and would also like to see edibles and delivery services an option in the future.
- Patient states that a variety of cannabis products would be a lot helpful for her condition. She also wishes prices were lower so she could afford to consistently have her medicine on hand.
- Could not afford cannabis so she is no longer using. I highly suggested she try again or reach out to the previous dispensary to see if the prices had decrease since she last picked up cannabis.
- Nothing besides the cost.
- Offer more options in pill form
- Expanding qualifying conditions so more people have access to the cannabis program.
- N/A besides cost
- Would like to see prices lowered.
- Had used cannabis a few times and it relieved a lot of her stomach pain, along with fibromyalgia. She no longer needed to use cannabis on a daily basis since her pain how decreased and is manageable.
- Wanted to know about regulations if he was to travel outside of the state. Price is a bit expensive.
- Providing certifiers with some data about how much money patients are spending per month on average--- helps patients make some decisions before they have to pay fees.
- affordable in [CANNABIS PATIENT CENTER]
- mail out medication or open a location closer to [CITY]. Drives over 5 hours sometimes to get cannabis.
- Open more dispensaries so patient's do not have to travel as far to obtain product every month.
- Financial could not afford going into the dispensaries because of the recent holidays and cost of living being so expensive. Opiates insurance coverage but cannabis does not.
- Cheaper
- Decreasing pricing and simplify MDH website and allow for longer time periods to enter information in the website regarding surveys.

# Contents

Appendix G: Healthcare Practitioner-Reported Clinical Observations.....G-1

# Appendix G: Healthcare Practitioner-Reported Clinical Observations

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons.

- As of her last assessment, she had not yet found a formulation of medical cannabis that she could tolerate taking regularly.
- deceased from sepsis
- not enough time on med to determine
- efficacy of cannabis for pain relief correlates to equal fatigue/drowsiness
- Still taking Lyrica for her Neuropathy
- unable to continue due to cost, no benefit noted, & returned to opiate use
- Patient only used medical cannabis for one month and stopped using it because she felt it wasn't working for her.
- Patient sees a partner in clinic.
- Patient states that he only went to the dispensary twice but did not continue to get medical cannabis because he did not like the psychoactive effects from the THC.
- [PATIENT] has a very unusual pain situation and tolerates very little in terms of medications or supplements
- She almost had seasonal allergy type symptoms while she was on medical cannabis. Also had frequent sinus infections, all of which was new for her. This all resolved once she completely stopped the medical cannabis.
- No effectiveness for pain. Tried increasing the dose, but then it was not financially feasible.
- He stopped using cannabis due to cost. It was effective
- Stopped using cannabis back in Oct. 2016 because she was not finding any relief and has tried all the different types.
- Pt did not find medical cannabis as helpful as the kind he had been using on the streets
- Patient is still working with dispensary to see if different dosage would be more helpful in pain reduction.
- She reported that the staff of the dispensary did not seem very professional to her. They acted in a somewhat capricious manner for making decisions about doses for her condition.
- Pt has stopped cannabis as it is not helping
- Only brief use over several weeks.
- she didn't take it more than a couple of doses so impossible for me to give any useful feedback
- simply did not help this patient

- Patient stated that she only went to a dispensary 2 or 3 times and she did not find the cannabis to be helping her at all so she hasn't been back since.
- She used medical cannabis for about 2 months, did not find it beneficial for her pain and so due to cost she did not continue. However at her most recent office visit on [DATE], she said that she is going to revisit medical cannabis and would like to try it again.
- She denies any side effects, it just did not help and she could not afford to keep taking it.
- She was able to decrease use of mental health medications including Zoloft, Xanax, Clonazepam, Valium. Started Risperidone at night.
- I do not feel that the medical cannabis has resulted in significant improvement of her chronic pain syndrome
- Cost prohibitive for this patient. He cannot afford refills or to take it very often. This is unfortunate because this patient has many comorbidities that frankly make high-dose narcotics dangerous.
- pt cannot continue program due to cost
- Pt feels the products available in MN are not as effective as the whole plant extract available in CO. He tried it there when on vacation. He is considering moving to CO or OR
- finds expensive to continue trying different preparations
- No sure if she will continue taking with the fogginess she was describing.
- For this patient, the cost of medical cannabis outweighed the limited benefit in pain relief so he only rarely uses it at this point.
- He has not decreased his high opioid dose at all while on medical cannabis. Encouraged him to use the medical cannabis more frequently but he had a difficult time finding privacy at work in order to take it.
- He has experience with cannabis from other states. The quantities he was able to afford did not adequately treat his symptoms.
- per PCP able to fall asleep better, less waking up
- My certification for non-cancer pain patients always focuses on selecting either opioids or medical cannabis as a treatment option. Despite the reported benefits of concurrent multi-modal therapy with these potent agents, my goal is always patient safety. I think clear communication and expectation setting is crucial to allow all parties to benefit.
- Medical cannabis did not provide adequate relief and stated in an OV that it was not the "miracle drug" she had heard and hoped it would be.
- in comparing the short form pain inventories from [DATE] and [DATE] it showed that she was actually doing better when she was using her cannabis as prescribed rather than her perception that it was not doing much. Planned to resume
- He has been a very difficult patient to provide any pain reduction. Some feelings of making him feel "goofy" but otherwise tolerated ok.
- patient feels this helped with knee pain, but unwilling to continue due to costs
- He seems to have limited side effects. We have not been able to decrease doses due to the other issues going on with this pain

- The patient did not like the side effects, stating it made him feel "high" and only marginally reduced his chronic pain.
- This patient's low back/radiculopathy has actually been worsening. Doses of other non narcotic medications have been increased for this without any change. The cannabis is not helping this either. He is actually scheduled for lumbar surgery soon.
- helpful, too expensive for pt to use regularly
- Overall, modest but meaningful benefit. MC is not a substitute for opioid pain relievers and other treatment, but is a useful tool.
- No change in meds. Feels 35% better
- No interactions. See previous comments
- Patient reduced ativan intake.
- We have not changed medical regimen yet.
- not sure that I understand use of daily suspension, as I would have thought that prn vapor would be best for the more intense headaches, and avoid potential for dependence/tachyphaxis,
- Pt plans to try High CBD/low THC when can afford to try again
- Capsules did not work well due to upset stomach but vaping helped avoid that issue. Some pain relief but she is currently on vacation until July 2017
- Reduction in chronic opioid therapy would likely be a benefit if pt could afford regular MC use
- I have not been able to decrease his opioid use.
- Slowly trying to wean pain meds
- Patient has done well and overall this has been helpful
- the cannabis has helped his quality of life, but patient still has significant pain
- could not afford to continue
- Takes opioids for pain, dose has not changed at all since being on medical cannabis.
- finds would be very helpful, cannot afford to take consistently
- Sparing use of hydromorphone 8 mg reduced to very minimal use. Cannabis improved prevention of headaches but did not assist with breakthrough pain; hydromorphone used minimally to assist with breakthrough pain
- it has over all been modestly helpful for this patient
- MC was able to help widespread pain but not worst area (low back).
- Patient has not decreased intake of other medications.
- Patient reports some mental clouding
- decreased need for potent analgesics while on cannabis, which reversed when he had to stop cannabis due to cost
- Patient would like to see prices decrease. He is unable to utilize the cannabis as often as he would like due to financial reasons.
- She has sadly passed since last seen
- has been helpful (2 reports)
- he has benefitted

- already documented
- If [PATIENT] was to continue with cannabis, the ability to get off pain medications would be more likely. Unfortunately, the cost has held her back from continuing in use of cannabis.
- Better overall
- decrease in naproxen. currently on opiates and did not want to take both at the time.
- reduced amount of hydrocodone and lorazepam being taken, completely stopped taking diazepam and medications for depression
- Help with dose so she can take cannabis more often.
- Did not have enough relief with cannabis alone
- Never a smoker; could not adapt to use of the vape. Appreciates the capsules.
- This patient has Lyme disease...difficult to treat.
- No drug interactions. Patient / family provide positive experience via phone follow-up regarding it's use.
- Has helped with pain and muscle spasms.
- no assessment based on pt self report
- It seems to have improved both is degree of perceived pain and the chronic nausea that he has had either from his meds or the pain itself.
- unable to afford, stopped taking
- helpful for him
- main problem is cost
- question compliance with treatment plan; her opioid contract has been terminated due to non-compliance on her part and urine tox screen was negative for cannabis when she reported taking it
- Patient decreased intake of oxycodone and maintained intake of methadone but would like to start decreasing that as well.
- Patient stopped taking percocet and flexeril after he started taking medical cannabis.
- Patient has tapered down from tramadol and gabapentin since she started using medical cannabis.
- Patient is almost completely off oxycodone, only takes it when his pain is excruciating and the cannabis isn't enough.
- Patient feels that it is less effective since she started taking anti-depressants
- No clear problems but somewhat confusing for a patient with other medical conditions- A.Fib, hypertension
- Morphine sulfate down from 30 mg TID to 30 mg BID
- could not afford to continue, back on opioids
- Able to stay off narcotics
- Patient is adamant that the state of MN continue with this program- she believes that it is very beneficial to a wide variety of medical conditions. Patient is also pleased that certain dispensaries have increased their hours of operation.

- I feel that with his condition, post laminectomy syndrome it has worked well. What would probably help him even more would be a spinal cord stimulator but he will not consent to this. His 3 back surgeries were "enough surgery"
- Decrease in oral medications.
- This patient did stop fentanyl by using cannabis. that is a good thing.
- no negative effects, reduction in need for opioid analgesics, but not elimination
- better anagesia that NSAIDs alone
- no evidence
- Pt side effect of fatigue is dose related. Good pain control. Good sleep.
- This allowed her to completely get off all narcotic analgesics, to date.
- much calmer, better ROM
- Patient stopped taking flexeril and ibuprofen after starting medical cannabis. Patient also stopped taking Zoloft for depression because cannabis helped greatly alleviate that.
- Patient decreased intake of Tramadol.
- Patient has reduced dosage in suboxone after starting medical cannabis.
- Patient has reduced dosage of Lyrica.
- Patient has stopped taking Celexa and Colonopin as the medical cannabis has helped greatly with her depression and anxiety.
- No oral medications
- Pt unable to continue program r/t cost
- Pt has remained sober from previous use of alcohol and methamphetamine.
- It helped more than I thought it would.
- She has been able to come off OTC pain medications
- Aspirin decrease from 4,500 and 2,500.
- Due to recent Cannabis use patient has avoided having to go on disability and is able to continue working.
- This patient has a lot of non-pain related medical conditions. She doesn't think medical cannabis has had any negative impact. She is moving to Hawaii next week and plans to continue with their medical cannabis program.
- No longer dependent on Vicodin. Only takes for break through pain.
- I have observed an overall improvement in the patient's mood and ability to engage in conversation.
- Pt is still on Vicodin, even though dose reduced 75%. He is getting it from his pain doctor. The clinic the doctor works for has a policy against THC in urine even if it is legal, and they are threatening to cut him off narcotics completely if he continues on cannabis. This seems unfair and illegal. Maybe MDH should develop a policy on how to deal with these situations. I would appreciate advice on how to counsel patients about this as well. no drug drug intereactions
- This patient has been able to substantially decrease narcotic use.
- This has worked well



- Medical cannabis has enabled patient to stop narcotic pain medications and Zofran. The only other negative was not being able to use his medical cannabis during a recent hospitalization at Fairview Hospital.
- medical cannabis program has been very helpful, especially at weaning patient off of narcotic
- Plan will be to try and taper Percocet off
- Patient feels significant benefit from medical cannabis.
- the THC ended up making her really sick and she found out she had Cannabinoid Hyperemesis Syndrome
- Decrease on Fentanyl patches
- Doing well.
- We discontinued the medical cannabis for this patient and she is now off her narcotics and dealing with her pain in other ways. There is a possibility the MS Contin was causing her opioid-induced hyperalgesia
- My impression is if he could afford the medicine he could be off pain killers and muscle relaxants
- seems to be working well but patient does have a long drive to get it.
- The patient did have a hospitalization about 2 1/2-3 months after starting medical cannabis for questionable seizure, questionable acute encephalopathy. This was questionably due to gabapentin and cannabis combination. The patient opted to continue cannabis and decrease gabapentin and has not had any further problems.
- wonderful response by patient
- Able to wean down on narcotics.
- Successful been able to manage his pain without use of opiates and able to use it for his anxiety as well.
- No longer on opiates and muscle relaxant.
- No longer taking OTC medications
- Patient no longer takes paxil.
- Patient stopped taking Baclofen after being on medical cannabis.
- Patient reduced venlafaxine by half.
- Patient has decreased intake of pain medications listed previously as well as muscle relaxants.
- Has completely stopped all usage of pain medications besides cannabis.
- I feel that the benefits he describes from using cannabis a greatly enhancing his ability to function in many domains of his life.
- Patient reports pharmacist was able to adjust ingredients to decrease foginess and still have it be helpful.
- When the patient was taking the medical cannabis she only needed to take her pain medications as needed.
- Patient stopped taking clonazepam for anxiety since starting medical cannabis.
- Patient stopped taking Oxycodone.
- Patient stopped taking modafinil completely since starting medical cannabis.

- Patient has stopped taking Tramadol Lyrica and amitriptylin.
- Patient has decreased Xanax significantly since starting medical cannabis.
- Patient was taking Wellbutrin but stopped after starting medical cannabis.
- Patient stopped taking pain, anti-anxiety, anti-depressant, and blood pressure medications.
- Patient has completely stopped taking a benzodiazepine for her anxiety after she started the medical cannabis.
- Patient takes Cymbalta.
- Patient has stopped taking hydromorphone, tramadol, and mirtazapine since he started taking medical cannabis.
- Patient stopped taking oxycodone and hydrocodone after being put on medical cannabis.
- Patient completely stopped taking Vicodin, promethazine, robaxin, verapamil, and decreased dosage of carbamazepine and topiramate
- Patient decreased intake of Trazadine.
- Patient has went from 150 Hydrocodone a month to just 20.
- Patient was on Tramadol and Aleve prior to being certified for medical cannabis but now she is off both.
- No oral medications
- I feel that she is one of my most successful patients on medical marijuana, and we have seen a change in her opioid and medication use directly impacted.
- Life style has improved significantly. Not as dependent on medication anymore but does use when he cannot afford cannabis
- He did experience very good control of pain to the point that he was able to discontinue other pain medications completely. Unfortunately he found the medical cannabis in Minnesota to be too expensive it is not something he can continue to utilize and has ended up re-starting opiate pain medications and is no longer actively using medical cannabis.
- Decrease in anxiety medication and gabapentin. Decreased insulin by half. Type II Diabetes
- Opiates were stopped 10 days after starting cannabis. Pt reported cannabis and opiates provided similar levels of benefit but cannabis was more costly.

# Contents

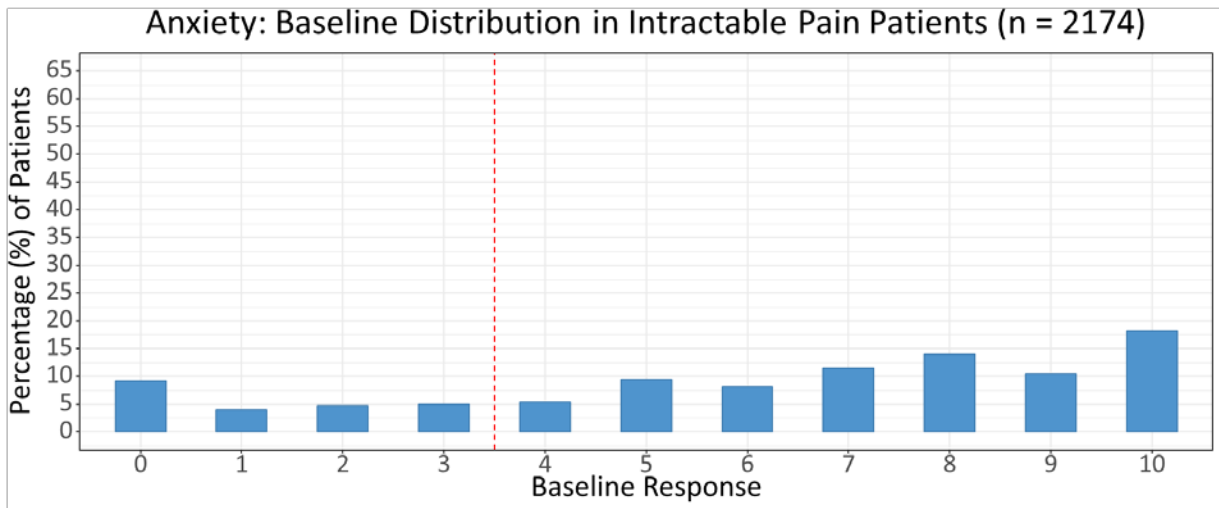
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# Appendix H: Baseline Responses on Symptom Measures in the Patient Self-Evaluation

## Standard 8 Symptom Responses at Baseline

### ANXIETY

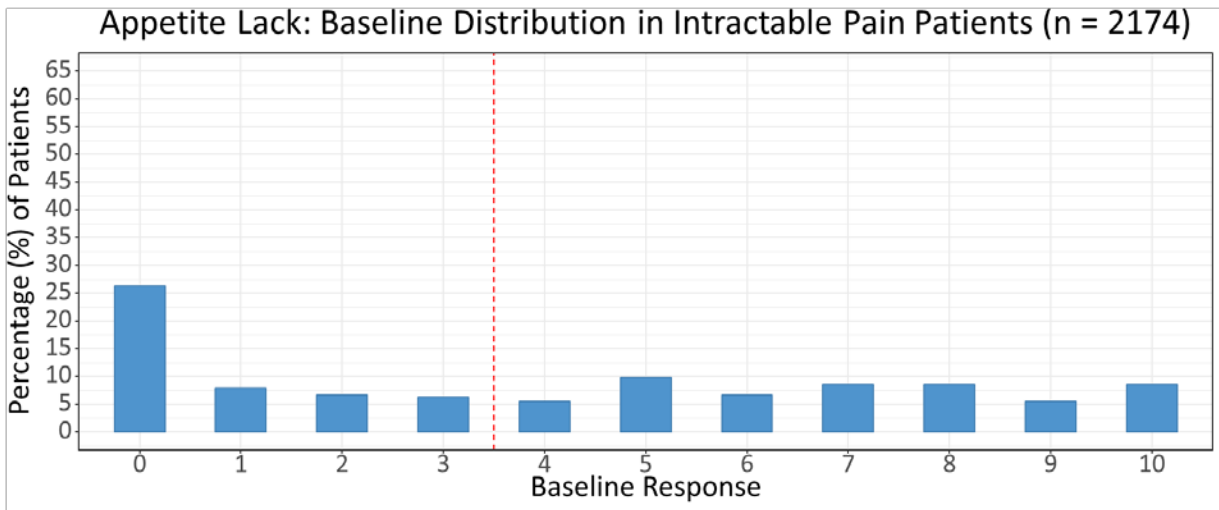
**Figure 1. Distribution of standard 8 anxiety responses (0-10 numerical rating scale; NRS) at baseline in intractable pain (IP) patients.**



*Patients falling to the right of the vertical, dotted red line (n = 1679) were patients experiencing moderate to severe anxiety at baseline.*

## APPETITE LACK

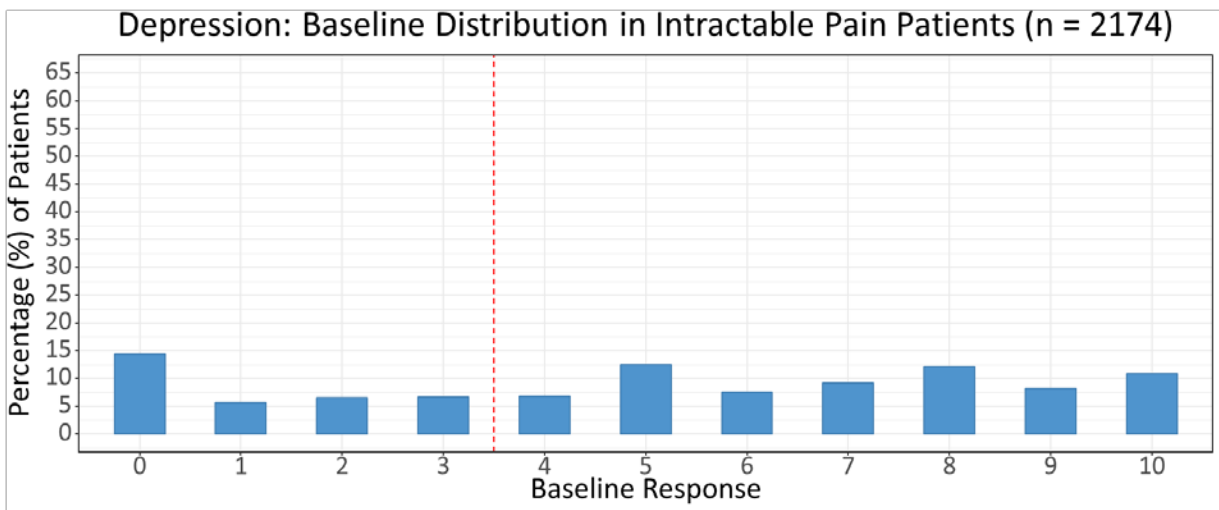
**Figure 2. Distribution of standard 8 appetite lack responses (0-10 NRS) at baseline in IP patients.**



*Patients falling to the right of the vertical, dotted red line (n = 1154) were patients experiencing moderate to severe lack of appetite at baseline.*

## DEPRESSION

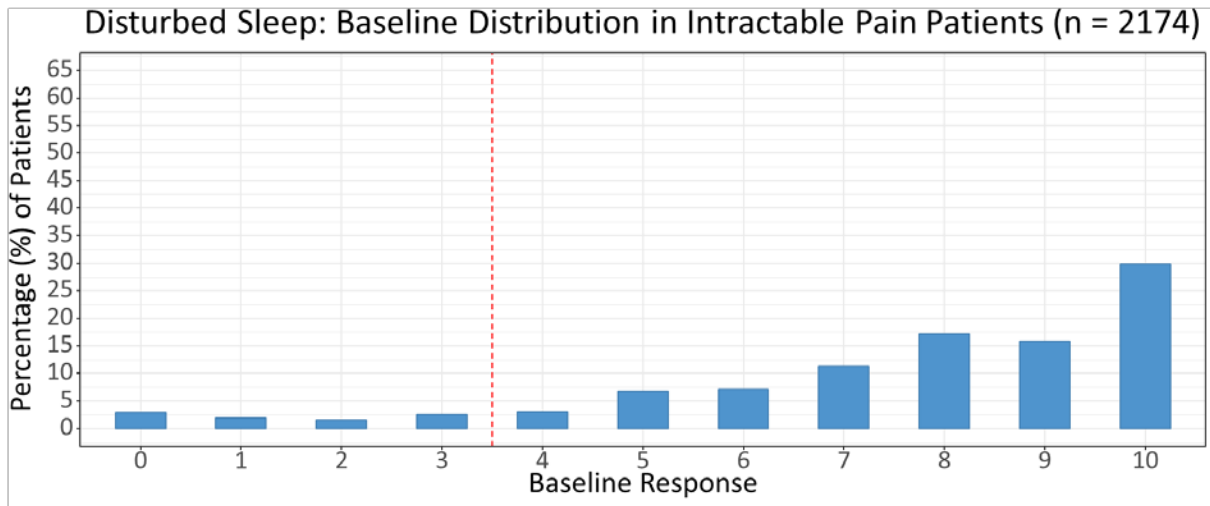
**Figure 3. Distribution of standard 8 depression responses (0-10 NRS) at baseline in IP patients.**



*Patients falling to the right of the vertical, dotted red line (n = 1453) were patients experiencing moderate to severe depression at baseline.*

## DISTURBED SLEEP

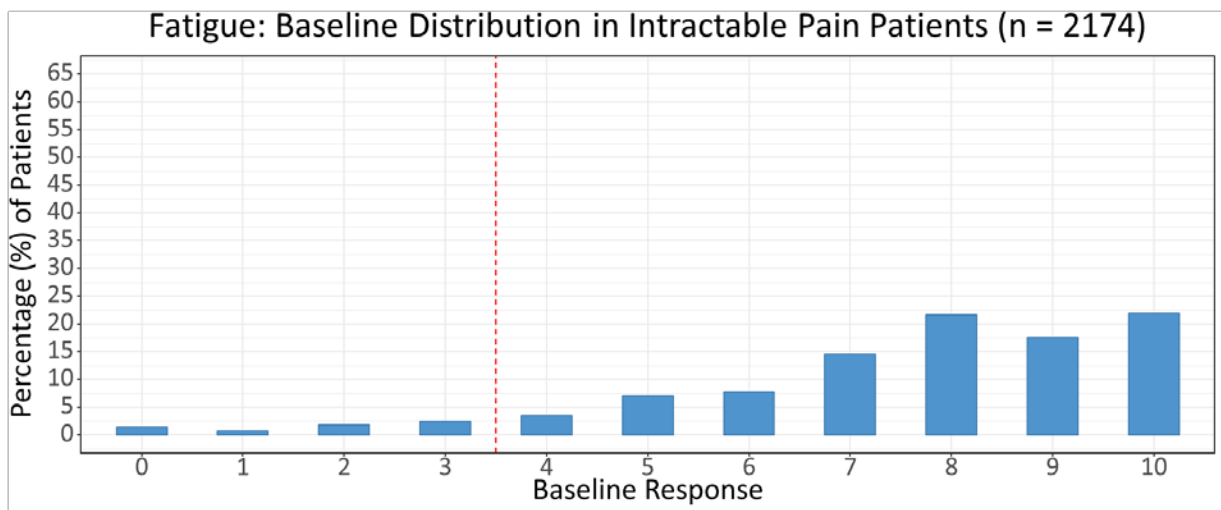
**Figure 4. Distribution of standard 8 disturbed sleep responses (0-10 NRS) at baseline in IP patients.**



*Patients falling to the right of the vertical, dotted red line (n = 1977) were patients experiencing moderate to severe sleep disturbance at baseline.*

## FATIGUE

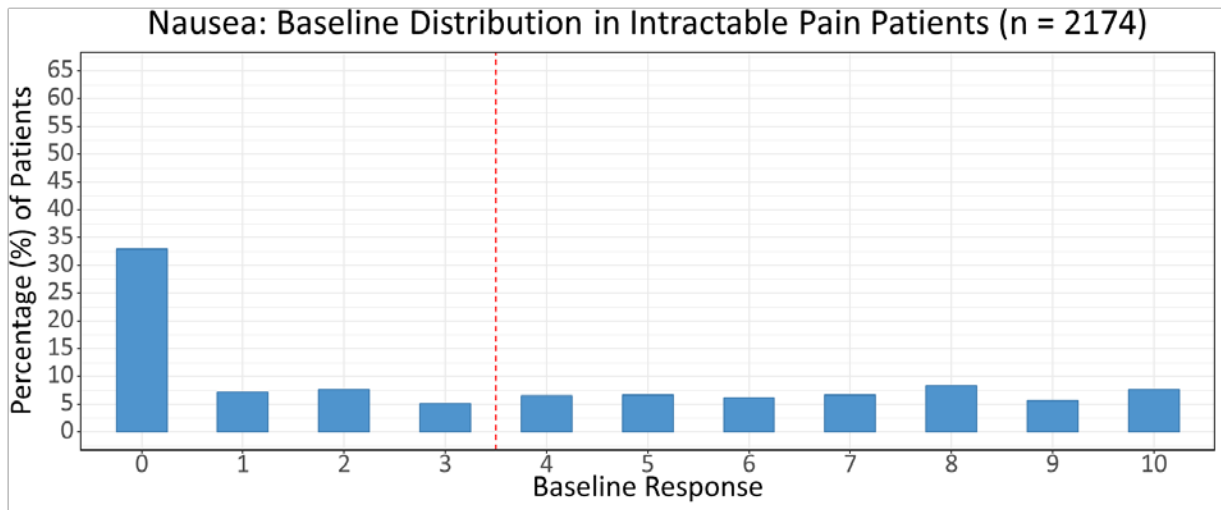
**Figure 5. Distribution of standard 8 fatigue responses (0-10 NRS) at baseline in IP patients.**



*Patients falling to the right of the vertical, dotted red line (n = 2036) were patients experiencing moderate to severe fatigue at baseline.*

## NAUSEA

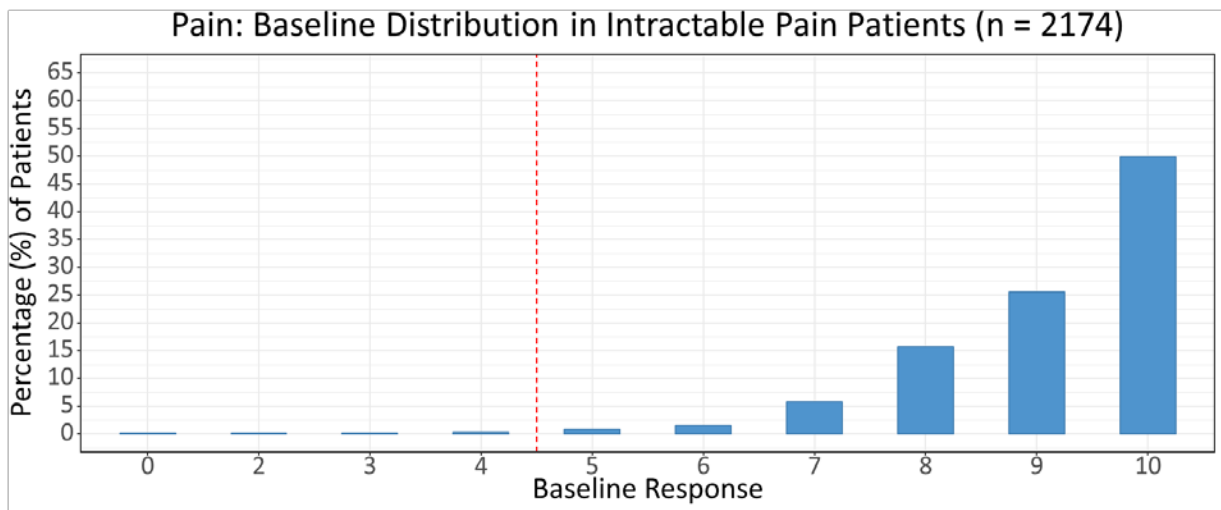
**Figure 6. Distribution of standard 8 nausea responses (0-10 NRS) at baseline in IP patients.**



Patients falling to the right of the vertical, dotted red line (n = 1028) were patients experiencing moderate to severe nausea at baseline.

## PAIN

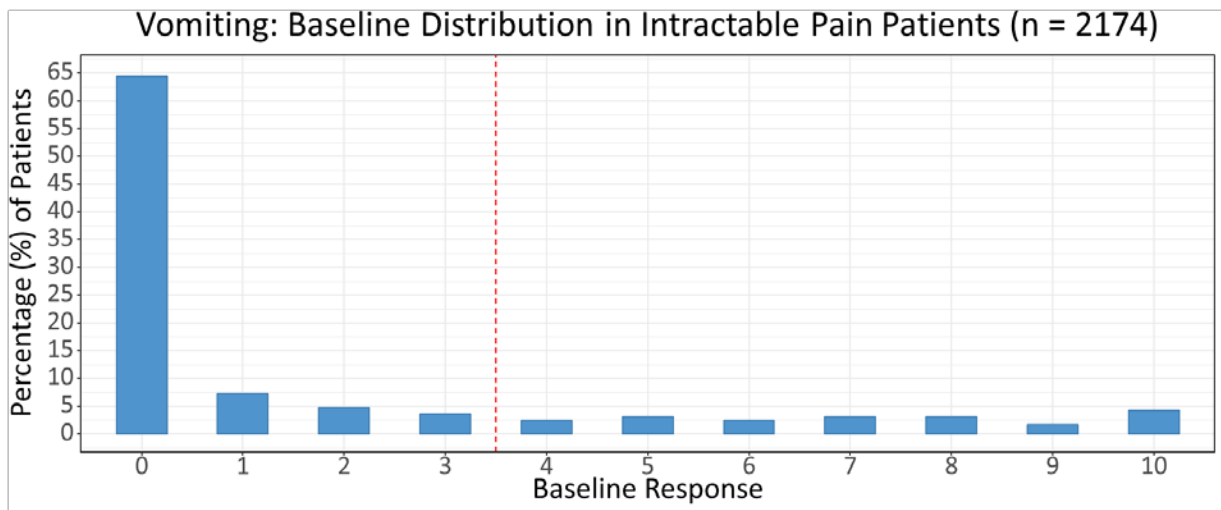
**Figure 7. Distribution of standard 8 pain responses (0-10 NRS) at baseline in IP patients.**



Patients falling to the right of the vertical, dotted red line (n = 2165) were patients experiencing moderate to severe pain at baseline.

## VOMITING

**Figure 8. Distribution of standard 8 vomiting responses (0-10 NRS) at baseline in IP patients.**

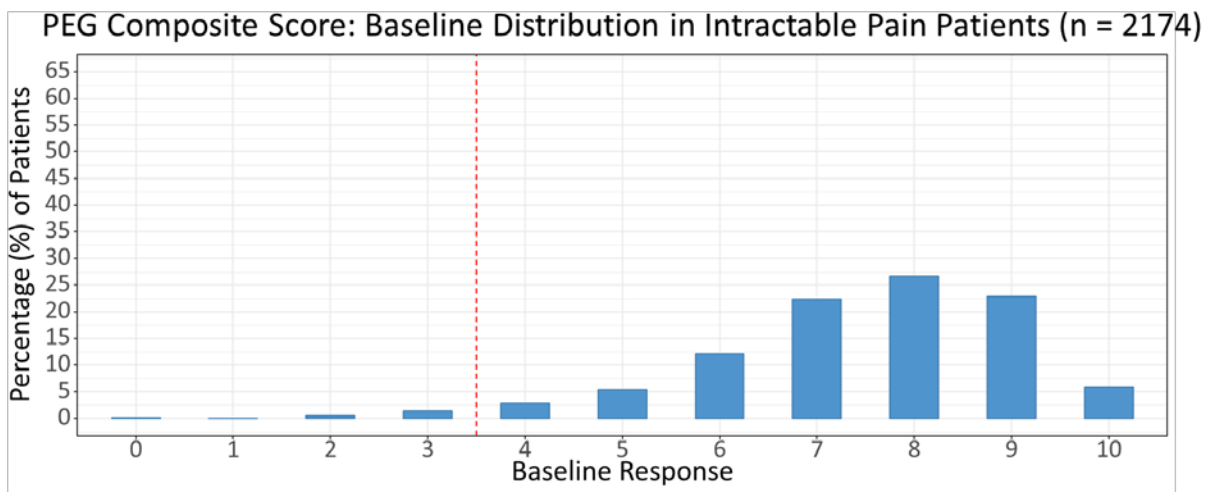


*Patients falling to the right of the vertical, dotted red line (n = 437) were patients experiencing moderate to severe vomiting at baseline.*



## PEG Scale Composite Scores At Baseline

**Figure 9. Distribution of PEG composite scores at baseline in IP patients.**



*For ease of display, composite scores were rounded down to the next whole number. Patients falling to the right of the vertical, dotted red line (n = 2129) were patients scoring 4 or above at baseline.*

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APPENDIX I: MEDICAL CANNABIS PRODUCTS PURCHASED PRIOR TO INITIAL  $\geq 30\%$  SYMPTOM IMPROVEMENT

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# Appendix I: Medical Cannabis Products Purchased Prior to Initial $\geq 30\%$ Symptom Improvement

This appendix contains tables displaying the medical cannabis product type(s) that were purchased just prior a patient's initial  $\geq 30\%$  Standard 8 symptom reduction (Tables 1-8) as well as product type(s) purchased just prior to a patient's initial  $\geq 30\%$  reduction on the PEG composite score (Table 9). This appendix accompanies results presented in the section: *Benefits Reported on the Patient Self-Evaluation*.

For each table, products are categorized by their THC:CBD ratio and intended route of administration. Please note that stratification via the topical route of administration is omitted from the tables—this was done as a space-saving measure (none of the medical cannabis products purchased just prior to any initial symptom improvement fell into the topical product category).

## Standard 8 Symptoms

### ANXIETY

**Table 1. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in anxiety (Standard 8).**

Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	% of Patients out of 965 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
					X										18.3 (177)	65.6 mg / 0.5 mg
		X			X										15.4 (149)	70.6 mg / 25.0 mg
					X		X								7.8 (75)	87.3 mg / 23.4 mg
X					X										6.9 (67)	88.0 mg / 0.5 mg
		X													6.8 (66)	32.3 mg / 23.8 mg
X		X													4.1 (40)	49.6 mg / 19.7 mg
		X								X					4.1 (40)	64.0 mg / 34.7 mg
		X					X								3.7 (36)	129.4 mg / 99.3 mg
							X								3.5 (34)	78.1 mg / 64.2 mg
X															3.1 (30)	17.2 mg / 0.1 mg
X					X		X								2.1 (20)	83.6 mg / 15.8 mg
X		X			X		X								2.0 (19)	82.6 mg / 20.8 mg
		X			X		X								1.9 (18)	215.4 mg / 67.9 mg
X		X			X										1.7 (16)	86.4 mg / 13.3 mg
										X					1.6 (15)	40.3 mg / 0.1 mg
			X												1.3 (13)	5.3 mg / 102.9 mg
X							X								1.0 (10)	47.7 mg / 14.9 mg
					X	X									0.9 (9)	290.1 mg / 9.6 mg
					X					X					0.9 (9)	113.3 mg / 0.7 mg
										X		X			0.9 (9)	39.1 mg / 15.4 mg

**Table 1 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in anxiety (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 965 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
						X									0.8 (8)	97.2 mg / 5.4 mg
					X							X			0.7 (7)	50.3 mg / 17.1 mg
												X			0.7 (7)	28.5 mg / 28.5 mg
		X	X												0.6 (6)	19.3 mg / 92.2 mg
		X			X					X					0.6 (6)	111.6 mg / 27.7 mg
			X		X										0.6 (6)	58.5 mg / 74.6 mg
	X				X										0.5 (5)	277.4 mg / 10.0 mg
X			X												0.4 (4)	29.4 mg / 107.0 mg
X										X					0.4 (4)	65.7 mg / 0.2 mg
	X														0.4 (4)	99.4 mg / 5.8 mg
			X				X								0.4 (4)	49.0 mg / 103.2 mg
X						X									0.3 (3)	233.5 mg / 10.6 mg
		X										X			0.3 (3)	35.0 mg / 35.0 mg
			X		X		X								0.3 (3)	113.9 mg / 98.0 mg
X		X	X		X		X								0.2 (2)	102.9 mg / 111.9 mg
X		X					X								0.2 (2)	55.4 mg / 12.2 mg
X		X								X					0.2 (2)	59.0 mg / 20.1 mg
X		X										X			0.2 (2)	36.7 mg / 20.0 mg
X			X							X					0.2 (2)	380.8 mg / 754.2 mg
	X	X			X		X								0.2 (2)	140.1 mg / 31.6 mg
						X	X								0.2 (2)	53.6 mg / 22.5 mg
							X			X					0.2 (2)	42.2 mg / 22.6 mg
							X					X			0.2 (2)	43.5 mg / 28.5 mg
X	X	X													0.1 (1)	169.8 mg / 23.3 mg
X	X				X										0.1 (1)	128.0 mg / 3.2 mg

**Table 1 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in anxiety (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 965 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X	X														0.1 (1)	61.3 mg / 6.0 mg
X		X				X									0.1 (1)	79.7 mg / 3.8 mg
X			X		X		X								0.1 (1)	125.0 mg / 105.4 mg
X			X							X		X			0.1 (1)	40.7 mg / 88.8 mg
X					X					X		X			0.1 (1)	51.9 mg / 9.0 mg
X					X					X					0.1 (1)	72.7 mg / 0.4 mg
X												X			0.1 (1)	37.3 mg / 27.3 mg
	X	X													0.1 (1)	125.0 mg / 49.5 mg
	X				X		X								0.1 (1)	131.7 mg / 18.1 mg
	X					X									0.1 (1)	266.0 mg / 15.6 mg
	X						X								0.1 (1)	71.3 mg / 15.9 mg
		X	X				X								0.1 (1)	29.4 mg / 67.4 mg
		X			X							X			0.1 (1)	123.2 mg / 91.9 mg
		X				X	X								0.1 (1)	117.5 mg / 70.3 mg
		X				X									0.1 (1)	76.0 mg / 42.4 mg
		X								X		X			0.1 (1)	88.9 mg / 70.2 mg
			X		X	X	X								0.1 (1)	535.0 mg / 196.2 mg
			X		X							X			0.1 (1)	34.6 mg / 57.6 mg
			X							X					0.1 (1)	16.0 mg / 80.0 mg
			X									X			0.1 (1)	15.6 mg / 53.6 mg
					X	X	X								0.1 (1)	355.0 mg / 74.2 mg
					X		X						X		0.1 (1)	237.8 mg / 219.4 mg
													X		0.1 (1)	3.1 mg / 59.4 mg

**APPETITE LACK**

**Table 2. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in lack of appetite (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 708 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										19.4 (137)	67.9 mg / 0.5 mg
		X			X										15.7 (111)	72.3 mg / 25.9 mg
					X		X								8.6 (61)	85.7 mg / 20.3 mg
X					X										6.1 (43)	116.2 mg / 0.7 mg
		X													5.9 (42)	33.1 mg / 27.8 mg
X		X													4.5 (32)	71.0 mg / 30.6 mg
		X								X					3.8 (27)	66.0 mg / 37.0 mg
							X								3.7 (26)	95.5 mg / 77.7 mg
X															3.0 (21)	31.2 mg / 0.1 mg
		X					X								3.0 (21)	176.3 mg / 152.9 mg
		X			X		X								2.5 (18)	193.4 mg / 61.9 mg
X		X			X		X								1.6 (11)	109.1 mg / 36.4 mg
X					X		X								1.6 (11)	85.7 mg / 19.7 mg
X		X			X										1.4 (10)	90.6 mg / 12.0 mg
						X									1.4 (10)	109.4 mg / 6.0 mg
										X					1.3 (9)	37.4 mg / 0.1 mg
X							X								1.1 (8)	60.7 mg / 20.5 mg
					X							X			1.1 (8)	56.5 mg / 18.1 mg
		X			X					X					1.0 (7)	109.9 mg / 37.6 mg
										X		X			1.0 (7)	43.2 mg / 20.4 mg
	X				X										0.8 (6)	164.9 mg / 6.8 mg
			X		X										0.8 (6)	66.9 mg / 75.9 mg
												X			0.8 (6)	21.3 mg / 15.7 mg
X										X					0.7 (5)	54.8 mg / 0.2 mg



**Table 2 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in lack of appetite (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 708 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
			X												0.7 (5)	4.0 mg / 77.5 mg
					X	X									0.7 (5)	237.3 mg / 7.0 mg
	X	X			X		X								0.6 (4)	170.4 mg / 45.7 mg
	X														0.6 (4)	47.6 mg / 5.6 mg
		X	X												0.6 (4)	37.9 mg / 156.9 mg
			X				X								0.6 (4)	28.3 mg / 101.4 mg
			X							X					0.6 (4)	24.6 mg / 61.6 mg
X					X					X					0.4 (3)	91.8 mg / 0.5 mg
		X										X			0.4 (3)	40.1 mg / 40.1 mg
X		X					X								0.3 (2)	38.9 mg / 16.1 mg
X		X								X					0.3 (2)	64.0 mg / 25.1 mg
	X					X									0.3 (2)	227.5 mg / 13.4 mg
					X	X	X								0.3 (2)	172.5 mg / 49.2 mg
					X					X					0.3 (2)	117.5 mg / 0.8 mg
X	X														0.1 (1)	78.1 mg / 9.2 mg
X		X	X		X		X								0.1 (1)	82.5 mg / 75.3 mg
X			X	X	X		X					X			0.1 (1)	193.2 mg / 225.8 mg
X			X							X					0.1 (1)	24.0 mg / 80.1 mg
X			X												0.1 (1)	14.0 mg / 120.0 mg
	X	X			X	X	X								0.1 (1)	365.3 mg / 111.6 mg
	X	X													0.1 (1)	59.3 mg / 13.5 mg
	X				X		X								0.1 (1)	138.1 mg / 39.6 mg
	X						X								0.1 (1)	71.3 mg / 15.9 mg
		X	X				X								0.1 (1)	29.4 mg / 67.4 mg
		X	X									X			0.1 (1)	20.7 mg / 58.7 mg

**Table 2 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in lack of appetite (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 708 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
		X			X	X	X								0.1 (1)	286.0 mg / 93.4 mg
		X			X		X			X		X			0.1 (1)	136.6 mg / 64.1 mg
		X				X									0.1 (1)	25.0 mg / 6.1 mg
		X					X			X					0.1 (1)	39.4 mg / 27.5 mg
		X								X		X			0.1 (1)	88.9 mg / 70.2 mg
			X		X	X	X								0.1 (1)	535.0 mg / 196.2 mg
					X		X					X			0.1 (1)	68.0 mg / 36.7 mg
							X			X					0.1 (1)	63.6 mg / 36.4 mg

**DEPRESSION**

**Table 3. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in depression (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 866 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										17.0 (147)	68.4 mg / 0.5 mg
		X			X										15.1 (131)	73.8 mg / 26.8 mg
					X		X								8.5 (74)	93.8 mg / 22.6 mg
		X													7.2 (62)	36.9 mg / 27.4 mg
X					X										6.8 (59)	105.5 mg / 0.6 mg
X		X													4.8 (42)	31.7 mg / 16.2 mg
		X								X					4.0 (35)	66.2 mg / 36.6 mg
		X					X								3.8 (33)	71.5 mg / 44.8 mg
X															3.3 (29)	159.8 mg / 0.4 mg
		X			X		X								3.2 (28)	196.3 mg / 60.3 mg
							X								2.9 (25)	34.1 mg / 20.4 mg
										X					1.7 (15)	36.1 mg / 0.1 mg
X		X			X		X								1.6 (14)	114.1 mg / 36.0 mg
X		X			X										1.4 (12)	88.8 mg / 14.3 mg
X					X		X								1.2 (10)	62.0 mg / 15.0 mg
					X	X									1.2 (10)	302.8 mg / 10.1 mg
		X	X												1.0 (9)	22.8 mg / 111.1 mg
			X												1.0 (9)	4.1 mg / 96.9 mg
					X							X			1.0 (9)	54.5 mg / 18.4 mg
	X				X										0.9 (8)	191.8 mg / 8.1 mg
		X			X					X					0.9 (8)	114.0 mg / 26.8 mg
					X					X					0.9 (8)	114.9 mg / 0.7 mg
										X		X			0.9 (8)	49.6 mg / 19.7 mg
												X			0.9 (8)	22.6 mg / 20.7 mg

**Table 3 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in depression (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 866 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X							X								0.8 (7)	56.7 mg / 18.3 mg
						X									0.8 (7)	85.1 mg / 4.4 mg
X										X					0.5 (4)	60.2 mg / 0.2 mg
	X														0.5 (4)	71.2 mg / 5.2 mg
			X		X										0.5 (4)	63.7 mg / 91.7 mg
			X							X					0.5 (4)	26.3 mg / 41.6 mg
X		X								X					0.3 (3)	54.3 mg / 20.1 mg
X					X					X					0.3 (3)	70.0 mg / 0.4 mg
			X		X		X								0.3 (3)	121.8 mg / 95.9 mg
X			X							X					0.2 (2)	380.8 mg / 754.2 mg
	X	X			X		X								0.2 (2)	219.5 mg / 64.0 mg
		X										X			0.2 (2)	34.3 mg / 34.3 mg
					X	X	X								0.2 (2)	225.0 mg / 50.3 mg
X	X	X													0.1 (1)	169.8 mg / 23.3 mg
X	X														0.1 (1)	61.3 mg / 6.0 mg
X		X	X		X		X								0.1 (1)	123.2 mg / 148.6 mg
X		X			X					X					0.1 (1)	177.2 mg / 31.0 mg
X		X			X							X			0.1 (1)	84.7 mg / 6.3 mg
X		X					X								0.1 (1)	21.8 mg / 6.1 mg
X			X		X		X								0.1 (1)	125.0 mg / 105.4 mg
X			X		X										0.1 (1)	97.5 mg / 143.0 mg
X			X												0.1 (1)	37.5 mg / 142.7 mg
X					X					X		X			0.1 (1)	54.6 mg / 17.7 mg
X												X			0.1 (1)	37.3 mg / 27.3 mg
	X	X					X								0.1 (1)	77.6 mg / 18.6 mg

**Table 3 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in depression (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 866 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
	X	X													0.1 (1)	59.3 mg / 13.5 mg
	X				X		X								0.1 (1)	131.7 mg / 18.1 mg
	X						X								0.1 (1)	71.3 mg / 15.9 mg
		X			X	X	X								0.1 (1)	286.0 mg / 93.4 mg
		X				X									0.1 (1)	25.0 mg / 6.1 mg
		X								X		X			0.1 (1)	88.9 mg / 70.2 mg
			X	X	X										0.1 (1)	41.8 mg / 295.2 mg
			X		X	X	X								0.1 (1)	603.8 mg / 128.4 mg
			X		X					X					0.1 (1)	86.8 mg / 40.6 mg
			X		X							X			0.1 (1)	34.6 mg / 57.6 mg
			X				X								0.1 (1)	27.5 mg / 147.5 mg
					X		X						X		0.1 (1)	237.8 mg / 219.4 mg
							X			X					0.1 (1)	63.6 mg / 36.4 mg
							X					X			0.1 (1)	26.2 mg / 26.2 mg

**DISTURBED SLEEP**

**Table 4. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in sleep disturbance (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 1102 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										17.8 (196)	69.6 mg / 0.5 mg
		X			X										12.9 (142)	72.4 mg / 23.9 mg
					X		X								8.5 (94)	157.1 mg / 24.3 mg
		X													6.8 (75)	33.4 mg / 25.4 mg
X					X										6.7 (74)	97.1 mg / 0.5 mg
X		X													4.7 (52)	50.1 mg / 21.1 mg
X															4.4 (48)	23.1 mg / 0.1 mg
		X								X					3.7 (41)	64.8 mg / 34.7 mg
		X			X		X								3.6 (40)	186.9 mg / 58.5 mg
							X								3.4 (38)	186.9 mg / 167.1 mg
		X					X								3.0 (33)	48.8 mg / 28.4 mg
X		X			X		X								2.5 (28)	129.9 mg / 41.4 mg
X		X			X										2.4 (26)	87.3 mg / 14.6 mg
X					X		X								1.7 (19)	86.7 mg / 16.6 mg
										X					1.4 (15)	38.1 mg / 0.1 mg
												X			1.2 (13)	27.4 mg / 26.3 mg
			X												1.0 (11)	5.7 mg / 122.2 mg
					X							X			1.0 (11)	50.5 mg / 16.7 mg
					X	X									0.9 (10)	266.1 mg / 8.3 mg
X							X								0.8 (9)	52.4 mg / 16.0 mg
	X				X										0.8 (9)	167.0 mg / 7.7 mg
						X									0.7 (8)	136.4 mg / 6.2 mg
										X		X			0.7 (8)	38.4 mg / 18.2 mg
	X														0.6 (7)	141.9 mg / 22.2 mg

**Table 4 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in sleep disturbance (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 1102 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X										X					0.5 (6)	66.8 mg / 0.2 mg
		X			X					X					0.5 (6)	107.9 mg / 27.6 mg
			X		X										0.5 (6)	58.8 mg / 84.6 mg
X					X					X					0.5 (5)	85.9 mg / 0.5 mg
					X					X					0.5 (5)	105.6 mg / 0.6 mg
X		X					X								0.4 (4)	70.6 mg / 23.8 mg
X		X								X					0.4 (4)	48.9 mg / 12.6 mg
		X	X												0.4 (4)	18.7 mg / 136.5 mg
		X										X			0.4 (4)	626.3 mg / 626.3 mg
			X				X								0.4 (4)	42.4 mg / 159.0 mg
			X		X		X								0.3 (3)	62.8 mg / 76.5 mg
			X							X					0.3 (3)	33.0 mg / 80.1 mg
					X	X	X								0.3 (3)	336.7 mg / 49.3 mg
X	X														0.2 (2)	112.0 mg / 6.2 mg
X		X	X												0.2 (2)	348.3 mg / 135.8 mg
X		X										X			0.2 (2)	36.7 mg / 20.0 mg
X			X												0.2 (2)	25.0 mg / 142.6 mg
X						X									0.2 (2)	85.0 mg / 4.0 mg
		X			X							X			0.2 (2)	110.5 mg / 79.7 mg
			X		X	X	X								0.2 (2)	569.4 mg / 162.3 mg
						X	X								0.2 (2)	71.1 mg / 24.3 mg
							X					X			0.2 (2)	43.5 mg / 28.5 mg
X	X	X													0.1 (1)	169.8 mg / 23.3 mg
X	X				X	X									0.1 (1)	428.3 mg / 16.2 mg
X	X				X										0.1 (1)	128.0 mg / 3.2 mg

**Table 4 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in sleep disturbance (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 1102 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X		X	X		X		X								0.1 (1)	82.5 mg / 75.3 mg
X		X			X		X			X					0.1 (1)	176.9 mg / 24.5 mg
X		X			X					X					0.1 (1)	121.0 mg / 20.6 mg
X			X		X		X								0.1 (1)	125.0 mg / 105.4 mg
X			X				X			X					0.1 (1)	145.3 mg / 266.4 mg
X			X							X					0.1 (1)	49.5 mg / 40.2 mg
X					X		X			X					0.1 (1)	128.3 mg / 27.9 mg
X												X			0.1 (1)	37.3 mg / 27.3 mg
	X	X													0.1 (1)	50.0 mg / 29.7 mg
	X		X												0.1 (1)	66.7 mg / 85.0 mg
		X					X								0.1 (1)	25.0 mg / 6.1 mg
		X								X		X			0.1 (1)	184.8 mg / 147.4 mg
			X	X	X										0.1 (1)	41.8 mg / 295.2 mg
			X		X							X			0.1 (1)	34.6 mg / 57.6 mg
			X									X			0.1 (1)	29.3 mg / 67.3 mg
					X					X		X			0.1 (1)	47.9 mg / 9.0 mg
							X			X					0.1 (1)	63.6 mg / 36.4 mg



**FATIGUE**

**Table 5. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in fatigue (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 920 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										19.1 (176)	72.6 mg / 0.5 mg
		X			X										12.4 (114)	72.2 mg / 24.2 mg
					X		X								8.0 (74)	91.2 mg / 23.1 mg
		X													6.7 (62)	34.0 mg / 28.4 mg
X					X										6.6 (61)	108.6 mg / 0.6 mg
X		X													4.7 (43)	43.5 mg / 18.3 mg
X															4.7 (43)	24.6 mg / 0.1 mg
							X								4.2 (39)	42.5 mg / 21.9 mg
		X								X					3.4 (31)	60.7 mg / 33.8 mg
		X					X								3.3 (30)	133.8 mg / 112.2 mg
		X			X		X								2.4 (22)	205.2 mg / 66.6 mg
X					X		X								1.8 (17)	85.3 mg / 16.8 mg
X		X			X		X								1.6 (15)	120.8 mg / 35.1 mg
X		X			X										1.4 (13)	73.2 mg / 9.8 mg
										X					1.3 (12)	28.8 mg / 0.1 mg
X							X								1.2 (11)	49.1 mg / 18.5 mg
					X	X									1.2 (11)	281.7 mg / 8.8 mg
	X				X										1.0 (9)	179.2 mg / 7.2 mg
			X												1.0 (9)	5.1 mg / 116.2 mg
										X		X			1.0 (9)	45.3 mg / 20.5 mg
					X							X			0.9 (8)	63.5 mg / 21.5 mg
												X			0.9 (8)	26.1 mg / 24.2 mg
						X									0.8 (7)	118.3 mg / 5.4 mg
X										X					0.7 (6)	57.3 mg / 0.2 mg

**Table 5 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in fatigue (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 920 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X		X					X								0.5 (5)	41.6 mg / 19.5 mg
	X														0.5 (5)	150.0 mg / 28.2 mg
		X	X												0.5 (5)	15.8 mg / 88.3 mg
		X			X					X					0.5 (5)	113.0 mg / 49.5 mg
			X				X								0.5 (5)	47.0 mg / 125.7 mg
					X					X					0.5 (5)	101.3 mg / 0.6 mg
			X		X										0.4 (4)	72.2 mg / 83.6 mg
X		X										X			0.3 (3)	29.2 mg / 15.4 mg
X						X									0.3 (3)	45.8 mg / 1.6 mg
		X				X									0.3 (3)	81.1 mg / 28.9 mg
		X										X			0.3 (3)	41.6 mg / 27.1 mg
			X							X					0.3 (3)	32.4 mg / 68.8 mg
X			X		X		X								0.2 (2)	119.1 mg / 81.6 mg
X			X												0.2 (2)	16.5 mg / 66.2 mg
X												X			0.2 (2)	33.8 mg / 19.8 mg
	X				X		X								0.2 (2)	369.0 mg / 100.1 mg
	X					X									0.2 (2)	312.8 mg / 18.4 mg
		X			X							X			0.2 (2)	110.5 mg / 79.7 mg
					X	X	X								0.2 (2)	225.0 mg / 50.3 mg
						X	X								0.2 (2)	71.1 mg / 24.3 mg
							X			X					0.2 (2)	64.2 mg / 31.9 mg
							X					X			0.2 (2)	43.5 mg / 28.5 mg
X	X	X													0.1 (1)	169.8 mg / 23.3 mg
X	X				X	X									0.1 (1)	428.3 mg / 16.2 mg
X	X				X										0.1 (1)	249.8 mg / 9.4 mg

**Table 5 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in fatigue (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 920 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X	X														0.1 (1)	77.5 mg / 11.8 mg
X		X	X		X		X								0.1 (1)	123.2 mg / 148.6 mg
X		X			X					X					0.1 (1)	177.2 mg / 31.0 mg
X		X								X					0.1 (1)	87.5 mg / 30.2 mg
X			X		X										0.1 (1)	97.5 mg / 143.0 mg
X			X							X					0.1 (1)	49.5 mg / 40.2 mg
X					X					X					0.1 (1)	101.0 mg / 0.5 mg
	X	X													0.1 (1)	50.0 mg / 29.7 mg
	X						X								0.1 (1)	71.3 mg / 15.9 mg
		X	X							X					0.1 (1)	42.0 mg / 60.1 mg
		X			X	X									0.1 (1)	139.0 mg / 6.3 mg
		X				X	X								0.1 (1)	117.5 mg / 70.3 mg
			X		X	X	X								0.1 (1)	603.8 mg / 128.4 mg
			X		X		X								0.1 (1)	50.6 mg / 58.4 mg
			X		X							X			0.1 (1)	34.6 mg / 57.6 mg
			X									X			0.1 (1)	20.2 mg / 58.2 mg
					X		X			X					0.1 (1)	124.7 mg / 36.9 mg
					X		X						X		0.1 (1)	237.8 mg / 219.4 mg

**NAUSEA**

**Table 6. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in nausea (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 662 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										18.9 (125)	72.7 mg / 0.5 mg
		X			X										15.4 (102)	76.5 mg / 26.1 mg
					X		X								9.1 (60)	96.6 mg / 24.2 mg
X					X										6.0 (40)	96.7 mg / 0.6 mg
X		X													4.4 (29)	41.6 mg / 20.4 mg
		X													4.1 (27)	38.2 mg / 35.8 mg
		X								X					3.9 (26)	59.9 mg / 31.0 mg
							X								3.8 (25)	37.5 mg / 21.5 mg
		X			X		X								3.2 (21)	235.2 mg / 80.2 mg
X															2.9 (19)	24.5 mg / 0.1 mg
		X					X								2.9 (19)	96.9 mg / 68.8 mg
X		X			X										2.6 (17)	108.0 mg / 16.7 mg
X		X			X		X								2.0 (13)	100.5 mg / 30.4 mg
X					X		X								2.0 (13)	95.8 mg / 17.5 mg
		X			X					X					1.2 (8)	112.7 mg / 35.5 mg
										X					1.2 (8)	43.3 mg / 0.2 mg
	X														1.1 (7)	148.2 mg / 22.0 mg
			X		X										1.1 (7)	62.1 mg / 70.8 mg
			X												1.1 (7)	3.7 mg / 92.8 mg
							X								1.1 (7)	103.1 mg / 6.0 mg
										X		X			1.1 (7)	48.6 mg / 22.7 mg
		X										X			0.9 (6)	39.1 mg / 31.8 mg
X							X								0.8 (5)	65.4 mg / 14.8 mg
												X			0.8 (5)	28.9 mg / 28.9 mg

**Table 6 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in nausea (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 662 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X										X					0.6 (4)	60.5 mg / 0.2 mg
	X				X										0.6 (4)	302.1 mg / 9.3 mg
		X	X												0.6 (4)	39.5 mg / 183.2 mg
					X	X									0.6 (4)	206.1 mg / 6.5 mg
					X							X			0.6 (4)	64.5 mg / 21.3 mg
X			X												0.5 (3)	12.8 mg / 114.2 mg
	X	X			X		X								0.5 (3)	182.5 mg / 47.3 mg
					X					X					0.5 (3)	75.5 mg / 0.4 mg
X		X								X					0.3 (2)	40.0 mg / 20.1 mg
X					X					X					0.3 (2)	86.8 mg / 0.5 mg
	X				X		X								0.3 (2)	185.6 mg / 23.2 mg
		X				X									0.3 (2)	42.9 mg / 9.1 mg
			X				X								0.3 (2)	93.6 mg / 146.2 mg
			X							X					0.3 (2)	34.2 mg / 63.2 mg
X	X				X										0.2 (1)	132.5 mg / 6.2 mg
X		X	X		X		X								0.2 (1)	82.5 mg / 75.3 mg
X		X	X												0.2 (1)	16.5 mg / 98.5 mg
X		X			X	X									0.2 (1)	73.7 mg / 13.7 mg
X		X										X			0.2 (1)	26.7 mg / 9.2 mg
X			X	X	X		X					X			0.2 (1)	193.2 mg / 225.8 mg
X					X		X			X					0.2 (1)	128.3 mg / 27.9 mg
X						X									0.2 (1)	65.0 mg / 2.8 mg
	X				X	X	X								0.2 (1)	295.1 mg / 15.6 mg
		X	X		X										0.2 (1)	495.7 mg / 1521.4 mg
		X								X		X			0.2 (1)	43.8 mg / 31.8 mg

**Table 6 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in nausea (Standard 8).**

Enteral					Inhalation					Oromucosal						
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	% of Patients out of 662 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
			X		X							X			0.2 (1)	34.6 mg / 57.6 mg
			X									X			0.2 (1)	29.3 mg / 67.3 mg
					X		X			X					0.2 (1)	124.7 mg / 36.9 mg
					X		X					X			0.2 (1)	81.0 mg / 11.5 mg
						X	X								0.2 (1)	67.5 mg / 27.5 mg
							X			X					0.2 (1)	77.3 mg / 27.4 mg
							X					X			0.2 (1)	60.8 mg / 30.8 mg

**PAIN**

**Table 7. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in pain (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 602 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										20.4 (123)	72.3 mg / 0.5 mg
		X			X										10.6 (64)	72.9 mg / 22.2 mg
X					X										8.6 (52)	120.2 mg / 0.6 mg
		X													8.6 (52)	35.0 mg / 30.6 mg
					X		X								7.8 (47)	214.8 mg / 22.4 mg
X		X													5.0 (30)	60.7 mg / 25.4 mg
X															4.5 (27)	19.4 mg / 0.1 mg
							X								4.3 (26)	42.6 mg / 23.4 mg
		X					X								3.0 (18)	56.6 mg / 28.1 mg
		X								X					3.0 (18)	64.7 mg / 34.8 mg
X					X		X								2.3 (14)	78.2 mg / 15.1 mg
		X			X		X								2.3 (14)	155.3 mg / 51.9 mg
X		X			X										1.5 (9)	75.7 mg / 8.9 mg
										X					1.5 (9)	35.6 mg / 0.1 mg
X		X			X		X								1.3 (8)	127.6 mg / 35.6 mg
			X												1.2 (7)	4.1 mg / 100.7 mg
X							X								1.0 (6)	48.6 mg / 24.1 mg
	X				X										0.8 (5)	219.3 mg / 9.6 mg
	X														0.8 (5)	178.7 mg / 27.9 mg
			X				X								0.8 (5)	34.3 mg / 136.9 mg
					X	X									0.8 (5)	363.9 mg / 10.8 mg
					X					X					0.8 (5)	132.2 mg / 0.9 mg
					X							X			0.8 (5)	54.0 mg / 20.1 mg
		X	X												0.7 (4)	18.2 mg / 114.1 mg

**Table 7 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in pain (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 602 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
										X		X			0.7 (4)	20.7 mg / 8.8 mg
X										X					0.5 (3)	74.0 mg / 0.2 mg
			X		X										0.5 (3)	55.1 mg / 177.9 mg
						X	X								0.5 (3)	72.4 mg / 25.0 mg
						X									0.5 (3)	193.3 mg / 6.4 mg
	X	X			X		X								0.3 (2)	140.1 mg / 31.6 mg
	X	X													0.3 (2)	54.6 mg / 27.7 mg
		X				X	X								0.3 (2)	93.0 mg / 49.4 mg
			X							X					0.3 (2)	34.2 mg / 63.2 mg
					X	X	X								0.3 (2)	223.0 mg / 25.0 mg
												X			0.3 (2)	21.2 mg / 11.8 mg
X	X														0.2 (1)	72.1 mg / 9.9 mg
X		X	X												0.2 (1)	680.0 mg / 173.0 mg
X		X					X								0.2 (1)	21.8 mg / 6.1 mg
X		X								X					0.2 (1)	40.0 mg / 20.1 mg
X			X		X		X								0.2 (1)	125.0 mg / 105.4 mg
X			X		X										0.2 (1)	70.7 mg / 95.3 mg
X			X												0.2 (1)	12.5 mg / 142.5 mg
X					X					X					0.2 (1)	101.0 mg / 0.5 mg
X										X		X			0.2 (1)	86.9 mg / 35.0 mg
		X	X							X					0.2 (1)	42.0 mg / 60.1 mg
		X			X					X					0.2 (1)	127.9 mg / 43.4 mg
		X										X			0.2 (1)	65.5 mg / 22.0 mg
			X	X	X										0.2 (1)	41.8 mg / 295.2 mg
			X		X					X					0.2 (1)	86.8 mg / 40.6 mg



**Table 7 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in pain (Standard 8).**

Enteral					Inhalation					Oromucosal						
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	% of Patients out of 602 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
			X			X	X								0.2 (1)	120.3 mg / 213.7 mg
			X									X			0.2 (1)	20.2 mg / 58.2 mg

**VOMITING**

**Table 8. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction in vomiting (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 317 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										21.5 (68)	70.4 mg / 0.4 mg
		X			X										15.1 (48)	90.2 mg / 32.2 mg
					X		X								9.8 (31)	79.6 mg / 21.5 mg
X					X										9.5 (30)	112.2 mg / 0.6 mg
		X			X		X								4.7 (15)	202.7 mg / 69.9 mg
		X													3.8 (12)	53.2 mg / 51.6 mg
X		X													3.5 (11)	123.6 mg / 54.7 mg
X		X			X		X								3.2 (10)	108.7 mg / 40.9 mg
		X								X					2.8 (9)	66.4 mg / 34.0 mg
							X								2.8 (9)	47.4 mg / 21.7 mg
X					X		X								2.2 (7)	89.8 mg / 14.7 mg
		X			X					X					2.2 (7)	121.1 mg / 37.7 mg
		X					X								2.2 (7)	114.1 mg / 103.9 mg
	X				X										1.6 (5)	353.7 mg / 9.5 mg
										X		X			1.6 (5)	44.2 mg / 20.7 mg
X		X			X										1.3 (4)	74.5 mg / 5.6 mg
	X				X		X								1.3 (4)	185.1 mg / 32.4 mg
			X		X										1.3 (4)	47.3 mg / 79.8 mg
	X														0.9 (3)	58.6 mg / 5.3 mg
X		X								X					0.6 (2)	64.0 mg / 25.1 mg
X							X								0.6 (2)	111.8 mg / 9.0 mg
X															0.6 (2)	20.5 mg / 0.1 mg
			X							X					0.6 (2)	21.7 mg / 63.1 mg
						X									0.6 (2)	95.0 mg / 5.6 mg

**Table 8 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction in vomiting (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 317 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X	X														0.3 (1)	78.1 mg / 9.2 mg
X		X	X		X		X								0.3 (1)	82.5 mg / 75.3 mg
X		X										X			0.3 (1)	26.7 mg / 9.2 mg
X			X							X					0.3 (1)	24.0 mg / 80.1 mg
X			X												0.3 (1)	12.5 mg / 142.5 mg
X					X		X			X					0.3 (1)	128.3 mg / 27.9 mg
X					X					X					0.3 (1)	72.7 mg / 0.4 mg
X						X									0.3 (1)	65.0 mg / 2.8 mg
	X	X			X		X								0.3 (1)	305.0 mg / 87.1 mg
		X				X									0.3 (1)	25.0 mg / 6.1 mg
			X		X							X			0.3 (1)	34.6 mg / 57.6 mg
			X												0.3 (1)	5.2 mg / 99.0 mg
					X	X									0.3 (1)	168.8 mg / 6.6 mg
					X							X			0.3 (1)	48.6 mg / 18.4 mg
						X	X								0.3 (1)	75.0 mg / 26.3 mg
							X					X			0.3 (1)	60.8 mg / 30.8 mg
										X					0.3 (1)	21.4 mg / 0.1 mg
												X			0.3 (1)	17.4 mg / 17.4 mg

## PEG Scale Composite Score

**Table 9. Medical cannabis product type(s) purchased by each Intractable Pain (IP) patient just prior to achieving the initial ≥30% reduction on the PEG Scale composite score (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 899 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
					X										18.6 (167)	69.4 mg / 0.5 mg
		X			X										11.8 (106)	76.6 mg / 26.6 mg
		X													7.6 (68)	34.7 mg / 27.4 mg
					X		X								7.5 (67)	99.7 mg / 23.8 mg
X					X										6.2 (56)	88.5 mg / 0.5 mg
X		X													5.2 (47)	42.5 mg / 16.6 mg
X															4.8 (43)	107.3 mg / 0.2 mg
		X								X					4.6 (41)	61.4 mg / 33.2 mg
		X			X		X								3.4 (31)	196.9 mg / 61.0 mg
							X								3.3 (30)	88.4 mg / 71.6 mg
		X					X								2.9 (26)	63.7 mg / 38.3 mg
X		X			X		X								2.1 (19)	124.8 mg / 31.6 mg
X		X			X										1.9 (17)	82.4 mg / 10.0 mg
X					X		X								1.7 (15)	83.1 mg / 16.9 mg
										X					1.4 (13)	47.4 mg / 0.2 mg
X							X								1.0 (9)	43.1 mg / 22.4 mg
			X												1.0 (9)	5.0 mg / 113.9 mg
										X		X			1.0 (9)	24.0 mg / 10.7 mg
	X				X										0.9 (8)	125.5 mg / 7.2 mg
		X	X												0.9 (8)	29.9 mg / 129.5 mg
					X							X			0.9 (8)	55.8 mg / 19.8 mg
												X			0.9 (8)	31.4 mg / 31.4 mg
			X				X								0.7 (6)	57.1 mg / 580.1 mg
					X					X					0.7 (6)	118.4 mg / 0.8 mg

**Table 9 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction on the PEG Scale composite score (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 899 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
						X									0.7 (6)	83.1 mg / 4.6 mg
X		X					X								0.6 (5)	48.0 mg / 33.1 mg
X										X					0.6 (5)	67.6 mg / 0.3 mg
					X	X									0.6 (5)	375.9 mg / 11.5 mg
	X				X		X								0.4 (4)	123.2 mg / 25.5 mg
		X			X					X					0.4 (4)	107.2 mg / 28.7 mg
			X		X										0.4 (4)	64.7 mg / 106.7 mg
			X							X					0.4 (4)	33.3 mg / 110.1 mg
X						X									0.3 (3)	78.3 mg / 2.4 mg
	X														0.3 (3)	45.1 mg / 5.2 mg
					X	X	X								0.3 (3)	267.0 mg / 41.4 mg
X		X			X					X					0.2 (2)	132.3 mg / 28.2 mg
X					X					X					0.2 (2)	83.8 mg / 0.5 mg
X												X			0.2 (2)	40.3 mg / 27.3 mg
	X	X			X		X								0.2 (2)	140.1 mg / 31.6 mg
						X	X								0.2 (2)	71.1 mg / 24.3 mg
							X					X			0.2 (2)	43.5 mg / 28.5 mg
X	X				X										0.1 (1)	276.2 mg / 9.4 mg
X		X	X		X		X								0.1 (1)	82.5 mg / 75.3 mg
X		X	X		X										0.1 (1)	151.2 mg / 87.1 mg
X		X			X	X									0.1 (1)	73.7 mg / 13.7 mg
X		X								X					0.1 (1)	30.0 mg / 10.1 mg
X			X		X		X								0.1 (1)	125.0 mg / 105.4 mg
X			X		X										0.1 (1)	70.7 mg / 95.3 mg
X			X							X					0.1 (1)	49.5 mg / 40.2 mg

**Table 9 cont. Medical cannabis product type(s) purchased by each IP patient just prior to achieving the initial ≥30% reduction on the PEG Scale composite score (Standard 8).**

Enteral					Inhalation					Oromucosal					% of Patients out of 899 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC	Very High THC to CBD	High THC to CBD	Balanced	High CBD to THC	Very High CBD to THC		
X					X					X		X			0.1 (1)	54.6 mg / 17.7 mg
X							X					X			0.1 (1)	36.2 mg / 26.2 mg
	X	X													0.1 (1)	50.0 mg / 29.7 mg
	X						X								0.1 (1)	71.3 mg / 15.9 mg
		X			X		X			X		X			0.1 (1)	136.6 mg / 64.1 mg
		X				X	X								0.1 (1)	117.5 mg / 70.3 mg
		X				X									0.1 (1)	25.0 mg / 6.1 mg
		X								X		X			0.1 (1)	45.7 mg / 33.8 mg
		X										X			0.1 (1)	18.7 mg / 18.7 mg
			X	X	X										0.1 (1)	41.8 mg / 295.2 mg
			X		X	X	X								0.1 (1)	535.0 mg / 196.2 mg
			X		X		X								0.1 (1)	50.6 mg / 58.4 mg
			X		X					X					0.1 (1)	86.8 mg / 40.6 mg
			X		X							X			0.1 (1)	34.6 mg / 57.6 mg
			X			X	X								0.1 (1)	120.3 mg / 213.7 mg
			X									X			0.1 (1)	20.2 mg / 58.2 mg

# Contents

Appendix J: Patient-Reported Negative Effects from Medical Cannabis .....J-1

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- Score of 7: Great Deal of Negative Effects.....J-27

# Appendix J: Patient-Reported Negative Effects from Medical Cannabis

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons. Negative effects are broken down by negative effect score rating.

## No Negative Effect Score

- I did not get the relief I expected. I grow pot and grind it up and put it in soups and on baked potatoes. I don't want to get high, I just want to take the edge off.
- don't know, taking half of minimum once a night
- Conversational speech is a little mixed up and people notice  
Increased sleepiness  
Some confusion
- coughing when vaping
- Memory loss, poor concentration, fatigue, discouragement.
- Feel very spacey.  
Inability or desire to drive.  
Lazy
- only negative effect i experienced is that i accidentally took too big of a puff on the vapor and i had some anxiety but that was remedied when i learned how to use it better and i changed to the cbd and thc vap from just the thc vap and i have not had any negative effects since.
- Gas in the stomach
- I no longer use this product. Had a severe reaction to the Medical Cannabis.

## Score of 1: No Negative Effects

- no pain relief
- The liquid nauseated me. The spray has alcohol which irritated scare tissue in mouth.
- very brief nausea
- Possible nausea in the am from [HIGH CBD PRODUCT] if taken before a meal.
- the cost of the cannabis is the negative effect  
the inconvenience is also a negative effect because I have quite a distance to get it.
- Again, have yet to take the medical cannabis I purchased. I will pick "Other" below as I haven't taken it.
- The only negative is that it's way too expensive and insurance doesn't cover it!!!
- The oral suspension conflicts with my system



- got a little loopy one day
- The capsules make me a little dizzy.
- I have experienced few negative effects
- I get a little woozy from time to time and it makes me sleepy some of the time.
- For the first month I had a low grade headache which has totally cleared up by using a higher cbd content product
- Only the "in"effectiveness that I previously mentioned.
- Being unsure where one can travel to with the medical cannabis without having a problem with it.
- Financial costs the only negative thing associated with this.
- Trying figure correct dosage  
Costly on SSI disability check \$730 takes 3 months saving afford this  
Family physician unhappy that get medical cannabiis
- Surrealistic feeling
- increased appetite  
slight light headed
- It helps me sleep, which is usually tough for me but the negativity lies in the social stigma attached to being a medical patient.
- just the price
- COST!!!!
- I am not sure why you do not want us to consider the financial costs. That is the single biggest negative of this program. In fact, this medication has helped me more than any other I have been given when you factor in the side effects a person has to deal with. Cost may prevent me from continuing. For something that actually works and I have to look at abandoning the program because of cost. Thats a big negative.
- most people dont' understand how it works
- you can do puffs then drive. at least not for me anyway.so i make sure to do all my errands before I use medical canabis.
- Cost increase compared to prior
- Other then cost I find this medicine works very well
- during the first month but not since then I initially had a feeling of lack of focus.
- I can't take it across state lines, so I can't go visit family, so I had to go back to my other medicines.
- Other than the struggle for being able to afford it. I really have not experienced negative outcomes. The strength of the cannibus can vary. I would like it if it was categories of the strength. The cannibus was pretty harsh. I would like a smoother and flavored.
- The only negative is that it's not available in EVERY state!!!
- Haven't had any negative effects other than financial.
- it is too expensive
- No negative effects
- Mental clouding  
Dry mouth

Hot vapor mildly stings esophagus (minimal)

Sleepiness

- a little "fuzziness" initially
- Sneezing several times after puffing the vapor
- Just the cost. 1) Dr. Cost \$175.00 to \$250.00  
2) Mn Dept of Health \$200.00 - if disabled \$50.00  
3) Cannabis Oil (roughly) \$100.00 an oz.  
4) Travel to a dispensary (gas) -  
we have to drive an hour (1 way)

Prohibitive cost

- want to snack more
- Honestly this is one of the first medications I haven't been allergic to or had side effects from.
- Cognitive slowing for a short time immediately after a higher dose.
- Cost
- headache but i manage it by drinking water or getting a nap . taking a break.
- only negative has been cost, except sometimes the vaporizer tastes different
- Just the cost
- It is not affordable and should be because of the cost my quality of life has been compromised again.
- Goes too quickly.
- sometime you can take too much and not know it with vapor. but you get it down pretty easy
- Only obtaining it is hard too few locations.
- Indigestion
- None. this is A LOT better, healthier and safer than narcotics for pain.
- Location issue 100 miles from closet dispensary
- None, just not cost effective.
- No negative effects except the vaporizer pen clogging and the cost of the product
- not any
- Cost
- The only Big Thing is Cost.  
Maybe tiredness to is one.
- Looked down upon negatively from people who don't believe or understand chronic pain, muscle and joint pain, fatigue, migraines, confusion, nausea etc.
- The price is killing me and makes me I think after this first year im sticking with narcotic pain medication insurance will pay for those and if not thier not even close to how much this [MANUFACTURER] is making no deals unless you buy in bulk shame on them !!! This is a business thats so obvious.if the prices were affordable this would be worth it
- most negative effect is the cost  
no other negative effects

- It would be more successful with many strains and other options  
For use. Growing and smoking, edibles and strain variety
- If any, would be cost.
- NONE other than cost and availability.
- There are no negative effects that I'm aware of
- Negative!!!!, other than cost which I'm not sure how much longer I can afford 1000\$ a month
- The only negative is that I will no longer be able to afford to purchase it. The price is ridiculously high for something I should be able to grow myself.
- Question 6 answer explained more: The only issue is the long road trip to get my medicine at one of the few clinics towards the cities. Maybe more pick up your prescription clinics need to made for us that live in the northern woods of MN or maybe a delivery system of some sort.
- If anything, it is the cost that is so negative. It is cheaper to afford pain killers or prescriptions that are unhealthy in the long run.
- Only the cost...
- cost and accessibility
- Occasionally blurred vision and mental clouding
- Frustration with the vapor pen not dispensing & cost are the only negatives so far.
- I have experienced no negative effects
- I honestly can't report on any negative effects. Getting it is a hassle. Delivery, or mail would be huge improvement.
- No side effects at all!
- None unless I stop taking it my symptoms come back. That is why I hate traveling out of the state
- Some blurred vision  
The oils would hurt my stomach, but now I drink something afterwards.  
I'm legally blind and is difficult to get a driver to bring me, to the dispensary.
- Still just the cost
- It's expensive.
- besides the price and it would be the choice of raw form instead of choosing from 3 oils
- I have not had any negative effects.
- The negatives are cost and intake options.
- Headaches. If using too much cannabis in a short span of time I receive headaches.
- only negative is sleepy or drowsy. from screaming for god and grandpa to stop. its been hard to listen too. she is comfortable and hungry, i am very pleased
- No negative effects. Only negative is on how much it is to obtain. And why can't we have flower?
- Compared to opiates, there are no negative side effects.
- Cheaper in the street. 1 gram = \$20 . The dispensaries here are charging 200 per gram
- none

- Only that it costs so much
- cost too much
- I have not experienced any negative side effect. My family is also very happy with the results.
- None. It's been manageable.
- Eating
- Dry eyes and mouth,
- I don't like the oils, and the capsules and so forth. I do much better with the whole flower like when I was a MMJ patient in Colorado.
- my probation officer .
- emptied my wallet. :-)
- N/A other than trying to find best prescription.
- Too costly-use less and less beneficial due to cost.
- COST of product.
- There are none physically social stigma of people knowing that year medicating with it
- Cost
- When I don't have it I be in pain
- Initially it made me a little tired, but after about 60 days that went away.
- Too far to commute to get my meds.
- Can't get in other states where medical is sold.
- Nothing but relief
- Once when I had reduced amount for cost I used a PRN (opiate) 4 hrs after taking my cannabis PRN. My [MANUFACTURER] pharmacist was immediate to respond and we added to plan to never take together as I do not like the 'high' feeling.
- Expensive part of my budget. Wish my health insurance helped cover the price.
- Increased appetite and I'd like to loose weight.
- no physical side effects
- \$\$\$
- The cost is crazy, i take small amounts to make it last. Wish I could take more.
- i can't think of any besides cost and that is questionable.
- Less money
- Trying to get the right doses for my diseases.
- I have gained a few pounds. Nothing concerning, you asked for a negative, I'm giving it.
- 1. No listing I could find of available Drs to see
- 2. My Dr. is unable to prescribe due to employer pressure I was told
- 3. It took months to find a Dr that would prescribe medical cannabis
- 4. I had to drive 486 miles (round trip) to see the Dr. to get help.
- It would be nice if you could get the medication in southwest MN I have to drive 200 miles round trip to get it.
- cost

- Having become, by the time, Intractable Pain was listed as a qualifying condition for Medical Cannabis I had become so debilitated from the pain I feel to have not fully recovered from having become so debilitated - but better now than later or not ever. Driving then to the Cities has become difficult as I feel I cannot take but a minimal amount of Cannabis to make the drive.  
[CLINIC] has evidently forbidden any opiate medication to anyone in the Cannabis program & w/o sufficient pain medication my neck will become exceedingly painful & I will end up by the drive home coming into a very painful headache.  
This really makes no sense at all as say with high blood pressure as but one example, one is not disqualified from more than one kind of high blood pressure but rather what actually works.  
With cannabis it seems to be either/or.  
As for a. & b, it is likely nearly impossible to make a determination with regard to any of those potential negative side effects. As but one simple example, stomach upset; is the so far 2 months of diarrhea from cannabis or from antibiotics which in my experience should be avoided for that reason. What I believe to be true is that pain is so debilitating that the whole body begins a downward spiral if not alleviated.
- none (it has been life changing)
- Cost I am disabled - very difficult and frustrated that it works and coming down on medication - and yet so expensive I won't be able to maintain - so if allows me a better way to live and I can't receive help to pay for it - it's like here is how you could live if you had money
- I get hungry a lot
- The cost and location access. I live in a small rural community and the closest dispensary is over an hour away. Plus the limited hours and days of the dispensaries make it difficult to purchase medical cannabis. They are only open certain days and hours. Weekend access is limited too.
- It took several swings to get the right dose and type for my body. Now that we have it figured out, there does not seem to be much side effect. A little less grogginess in morning would be even better, trying to tweak dosage to address this.
- loss of needed \$
- first time I got nauseas but this passed and it does make me sleepy so I take it only when I don't have to drive
- Some lightheadedness until best dose was determined.

## Score of 2

- Uncomfortable side effects, nothing of any great note.
- THE ONLY NEGATIVE EFFECT IS FEELING STONED AND ACUTELY AWARE OF THE PAIN I AM TRYING TO AVOID.
- Dizzy at first
- Difficulty concentrating, some dizziness.
- disappointment that I haven't experienced pain relief yet; head sometimes feels weird

- Sleepiness  
Little confusion
- There are times as I have been working on increasing the amount, I have to do it quite slowly as I can have some nausea with it.
- affects balance  
affects short term memory  
sometimes accentuates pain
- Occasional dizziness.
- Dosage isn't a clear science  
Having to travel for medication  
Finding a local doctor for certification  
Cost
- limited benefit with my back pain
- When using the oil it was making me nauseated.
- We are still trying to figure out this dosage.
- occasional pre-nausea sensations
- Hungry, tired
- It on a rare occasion imakes me tired to where I take a afternoon time nap.
- Cost
- little bit of dizziness
- Distance in travelling to the pharmacy... I live 1 1/2 hours from the nearest pharmacy and currently do not drive due to my health issues. Arranging a ride with my husband's work schedule is difficult. I do really appreciate that they are open on Sundays though!
- Maybe.....blurred vision, mental clouding?
- My muscles can feel tired at times and there can be a low level of confusion. If I use to much oil most or all of my joints ache.
- Feeling a bit more isolated.  
Headaches  
Lung sensitivity  
Initial cloudiness
- Cognitive side effects - balancing these side effects with the pain relief gained during daytime working hours. I have used a much smaller dosage prescribed due to this (typically don't take it during work hours). Going in for a check-in this week to see if the dosage/type of medication can be tweaked to reduced cognitive side effects experienced in the daytime hours.
- 1) Drowsiness  
2) Dry Mouth  
3) Dry Eyes
- Cost,
- The process of making an appointment online does not work well. Much time consumed where a phone call would be far easier
- Just a little fatigue sometimes

- Some dizziness
- a little light headed sometimes.
- I AM BORROWING MONEY TO PAY FOR THE MEDICINE. Going in debt, because it does help
- dry mouth
- Difficult to find the correct dosage.
- Some chest pain with e cig vape.
- some drowsiness
- Tiredness
- tired during the day while taking certain doses, dizzy feeling
- Anxiety
- mild dry mouth
- Makes me tired. The controversy about it being federally illegal is tough being in an NA support group.
- Once when using the spray I felt a bit loopy.
- Mild short-term memory difficulties (this appears to be decreasing as I get used to cannabis)  
I become ""chatty"" for a while after a dose kicks in (again, this is decreasing)  
Increased appetite for sweets
- My primary doctor told me she couldn't work with me and my medications because of Fairviews policies about Cannabis.  
You can't take it with you on vacation to another state, into an airport, post office, etc...  
Some people look down at you because you are on the Cannabis and before this I never sampled any kind of drugs or smoked, and barely drink.
- Clouding:"fogginess" and "cognitive clouding" and fatigue...I have noticed this, but not to point of choosing not to use.
- My wife says I act "stupid and giggly" I should note that she did state she preferred this to me being asleep at a table on Fentanyl with my mouth open and food spilling out.&
- Some fogginess from time to time
  - Dry mouth. Loss of concentration. Fatigue. Confusion blurred vision. Not driving because of side effects.
  - sleepy
  - Makes me sleepy sometimes  
Head gets a little fuzzy
  - Occasional light headedness I take other medications and if I distribute taking them this is not an issue
  - Other then cost, the occasional head ache.
  - None
  - Loss of memory when first starting on thc. It took about 2 weeks but has gotten a lot better.
  - I feel tired often, but that could be the result of sleep problems at night. When my stomach is upset, the oil tastes bad to me, and further upsets my stomach for about 2

hours. I have found that I taste it less if i squirt it into the rear of my mouth, rather than the front of the tongue.

- Vaporizer makes me cough.
- unwanted feeling of being stoned; inconsistent unpredictable results - sometimes side effects, sometimes not, sometimes more pain relief, sometimes not; harsh feeling on throat from vaping some products
- The negative effects I experience are the same ones that are desired effects in others. In order to get pain relief, I have to take enough to get a bit loopy. I'm not a big fan of that... Also I get a bit of diarrhea with bigger doses.
- dry eyes and mouth
- Tired
- Short term memory loss
- Starting Pill was too strong for me
- 1. Cotton mouth  
Red eyes  
Hunger
- Trial and error on dosage that works best for me. Slow paced. Also inconvenient to obtain
- Still trying to work on the heat of the vapor, as a non smoker it can be hot on the lungs.....working on that
- If dosed correctly it doesn't have negative effects.
- The negative impacts are far less than most opiates or other pain killers, but it DOES make you mildly sleep (I prefer to say relaxed).
- fatigue
- nothing bad, makes me tired and hungry.
- There is some mental clouding, confusion. The inhaling part can be challenging for her but is much easier for her than the other methods of taking the cannabis.
- I used the [HIGH THC PRODUCT] and for myself, I don't like the buzzed feeling, I don't like to be high
- Mental/cognitive side effects related to medical cannabis use  
I have to drive 100 miles each time
- Tired and at times you can get high. Balancing act with the amount you take to alleviate the pain.
- I just don't like that taste or mouth feel. But I take it orally only and don't want to smoke anything.
- just wish it could take all pain away :)  
Can't take it out of the State for travel
- A little more time in front of tv instead of doing things but not a lot
- My mom is disappointed in me. (yes, I care)  
I've gained several pounds.  
it makes me cough
- Fatigue during the day



- Slight dull headache....non lasting.
- some dry mouth
- Gives me the munchies
- this comment box is not working....
- The hunger is the hardest thing for me. Other then that I get drowsy from time to time
- The cost.
- Availability
- I have a larger appetite
- My police officer son-in-law in Wisconsin asked me to not bring my meds along when visiting them.
- A few times I've taken too much, and found myself a bit sleepy and not as mentally sharp.
- Keeping it a secret from my employer and some friends/family. It's not viewed as medicine by most people, yet. Some people have alienated me because they don't agree with it.  
I wish we could purchase a 3-month supply instead of going in every month. I live close, so it's not a huge deal for me.
- Munchies
- Increased appetite isn't super compatible with painful joints. No weight gain is good weight gain.
- I have had some trouble with dosing and end up too "high" to work with dangerous stuff. (this happens less than with vicodin).
- Sleep and lack of apitit
- I am taking the lower dosage of what was recommended; If I take a higher dose, then I see "colored lights" or I have slurring speech.  
Since I am not increasing my dosage, then I still have to deal with some discomfort.
- It is made of coconut oil, and I have a food allergy to coconut, which causes migraine. This has been an issue. It would be great if there were more options for patients.
- Nausea  
Diarrhea
- There is no guideline of measurement for beginning dosing. This is only negative because I turned out to be extremely sensitive to the cannabis and my first dose was way to much that lasted way to long. I was told I am an anomaly by the owner of [MANUFACTURER]. My first experience was so awful I almost did not try again.
- Minimal mental fogginess.
- A little naseau
- I wish that it came in pill form
- Sometimes makes me a little tired and a little nonproductive.
- just the red eyes
- Can't go on vacation with family because I can't cross state lines with my medicine. Have to wait and not take cannabis to drive or get someone else to drive me. Feel like I can't tell anyone I'm in the program because of the stigma.

- maybe a bit more tired than I want
- I had hoped that taking medical cannabis would help me discontinue medication that I take at night to sleep, but it actually has the reverse effect and I'm not able to sleep if I take it right before bed. It does have a very positive affect in the early evening hours
- Occasional upset stomach.
- Occasionally it will make me sleepy.
- Spacey and forgetful at times.
- Quickly learned that even light use must be limited to times that do not demand full attention.
- mild instability at night
- Sleepiness at times.
- Sleepiness
- financial
- dizziness/fatigue
- stomach upset
- Occasional dizziness, increased appetite, dry mouth
- Tiredness which can be tough since I work overnights as well and struggle a lot of nights anyway. High feeling worse some times than others
- I am not as mentally sharp and occasionally forget things.  
I lose track of things I normally don't.  
I did more because I had less pain and then I had more neurologic symptoms of my spinal cord being irritated. Wasn't because of medical cannabis but I need to be careful to not do more (comment related to 6c question below) - but it is not because of cannabis but because of what is wrong with my spine.
- Dry mouth, very bad taste in mouth, very hungry when first start using it (about 2 weeks duration). Other than these minor issues, there have been no bad side effects.
- Nausea, restlessness
- It makes me a bit lethargic.
- Muscle spasms (may not be related), hard to get without a caregiver
- Sometimes my anxiety gets worse
- unclear if this is a cause, but I have some stomach upset. However, this coincides with a very stressful time for me, so I cannot determine if the nausea is from stress or the cannabis.
- Little bit of feeling hazy or out of it
- It just took some getting used to, I followed the advice to ""start slow and go slow"". I was a little afraid at first.
- The cost only getting one month supply per visit
- Minor effects such as sleepiness, easily combatted by coffee.
- When using the [VERY HIGH THC PRODUCT] product from [MANUFACTURER] I experienced more coughing and did not feel as clear headed (confusion) as I do while using the [HIGH THC PRODUCT] vape product from [MANUFACTURER].

- some times it sneaks up on me
- It increases appetite.
- I had some minor dizziness when I used the [VERY HIGH THC PRODUCT] with my sleeping meds, usually the meds come after the [VERY HIGH THC PRODUCT] is used, but when I used it after I took my medication it made me feel minorly dizzy and lightheaded
- Very little maybe gets upset about something that didn't bother before (from spouse ). Very minimal
- Mental clouding
- As I worked to find just the right type & dose, I was excessively sedated some mornings, but that no longer happens as I have been helped by the consultations & experimentation to find the right dose for me.
- Dry mouth
- bad cartridges vapors,
- Short term memory loss, confusion, cognitive problems which have improved with use.
- My only concern is thirst from the THC heavy formulas. Need to drink plenty of water. Otherwise, no concerns with any formulation.
- The only negative effect I have experienced is some mental clouding but it has gotten better
- to get high pain management you are fairly medicated but much better than the pain. cost not covered by insurance
- Financial at times.
- Little drowsy once capsules kick in
- Some initial minor lung irritation from the vaporized oil. Seems to have passed though.
- I wont drive when I use it
- sedation, some palpitations
- With the more powerful capsules during the day, sometimes make me just a bit foggy mentally.
- The vape seems to need many charging
- some congestion
- at first I had diarrhea
- Feeling sedated/tired
- Finding the right dosage was a trial, If I had too much thc it could cause exacerbation of my anxiety, so I now have a better grasp on dosing and if I require more thc for pain I offset it with more of the CBD oil and I also purchased prefilled CBD cartridges (however I don't like the idea of using those much because they have a filler in them propylene glycol?)
- General problem with dialing in proper dosage. ( same as with narcotics )
- feeling stoned
- Dizziness if greater then 3ml per dose. Label instincts 2 to 5 ml per dose
- Dry mouth very bad

- The only thing I can say is that when I use the spritzer or ingestible I have a coughing fit for a couple of minutes. Not all the time and to varying degrees of severity, Not a big deal. Goes away quickly.
- Dry mouth
- When taking THC, I do get an increase in my heart rate and restlessness. Nothing outside of my previous heart rate issues, though. For this reason I stick with low thc, or only cbd outside of severe pain.
- Makes me lazy and depressed.
- Judgement from doctors. Doctors unwilling to utilize medicinal cannabis
- 1. Increased urge to urinate with excess use  
Drowsiness with excess use
- cannabis centers are too far away  
we live in [CITY] and have to drive to Bloomington,  
which is an hour and a half one way
- Some tiredness but getting better
- Tiok too much to start with of the liquid form, was too high to drive. Usually just take it at night. I dont require alot to feel the effects., if I have too much I get a headache. Also get too dehydrated and itchy.
- Sometimes I feel dizzy when using the [HIGH THC PRODUCT] vapor if I inhale too much.
- Fatigue
- Initially, I had a foggy brain and a sedated feeling. As I worked with the pharmacist @ the dispensary, I soon conquered this and now only experience it VERY occasionally.
- Excessive dry mouth on occasion; remedy this with xylitol mouth lozenges usually.
- Can make you tired.
- Dehydration can flare-up my TMJ and the cannabis can make my mouth very dry if I'm not careful. I just make it a point to drink more water throughout the day.
- When I used the vapor pen with the balanced THC/CBD oil it gave me a headache. I have not had that reaction with the [VERY HIGH THC PRODUCT] or [HIGH THC PRODUCT] medical cannabis varieties.
- The only negative effect I have ever have (Wich only happens every once and a while) is sometimes it gives me anxiety.
- Not really any to speak of but some depression at first then it went away
- When I use it at night it's hard to wake up
- I am quick to talk and slow to think about what I am going to say. It is not bad.
- makes me very hungry
- Confusion
- The cost is way too high  
The stigma is tough to get past. If it was legal or more knowledge of benefits were more well known then I believe the negative stigma may subside.
- Dry mouth
- Dosing seems to be variable
- Sometimes a "heavy" feeling, less drive to do things

- I have swelling in legs and feet since using the stronger capsule. I don't know if it is related.
- Minor dry mouth.
- The only thing that may be considered negative would be dry mouth, but I can deal with that very easily since the benefits are wonderful.
- Cost  
Stigma-telling others it works  
Cost, cost and no insurance support, especially after this medication cuts opiate sales, non-addictive vs. Addictive; no understanding why this isn't approved by our federal govt., after all we have seen lately I wonder who controls the market and who doesn't. Who is benefitting?
- Could not take mm on trip out of state and had to rely on NSAIDS
- Like to eat unhealthy items
- It's hard to access, as the nearest resource is 100 miles away, and no insurance coverage makes it hard because insurance is already expensive.
- Gastrointestinal distress when taking solution swallowed by mouth. This was entirely relieved by using only oral spray and vapor.
- sleepy sometimes  
no other
- Cost WAY too much.

### Score of 3

- Dizziness
- Very dry mouth.  
Upset stomach if I take it on an empty stomach.  
Sometimes but not always, feel a bit more tired.
- The liquid caused upset stomach, nausea, dry mouth  
The vaporizer causes dry mouth
- seemed to increase my tinnitus.
- I feel slightly foggy when I take THC medications
- Head spinning, nausea
- I would get headaches when coming down from it. Also, find myself tired and fatigued shortly after using.
- as stated earlier.. confused on what forms to consume..  
possible that it causes some eye pain. not sure because this is a symptom of my conditions I have too.
- Anxiety
- When taking the liquid, the time it takes affect varies and how I feel from dose to dose can vary too.
- At times it has increased my awareness of pain. It happens once or times a week if I get too much. It can be hard to control the dose when vaping.

- Had one episode of confusion  
The vape can irritate my throat
- light-headiness
- I have read that cannabis recreationally has versions that are head affecting and some that are body affecting. I have not used this recreationally, but based on what I have read I get more head high effect than body. Slight light headed feeling. I hope as I am in the program longer and my body fully assimilates the medicine it will be less in the head and more body effect.
- feel spacey
- Forgetful, unable to drive,
- Just don't like the feeling
- costs
- 1} Economic factor - very cost prohibitive  
2} Helps but not as much as hoped, especially for the money
- The taste is awful. I have to have the unflavored varieties because of my medical condition, and they taste horrible. It took awhile to figure out that eating straight peanut butter before and afterwards would help reduce the issues with the immediate and lingering taste.  
It's not always convenient to take. I have to plan to bring the bottle, syringe, peanut butter, and a spoon with me, and generally have to carry them in an insulated bag to keep them room temperature, so that's one more thing I have to haul around if I'll be out at a time when I need to take a dose.  
Sometimes it's difficult to find an area to take a dose (that isn't public), so I often have to go out to my car to do so if I'm out, and that's not necessarily convenient or easy, depending on other health issues, the weather, where I parked, etc.
- Sometimes it makes me more intoxicated than I prefer at times, although I'm working on figuring out the best amount and type of medicine.
- Diminished ability to learn new complex technology tasks
- testing positive on work drug test
- The way it makes me feel, Gives you the munchies and I don't want to gain weight, makes me lazy
- I am a little more tired (naps help)  
& I think I'm eating a little less or less hungry (a good thing)
- Only experienced negative effects from the vapor delivery system, so I now only use oils and capsules. Otherwise, no negative effects. This is the only negative effect referred to in Q#6.
- Though it's made with all natural products the taste after awhile seems to dull my taste buds.
- people not understanding why i take it
- Some people think its just another crutch
- extreme tiredness  
inability to focus

- My eyes feel dry-
- When I take medical cannabis it sometimes lessens my control over ambient pain. That is, where I normally can stand a certain level of pain without taking drugs, cannabis sometimes loosens that control requiring me to seek relief.
- Headache coming off when cant afford more,  
increased pain when out and cant have pain meds and be on MCP at same time,  
People in recovery accepting it. ( I have 10 years clean ) People don't see it as a medical need. Etc. ( Loss of few so called friends )  
Little slower, but its ok.
- Increased asthma symptoms
- Reactions to THC
- When I tried taking the pills it didn't help with pain as much but did make me feel high.
- too introspective at times
- lightheadedness
- traveling out of state
- Still trying to determine the correct dosing.
- drowsiness  
loss of appetite
- Nothing helped then I figured the problem out
- Problems with CBD dominant strains being so expensive
- Extreme anxiousness at first. Dry Mouth. Blurry vision. Mental clouding/confusion.
- Increased issues with Insomnia , I fall asleep fine, but wake up often and sleep feels lighter.  
Anxiety - only happened once .
- Dry mouth  
The liquid delivery system with the syringes and the vacuum top is messy and somewhat wasteful with leaking, etc.
- Headache  
Dry mouth
- Cost of meds
- The THC - heavy product causes some disconnected feeling, which is good for quick pain relief but not conducive to productive activities.
- I experience some anxiety, racing thoughts
- greasy stools, headache
- Headache
- it makes me a little tired at times, sleepy.  
neg. effects: feeling tired or unmotivated.  
but, positive : relaxed and calm.
- Vaping causes me to cough a lot.
- If I take the max. amount- it affects both mental and physical coordination.
- Increased tremor in my hands, more difficulty focusing, fatigue
- mental fog

- Can't drive  
Feeling altered consciously for awhile  
Vapor pens don't always work
- gives me anxiety, which I do not like!!
- I think that quite often I can't inhale, like it is stuck.
- My memory could be better
- I can no longer drive  
It makes me forgetful
- Price of product and still using something to feel better
- Doing the spray seems like sometimes it makes me too relaxed in day
- Forgetful
- Forgetful.  
Bad memory.  
Think it's causing some reflux.
- The only one negative effect is:  
I have a tendency to want to eat at night more so than before. I'm trying to lose weight, but this doesn't help my situation. It's like I have to choose - having more intense pain without taking Cannabis or the possibility of losing weight easier and trying to endure my pain at night....
- Negative effect it has on me would be the cost it is very expensive and it's not covered under medical insurance which is a big problem for me the cost is just too much and the vaporizer pen that comes pre-loaded often does not work and has to be returned that is the only negative thing I really have to say about it
- Dry mouth
- The oil makes my skin break out.  
The spray has a lasting burning effect.  
The vap pen sometimes only works once and then it takes many hours to pass before it works again.
- tiredness, but only from trying out colors I haven't tried, now I have a good script
- DRY MOUTH  
MORE TALKATIVE
- Increased hunger significantly, to the point of nausea some times.
- just the cost. wasn't aware that it would be so much. have to save up in order to purchase one.
- Financial burden. Loss of confidence as a result of over analyzing what others are thinking. Some anxiety. Focusing too much on minor stresses and blowing them out of proportion. Procrastination. Introversion.
- Seems to increase my anxiety but does not always have this effect
- [HIGH THC PRODUCT] makes me a little dizzy
- Although I feel pretty good I just want to sit. I have to force myself to get going on something. At times my appetite is horrific.



- I have some blurred vision which usually occurs when I think the medication is wearing off.  
The taste of the vaporized medication is not very good but it is very effective.  
I am still working on the right dose to control my symptoms without violating any rules regarding working in a school environment. I have to take it at least 6 hours prior to work and I can't bring this medication on school grounds.
- Dry mouth, increased anxiety/paranoia.
- finding the correct dosage took couple of months
- It can sometimes be sedating but I feel exhausted when I'm in pain so I would rather feel tired and out of pain
- I don't drive after taking medication.
- The cost of medical cannabis is not covered by insurance and the out of pocket expense is taxing on our budget. Federal laws need to be changed so that medical cannabis can be covered by insurance! People are dying by taking opioids which are covered by insurance but medical cannabis is much safer and is not covered by insurance. The federal laws need to be changed!
- Negative social reactions
- The oil seems to bother my gall bladder. I'm having tests done currently and have not gotten the results yet.
- None for helping relieve pain.  
Can't afford the cost. May have to find a cheaper alternative solution!
- Mild congestion with oil. Neck & head ache with suboptimal doses. Mild fatigue.  
Dizziness with 2:1 ratio.
- confusion and forgetfulness; laziness; bizarre thoughts
- I live in a nursing home and the nurses cannot have anything to do with the cannabis. I have to keep it in a locked drawer and take myself.

## Score of 4

- Unable to keep train of thought and function as usual. Very gritty and nervous.
- felt unstable walking, no appetite, fatigue
- constipation
- Nauseated and Dizzy
- Cognitive fogging  
Blurred vision
- Dizziness
- Drowsiness
- complete and utter fatigue
- The caper strong for my throat
- Feeling not in control- zoney
- Feeling "loopy", dizzy, unable to function.  
Bad taste in mouth

No benefit

Loss of \$200 "entrance fee"

- THC made me dizzy
- Do not like the tired feeling and a sense of lack of mental clarity
- seems like the pain increases
- I thought it would make some of my pain more manageable
- Initial capsules- one [VERY HIGH THC PRODUCT] in the AM, two [BALANCED THC:CBD PRODUCT] at night- did not help my pain but disturbed my thinking. I would be talking to my husband and completely lose track of what I was saying. They took me off the capsules and put me on the vaporizer and I haven't had any side effects.
- High heart rate at first, nausea. Still experience enough nausea to have to use Tums or even 20 msg Nexium for nausea if I try to push up dose too much: hard to judge amount of vapor.
- Causes extreme drowsiness
- did not help my nerve (neuropathy) pain as much as I had hoped.  
did not help me sleep at night as much as I had hoped
- major constipations, leaving me having to take something every day for that
- The vapor makes me too sleepy as does the liquid. The liquid takes a long time before it takes effect. Hard to regulate dose. Would prefer to apply it as a topical on the area of pain.. However, I am sensitive to all medications so do not see this a negative with the cannabis, but me. For that reason I do not use it daily. I have experienced headaches in the morning, almost like a hangover. Not always though.
- sometimes it makes the pain worse. depends on my mood.
- fuzzy/foggy feeling  
upset stomach  
sometimes dizzy
- Much forgetfulness, some constipation, some "loopy" episodes.
- lungs, congestion from needing to vape most of the day to keep pain at bay  
dry mouth,  
constant vaping, keeping track of vaporizers,  
travel out of state is not allowed
- light headed, a little lack of focus and a small headache in the morning (although it's been winter and this latter could potentially be sinus)
- No real negative effects.
- paranoia when using cannabis with THC as the dominant concentration. I also get quite fatigued and disoriented. For these reasons, I use this product at bedtime.
- Dosing has been difficult & I have had days of mild THC overload - tired, difficulty focusing, too much appetite.
- shame
- Can't use during the day, too cognitively impairing.
- Only negative has been nausea; I have a sensitive stomach from my other meds and the cannabis puts me over the edge sometimes

- memory and vision problems
- The [HIGH CBD PRODUCT] cannabis makes me feel very sluggish
- Being tired. I can't concentrate as well. Forgetting the thought process.
- Cannot use as a preventive/maintenance drug. Cause urinary retention which is painful for me. Useful after muscle spasm starts to decrease pain levels.
- Can't drive when using this product
- cognitive impairment  
nausea
- Break through pain with Mn products needing Rx for the severe breakthrough.
- With THC blends, I can see an increase in anxiety and heart rate.
- I forget the dosage until my daughter helped. I didn't understand how much to inhale. The relief doesn't last long for me.
- Lethargy and sleepiness during the day.  
Clumsiness.  
Blurred vision.  
Some mental fogging.
- Not achieving pain control before weaning off norco.  
Difficulty in getting product because I am 100+ miles from source.  
Changing use of product mid month causing me to run out.  
Not being able to take cannabis during two hospital stays.  
Sleepiness, but that may not be because of cannabis.  
Not liking using vape too well.
- Drowsiness and dry mouth
- mild hallucinations, mild paranoia, surreal feeling. sometimes will skip taking because of weird feelings.
- Being tired, dry eyes, dry mouth
- Once the THC built up in my fat I would get "high" which sometimes was unpredictable and I didn't like that feeling.  
The vapor pen gave me a headache and didn't do anything for the pain.
- Lightheaded.  
Dizzy.
- Poor balance at times. Inability to concentrate at times,
- Impacts ability to think clearly and conduct tasks in an organized way
- Vaping causes throat irritation. Would like to see edibles.
- I use the pen sparingly during the day as it makes me tired. I'm sensitive so I don't need much, 1-2 sm puffs.
- sleepiness, if taken during the day
- eating to much weight gain
- I am sleepy much of the time. I have nausea and dizziness.
- When you take enough for pain you don't want to do anything else
- Coughing a lot
- Anxiety.

- I am more sleepy using this drug. This is negative for driving and working.
- It's not practical to be ""high"" all the time so you have to carefully titer your dose  
Headache
- THC make's me drunk!!
- can not handle inhalation
- I can get very tired depending on time of day
- It's hard to find the right amount. Sometimes it's too much and sometimes it's not enough. I wish there were more strengths and versions/strains available, like in Colorado. I also wish you would allow topical, which are very helpful as well as various oral type medications and patches. The very limited types/versions of cannabis offered in Minnesota is restrictive and doesn't offer a wide enough range of delivery methods or strength combinations.
- Side effects from oral [HIGH THC PRODUCT], [BALANCED THC:CBD PRODUCT] and [HIGH CBD PRODUCT] caused excessive diarrhea. Needed to stop completely and start slowly again.  
Spray caused me to lose my sense of taste. Everything tasted and smelled like rubbing alcohol.  
Too much thc caused mental clouding, short term memory loss, " thick tongue, dry mouth and lips, and bloating.
- Drouziness loss of memory
- The monetary costs
- some negative judgement from other medical providers
- Mental "fogginess"
- Went to hospital for vomiting and severe abdominal pain & pressure. Dehydration Severe.3 days in hospital. The hospitalist was suspicious of the medical cannabis causing the symptoms, but a couple days later to Dr I was running a low grade fever with cough and sinus pressure. I Had been using medical cannabis for several months prior to the hospital stay and i had absolutely no issues, after hospital when virus cleared up and I restarted the medical cannabis & haven't had issues.
- It makes me feel dizzy sometimes so that I need to be carefull when I am up and about,
- It's difficult to include in a medication management system or get any answers from my doctors because they don't have any experience with it.
- Diarrhea and stomach discomfort
- -vape - very red eyes, oil and capsule: slight eye irritation  
-only slight headaches a few times a month  
-some slight mental clouding
- Can't drive. The liquid takes about 3 hours for it to work
- TIRED
- No negative effects of the pills, but the [VERY HIGH THC PRODUCT] vaporizer often brings me down - makes me sad - makes me unhappy, just like it did when I smoked pot in college. I'm working on changing that reaction to something more positive.
- Makes me tired and I feel a little loopy sometimes

- High feeling, foggy,
- inability to keep it with me at all times due to temperature concerns and legality of certain locations  
mental cloudiness  
sleepiness
- Diarea. Unable to take the liquid or spray. Hopefully I will be able to take the vapor without this problem.
- Dry heaving and vomiting, blurry eyesight,  
The vomiting is almost gone now, have had very little the last few weeks.
- Sleepy
- No local centers; increased vertigo with vaporizer format
- Some dizziness when trying to use 2 [BALANCED THC:CBD PRODUCT] capsules during the day. More regular with BM as the pain medication causes constipation.
- Some foggy headedness that seems to be abating as I adjust to the new medication. Mild sedation.
- Sometimes the strength of the dosage seems very strong and I get high from it. This prevents me from driving my car or doing important paperwork. I don't want to get high, I just want relief from my chronic back pain.  
If I take a dosage too close to bedtime I wake up in the morning with a headache
- As there is no Sativa designation and everything is an Indica hybrid, all Cannabis you offer is somewhat sedating. With no Sativa, I don't feel able to replace opioids with cannabis entirely because sometimes I need to be wide awake. I also don't get sustained pain relief from your THC only Cannabis ([HIGH THC PRODUCT]), even though I find it to be the best immediate pain relief. THC and CBD have the "entourage effect" and work much better together in sustaining pain relief. I would get the best pain relief results from Cannabis if I had option of different strains in bud form to be smoked and the options of Sativa and Indica.
- Mind confusion, drifting in and out with current memory issues otherwise fairly normal
- Inability to think or function. Most of the THC just made me straight dumb an unable to do things.
- The vapor is harsh on my lungs and makes me cough. The first 10 minutes after the vapor, my muscles seem to twitch and tighten, then they relax.
- I am more tired. And can't motivate as well as before. Makes me a little lazy
- Is not as effective as opioid for pain relief  
Drowsy  
Budget... having to ask for help to pay for medication
- Just the stereotypes
- The cost is way to high. If you were to get canibis the non legal way it's would be cheaper
- It is the stigma of using medical cannabis. It is still considered illegal from the federal government. So it is more of a morality concern.
- Dry mouth.

- If I'm in stressful situations I feel I have to depend on the vapor alot, and its kind of a distraction to use in public, but I also get past that cuz it's needed.  
Same as when I'm overheating.
- One can overuse in my opinion. Taking in too much vapor at once can cause coughing--- a negative effect. Also some loss of muscle and mental coordination can happen if one over indulges too fast, and needs to perform duties of daily life right after a treatment. Each person is different so one needs to find their own dosage and tolerance, as with all drugs.
- There is something added to it.  
Very angry feelings
- I am having difficulty finding the best cannibus format to use. The inhaler makes me cough.
- hospital ER staff/doctor did not know how to help someone who is on medical marijuana due to no policy, so I got completely drugged and in an ER bed for 6 hours for migraine. insurance does not cover. feel impaired to drive after short acting dose, but was on opioids before too.
- Cannabis does NOT relax me physically, I can only use to help with anxiety & depression.
- Its hard to find the perfect dose. Potency of products seems to differ.
- mental clouding, self-doubt thinking.
- Until figuring out the best THC to CBD ratio for me, I experienced a bit of wrap-around depression and a bit of a drop in motivation. (In addition to intractable pain, I have severe depression and anxiety.)
- Because of the side effects, I cannot use the medical marijuana until I am certain that I am done driving for the day.
- Cost of medicine and fatigue from use
- Sore throat related to the vaporizer use; I have COPD and that doesn't help things
- can make me sleepy
- when vaping get some blurred vision.
- drowsiness during the day  
mental fog sometimes
- Current me.
- With some products combined, I get a "stoned" state of being where I don't feel safe to drive, or able to interact normally with people.
- I feel 'foggy' a lot of the day. My short term memory seems to be affected. And my dry mouth is a problem. But all of them...small price to pay.
- financial cost is only negative issue
- Experienced a little coughing episode during the use of vapor device.
- making a plan to travel across state lines - how to manage pain without requiring high doses of narcotics  
not having convenience of pill form

- cost  
social stigma of consuming cannabis
- Not being affordable
- a little light in the head feeling
- acceptance in medical facilities
- Anxiety, a little hard to get used to. Fatigue
- Geographically distant.
- tired and drugged feeling

## Score of 5

- Not having any positive effect at this time. Still hoping I'll have positive results
- 1) Depression  
2) Memory loss  
3) Increased appetite  
4) Weight gain
- current combination causes dizziness and loss of balance
- Vapor help me more than anything I've taken, but I didn't like the high from it.
- Side effects such as paranoia, agitation and had to waste 102 dollars worth of medication. My pain clinic doctor was upset that I was not offered the alternative which he said had been studied to be more effective for my specific condition.
- I don't care for the high feeling.
- Drowsiness, memory impairment, and on one occasion using the vapor method I had such extreme nausea and numbness that I could not move in my bed for over 2 hours. This occurred shortly after I had started the program.
- Cloudy Mind
- Little long term pain relief  
The confusion using the drops made it impractical to use for any long term
- Feeling high  
Difficulty concentrating  
Forgetful
- The problem I have taken it is:  
Makes me sick to my stomach  
Can't eat  
Don't like the cloudy feeling in my head
- Anxiety.
- Fatigue, mental clouding, headache, confusion
- Doesn't fully take pain away
- I can not take until I find a job. My psychologist won't see me anymore if I start taking it along with my family doctor.
- Need stronger dose  
[BALANCED THC:CBD PRODUCT] capsules I take are not providing enough relief

- General "loopiness" with compromised balance, must be able to be at home and able to go to bed after use, not able to take while out of home while in pain, not able to take if there is a need to drive.
- Head spinning
- The CBD oil upsets my stomach. I want the anti-inflammatory properties.
- Confusion - but not sure that it is the result of the cannabis.  
Fatigue - but not sure that it is the result of the cannabis.
- I can't drive when I take it.  
I can't function in society. I need to stay home.  
I get sleepy.
- irritable bowel. Have had in the past but returned in full force with medical cannabis.  
Still experimenting with dosage and whether to take with or without food.
- lite head  
rubber legs
- Nausea  
Different type of pain the next morning
- The license is on the bottle we need some kind  
Of license to carry.
- No physical side effects. The product has tasted terrible after the first fill. I had no issues with the first pen or cartridge. Evidently, I was sucking too hard on the pen because it wasn't heating, so the cannabis got stuck in the chamber making the taste terrible (made me sick to my stomach and nauseas). I did not know this would happen. When I went back in to get another because I could not tolerate the taste (made me sick to my stomach and nauseas) they offered me the pen that heats up. I purchased that and another cartridge, but the taste is still not tolerable. I have an appointment next week to talk about alternatives. Because of the cost, I've been unable to purchase more so I haven't had a chance to use the cannabis much the past 2 months.
- when you dont have the cash and then after going o  
thru withdrwal now you have no pain meds
- I have been overseas about 1-2 months so I have not been able take for a longer time, but now hope to start take it for longer time. Would have liked to take it with me, but I do not dare
- Not qualifying to work in a job that I am well qualified for, even though the employer wants me to work for them. they are not able to hire me because it is illegal on the federal level. I also experienced a very bullying, abusive interview with medical testing labs Dr. I was made to feel like a criminal, even though I have no criminal past, not do I have prior experience with cannabis or other recreational drugs. Federal illegality compromises my ability to work in my field. This leads to fear of being transparent about my use of medical cannabis. I have been alot more forgetful in every day life
- I hate the high feeling. I don't like the uncertainty of knowing if and when the medicine is going to work. Does not work on my headaches at all.



- I'm not able to drive while on the cannabis to cloudy feeling.  
I work in health care, my critical skill thinking is slower  
I'm treated different when I go to a dr. That is under educated about Cannabis or there really biased about cannabis.
- Being judged by family and friends for using cannabis instead of dangerous opiates.  
Also, I am a Federal employee and I will lose my job if they find out I'm using medical cannabis.

## Score of 6

- nausea, mental clouding, light headed, --- did not help pain
- The feeling of lightheadedness, not a good feeling for me.
- Made me high 2 times. Didn't know what was happening. Pretty scary and couldn't function. Made pain worse too during those times.
- Dizzy and stoned feeling
- No Relief of pain--extreme loss of Balance
- dizzy, weak
- Not able to remember things as I'm trying to say them. Very disconcerting, I have discontinued use
- dizziness  
take to long to work ( oral susp.)  
does not last ( vaporizer oil )  
cost -needs to come down I can't afford it
- 1-Made me feel paranoid.  
2-Made me feel unable to function properly around other people.
- I feel high all the time.I don't like the taste. Hurt's my lungs when inhale. I'm afraid of going out of the house because I don't know what I'm doing,when using. I get paranoid.
- Fuzzy head, fuzzy mouth
- Increased appetite harms my jaws (degenerative arthritis)  
Anxiety
- I have had dizziness and tiredness. This has been problematic enough that I stopped trying the cannabis for several months. In fairness, I was told that the side effects would improve over time. I just haven't been willing to keep trying.
- It gives me pain relief but also gives me unwanted feelings of paranoia. There are many strains of cannabis, some of which have minimal paranoia effects but retain the pain benefits. Minnesota should allow multiple strains for the patient to choose from.
- daily negative effects were the type I am currently on makes me extremely sleepy and I need to be more functioning during the day
- More THC= paranoia  
More CBD = nerve buzz  
Dizziness
- I don't care for the taste. But, the positive affect out way the negative.

- Heart burn, worse in. New symptom, deep cough.
- My meds are less expensive than the cannabis, which I just used a small amount. I opted not to keep using the cannabis because of this. I could never drive after using it and that was restrictive. So please do not send me any more surveys. For now, unless they drop the prices, I am no longer an active customer. Thank you!
- wait gain from desire to eat.
- The high part- I can't drive when I do it and I have two kids so that's difficult  
It would be nice if insurance would cover it  
The driving- if something happens to not be able to get on the road  
The anxiety is a big part for me
- None really
- The most negative effect has been the ""dysphoria"" or ""high"" which I experienced when starting/titrating the medical cannabis. I started on a 1:1 ratio of THC:CBD and had to titrate very slowly. I work in academia so I need my wits about me when teaching so, the feeling of diminished proprioception and the instant forgetfulness have been problematic.  
Another side effect that is challenging is the hunger that occurs when using medical cannabis. I feel absolutely ""starve

## Score of 7: Great Deal of Negative Effects

- The taste of liquid cannabis is the worst.
- cloudy head  
ringing ears
- I experienced a major episode of depression after only taking it 4 days.
- makes me very sleepy  
makes me uncomfortably high
- Decreased visual acuity secondary to drop in intraocular pressure, urinary retention, dry mouth, imbalance, loss of short term memory.
- I mostly used the [HIGH THC PRODUCT] formula with almost no benefit. Unfortunately I got headaches from it. The longer I used this formula, the more severe the headaches became. I stopped using it after only 1 week. I only used the [BALANCED THC:CBD PRODUCT] formula twice with no benefit but did not use long enough to know if this formula would cause the headaches also. Unfortunately the headaches were so severe with the [HIGH THC PRODUCT] that I've been afraid to try the [BALANCED THC:CBD PRODUCT] formula again. I probably should contact the pharmacist which I have not done.
- Many side effects, didn't help with pain.
- Felt anxious and paranoid, which made me feel overwhelmed and completely incapable of discerning whether it was actually having an affect on the neuropathic pain that I suffer from as a consequence of a spinal cord injury.
- I got very high not something I expected or wanted

- tachycardia (couldn't even count pulse) elevated blood pressure (210/120)
- Unfortunately I am unable to use medical cannabis due to it giving me migraines
- Racing heart, pounding of heart, added beats of heart. Veery dizzy and light headed. Some nausea.

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# Appendix K: Healthcare Practitioner- Reported Negative Effects from Medical Cannabis

Note: Word choice and spellings have been retained as written by respondent to avoid inadvertent mischaracterization of intent. Brackets have been used to explain words redacted to prevent individual identification or for other reasons. Negative effects are broken down by negative effect score rating.

## No Negative Effect Score

- As of her last assessment, she had not yet found a formulation of medical cannabis that she could tolerate taking regularly.
- deceased sepsis
- did not tolerate side effects
- patient has not followed up at clinic since certification
- increased anxiety
- Patient only used medical cannabis for one month and stopped using it because she felt it wasn't working for her.
- Patient states that he only went to the dispensary twice but did not continue to get medical cannabis because he did not like the psychoactive effects from the THC.
- Pt has not been able to afford the cannabis so he has not been taken it in several months
- Pt has not been able to afford the cannabis so she has not been taking it
- Reports it caused pain in "other areas that are normally painless." Also, she cannot afford it at this time. She did not tolerate the "high" feeling she felt from it either.
- Patient decided that the product was not for her- she did not feel comfortable taking it. She attempted it one time and was done.
- Patient stated that she only went to a dispensary 2 or 3 times and she did not find the cannabis to be helping her at all so she hasn't been back since.
- She is experiencing difficulty with dosing to determine how to use the oil and vapor form.
- discuss on F/U
- Patient has not returned for follow up appointments to evaluate.
- Cost. No medical side effects, however.
- After taking 3 weeks developed dizziness. Not sure if due to cannabis or other conditions-she put cannabis on hold while determining
- Headache at first, but this has resolved

- caused fatigue and "fog"

## Score of 1: No Negative Effects

- None. they did not work so he never continued on them.
- Patient did not experience any negative effects.
- Denies side effects
- Denies side effects. Pain is much worse now, though. Inadequately controlled given the cost of cannabis. The patient stated she will no longer continue the cannabis.
- Denies.
- Denies side effects
- Denies side effects
- None, just not helping with pain. The patient's wife stated that they plan to follow up again with [MANUFACTURER] to see if any changes can be made.
- Patient has not complained of side effects.
- Denies side effects. Did not feel like [BALANCED THC:CBD PRODUCT] helped him at all, so he is only using [HIGH THC PRODUCT] spray.
- Denies side effects.
- None but it is cost prohibitive to continue.
- The negative effects primarily include being labeled as a pain patient and wasting much time with weak strains given her prior experience with potent medical grade cannabis from out west.
- Denies
- Denies side effects
- Helped fibromyalgia
- Not taking medical cannabis due to cost of prescription. Was taking OTC CBD oil as of [DATE].
- Patient has experienced no negative effects.
- Patient states that he has experienced no negative effects.
- Patient sometimes experiences headaches from medical cannabis.
- Can make her tired so she won't take it while watching her Grandchildren
- dry mouth which is mild
- Denies
- Cost is excessive
- Patient has not experienced any negative effects.
- Patient has experienced no negative effects from medical cannabis.
- Patient has not experienced any negative effects from medical cannabis.
- Patient has experienced no negative effects from taking medical cannabis.
- Patient experiences no negative effects from medical cannabis use.
- none reported other than cost
- reports no negative effects

- initially felt 'high'. This has resolved.
- Patient states that the only negative effect about medical cannabis is that it increases appetite a little bit too much.
- Dizziness in the beginning of use but no longer has the symptoms anymore.
- Denies side effects
- Patient states she has had no negative impact from use of medical cannabis.
- No negative effects except for the price of medical cannabis
- some fatigue
- cannabinoid hyperemesis syndrome
- does report some inconvenience accessing this due to cost and varied experience with client service/care at pharmacies.
- Patient has only used the product once due to pricing
- Patient experienced no negative effects from taking medical cannabis.
- Patient states the only negative effect is dry mouth.
- It is expensive, but otherwise no negative effects noted by patient. Fogginess cleared when prescription was adjusted.
- Patient experiences nausea every once in awhile.
- Patient states that she experienced drowsiness and mental clouding when she first started taking medical cannabis.
- Patient states that sometimes when she takes medical cannabis on an empty stomach she will be get an upset stomach.
- Only had an increase in appetite and fatigue during the day but it does assist with sleeping at night.

## Score of 2

- drowsiness with more effective pain relief regimens
- lack of pain relief
- Poor taste
- no pain relief
- felt like she did not have as much energy to do chores around the house
- 1. Financial cost w/o clinical benefit  
2. side effects - "high feeling"
- makes too drowsy to take during work
- fatigue and brain fog
- patient reports spaciness
- Some intoxication during the day.
- Patient is not as alert as she is not taking the cannabis.
- mental clouding
- mild light headedness for 10-15 min after dose, no cognitive changes
- No major negative effects have been noted except mild fatigue.

APPENDIX K: HEALTHCARE PRACTITIONER-REPORTED NEGATIVE EFFECTS FROM  
MEDICAL CANNABIS

- surprised not using less prescription meds
- Vague leg unsteadiness at night
- sedation
- mild sleepiness
- increased appetite and more sleepiness
- worsening of pain as opioid decreased
- No negative effects, just not helping with the pain like we were hoping it would. It is very cost-prohibitive
- High. However, she likes it as it relaxes her and lets her sleep
- less motivated during the day
- does feel the high a bit at night, would prefer not to, can not use during day at work
- There were some initial side effects, but they have resolved by now
- Stoned sensation, but it is not an issue if taken with food
- some cognitive effects, will try different preparations
- He reported feeling "high" initially. It took a few months, but now he no longer has that feeling and is much better tolerated.
- Fatigue when using the drops
- Patient had to work to into the recommended dosing to help minimize negative side effects such as excessive drowsiness
- None. Travel is a hassle
- Side effect of dry eyes and dry mouth.
- memory issues (potentially)
- Patient has feelings of grogginess and mental clouding in the morning.
- Tired
- mild fatigue
- Mental fuzzy/cloudiness
- impair thinking and she does not feel that she is responsible with her two daughters while experiencing mental clouding
- When her pain is too high for her tolerance, she was directed by pharmacist to take more but the THC creates a high that she does not like and sometimes confusion.
- Mild post-dosing fatigue
- Initial headaches, later resolved with dose adjustment
- increased tinnitus
- Has developed Gynecomastia 3 months ago.
- achy feeling in legs, once in awhile
- when he uses the pen he gets an icky feeling, very mild anxiety
- Initial fogginess following each dose lasting 10 min, then fine.
- minimal dryness in mouth
- Drowsiness although not as bad as gabapentin or opiates.
- drowsiness



APPENDIX K: HEALTHCARE PRACTITIONER-REPORTED NEGATIVE EFFECTS FROM  
MEDICAL CANNABIS

- Drowsiness and mental clouding
- He feels that it sometimes does not work as well as he would like it to.
- Fatigue and has a hard time concentrating some times.
- Fatigue and dry mouth
- Increase of THC caused increase appetite and he's a Type II Diabetic
- financial burden
- mild high
- When she needs to take short-term higher doses, she will get queasy.
- THC produces paranoia
- Fatigue
- minor Light headedness from vapor
- Patient states that the THC makes him lethargic, less functional, and impaired.
- Patient has experienced no negative effects.
- minimal appetite increase, easily manageable
- dry eyes: has to blink more
- minimal drowsiness, less with continued use
- Fatigue
- dry mouth
- Has noted some lightheadedness with one of the formulations.
- drowsiness- tends to utilize more at night.
- sublingual use of oil made him sleepy and shaky
- fear of society judgement, nausea, and thirst
- Increase appetite
- bad coughs like congestion
- mild nausea
- munchies
- coughs from vaping
- Notes occasional sensation of "feeling loopy". No "high" noted.
- Dry mouth
- His pain is too great to only use cannabis so he occasionally will take percocet and tylenol.
- Too expensive
- The short acting version she was using made her  
Feel high. She didn't like that
- Some fatigue but also had similar fatigue before starting medical cannabis.
- Occasional drowsiness
- minimal nausea occasionally
- Constipated since he's used cannabis

- Patient states that when it is really bright out or intense lighting he experiences an increase in anxiety. Patient tries to avoid driving post cannabis use. Occasional headaches.
- Very tired and wants to nap and cannot use during the day at work because she's too tired. Foggy during the day when she uses but she eliminates using too much.
- older family members disapprove of the use and interactions when using
- some fatigue on occasion, but that is rare.
- diarrhea
- Does adjustments initially gave her slurred speech.
- increased appetite
- Stated that when he takes the medication, he notices his vision is a bit blurred like, "kind of like when you drink coffee and your vision gets a bit unfocused." He claims it only happens in the beginning and goes away within 2-3 minutes
- Minimal headache and cough from inhalation
- Dry mouth
- some somnolence
- mild fatigue on vaporizer
- experiences side effect of sore throat from vape.
- Dehydration, dry mouth, slight paranoia
- Patient has experienced a slight increase in her anxiety but thinks it could be environmental causes.
- Patient has been diagnosed with Chronic Fatigue and has issues with energy
- She had a vacation and due to marijuana laws, had to make plans to change out her meds or change travel plans to account for not being able to use meds
- Side effects from Cannabis: dry mouth with vaping THC  
Some fogginess, mostly uses at bedtime. Pain still stays away during day if uses caps. Feels stoned and tired. Appetite up, no wt gain.
- Dry mouth -- tolerable.
- Fatigue

### Score of 3

- The patient did experience some nausea and other GI upset after use of medication.
- allergic to coconut apparently a component of vehicle, insomnia
- dysphoria
- nausea, loopy feeling
- cognitive effects and didn't help his pain
- fatigue
- Mental irritation and some vision disturbance
- Patient presented to ED with abdominal pain which the patient thinks may have been caused by cannabis pills

APPENDIX K: HEALTHCARE PRACTITIONER-REPORTED NEGATIVE EFFECTS FROM  
MEDICAL CANNABIS

- frequent urination
- increased pain
- mental clouding
- may feel sedated during day, is decreasing dosage
- vaporizer hurt lungs
- no benefit high THC, on THC:CBD some benefit but cognitive side effects
- Sedation
- Headache.
- high
- Mental "cloudiness" and trouble thinking clearly
- Patient states that medical cannabis causes mental clouding and sedation.
- Patient has experienced an increase in appetite.
- patient sometimes feels "out of it"
- Drowsiness, and mental clouding
- thc makes her lethargic, clumsy and forgetful
- felt "high" going to use other preparations with less THC
- possible cognitive, patient wants to continue treatment
- dizziness
- made him tired and had mental clouding
- a lot of coughing and sometimes it feels like mucous. forgetfulness and weakness in hands
- sleepiness. Pt was told to discuss this with the pharmacist and try a different preparation.
- cost challenge
- Sedation
- Biggest concern now with considering pregnancy and no data on harm
- Slight weight gain and increase in feeling tired.
- Difficulty accessing cannabis due to affordability and locations
- Patient states that medical cannabis makes him very tired sometimes.
- Some sedation
- reduced motivation
- Had to try multiple different products before finding one that works efficiently and does not upset his stomach. Cannabis Oil upset his stomach- Patient has found that the pill form works much better for him.
- More talkative
- Mild issue w/ feeling out of it, not quite there, not as engaged when using spray, so can't use spray at work. This is not a big issue at home.
- Patient has experienced mild dizziness and anxiety.
- Patient states that medical cannabis causes her to have mental clouding during the day.
- Social stigma, drowsiness

- the ones with the THC make her cloudy so she avoids them.
- some somnolence
- Patient has been experiencing increased appetite and increased sex drive.

## Score of 4

- Did not like the mental clouding/spacing feeling. Did not feel safe to drive
- Oil caused patient to have chronic diarrhea, the spray caused her to not have any taste, and the vape [HIGH THC PRODUCT] she felt "high". Patient has stopped the use of cannabis due to these side effects.
- exacerbated headaches
- She reports she has had several formulations dispensed, does not like the high feeling and unsure she wishes to continue as it is not helping her pain.
- [HIGH THC PRODUCT] she reports cognitive difficulty, fogginess, and not as "with it" after taking [HIGH THC PRODUCT].
- Medical cannabis has caused nausea
- He uses the medication at night only as he states he has mental cloudiness if he takes this during the day.
- high
- headaches related to higher level of CBD  
possible memory issues and tachycardia
- Increased hunger on the higher THC compounds and it increases his hunger.
- More talkative.
- diarrhea, worse on POn prep, better on vaped product
- Patient experienced negative side effects on the oil/vape such as bad mood swings, ect.
- Patient states that the medical cannabis makes him feel "spacey" and forgets things.
- Patient does not like the stigma against medical cannabis.
- Sleepiness, "out of it"

## Score of 5

- does not find any pain relief
- made quality of pain worse
- slowed her overall physical function
- brain fog and fatigue
- She reports a "buzz" and "foggy" feeling after taking the medical cannabis. Does not like how it makes her feel so only takes it about 1-2 times per week.
- Patient experienced painful bladder issues from medical cannabis.
- the capsules were causing irregular bowel movements such as diarrhea
- diarrhea, vapor burns her mouth, she would like to stay certified so that she can try the pill form when she can afford it.
- buzz, high, difficult to function

- Tiredness. Only uses cannabis 2X per week because it makes her sleepy
- dry mouth, sedated and fatigued,
- Anxiety last 2 weeks, necessitating stopping cannabis
- cost is concern
- Patient states that it was very easy to over medicate from vapor cartridges, psychoactive effects became too much for her to do anything. Patient is no longer taking medical cannabis because it was too expensive for her.

## Score of 6

- Shortness of breath; nasal, sinus, and chest congestion; sinus infections. All resolved once she stopped medical cannabis. Was on it for about 5 months total.
- drowsiness, memory loss, nausea, anxiety
- patient had no control over herself, and didn't like how she felt on it
- Patient experienced poor cognitive function while using medical cannabis which caused her to discontinue use in [DATE].
- It makes him feel "goofy"
- Mental status changes.
- somnolence and decreased cognition, Pt decided to discontinue using cannabis
- unable to use regularly due to cognitive effects
- Patient was kicked out of his assisted living facility for using legal medical cannabis
- Blurred vision

## Score of 7: Great Deal of Negative Effects

- it did not work at all at low dose and caused severe side effects (HTN and tachicardia) at higher dose
- Did not find any pain relief and was very nauseated and sick to her stomach.
- drowsiness, limited pain relief
- Headaches severe enough to withdraw from treatment
- severe panic attacks
- Memory and cognitive impairment. Lost when driving.
- very unpleasant mental effects, cognitive impairment
- "Loopy", confused, hallucinations. 3 types of prep tried
- Patient did register and used medical cannabis one time. He experienced urinary retention, insomnia, dry mouth and was unsteady on feet. He made the decision to discontinue and is hesitant with restarting.
- Made her feel dizzy, nauseated, sweaty, and sleepy. Tried several combinations with these effects and it did not help with pain.
- Patient felt high on the medical cannabis and states even after working with the dispensary over a course of few visits, she was still feeling high.
- Medical cannabis caused anxiety

APPENDIX K: HEALTHCARE PRACTITIONER-REPORTED NEGATIVE EFFECTS FROM  
MEDICAL CANNABIS

- High and exaggerated mood (both good and bad), side effects severe enough to prevent use
- Loss of motivation, poor sleep, bla, loss of creativity. Pt hated it
- generalized body tingling, weakness, hyperventilating, and vomiting. Groggy and "out of it".
- After 4 months of use patient started to have daily panic attacks which has caused her to discontinue use. She now is taking Xanax to manage the anxiety and panic attacks.