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## **Appendix A: Patient-Reported Benefits from Surveys**

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 qualifying condition and by benefit score rating.

## Severe and Persistent Muscle Spasms

## 1: No Benefit

- no benefits
- none yet

2

- Did not help control my son's seizures but we at least never seen any negative side effects of the medication
- Don't recognize sublingual drops Helps relaxing
- Improved sleep
- physical movement
- The "Patient Discontinuation Survey" didn't have a place to comment when choosing "won't buy again", so I want to be sure someone got this. What I get from the medical market in other states works much better for pain relief and spasm reduction, in both flower and concentrate. I think it's because the critically important terpenes (more important than THC/CBD) are removed in the processing at [MANUFACTURER] and not added back, like they are in other places. Without better processing (more expensive) or giving patients access to flower (least expensive), MN's processing is removing nearly all of what makes cannabis a medicine terpenes.

3

- Less overall pain
- Mood may have been better slightly. Still not good, but better.
- More confidence in public
- Less tremors
- no nausea, It helped with spasms
- reduced pain and spasm
- Reduced tremors slightly

4

- upper spinal relief
- 1. Pain reduction
- 2. Sleep
- Being able to buy my medicine legally and not being considered a criminal from law enforcement for using a plant as medicine!

- Better sleep
- Better sleep some nights, some days I am able to be more active and I have a viable option for pain relieve.
- Calming my anxiety, sleeping a full night, waking feeling well rested
- Decrease in spasticity and pain.
- Has controlled arthritis and fibromyalgia.
- Helping relieve my muscle spasums
- I get more sleep.
- I am feeling better.
- It has reduced my muscle spasms, and is helping with nerve pain, and seems to have reduced the number of migraines I get.
- Less nausea
- Less symptoms
- Moderate relief from muscle spasms/cramps
- My spasticity has improved some with the medical cannabis, but I still experience at least three or four times a week, severe pain, cramping and spasticity in myhamstrings.
- nausea / pain / spasims
- nausea is slowing down.
- Nerve pain. I can actually ride in a car again without crying.
- pain relief
- Pain relief
- Reduction in pain.
- Relaxation which reduces nerve pain
- Relaxing of muscles in legs better walking distance, less pain, more active
- Remediation of muscle spasm symptoms
- Rest
- Sleep better.
- spasticity reduction
- Spouse and PT think I am less stiff

5

- one benefit of taking medical canabis for my condition symptoms is the effectiveness how it ease the pain of my spasticity.
- better appetite, less nausea less pain less anxiety
- Better sleep

Less anxioux

Very little need for vicodin

- Better sleep, less spasms, less spasticity
- cears
- decrease in auras, muscle spasms and pain.
- decreased muscle spasms and pain, decreased abdominal discomfort, better mood, less anxiety

- Eliminating muscle spasms, relaxed muscles, relief of pain, increased improvement of sleep
- Helps my sleep
- I can Manage my pain and muscle spasms to keep the pain at a tolerabelevel.
- I don't feel much pain, and not as severe as it always was before.
- I hope to greatly reduce the persistent pan in my lower extremities from my toes to mid thighs.
- I no longer get, AT ALL almost, or greatly reduced on the small occasion that Ido, migraines and/or small seizures. (And there are so many other benefits!!)
- I use it for sleep and at the beginning of the day always. It has been very helpful in me getting restful sleep and also helpful in having help with pain relief during the day without the awful side effects of opiods (excessive drowsiness and constipation)
- improved nausea improved anxiety spasms- only a little better
- Improved nausea, improved appetite, less pain, less spasms, relaxed spasms.
- Increased help with muscle spasms and inflammation in lower back. Also lower back chronic pain.
- Increased sleep time was between 2 3 hours a day, now 3 4 hours a day. Pain from knee nerve damage has been lowered to very manageable now.
- It has decreased my spasms, lessens some pain, and helps me sleep better.
- It has improved things a little, but because of the cost, not sure it's worth it.
- It has reduced my numbness and spasms
- knowing that it's legal and I don't have to worry about anything
- lack of chronic pain. Lack of twitches.
- Less aching in my joints and less all over body pain.
   It has also helped my anxiety.
- Less pain and discomfort.
- Less spasms
- limits my muscle spasms
- little less depressed.
- lowered my pain so I could be up more during day, helped with anxiety from having pain for so long as well
- muscle spasm pain was greatly reduced.
- Muscles relax a great deal so I am in less pain so I can sleep and move around easier.
- My most important benefit has been discovering that my severe pain can be modified with the use of medical cannabis.
- Pain management Appetite
- pain reduction
- pain relief
- Pain relief and relaxation.

- pain relief, muscle relaxer
- Relaxation of Muscle spasms...
- Relief of muscle spasms
- Relieves pressure.

Engages senses

Allows for easier sleep

- Restful and relaxed sleep.
- Sleep
- Slowed my spasms.
- The back spasms are better.
- Vape seemed to help the pain. Liquid not so much.

6

- The same dose each and every time consistent delivery
- A large reduction in symptoms, allowing me to participate in my daily life without a large number of limits my symptoms would place on me - stools decreased from over 8 a day to about 2 with much less blood and mucous in stools. Pain has reduced to a tolerable amount.
- Able to eat. In less pain. Don't need my depression meds any more.
- Almost immediate pain relief from vaping and help settling my leg spasms.
- An increase in appetite, and decrease of muscle spasms
- Appitite
- Calms the restless leg down quite a bit
- Decrease in severity of spasms

Decrease in duration of spasms

Notable decrease in pain

More so than other pain med and anti spasmodic meds

- decreased intensity of muscle spasms
- dramatic decline in seizures
- Elder of symptoms
- Fewer spasms and less pain when standing and less pain when walking
- First I have to say I replaced a decade of narcotics with only medical cannabis with no relapse. I had a failed back surgery and severe sciatic pain and back pain daily. I also suffer from a rare blood disorder called Acute Porphyria's. its nearly impossible to treat however i have found some relief in that as well with this medication. I found the products still to be weak compared to other staes. Also the selection is so very limited. Not to mention the price is three time higher then industrystandard.

I have had great improvements in pain, which has also allowed me to be much more active with my family. My muscle spasms although are still there I find most days the medication helps considerably, however my issues are serious and sometimes noting helps at times. I also suffer from severe anxiety attacks and have seen less of those as well. over all not only myself but my family sees positive change and I feel healthier, happier and feel currently this is making a huge positive impact on my life.

- Freedom from pain in the evenings and sleep
- Has allowed me to move forward in life
- Have slept better than I have in 14 years! Due to not worrying all night if I was going to have a seizure in the morning
- helps calm the spasms in my eye lids due to blepheraspasm
- Helps to lower stress, my muscle spasms have been pretty much nulled! My stomach issues having been like before, cramps have been minimized, just feel quite a bit better!
- Helps with anxiety (better mood). Back, did help some! The pain is still there, caused of disks and ceribre needs operated on the back. But I do like the vapor medical cannabis
- helps with leg spasms greatly.
- I am having less falling and in addition I have had a reduction in my OxyContinfrom three 40 MG tablets per day to three 20 MG tablets per day. That is half.
- I experience very little nausea when taking the medicine
- I have been able to cut out the pain pills and am down to one muscle relaxer per day. I
  am not as tired as much. I can't believe how much better I feel
- I have been able to delay needing shots for my blephrospasm
- I have been able to get a good nights rest using the [HIGH THC] pill. I have also gained clarity and energy from taking 1 [HIGH CBD PRODUCT] 2 times daily.
- I'm less in pain
  - I don't have spasm in my back and legs that much.
  - I'm less moody
- It calms the spasms and the vapor gives relief right away.
- It has decreased the pain level and increased stamina to exercise
- It has helped with my bladder issues and leg weakness greatly.
- It helps my spasms and helps me to "not pay attention" to the pain as much.
- It helps with pain the most then it helps with my muscle spasms and helps me sleep at night do to the burning of my legs
- legal access to medication
- Less pain and calmer
- Less pain, easier sleep
- less sharp back pain
- Less spasms and nausea.
- less stiffness in the muscles, joints, bones
- lessening spasms and muscle pain
- loosens muscles
- Medical cannabis is one of only a few treatments to help control symptoms of my neurological disorder
- Might save my life
- More comfortable and not as much guarding position of shoulders.
- more urinary control
- Muscle spasm/ pain reduction

- My spasm's are less frequent, pain I have in my back is tolerable, relaxes me.
- My stomach (core) feels more normal (calm) and my bowel movements are less often have more form - not as much liquid & gas.
- nausea control
- Nausea has improved Appetite
- no spasms at all
- Overall decrease in pain sensitivity
- Pain
- PAIN CONTROL
- pain managment
- Pain reducton More mobility
- Pain relief
- Pain relief is the biggest benefit. Also less cramping.
- pain relief anxiety relief
- Pain relief,
- Peace of mind.

Worry is like PTSD. I only make arrangements I can back out of in case I have a flare. Anticipation of a new flare is always on my mind. I don't know how long a flare is going to last or how bad it will be. In the middle of a flare, I didn't have any form of relief so I'd panic because of severity of symptoms and no treatment.

Now, I still have MS PTSD because I've had problems for so long, but I know I have >something< that will help the problem. Though a flare may last a while, I know I'll be able to break through the mental barrier of panic because I have a treatment that works. It's very comforting after years of only suffering.

- Reduced pain. Able to eat. And spasm are less
- reduces muscle spasms
- Reducing tone and spasticity
- reduction in pain and muscle spasms as well as at least a 50% reduction of monthly use of prescription pain medications.
- Reduction of pain due to muscle spasms and less side effects compared toother medications
- Relaxes my muscles
- Relief from painful spasticity
- relieve anxiety sleep better
- Relieve the pain of Charlie horses in my legs. Tremors from MS less noticeable.
- Relieves pain, helps me relax, helps me sleep. I fee more comfortable and have more energy.
- Rigidity is so much better!

- sleepimg
- Sleeping/spasms
- Spasm relief and that leads ultimately to pain management.
- spasms decreased sleep improved greatly pain relief less Xanax and opiates used
- Stopped my seizures, convulsions and shaking.
- The pain I feel in my lower half of my body cease to exist while taking medical marijuana. With that being said, it's difficult to take it during my work hours, because it makes me feel less attentive So, I'm between a rock and a hard place. NO pain or pain.
- The Spasms are less frequent as they were before.
- Using Medical Cannabis PRN for anxiety & irritability has replaced the need for PRN Ativan use completely.

## 7: Great Deal of Benefit

- Very few side effects, actually feel a lot better getting off the narcotics, Vicodin, methadone, and Valium. Did not have an appetite and did not want to leave the house before, I feel so much better it's like a miracle.....
- 1. Spasm and pain reduction.
  - 2. I have stopped all pain meds and off two spasm meds. This is amazing for me. I've been on the spasm meds for over 10 years, now, when I feel tightness or a spasm starting, I take a small amount of high CBD cannabis and the spasm does not develop. It's been a life saver for me.
- 1. Being able to take my medicine legally, avoiding problems being evicted for use of cannabis.
  - 2. Assistance with nausea
  - 3. Help with muscle spasms I have been able to work out in Physical therapy more intensely than before helping to reduce pain.
  - 4. Reduction of narcotic pain medication.
- 1. Helps control Back Pain and Muscle Spasms without narcotic fears.
  - 2. Relaxing and Sleep
  - 3. Appetite
- 1. large decrease in pain
  - 2. large decrease in back spasms
  - 3. my depression isn't as bad
  - 4. my panic-anxiety attacks have decreased and I am not anxious all the time
  - 5. my foot drop is 95% better
  - 6. I have been able to decease my pill medications by FIVE!
- Ability to relax with decreased pain
- Able to stop taking all pain meds and stay off. Helps all of my symptoms to be better.
   Unfortunately too expensive to buy what I need to stay off pain pills and have better

quality of life. Need plant form, then medicine will cost less and last longer. I do not like smoking, vaping oils into my body.

If mn law had followed other states and not been stupid about this law people could get certified properly with insurance, and have access to Affordable medical cannabis. Instead many, many people are not benefiting or using program because of all the hoops you have put into place.

In 2016 I should be able to google doctors that are certifying for medical cannabis and make sure they take my insurance. Instead I had to take almost a year to find a clinic that certifies and takes insurance.

The way it is now is better than nothing at all but the way it is now is like dangling a bone for your dog that he just can't ever get a full bite of.

- Access to a good consistent medication that helps multiple problems.
- After 29 years I no longer have migrane headaces everyday.
- Almost all muscle spasms and pain associated with spasms are gone. I used to have constant nerve triggered pain that is minimal now. Results were almost immediate. Iam sleeping way better now also.
- Although there is no proof that I directly benefited, i took a large dose of the oral suspension and was able to enjoy the holidays like a normal Peron for the first time in a long while. Pain hasn't returned as long as I continue to medicate with medicinal grade Cannabis.
- anti inflammatory
- Appetite stimulation
- Back seizures gone arthritis gone
- Being able to cope with my daily pain, and reducing the amount of other medications I am prescribed is very importa to me.
- being able to sleep without waking up in spasm
- Being able to treat my epilepsy with cannabis oil and not having to worry about breaking the law. I have been seizure free ever since I began using cannabis oil.
- Besides helping with my back issues, my general pain and soreness have been less, as well. Also, helps me just be in a better mood and think a little more clearly.
- Better quality of life, greatly reduced pain, greatly reduced spasms and exacerbations, less stiffness able to sleep through the night.
- Better sleep, appetite, pain reduction and scene of well being.
- Calming of my musles n joints from spasms
   Also helping with food intake
- calming of my spasms
- calmness
- calms my inner nerves & musle pain & bad spasms &hand tremors & sleep
- Cannabis has helped my crohns in nearly every way. There's no way I can choose just one benefit that's the most important to me. The highlights of my experience have

been; no more abdominal pain, a 15 weight gain(I was underweight beforehand) and a reduction in my inflammation.

Thanks to cannabis crohns no longer controls my life.

- Cannabis has helped with keeping the chrons calm. I made it through the holidays with no flare ups.
- Clearer head since I have been using this program instead of pain pills.
- comfort, pain relief, hope.
- Cured my nonstop UTI
- Decrease in muscle spasms and increase in appetite with a reduction in my discomfort and pain.
- Don't have to take as many pain pills
- Ease of pain and consequently tension and the ability to be more active.
- Even though I have increased in number of muscle spasms each day due to my MS, when I take my meds both the pain and the spasms subside for a number of hours. My physical therapy sessions are more beneficial as well because I can actually bend my legs easier.
- Far less muscle spasms. A little less pain associated with muscle spasms.
- fewer muscle spasms in my neck. less pain than before I started the program.
- freedom to be excepted and relieve from mussel spasams
- Functionality. I am able to withstand more hours with out pain and muscle spasms. They are still there, but greatly reduced.
- Geneal improvement in quality of life
- Getting off all my narcotic pain medications, no more muscle relaxers, or sleeping pills.
- getting off pain meds
- Going from disabled to working again.. Having my life back. Being able to leave my house again.
- got ripped off for 450 dollars at [MANUFACTURER], they lied to me before i made my purchase, the oil was not consistant - hardly effictive, bad consulting they should be shut down along with their grower. [MANUFACTURER] was ok, better quality, can't afford the prices i am poor and in pain.
- Greater mobility and less inflammation.
- Helped reduce swelling in my ankle a great deal, among other benefits
- helps reduce the pain associated with spasticity in melegs,
- Helps with my issues...
- I am able to sleep at night.
- I am in significantly less pain. I can function throughout the day so much better than I could before the cannabis program. It is like night and day.
  - I have less dizziness from vertigo with the cannabis
  - I have better mobility of my neck
- I am not on any narcotic pain meds anymore, and I am not having to reposition myself every 15 to 30 min, and am sleeping for longer periods at night.

- I am registered under the condition of Tourette's Syndrome. I used to experience a great deal of muscle spasms and tics. Since stating the program I have had many comments from friends and family saying that they have hardly noticed any tics in the previous few months.
- I could walk better.
- I feel less stress resulting in fewer muscle spasms. I can sleep sometimes at night without using the Ambien which I have needed for over 15yrs. It allows me to have a better perspective of any given situation because I am not feeling stressed out or as if I were a criminal. I have been able to discontinue my opioid pain medicine that I took for over four years after my accident. I can remain calm in many situations that used to upset me emotionally. I can enjoy my grandchildren and family so much more now that both physical and emotion health are improved with medical cannabis.
- I have a great deal of relief from my muscle spasms. I get the relief without the anxiety I experience from cannabis I get off the street. I believe the medications work better than the stuff on the street.
- I have been able to manage my chronic migraine headaches much better. I have been able to decrease my use of abortive medications.
- I have been able to reduce my Parkinson's meds by about 70%. I sleep much better. I am less depressed.
- I have less pain in my body & less migraines
- I have periods of the day where i experience little to no pain.
- I have stopped taking two narcotic pain and one skeletal muscle relaxer RX's. And the VERY painful spasms are much more tolerable.
- I take less or smaller doses of other prescription meds.
   I sleep better at night with less pain.
  - I move more freely
- I was quickly able to get off both Valium and Ambien Both were heavy duty drugs that I was dependent on, not because I wanted to take them, but had to. I was so glad to get off them and feel somewhat normal.
- I'm not kicking my wife while I'm asleep. The leg is still restless but not as bad as before. And I don't have as much pressure/dullness in the back of my neck/headarea.
- Increased muscle coordination
  - Increased attentiveness
  - Increased cognitive function
  - Increased mobility
  - Increased positive moods
  - Decreased spasm severity
  - Decreased seizures
- It controls my mind grains and headaches caused by my condition.
- It has allowed me to reduce the number of medications I take; both type and quantity.
- It has caused a marked decrease in my essential tremor, severe muscle spasms in my osteoporosis riden degenerative disc disease. Lower degree of pain and less in

frequency. I also have severe GI IBS and pancreatic issues, involving tumors that cause painful abdominal muscle spasms. The two pancreatic tumors are inoperable, and I need to have them scanned annually for any sign of malignancy . I also feel it helps a patients attitude and sense of hope. I know that's not a medical concern, but it's a great side effect, "Hope"!!! Thank You!!!

- It has cut down my back spasms at least 50% or more and since I've been on medical program for Minnesota I haven't fallen over once which team is a greatdeal
- It has evened out my muscle spasms and made things both possible amd more comfortable. It has slowed down the Dystonia storms.
- It has helped my sleep thru the night and a lot less spasms
- it has made my quality of life better to make it short and sweet
- It has reduced my muscle spasms by 90%. It helps me sleep at night. For example, it helps control my spasms so they don't wake up and I have less pain. The amazing thing it's also a nerve blocker like neurontin or gabapentin. Here's another amazing fact. It helps control my autonomic dysreflexia. Out of every benefit this has undoubtedly given me my quality of life back. At night, if you understand autonomic dysreflexia, my blood pressure would shoot up too 150 or 180 before bedtime. This is dangerous as my normal range is 80 or 90 over something. My muscle spasms at night shoot my blood pressure up. I felt like I was going to have a stroke and could have if they are not controlled. My head would pound like it was going to explode with a severe headache, my face becomes extremely hot and flushed, my hands and fingers become numb (weird side effect), my heart starts to pound against my chest as it has to work harder to pump blood. So heart rate goes down as blood pressure goes up. It's helped the inflammation of my joints because they ache less. There is not "one" benefit in my case but many. All of them are important to my quality of life. I finally feel like I have that back now!!!
- It has replaced all opioid medications and allows me to function and participate infamily and social activities again.
- it helps with my spasms to be less as well as not as painful
- It reduces the number of attacks and severity of the leg cramps at night.
- it relaxes my muscles in my body to help lower pain and allowing me to keep the narcotic medication down to the bare minimum. With out the program I would be unable to stay functioning because the narcotics make me tired and worn out andwant to do nothing. With the use of Medical Marijuana and keeping the Narcotics down allows me to keep my day to a functioning day no matter how slow I may be, but I am not worn out because I can use the vaporizers to help the muscles so much. That in return makes me feel that my life is somewhat productive instead of dormant.
- It works on too many levels. I can eat better and I usually get nausea and it works great for that. My arthritis is much better. I am still dealing with the side effects of radiation my cancer Dr. says. I guess with no stomach and most intestines gone I don't usually eat as well or feel good (healthy) enough to even get up and go to my office.

- I can afford to but have added the stock market to my ways to make additional money. I
   can puff and some days with in hours I may go to the office.
  - it works quickly to relieve muscle spasms,,helps control pain during physical work, controls pain to a certain extent,helps give you opportunity to quality of life.
  - [PATIENT]'s mobility has increased.
  - some pain relief
  - Less lower back pain, increased apatite.
  - Less muscle aches and better sleep.
  - Less muscle spasm's = body not being as fatigued allowing me to perform myphysical therapy better.
  - Less muscle spasms!!
  - less mussel spasms and pain
  - less nerv pain
  - Less pain and inflammation in legs and ankles. Didn't feel so wore out at the end of the day. Was able to relax and sit for long periods with less stiffness and joint pain. Overall I had less pain
  - Less Pain

Less sleep issues

More hunger'

Less mood swings

All around better feeling of life

- less petit mal seizures , better sleep at night and , reduced muscle spasms
- less seizures
- Less spasms helps me relax.
- Many fewer spasms. I went from several per hour every day to several per day. Much improvement! I also have less anxiety. My confidence has increased from feeling more relaxed.
- Much less pain, in my bowel and neurapathy pain. I can tell almost immediately if I forget to take the medication. Within one or two hours, the pain in the gut/bowel area is back. I never realized how terrible I have felt until after I started to feel better. I have had bowel pain as long as I can remember (pre-school) and I thought everyone felt like that. It is all I ever knew and it was getting worse each year.
- much less weakness/pain easier sleeping
  - not as many spasms in the morning
- Muscle spasms stopped completely. I was able to walk much better and sleep betterat night.
- Muscle spasms, burning, pain, level of thing's would be a couple less for sure, but depending on affordability, and the level of it like I was doing great making real strides, I lost like a lot of weight and my body sores from other medicine went away a lot on my skin by using the cannibas, and I just had a fall recently that just is not normal but happens, an set me way back again now so or my numbers are effected cuz that just

happened... Takes time especially nerve pain, when a feather hurt's a nerve just a touch, and scar tissue rapping on them hurt's alot as it did me again now among other thing's! But the medicine help's me in my ailment struggles.

- My horrible chronic spasms have greatly diminished.
- My insomnia is so much better,my muscle spasms have calmed down some,I have an appetite now,my muscle pain has lowered quite a bit to the point I can get somethings down around the house,I was walking with a cane but I am no longer at this point...I believe my balance over all is better at this moment in time.
- My muscle spasms are getting easier to cope with on a daily basis
- My muscle spasms have decreased and my nausea and general pain decreased
- My muscles were spasm all day long, what this medicine is doing is helping them to relax more, at first I was scared because the spasms were so tight around my bone, when it relaxed more the bone started to hurt and pulse ate. After that went I new what was happening. I keep at a steady pace and the muscles are reacting good to it. I am so grateful for this medicine, and can't believe I was on the opposite side of this medicine. It truly is like a miracle!!!!
- My severe spasms of my neck, spine, legs, feet, arms, and hands become very mild, and almost absent when medicated with Cannibis treatment!
- Nausea, pain in my back
- No crohns disease flare ups since starting treatment
- No longer need Botox to control spasms in thighs
- No more street weed
- no spazims and sleeping well
- Off topic from my qualifying condition, my root disease is Mast Cell Disease that stemmed from Childhood Leukemia. I have always had a low WBC, and now I am in the normal WBC range, with my WBC having DOUBLED!!! Since the start of using MC regularly from [MANUFACTURER]. I use the 50/50 THC-CBD ratio.
  - THIS IS A HUGE IMPACT and I am nothing that my Mast Cell Disease is becoming more c alm, which is leading to less pain, reactions, inflammation and muscle spasms.
- One of the benefits that I did get it from medical cannabis is the ability to get up and walk take a shower take a drive and have an ability to cope with extreme musclespasm and back pain daily and work with these problems and medical cannabis help me deal with all that not just a bunch of painkillers and other medications that I can't spell medical cannabis help me through my injury.
- Only usage of the oil helped! But it's much too expensive.
- Pain & Muscle Spasms
- Pain control
- pain control and relaxing of muscle spasms while allowing me to be coherent and continue to work.
- Pain goes away
- Pain is more manageable

Anxiety is way down (PTSD)

- pain relief
- Pain relief
- pain relief
- sleep completely through the night not as moody because im in pain
- pain relief and nausea relief
- Pain relief has been a major benefit as I am able to control pain from my backspasms very well with medical cannabis. Not having to take opiods is great!!
- Pain relief nausea relief
- Pain relief, increased mood/motivation, less time in bed, more time enjoying lifenot focused on pain
- Pain relief.
- pain spasms
- Reduced pain and anxiety
- Reduced pain from muscle spasms, reduced headaches.
- Reduced seizures and spasms feel more normal on cannabis.
- Reduction in spams
- reduction in spasms

reduction in pain

reduction in ""jibberish"" due to pain and spasms

better sleep

less anxiety

reduction of harmful pharmaceutical medications (side affects)

- reduction of interocular eye pressure; also reduction in muscle cramps and chronic pain
- Reduction of spasms
- Reduction or outright elimination of my intractable pain.
- Relaxation
- Relaxes me at the end of the day. Makes my pain go away.
- Relaxes me I don't have as many tremers and the pain is better than before.
- Relief from muscle spasms
- Relief from my symtoms
- Relief of muscle spasms with no side effects
- relief of severe pain
- RELIEF using an all natural method ... Cannabis is a holistic formula of balancing your condition and very-very little side effects compared to the Rx monopoly. If it works, keep in simple, keep it green. ¿¿¿
- Relieves muscle spasms
- Seizures are less intense
- Send starting medical cannabis my quality of life has increased dramatically. My my pain
  has subsided almost completely my energy level has taken a 360 turn for the better. I
  am a young woman and my late mid thirties and I would wake up every day feeling like I

was 90 years old. I would spend most my days in bed with no energy and the pain kept me from venturing out and enjoying my young children. Medical cannabis has also stimulated my appetite as well as help my anxiety and depression. I previously self medicating the street marijuana and even knowing the price difference and the cheaper I am able to get it from the streets I will never go back. I am also a cigarette smoker and the medical cannabis has reduced money smoking regular cigarettes in which in turn has increased my lung capacity and constant bronchitis feeling. My family and friends have seen a difference in me and the way I live my day-to-day life. Instead of denying the activities but I want to enjoy it I know have the ability to live my life the way I want to.

- Significantly decreased the pain/cramping in my lower legs and feet
- sleeep, calmness
- Sleep well. Reduces pain
- Sleeping has improved! Mental health has improved! Pain control is optimal
- spasm control
- spasm relief
- spasm/pain lessed, reduced
- SPASMS AND NECK PAIN
- Starting to be able to slowly cut out other medicatons, noticing that I'm feeling healthier from the cannabis cause that's all natural and I haven't had as many attacks and when a attak does one on ice noticed just a a couple of hits and the attack is undercontrol.
- the ability to control my pain management without the groggy feeling I get when I use pain medication.
- the ability to move around more with out having spasms and pain
- The ability to stop or juristically decrease my lower back spams at any point in the day.
- The cancer-fighting effects from the cannabis oil.
- The medical cannabis has given me much more flexibility and an increased range of motion in my movement..
- The most important benefit to me is that this program has got my life moving again!! I cannot believe the favorite things I can now do thanks to the Minnesota Medical Cannabis Program, also the new things I can try, and still stay comfortable. Because of this program, I am getting so much time away from my Facio Scapulo Humeral Muscular Dystrophy, used to take away from me!! I can do more to care for myself, my home, my dog, my husband. I can get out and about, I can eat better, there are just so many benefits from this program I do NOT want to give back!
- the pain relief and it helps sleep
- The pain relief is great and my spasms are less and less
- The reduced muscle spasms in my legs has made it possible to take more steps than I thought would be possible again.
- The relief from pain
   The feeling of well being

- the Vape oil allows me to go to work without vomiting. also the pills help with inflammation and pain
- This is typed by his spouse. [PATIENT] has a TBI (traumatic brain injury). He says that it has had a major beneficial effect on his quality of life. One of the unexpected side effects has been a clarity of thought. He use to get confused doing some small tasks and some how it helps him to think clearer. He has been exceedingly more motivated and accomplishing more.
- This treatment has significantly reduced the frequency and intensity of cervical muscle spasms and the associated severe headaches.
- To be able to do things that I haven't been able to do for years because of painand immobility.
- Vomiting control, tremor relief, ability to eat, went off antidepressants, can sleep.
- walking better
- We have seen a girl go from not interacting, to interacting. No appetite to appetite.
   Balance also seems better.
- When I use medication I can move. Without it I am in too much pain to move or engage with the world.
- Within 1 week of use, my tics disappeared and have stayed gone even with occasional use. This has never happened previously in my life, so it is very effective.
- Yes, It benefits me every day and my quality of life has greatly improved as a result, for the first time in my life i am neither under or over medicated.
- Reduced spasticity, reduced pain, improved
   Sleep, improved depression and anxiety.

#### Cancer

## 1: No Benefit

- Didn't like it and didn't use it
- None

## 2

- Increase appetite
- Some relaxation
- the first thing I discovered was the importance of taking time. second thing was taking things for granted!

#### 4

- Appetite
- dull pain, sleep
- eating more,
- Facilitated my sleep
- helped with the nausea
- helps with pain
- Helps with sleep. Helps with pain.

- I am feeling better.
- learning
- relaxation in the midst of pain, better appetite, some alleviation of pain.
- Relief from pain
- relief of stress pain relief
- This survey was sent to [PATIENT], who died on [DATE].

5

- better sleep, less pain and fatigue, not as anxious, continued to have aappetite.
- [PATIENT] is dead. But it kept his potential nausea very low and help with any potential pain.
- Evening pain is eased with Cannabis before bed.
- Helping w/ pain management, sleep, reducing nausea
- It helped with my nausea.
- Keeping my appetite up and removing nausea symptoms.
- Little benefit to my cancer pain but a surprising improvement of at least 75% in my chronic arthritis pain.
- loosened up
- One benefit was it helped with my nausea and vomiting but not as well as I would have hoped. I had to puff on the vape pen consistantly to relieve me of the nauseated feeling instead of the 1 to 2 puff recommended dose.
- Pain
- Pain and nausea control
- pain management
- Pain relief
- Seems to have helped the neuropathy symptoms and also gives me an all over sense of well being - also helps with the nausea symptoms after chemotreatments.
- Seems to slow down pain rolls and eye strain.
- Sleep aid

6

- ability to eat
- An increase in appetite, and decrease of muscle spasms
- appetite enhancement
- Appetite, more relaxed
- Appitite
- Decrease in pain and imflammation
- help with pain
- I'm comfortable and able to eat and sleep
- Improved appetite, somewhat less pain
- improved pain load mood and sleep
- It has helped manage pain and anxiety.

- leg cramps and nausea
- Less jabbing pain in feet from Neuropathy better sleep
- less narcotic pain medicine much better pain control fewer breakout pain incidences
- Less pain, calmer about the situation
- Less spasms and nausea.
- Might save my life
- My stomach (core) feels more normal (calm) and my bowel movements are less often have more form - not as much liquid & gas.
- nausea control
- Not feeling the pain in bones/muscles and good feelings for a terminalillness
- Pain control
- Pain Management
- pain reduction, better sleep, increased appetite
- pain relief and help with sleep
- Really helps with pain from cancer treatments as well as resulting anxiety from multiple surgeries and permanent scars, etc.
- Reduction of Nausea and pain, and increase in appetite.
- reduction of side effects or neg. effective of other forms of treatment I have been on.
- relieve anxiety
  - sleep better
- Sleep and being able to eat, and reduced nausea
- Spasm relief and that leads ultimately to pain management.
- Stomach cramps gone

Anxiety relief

Nausea relief

Sleep

## 7: Great Deal of Benefit

- Because of the THC, I feel like getting up and doing things. Prior to having the cannabis, I just laid on the couch. I felt like I was just waiting to die. 2. I do not use the percoset. I do not want to have to take pain pills. Period. To many people are getting addicted to these things. 3. I do not get the dry mouth or canker soars since I hardly use the anti nausea drugs.
- Ability to create appetite and relieve pain
- ABLE TO EAT AND MAINTAIN MY WEIGHT PLUS MY NAUSEA HAS DECREASE TREMENDOUSLY.
- able to eat food. helps keep nausea down.
- Appetite, was loosing weight fast! Didnt have one! Now got it back! And gained 20 pounds! From this.
- Appetite. During chemo weeks I can barely eat and the THC helps a lot.
- Being able to start weaning myself from opiates I've been on for ten years.

- controlling nausea
- Controlling nausea
- Coping with nausea, being able to eat and maintain weight
- [PATIENT] has passed away. I am her daughter and was her care giver. She was open to trying medical cannabis and we got the liquid form. It was a saving grace. She was in a lot of pain and when prescribed medications did NOT work - we started this and it kept her calm and relaxed. I am very thankful that we were able to have this option available. It helped to make her last months more bearable and truly it would have been miserable without it.
- Eating
- general overall feeling of well-being...pain relief
- Getting appetite back, and attitude adjustment.
- Greater mobility and less inflammation.
- Help with sleeping
- Helped ease pain. Calmness and appetite. Have no appetite on chemo without it
- helped with nausea
- I am able to sleep pain free for 7 to 8 hours a night
- I have not had issues with nausea at night and my PSA counts are goingdown.
- I used cannabis to treat my constant nausea during chemotherapy. This option seemed to be a very effective option after I was unable to take pills orally. Later on during treatment I used the medical cannabis to see for myself how it would treat the pain I was in. I wouldn't say medical cannabis a great painkiller, however the cannabis seemed to break my focus on the pain better than the oxycodone alone. I really feel that my quality of life was better using the cannabis.
- I was able to discontinue the use of multiple dangerous drugs.
- I was able to get off all my anti nausea medication which allowed me to Get off all the anti constipation medication. Prior to being in the cannabis program I had no appetite and had lost 35 lbs I have been able to put back on 15 lbs. My quality of life after chemotherapy treatments turned around substantial. An added bonus was the pain relief from a chronic back pain, it has helped significantly with my pain management.
- Improved quality of sleep.
- Increased appetite and motivation.
- Instead of sleeping all day [PATIENT] was social and wanting tobe with family and friends.
- It helps a lot with my pain level. Since I started this program I have not needed to increase my opioid medication to control my pain. I many times use the vaporizerin place of oxcycodone for breakthrough pain. When my anxiety is very hi I use the vaporizer. It has made a very positive difference in my quality of life at this point.
- less bowel urgency, less pain, less anxiety
- Makes me eat/ help me sleep relax pain is not as bad

- Medical cannabis has almost completely relieved my pain and naseau associated with my cancer and the effects of treating my cancer with chemo (I have chemo everythree weeks for the rest of my life due to metastatic colon cancer).
- Mitigation of nausea and sleeping assistance.
- My inflammation from chemo and radiation completely went away! My pain and suffering has really decreased because of this oil it is a miracle!!!
- my nausea after chemo is gone in less than a minute after one inhalation from my vaporizer
- nasua control makes me hungry wit my condition helps with the lulls in life
- Nausea and Pain
- Pain and sleeping
- Pain control while still allowing me to live. I can not handle opiates.
- Pain control

**Appetite** 

Anxiety reduction

■ Pain reduced: 70% - 80%,

Better sleep

- pain relief
- Pain relief
- Pain relief
- Pain relief

Sleep

Nausea

- reduced vomiting.
- Reduction in pain, muscle tension, and anxiety. Sleep has also improved.
- Relaxing, peaceful sleep and wake up relaxed... less anxiety..
- relief from Nausia, gave me appetite
- Relief of breakthrough pain
- Relief of nausea

increased appetite

relief of anxiety

better sleep

Relief of pain

Ability to Sleep

Restoration of Appetite

Gaining of strength

Increased Mobility

Restoration of concentration

- Relief of the nausea that I have all day with the chemo drug I amon.
- Relieves anxiety and nausea
- Relieves anxiety, depression and pain and is a natural solution as opposed to a man made pill.

- since I've started using the oil my brain cancer has maintained its size, it isn't getting any bigger and it isn't getting any smaller.
- Sleep aid. Anxiety decrease.
- The cancer-fighting effects from the cannabis oil.
- the cannabis takes away the upset stomach feeling instantly. it also is a great sleepaid. it helps me with my apatite and takes away the pain. and i don't have to worry about addiction.
- With my cancer diagnoses and treatment, I've found relief while taking the cannabis!!! I get relief from pain, relief from nausea, relief from insomnia.
- Without the medical cannabis I am not able to eat at all. With the cannabis I have been able to maintain a healthy weight and get the nutrition I need during my treaatment.
- I died

#### Seizures

## 1: No Benefit

- At first thought seemed to be more aware but not we are offit he is still more aware
- None lives in a group home and group home can not store or administer or risklose fed. funding
- Nothing really
- Other health issues occurred and I stopped the cannabis before the dose was at a high enough level to do anything. So we are not a fair representation of effectiveness of cannabis for seizure control

2

- "possible" slight decrease in seizure activity
- Being able to legally get marijuana in MN.
- I believe it has reduced seizures. It's difficult to fully know without my epilepsy dr.not involved.

I've tried approximately 13 different seizure medications over the past decade, non of which has helped a great deal.

I'm trying to follow the process that the Dr. used for other medication.

Take a small amount look for side effects and or change to the seizures.

If side effects try to lower the amount.

If no side effects try to find an amount that works.

I'm trying to do this on my own but a Dr. is needed.

It's not clear if it's working or not, so keep that in mind when looking at my answers to the questions.

- I was experiencing relief from stress and anxiety the first two months but I am no longer
- more present cognitively
  - -Also, being able to try it and stop wondering if it was going to help.
- slight seizure reduction, but too many side effects

Speech Development

3

- Decrease the amount of seizures and seizure meds
- fewer seizures
- knowing we have had the option to try medical cannabis when other treatments have failed
- [PATIENT] was having clonic seizures. All muscle tone would leave body and shewould drop. She no longer has those seizures
- More aware of my surroundings; thinking more clearly.
- Reduction of seizures

4

- A slight decrease in seizures, though still not enough control. Also, improved cognitive skills.
- Breathing thru seizures more?
- comfort, has a tethered spine seems to feel less irritability.
- Congitive thinking. More alert.
- Helps with diaphragmatic flutters
- I have less seizures
- It may have lessened seizure activity.
- Less muscle twitching and sleeping better..
- less seizure activity
- lessening of pain
- Limiting seizures
- Local
- My daughter is the patient and I have seen more cognitive improvements on CBDoil.
- seeing [PATIENT]'s seizures reduce overall.
- seizure reduction
- Seizures respond quicker to emergency med
- Thinks clearer talks more

5

- Anxeity/Depression
- Calmed my muscles and seemed to help my seizure
   Also helped me sleep all night, not waking up 5-6 times a night
- cears
- Controlling his seizures as well as I'm probing cognitive functioning!
- decrease in auras, muscle spasms and pain.
- decrease in seizures
- decreased seizures

- Developmental Growth: Using hands more, fine and gross motor skillimprovement within the first couple weeks! More verbal, smiles more, babbles and talks more, reaches for toys more, overall has enhanced his quality of life in a very short time.
- Fewer seizures, more cognitively aware/focused/alert, improved sleep
- He seems so much happier since we've switched to the [HIGH CBD PRODUCT].
- I know for a fact that this med is helping me
- Less aching in my joints and less all over body pain.
   It has also helped my anxiety.
- Less Seizures (Four patient reports)
- less seizures, more mental clarity, overall improved wellness
- limits my muscle spasms
- Medical cannabis has been amazing for my son. No harmful side effects or lifelong medical problems form taking it. Such as Risperdal, ect. I would however remove the MCT from all cannabis products. It is not a good thing for people with stomach or neurological issues. Which is usually why a person would need this or desire relieffrom dealing with these issues. MCT is for people with none of those problems.
- Mood
- More alert or aware
- My daughter went for the full month of September with NO seizures when she first started on cannabis. October and November were not so good. This past month we tried a different formula to see if we can get better control. Still more adjustments are needed.
- Pain and seizure relief. Finally off oxycodone after 1.5 years
- reduction in seizures with no side effects and no mood problems
- reduction of seizures
- Reduction of seizures.
- [PATIENT]'s spasms and twitching have significantly decreased
- Seizures are more under control even when other med levels are low.
- The first 2 days, very sleepy. After that the first week, her small seizures were gone, the second week her mobility increased and her verbal language increased. 3rd week, she got her cycle, so everything went out the window with that. 4th week she got a cold. We had dosage changes but did not see the 2 week awesome things again.
- [PATIENT] more alert and vocal than ever before

6

- Better cognition and less seizures
- Decrease in seizures overall, especially tonic-clonic seizures, & few rescue meds.
- Decreased seizure activity
- dramatic decline in seizures
- Feel better. More energy.
- Fewer seizures
- fewer startle seizures

- Have slept better than I have in 14 years! Due to not worrying all night if Iwas going to have a seizure in the morning
- Helps eliminate or reduce certain side effects from the other epileptic medication.
- [PATIENT] began babbling and made new sounds! His synapses seemed to be firing faster.
- Increased alertness, increased development, less seizures,
- Large decrease seizures. Caregivers have not had to rescue him since beginning medication.
- Less convulsions, dizziness, auras, confusion during everyday moments which are signs
  of possibly losing consciousness, or are very problematic to function at work.
- Less seizures
- less seizures,
- managing pain
- Marked reduction in frequency of seizures, their duration and severity
- My postictal state after a seizure went from 4-5 days down to 1-2 days.
- Reduced seizures (Two patient reports)
- Reduction of number of intractable seizures plus reduction of length of seizures and a quicker recovery time from seizures.
- Reduction of seizures quality and quantity
- responsiveness. core strength.
- Sara is much more alert and cognitively connected in her conversation.
   Less severe siezures
- Seizure control
- Seizure reduction was the main goal, and we have seen seizure reduction. In addition,
   [PATIENT] has a better quality of life. We are taking him off all other pharmaceuticals.
   He is eating better, sleeping better and is a happier child.
- Seizures are weaker and less
- seizures have decreased
- Seizures have decreased in amount and intensity.
- seizures have reduced in frequency and there are no negative side-effects to the medication
- Stopped my seizures, convulsions and shaking.
- The seizures are stopping and the dizzyness is going away. [PATIENT] is more controllable and is able to control himself better as well. He's still autistic ©

## 7: Great Deal of Benefit

- 75% reduction in seizures
- 95% reduction in uncontrolled seizures
- 98% seizure reduction, elimination of persistent headaches, and we were able to wean 75% of child's benzodiazepines, meaning that her Quality of Life has significantly improved, as have all of her abilities.

- Being able to treat my epilepsy with cannabis oil and not having to worry about breaking the law. I have been seizure free ever since I began using cannabis oil.
- Better cognition

Better focus

Less anxiety

Better mood

- Better sleeping, less muscle cramping, less periods of seizure-like activity.
- Control of seizures, FINALLY!!!:) = Quality of life for my little boy!!!
- Decreased # of seizures.
- [PATIENT] is still on anti seizue meds, but he has not had any seizures from forgetting to take them (Keppra) on several occaisions...normally he would have.
- [PATIENT] has been seizure free since Sept 21, 2015!!!
- Epilepsy, helping me stay seizure free, and also helps anxiety, calm down
- Fewer Seizures Better Calmer Communicating Ability
- Grand mal seizure free
  - Sleep duration has dramatically increased

Better quality of life (only one side effect compared to the horrendous side effects from the pharmaceutical medications he was on)

- Having no more seizures is the biggest reason.
- his ability to come off some of his other meds and be more "present", calm, and content
- I am in significantly less pain. I can function throughout the day so much better than I could before the cannabis program. It is like night and day.
  - I have less dizziness from vertigo with the cannabis
  - I have better mobility of my neck
- I am not having any seizures at all
- I feel more alive, less depressed, outgoing, functional, pain relief from my headaches and eye twitches, also just overall life has improved since this has come available tome.
- I started out on a normal dose of antiseizure meds and was still experiencing seizures that lasted over 3 minutes in duration. I then increased my antiseizure meds to the maximum recommended dose however I still was having seizures lasting over 3 minutes. I had my last seizure 4 days after starting the cbd cannabis medicine. It lasted less than 1 minute. I can happily say that I am over 4 months seizure free.
- Increased focus, ability to calm self more easily, able to be present in the moment, engaging more with others, better sleep, increased verbalization. (averaging 5-10 words each day, prior to CBD oil >3) better digestion
- Increased muscle coordination

Increased attentiveness

Increased cognitive function

Increased mobility

Increased positive moods

Decreased spasm severity

#### Decreased seizures

- It has greatly helped with the seizures and quality of life has improved very much. The quality of life has improved so much that much more is possible that was not before, such as community outings without extreme behavior outbursts.
- Ive only had a seizure when I increased the cannabis and that's normal. otherwise, I
  haven't had any seizures randomly in my sleep or out running since ive started the
  cannabis
- Less frequency of seizures. 20/day to 2-5/day
- less head acks less anxiety
- less petit mal seizures , better sleep at night and , reduced muscle spasms
- less seizures
- less seizures
- More alert. Less myoclonic seizures.
- More seizure control and more energy
- My daughter has had an over 95% reduction in seizures and gotten off many harmful medicines since starting the Medical Cannabis program.
- No grand mal seizures
- No seizures since beginning treatment. Sleep is continuous and more restful.
- No seizures since I started taking the [HIGH CBD] Medical Marijuana formula!!!! It's amazing!!! :-)
- One month without seizures!!!
- Only usage of the oil helped! But it's much too expensive.
- Pain reduction and now able to sleep 6-7 hours per night vs 2 before using medicinal marijuna.
- Pain relief has been a major benefit as I am able to control pain from my backspasms very well with medical cannabis. Not having to take opiods is great!!
- Quality of life
- QUALITY OF LIFE & WAY LESS SEIZURES!!!!! 90% LESS!!!!!!!!!!!!
- Reduced seizure activity & sense of "neurological calm" on good days; also mental clarity and sharpness
- Reduced seizure frequency, anxiety reduced, less partial seizures, mood booster
- reduction in seizure frequency for my son
- reduction in seizures
- reduction of seizures
- Seizure control. [PATIENT] (4 yr. old) was having 5-10 seizures a week before Medical Cannabis. She is down to a 7 week period seizure free- and if she has one it is every couple of weeks and very small.
- Seizure controll is my greatest benifit but it also helps with the migrains from lits of broken skull.
- seizure free
- Seizures and anxiety, depression, and better sleep better

- Seizures anxiety depression bi-polar
- Seizures are less intense
- -Stopped shaking hands (side effect from epilepsy meds).
  - -FEWER SEIZURES. \*\*\*If this was more affordable I am very confident they would stop all together because I would be able to use more.
  - -Helps w/nausea (side effect from epilepsy meds).
  - -Reduces an
- the ability to control my pain management without the groggy feeling I get when I use pain medication.
- The decrease in the number of daily seizures
- The treatment stops my seizure for being so frequent it helps my eating and gives me great relief thank you for finding something that really helps me thank you all for supporting other epileptic patients
- This is typed by his spouse. [PATIENT] has a TBI (traumatic brain injury). He says that it has had a major beneficial effect on his quality of life. One of the unexpected side effects has been a clarity of thought. He use to get confused doing some small tasks and some how it helps him to think clearer. He has been exceedingly more motivated and accomplishing more.
- We have seen a great deal of improvement on our daughters ability to focus and attend to tasks. if this improvement is due to a reduction in subclinical seizures or other factors is yet to be seen. We will have a follow up EEG in a few months to see if we are getting subclinical seizure control.
- We haven't noticed any new seizures.
- [PATIENT] is no longer on cannabis sorry

#### Crohn's Disease

3

It helps me with sleep

1

- Helping calm my intestines.
- rest and more solid stools
- slightly improved mood, moderate pain relief

5

- 1.Decrease in Anxiety
  - 2. Increase in Appetite
  - 3. Decrease in Pain
  - 4. Decrease in Nausea
- A recent blood test showed C Reactive Protein at 2.2, in Nov 2015 it was greaterthen
   20. Also helps with anxiety.
- less bowel pain and bowel movement pain

- Medical cannabis has allowed me to sleep well at night. I was up 3-4x/night- now I sleep through the night. This allows me to feel significantly better during the day. less fatigue and less arthritic pain and so I've been able to significantly cut back on opiate pain meds.
- Pain Management
- Pain relief.
- Sleeping better, allowing for more energy. Lower anxiety.
- The cannabis has allow me to maintain my weight more effectively. Pain relief from cramping would also be a benefit.

6

- A large reduction in symptoms, allowing me to participate in my daily life without a large number of limits my symptoms would place on me - stools decreased from over 8 a day to about 2 with much less blood and mucous in stools. Pain has reduced to a tolerable amount.
- Being able to sleep.
- Decrease in pain, reduced symptoms, completely able to avoid having to use narcotics for pain relief
- decreased anxiety, decreased pain
- Helps to lower stress, my muscle spasms have been pretty much nulled! My stomach issues having been like before, cramps have been minimized, just feel quite a bit better!
- I have gained an amount of weight that I have not been able to in the past. I have been very pleased with this result.
- Increased stool firmness
- My stomach (core) feels more normal (calm) and my bowel movements are less often have more form - not as much liquid & gas.
- nausea control
- Pain relief in low back
- Pain relief is the biggest benefit. Also less cramping.
- pain/appetite management
- Reduction in the use of pain medications

## 7: Great Deal of Benefit

- abdominal pain relief
- Better Health
- Can digest better so im not scared to eat goving me more energy allowing me to accomplish more in a day sleep better at night joint pain relief cramping relief clears up mental foggieness less agitation eases anxiety
- Cannabis has helped with keeping the chrons calm. I made it through the holidays with no flare ups.
- Helped reduce swelling in my ankle a great deal, among other benefits

- Helps in overall feeling much better, reduces abdominal cramping tremendously, helps w/ nausea. I also use the medication after my Remicade treatments as usually after those treatments I don't feel well. I use the cannabis and it's almost instant relief. The medical cannabis over all makes me feel much better than when not using the medication.
- I am in significantly less pain. I can function throughout the day so much better than I could before the cannabis program. It is like night and day.
  - I have less dizziness from vertigo with the cannabis
  - I have better mobility of my neck
- I have gone from having diarrhea daily, to having it once a month. That's a huge quality of life improvement for me.
- It stops vomiting almost as quickly as IV drugs for nausea
- Just a general improvement of quality of life with the symptoms of my Crohn's disease. I
  have extremely benefited from cannabis.
- Less nausea
- Lessens the amount of stools per day. Increases my appetite so that I can maintain my weight. Allows me to digest my food slower increasing the amount of nutrition absorbed.
- My overall inflammation has dropped significantly thanks to medical cannabis. this has resulted in me having to drop my daily amount of background (Lantus) insulin throughout the day by 10 units. with my diabetes, I am less insulin resistant and probably use 15 units less per day on top of the 10 units less per day from my Lantus. I also have been sleeping much better and am have been able to completely remove opiates from my life which is a huge accomplishment for me.
- No crohns disease flare ups since starting treatment
- Not having to live with daily pain since starting treatment!!!!!:-)
- pain killers have been eliminated from my routine because pain has been reduced
- Pain relief
- Pain relief
- reduced diarrhea reduced stomach pain, gas and bloating
- Re-established my ability to partake in physical activity.
- Relief from pain and nausea. Help with sleeping.
- Suppression of most of my Crohn's symptoms with very few side effects
- That the pain was pretty much non-existent.
- The medicine has helped me not feel as sick all the time.
- the Vape oil allows me to go to work without vomiting. also the pills help with inflammation and pain
- When I was on it the quality of life it gave me back

#### Terminal Illness

4

helps with pain

- Helps with sleep. Helps with pain.
- Nausea and vomiting

5

- [PATIENT] is dead. But it kept his potential nausea very low and help with any potential pain.
- Pain relief, distraction from pain

6

- I'm comfortable and able to eat and sleep
- it really helpful with my anxiety and rib pain
- Might save my life
- Reduction of Nausea and pain, and increase in appetite.
- Seizures have dissipated
   Somewhat calmer behavior

## 7: Great Deal of Benefit

- Ability to create appetite and relieve pain
- Anti nausea, it's a miracle worker for nausea.
- Coping with nausea, being able to eat and maintain weight
- [PATIENT] has passed away. I am her daughter and was her care giver. She was open to trying medical cannabis and we got the liquid form. It was a saving grace. She was in a lot of pain and when prescribed medications did NOT work we started this and it kept her calm and relaxed. I am very thankful that we were able to have this option available. It helped to make her last months more bearable and truly it would have been miserable without it.
- Eating
- general overall feeling of well-being...pain relief
- Getting appetite back, and attitude adjustment.
- Helps a lot with pain and relaxing from stress also helps a lot with upset stomach.
- Improved quality of sleep.
- It helps a lot with my pain level. Since I started this program I have not needed to increase my opioid medication to control my pain. I many times use the vaporizer in place of oxcycodone for breakthrough pain. When my anxiety is very hi I use the vaporizer. It has made a very positive difference in my quality of life at this point.
- my nausea after chemo is gone in less than a minute after one inhalation from my vaporizer
- No nausea from Chemotherapy. Much more energy and appetite along with a more positive outlook on life.
- Pain relief
- reduced vomiting.
- Relaxing, peaceful sleep and wake up relaxed... less anxiety..
- Relief from nausea

- since I've started using the oil my brain cancer has maintained its size, it isn't getting any bigger and it isn't getting any smaller.
- the relief of pain.
- We have seen a girl go from not interacting, to interacting. No appetite to appetite.
   Balance also seems better.

#### HIV/AIDS

3

- Eating
- That the medicine does increase the ability to tolerate my intense pain, or at leasttakes some of the edge off.

4

Takes the edge off of the worst pain, not quite as sharp on mostdays.

6

- It has significantly helped reduced the physical pain related to my chronic pain, fibromyalgia, and systemic exertion intolerance disease. It has helped make my days more bearable and easy.
- Less pain, better sleep and I experience less anxiety.
- Pain management

## 7: Great Deal of Benefit

- Relief that my other pain medication does not remedy.
- A significant reduction in after-medication nausea. There has also been relief of neuropathic pain in my extremities.
- able to sleep at night. I have been living with Neuropathy pain since 1990
- Appetite, was loosing weight fast! Didnt have one! Now got it back! And gained 20 pounds! From this.
- calmness
- Cannabis has been a helpful tool in finding relief from pain and fatigue; so that I'mable to exercise and do yoga. I'm able to eat and I have gained back healthy weight. I have found cannabis to be beneficial in relieving anxiety and depression, also. Although, I think there are medicinal qualities in the whole flower that are missed in the current extractions available.
- Finally putting on weight again due to underlying health reasons that he has trying to overcome for 20+ years, finally gaining fat mass back, started as a skeptic, no effect from leaf form tries
- Help with nausea
- Immediate relief of nausea and the ability to sleep at night.
- Reduction in spams
- relaxed no anxiety stomach better neuopothybetter
- stress/mental stability, medication toxicity dampning (less effect on stomach), better quality sleep, longer sleeping time, pain decreased, food consumption increase.

 The constant pain in my feet is really diminished and only have occasional time that I feel like I am having hot nails slammed into them

## Tourette Syndrome

4

- calmer in general tics have reduced some doesn't get upset as easily by noise more regular BM's gained some weight - more hungry
- The normalization of cannabis, cannabis's new legal status and increased social acceptance.

5

 The cannabis has calmed both physical and verbal tics. It has not completely suppressed the tics.

6

- elimination of tic behaviors
- [PATIENT] has experienced decreased anxiety and rigidity related to his autism. He is better able to focus and pay attention. His mood is more positive and he is more flexible.
- My tourettes has calmed down.
- Quiets the tourette symptoms.
- Reduced ticks, better cognition, calmer in public places, Reduced stress over all.

## 7: Great Deal of Benefit

- [PATIENT] has greatly reduced tics and anxiety which has improved every aspect of his life.
- less ticks, no depression, focus at work
- No longer injuring herself. Such as banging head and kicking walls and etc. Does not seem to be uncomfortable.
- Reduced motor and vocal tics tremendously. I am off 6 medications including vmorphine.
- The removal of my disability, Tourette Syndrome. And it's almost all gone, when medicated.
- Within 1 week of use, my tics disappeared and have stayed gone even with occasional use. This has never happened previously in my life, so it is very effective.

## Glaucoma

6

 Less eye pressure headaches Increased appetite
 Less anxiety

## 7: Great Deal of Benefit

- reduction of interocular eye pressure; also reduction in muscle cramps and chronic pain
- spasm relief
- Reduced eye pressure especially during pressure attacks and quick climbs, pain relief and addresses the migraines associated with my glaucoma (brain injury related)....I also remain seizure free
- Better quality of life, greatly reduced pain, greatly reduced spasms and exacerbations, less stiffness able to sleep through the night.
- Pain and encumbered vision from Iritis Uvitis completely eliminated Have been able to discontinue use of Pred Forte steroids which had terrible side effects but was prior to medical cannabis the thing drug available for managing the pain and inflammation and white cell production associted with my disease.
- The reduction of symptoms of my glaucoma. Less frequent eye pain attributed from lower IOP.
- verification that cannabis can treat my qualifing conditions.

## ALS

4

It helps alleviate my stress.

5

help with sleep, anxiety and regularity

6

- helps calm mind/nerves, this lowers stress which caused muscle twitching
- Less pain
- Spasticity relief

## 7: Great Deal of Benefit

- anxiety is greatly reduced
- I can sleep at night, all night long.
- Pain control (back pain) and no leg cramps
- The relief from pain
   The feeling of well being

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## Appendix B: Healthcare Practitioner-Reported Benefits from Surveys

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 qualifying condition and by benefit score rating.

## Severe and Persistent Muscle Spasms

2

- Muscle spasm relief
- pain relief

3

- Decreased nighttime muscle spasm and better sleep.
- Less spasms
- Less spasms
- muscle spasm relief, anti nausea and improved appetite.
- Patient tells me no real change in spasms (MS) but he thinks his emotional state is somewhat better
- SPASM REDUCTION

4

- "Relief of pain"
- Better sleep
- fewer large seizures
- Generalized increase in the feeling of well being, with less overall spasms
- Improvements in muscle spasm relief which have also improved anxiety and sleep.
- pain
- Patient is on the fence with the benefits of Medical cannabis. She appreciates the pain relief which allows her to sleep better
- SPASM REDUCTION

5

- Avoid frequent ER visits
- decrease pain in legs related to MS spasitity
- Decresed pain and muscle spasticity
- Her sense of muscle tightness or discomfort, and associated restorative sleep, have improved significantly.
- Improved quality of life
- improvement in spasticity and gait

- Less cramps and spasms
- less spasticity
- Much more calm, decreased spasticity and tone.
- pain associated with muscle spasticity
- reduced spasticity
- Reduces spasticity so I can now sleep better than before.
- Reduction in pain intensity
- relief of spasticity

6

- Calmer disposition .
- Decrease in paralytic spasms in lower extremities from spinal cord injury. It is a way for HIM to control pain.
- decreased muscle spasms
- Decreased painful muscle spasms associated with ALS.
- decreased rigidity and muscle spasms
- less episodes of seizures
- lesspain
- Much improved muscle spasticity without sedation and constipation
- Muscle spasm relief
- No spasms and pain all night.

Also she is able to sleep all night without waking up.

- Overall increase in the quality of my life.
- pain and anxiety relief
- pain relief
- reduced muscle spasms and pain
- Reducing polypharmacy (has come off benzo, narcotic analgesic, and antidepressant since starting medical cannabis) and thus reducing adverse effects related to the same.
- relief of spasticity

### 7: Great Deal of Benefit

- "wonderful pain reduction"
- Availability of cannabis, relieving anxiety
- Decreased tics
- Decreased muscle spasms
- decreased pain
- diminished muscle spasms
- For the first time in my life I am properly Medicated.
- Has improved my well being and overall symptoms my health, mental and spirituality.
- improved spasticity and improved pain from the spasticity
- It has allowed me to taper off some of my opiate pain medications.
- less lower extremity muscle spasms

- Less muscle spasms
- muscle spasms
- pain
- pain and anxiety
- pain and anxiety
- Pain control and improvement in the quality of life.
- pain relief
- Pain relief
- Pain relieving of muscle spasms
- Reduced muscle spasms
- Reduced muscle spasms, cramps, and muscle pain. Sleeping better.
- reducing the amount of opiate pain medication needed to control pain and muscle spasms.
- Reduction of neuropathic pain
- Relief from chronic pain
- significant reduction in spasticity and improvement in pain from spasticity
- Sound sleep with reduction in muscle cramps and pain.
- the constant vomiting
- The patient reports that he feels more relaxed with this medication

### Cancer

### 0: Not Enough Information to Report

pain relief

### 1: No Benefit

Currently not taking, tried it and didn't seem to help pain.

2

 He continued to smoke marijuana instead as he found that more helpful for his symptoms - he has a past heavy marijuana smoker

3

- helps with pain and sleeping through night
- pain control

4

- Help with chemotherapy induced nausea
- Pain relief

- Help with nausea
- it appears to be helping her nausea
- nausea and appetite are better, he is less anxious
- nausea, appetite

- Pain control
- Reducing nausea and improving appetite during chemotherapy
- Relief of nausea and pain.
- Sense of control over her symptom treatment. It was difficult to get a subjective report from patient on symptom relief with cannabis.

6

- decrease in nausea
- Decreased nausea from chemotherapy
- Improvement in anorexia
- pain relief
- Patient has noticed improved pain in her extremities with the cannabis, but is using this mainly at night because of the side effect of drowsiness
- relief of nausea

### 7: Great Deal of Benefit

- Anti nausea
- Antiemetic effect.
- decreased nausea from chemotherapy (reduced pain is close)
- improvement in anorexia and nausea
- pain mgmt
- Reduction of neuropathic pain

### Seizures

### No Score

- Parents report seizure improvement
- Patient was not able to receive CBD because he is in federally financed group home.
   Father returned med to [MANUFACTURER].

### 1: No Benefit

- epilepsy control
- She was on it for her epilepsy and did not experience a benefit so I believe she stopped medical cannabis.

2

- maybe minor decrease in seizure
- seizure redution
- Subjective improvement

- epilepsy control
- Seizure reduction
- SPASM REDUCTION

 Walking better, initially many fewer seizures (this effect was not sustained beyond 3 weeks despite changing dose)

4

- decreased seizures
- fewer large seizures
- improved appetite- No improvement in seziures
- improved comfort, decreased seizures
- Pain relief

5

- reduced seizures
- reduced seizures per family report
- Reduction in pain intensity

6

- 40% reduction in seizures, less need for emergency rescue meds
- Decrease in seizure frequency; this in turn leads to more alert, directable, interactive
- improvement in pain.
- less episodes of seizures
- Reduced frequency and duration of seizures
- reduced number and severity of seizures

### 7: Great Deal of Benefit

- IMPROVED SZ CONTROL
- Less seizures less irritable
- lessened seizures, improved alertness and quality of life
- Reduced muscle spasms
- Reduction in seizure frequency with reduced personal injury and behavioral issues.
- the constant vomiting

### Crohn's Disease

2

pain relief

4

Better sleep

5

Decreased frequency of loose stools, cramps.

- goal was to reduce pain, improve quality of life
- pt reported reduced anxiety/stress related to unpredictable sxs from Crohn's
- Relieves pain

Substantial relief of abdominal pain

### 7: Great Deal of Benefit

- Decreased frequency of stooling with firmer stools.
- more consist function
- pain control

### Terminal Illness

5

- increased appetite
- nausea, appetite
- pain

6

- Improvement in anorexia
- relief of nausea
- The patient has been able to decrease his opiate pain medications significantly.

### 7: Great Deal of Benefit

- improvement in anorexia and nausea
- Reduced pain and improved muscle function.

### **HIV/AIDS**

5

pain control

6

- increased appetite
- reduced nausea
- reduced nausea and reduced anxiety
- reduced pain

### 7: Great Deal of Benefit

- His weight gain.
- Improved quality of life
   Decreased ER/clinic visits- cost saving

### Tourette Syndrome

6

- decrease in his involuntary tics
- less tics

### 7: Great Deal of Benefit

 The medication has relieved the serious motor tic, and has made it possible for him to taper off opiates and several other medications

### Glaucoma

3

Lower pressure

5

 Her sense of muscle tightness or discomfort, and associated restorative sleep, have improved significantly.

### ALS

5

Less pain, better sleep.

- Decreased pain, improved sleep, less anxiety associated with respiratory difficulty
- Decreased painful muscle spasms associated with ALS

## Appendix C: Healthcare Practitioner-Reported Clinical Observations from Surveys

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. Comments are broken down by the patient's qualifying condition.

### Severe and Persistent Muscle Spasms

- 10% REDUCTION noted
- Certainly there is an opioid sparing effect with the initiation of medical cannabis
- decrease in pain meds
- Decrease in Side effects d/t decrease in clients medication regimen w/ medical cannabis.
- Happy and well rested. Better functionality and decreased tenderness to palpation.
- He has been limited by financial consideration as to purchasing products
- He has reduced the Valium (Benzo) use as a result of the cannabis
- He was able to wean off of Lorazepam, Norco, and Cymbalta, all of which he was using due to conditions or symptoms related to his qualifying diagnosis (MS), after starting medical cannabis.
- I am no longer taking my celebrix, muscle relaxers, valium and narcotics.
- I cannot comment as this patient has not followed up with me as instructed.
- I have been able to decrease his opioids which he was on to treat muscle spasms
- I have been able tor reduce the dosing in his antspasmodic agents
- Improved quality of life, happier individual.
- It has reduced the need for my pain medication.
- It is very effective for muscle spasms
- narcotic tapers
- no- have not yet seen him in clinic follow up, only phone follow up w/ nursing staff
- No longer a patient in State network
- No longer a patient. She obtained insurance and is seeing an in network provider.
- No, I have not seen him in my office and he has not reported any new difficulties
- No, patient only used it for 5-7 days
- Patient feels a lot better, with less narcotics use related side effects.
- Patient had decrease in constipation and increase in appetite. Paitent feels the potency of medication varies with the different dispensing sites.

- Patient has been able to reduce his pain with medical cannabis thus needing less narcotic medication
- Patient has been able to reduce the amount of pain medication need to function throughout the day.
- Patient has been able to reduce the dose or completely stop the opioid medications.
- Patient has improved muscle spasms.
- Patient has stopped using Narcotic meds for pain.
- Patient is reluctant to reduce her narcotic medications
- Patient reports ability to reduce her narcotic use.
- Patient reports using less "pain pills"
- Patient requires less pain management
- Patients quality of life has improved.
- she is pleased with the impact the cannabis has on her muscle spasms. It has made her a little "dopey" at times, so she has reduced the dose on her own.
- stated it worked fairly well
- [NAME] notes no improvement with the cannabis
- The Dispensaries should make the cost of medical cannabis less expensive.
- The fatigue and cognitive slowing he was excperiencing from the minimally effective antispasmodic meds is improved with reduction of those meds and addition of cannibis
- The medical cannabis is allowing patient to reduce her narcotic medication.
- The patient has been able to have some reduction in prescribed narcotics while using medical cannabis. Also reported reduced muscle spasms and pain.
- The patient is less anxious
- The patient reports that the CBD helps his pain
- The patient was able to reduce his pain management medication fentanyl patches strength from 275 to 50, and the patient is thrilled that the pain is being reduced
- There is some reduction in narcotic use due to the analgesic effects of medical cannabis.
- There may be a worsening of "freezing" or reduction sinemet effectiveness period.
- This is difficult to quantify because he has had other health issues non cannabis related and so has used it irregular
- This patient is no longer with our practice. They could not continue to be seen as they are a state based insurance patient and we do not accept insurance.
- This program has helped him to receive the medical care he needs.
- tolerated well, no drug interactions or side effects
- Too expensive
- Yes Patient has been able to reduce pain medications and muscle relaxants
- Yes, but not by choice. My Pain Clinic physician tapered me off my narcotics after I told him I was certified for medical cannabis.

### Cancer

- [HOSPITAL] restricts vaping of cannabis when inpatient (which I personally disagree with). He will look into getting oral form to use. He only has two more inpatient chemotherapy treatments left.
- Decrease in needing other pain meds or reduction in PRN opioids.
- "haven't seen patient since certification has been seeing onc."
- He has been able to completely wean off prn opioids while on medical cannabis with no change in his cancer or other meds. He has remained stable on his long-acting opioid.
   Quality of life is much improved. Spirits improved.
- He has had less desire for opioids and benzos.
- His pain medications have been stable
- I have no way of knowing if he ever received or used anything through your program
- None, still required intrathecal pump for pain management
- none. He has died of his cancer.
- Parents used this med for psychogenic vomiting associated with medical procedures. I
  don't think it worked. He is better now but I don't think it is because of the medical
  cannabis, it is because he is in a better psychologic space as his therapy intensity has
  decreased.
- Patient does not want to take in front of young family members because of image, so she still takes dronabinol in the morning, although the vaporized cannabis works better.
- Patient regularly smoked street purchased cannabis for cancer symptoms; now uses MN cannabis
- Patient was satisfied with treatment, but did not provide our hospice team much information about her dosing or symptom relief. Note this patient died [DATE] with lung cancer, receiving hospice care.
- She currently isn't taking it, but her pain is better controlled now with methadone and oxycodone/lorazepam at noon. She is thinking of trying the medical cannabis at noon and seeing if that would work as well as the oxycodone/lorazepam combination
- The patient finds it very helpful, but has limited access to it because of financial constraints
- The patient had previous experience with cannabis for nausea from chemotherapy and found the beneficial effects of the cannabis oil vaped much less then that from cannabis smoked.
- The patient is less anxious
- The patient is now deceased since [DATE] due to his advanced cancer.

### Seizures

- Certainly there is an opioid sparing effect with the initiation of medical cannabis
- diazepam has been lowered due to somnolence

- Did not seem helpful to parent's appraisal.
- I have not seen any effect on the drug levels of the other antiepileptic medications he takes
- Medical cannabis was way too expensive for the patient so he did not take it after the first couple weeks.
- Neurologist who has prescribed anti-seizure medications has threatened to discontinue prescribing due to use of medical marijuana because of concerns for interactions.
- No other concerns about the med beyond cost. The family was paying ~1000\$ out of pocket for her dose and thus transitioned to [OUT OF STATE PRODUCT] to get more purified Hemp oil that can be shipped across state lines as the THC component is so low. That product is 1/10 the cost of the MN supply and the paucity of beneficial effects from CBD has been sustained. Also, the new product comes in minty chocolate flavor.
- not helpful
- Patient reports using less "pain pills"
- possible decrease in seizure by report
- SURPRISINGLY, NO REDUCTION IN CLOBAZAM WAS NEEDED, and she is on nearly 2 mg/kg/d of clobazam
- This patient has a primary generalized epilepsy and has not had any improvement. He has had just 1 follow up appointment with me since starting cannabis.
- This patient has had multiple no show visits since I certified him for medicinal cannabis
- transient improvement in daily seizure frequency, but seizures continues daily still.
- unknown at this time
- We did see some AED level changes.
- We lowered clobazam from 15 mg bid to 10 mg 12.5 mg

### Crohn's Disease

- he has quit the drug and continued on his regular IBD care.
- I cannot comment as this patient has not followed up with me as instructed.
- If the patient is able to continue to afford medical marijuana we should be able to begin to wean him off some of his prednisone
- It has reduced the need for my pain medication.
- it seems to be working well
- no clinical drug interactions noted
- no interactions noted.
- not yet, haven't seen her for follow up
- perianal disease stable, ferritin improved and holding after iron infusions. Still alot of fatigue. I haven't seen her back myself yet.
- pt found did not help pain, sleep, gain weight, glad had chance to try

- seen by another provider on Feb 4th. Still having fatigue, abdominal pain, variable bowel habits, low body weight
- sent message on Dec 11th reporting more formed stools, weight gain (needed) and less pain, "like a blanket to my system without effecting my mental capabilities?
- Starting dosage was ineffective. He needs to have a trial on an increased dosage.
- This has been a positive step for him. He is working regularly and he and his wife are comfortable with him continuing it as maintenance therapy
- This is difficult to quantify because he has had other health issues non cannabis related and so has used it irregular

### Terminal Illness

- Improved quality of life and improved sleep.
- NOTE [NAME] DID NOT FILL AS FAR AS I KNOW ANY MEDICAL MARIJUANA AND DIED SEVERAL MONTHS AGO.
- Patient does not want to take in front of young family members because of image, so she still takes dronabinol in the morning, although the vaporized cannabis works better.
- Yes, the patient was able to decrease his methadone dosage by 15mg within the first month.

### HIV/AIDS

- cost
- Decreased ER visits or clinic visits for pain medication
- likely will stop due to cost
- none except pt can't afford it
- The patient finds it very helpful, but has limited access to it because of financial constraints
- very helpful

### Tourette Syndrome

- Able to decrease some of his other medications that were trying to control his tics.
- He has been able to eliminate opiate meds and several other medications and their related side effects. He is more alert and has more energy

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### **APPENDIX D: Symptom Results from the Patient Self-Evaluation**

This appendix displays results on the symptom benefits reported on the Patient Self-Evaluation in graphical and table format. The results from the "Standard 8" symptom measures as well as condition-specific symptom measures are presented for each qualifying condition (see Table of Contents for quick reference).

Results for any given symptom are presented in the following order in this appendix (with a few exceptions):

- A figure showing the distribution of patient symptom responses at baseline
- A figure showing the cumulative percentage of patients achieving symptom improvement (see the title on the figure for how symptom improvement was defined. In the case of any of the Standard 8 measures, symptom improvement was defined as achieving at least a 30% reduction in symptoms compared to baseline. Symptom improvement for condition-specific measures vary)
  - Orange bars show cumulative symptom improvement among all patients included in the analysis at baseline – regardless of whether or not they provided any symptom data after their baseline measure.
  - Blue bars show cumulative symptom improvement among the patients who've provided symptom data within a given time frame (see x-axis for time points).
     This effectively removes from consideration those who didn't submit any symptom data within a given time frame.
    - Example at two-month time point: for those patients who responded with symptom data within 2 months of their first medical cannabis patients, X% of them had ever achieved at least a 30% improvement in symptoms.
- A figure showing each patient's average change from baseline after initially achieving symptom improvement, plotted along a distribution. This shows whether patients' improvements in symptoms persisted – on average – after their initial improvement.
- A table displaying the medical cannabis products that were purchased just prior to each patient's initial report of symptom improvement. Medical cannabis product information is displayed by the product's THC to CBD ratio as well as its intended route of administration.

### **All Patients – Collapsed Across Conditions**

### **Anxiety**

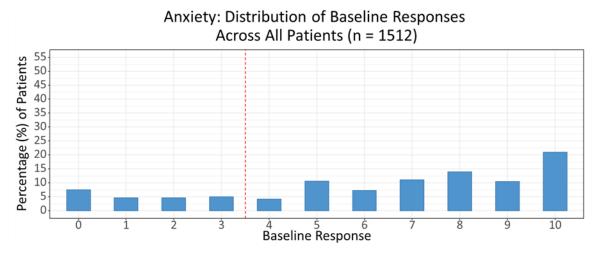


Figure 1. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1185) were patients experiencing moderate to severe anxiety at baseline.

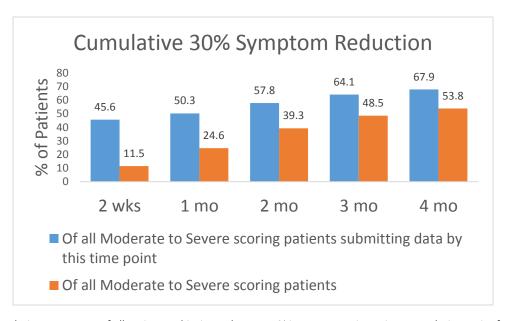


Figure 2. Cumulative percentage of all patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

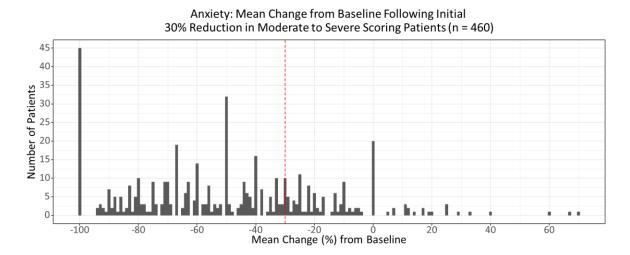


Figure 3. Frequency distribution of all patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

### **Appetite Lack**

## Appetite Lack: Distribution of Baseline Responses Across All Patients (n = 1512) State of the property of the

Figure 4. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 963) were patients experiencing moderate to severe lack of appetite at baseline.

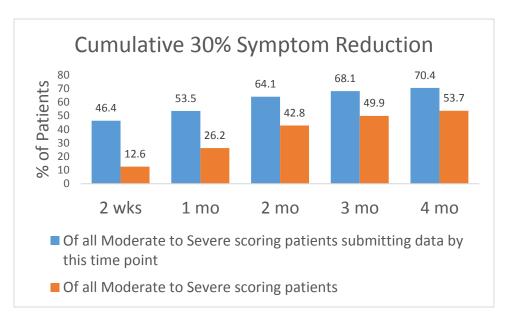


Figure 5. Cumulative percentage of all patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

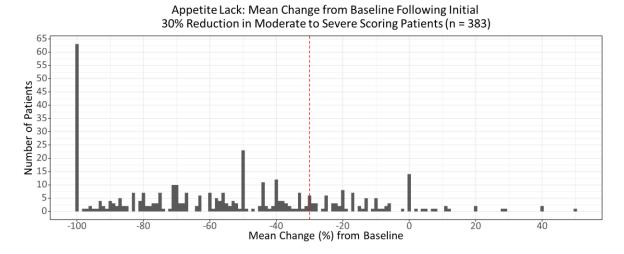


Figure 6. Frequency distribution of all patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

### **Depression**

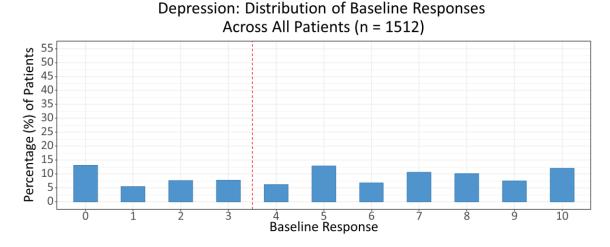


Figure 7. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1000) were patients experiencing moderate to severe depression at baseline.

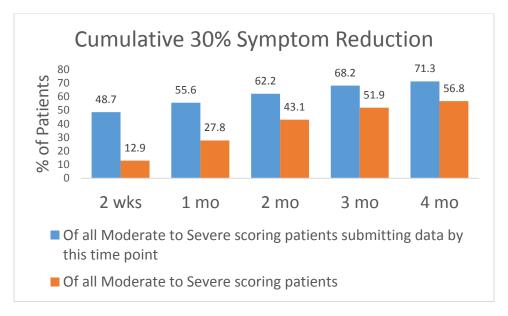


Figure 8. Cumulative percentage of all patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

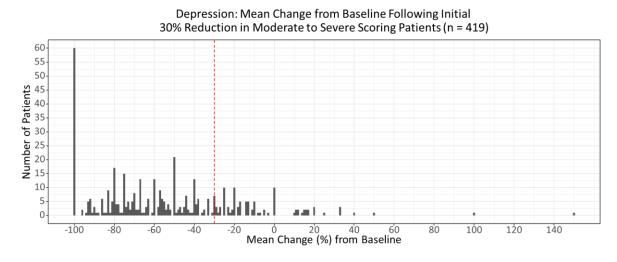


Figure 9. Frequency distribution of all patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

### **Disturbed Sleep**

### Disturbed Sleep: Distribution of Baseline Responses Across All Patients (n = 1512)

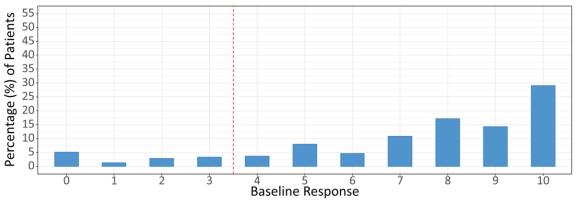


Figure 10. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1323) were patients experiencing moderate to severe disturbed sleep at baseline.

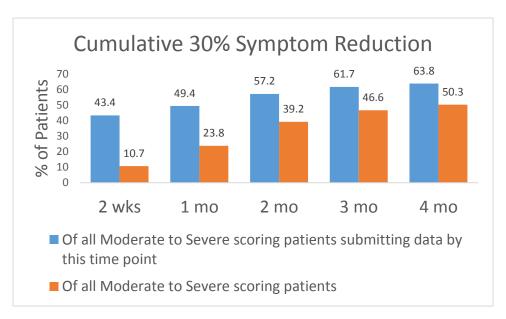


Figure 11. Cumulative percentage of all patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

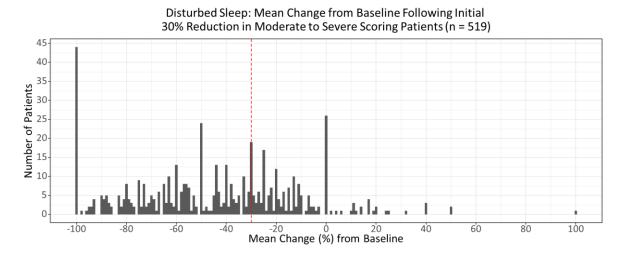


Figure 12. Frequency distribution of all patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

### **Fatigue**

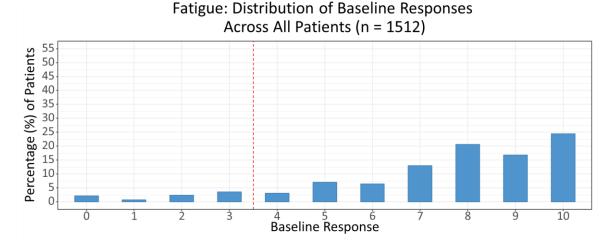


Figure 13. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1381) were patients experiencing moderate to severe fatigue at baseline.

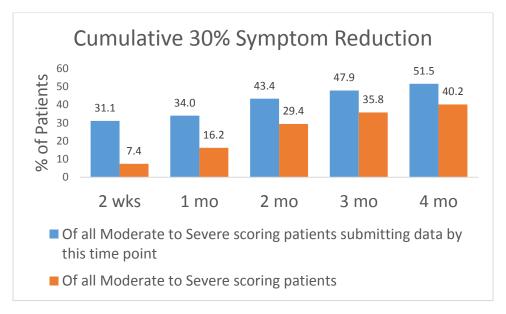


Figure 14. Cumulative percentage of all patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

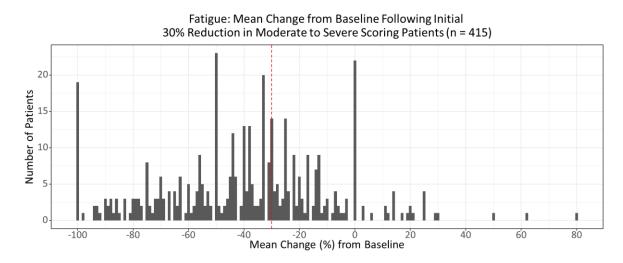


Figure 15. Frequency distribution of all patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Nausea: Distribution of Baseline Responses

### Nausea

## Across All Patients (n = 1512) Story Story

Figure 16. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 864) were patients experiencing moderate to severe nausea at baseline.

Baseline Response

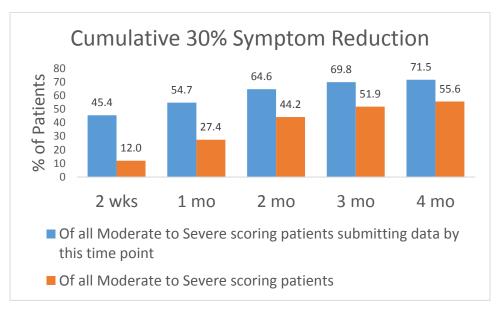


Figure 17. Cumulative percentage of all patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

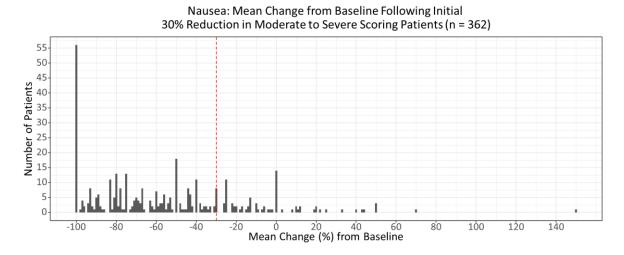


Figure 18. Frequency distribution of all patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

### **Pain**

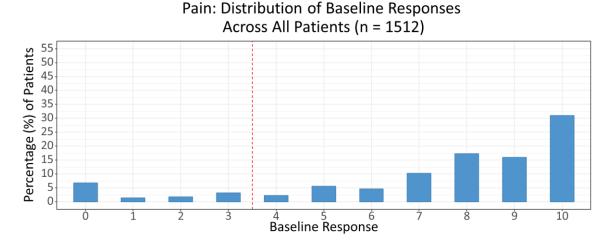


Figure 19. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1312) were patients experiencing moderate to severe pain at baseline.

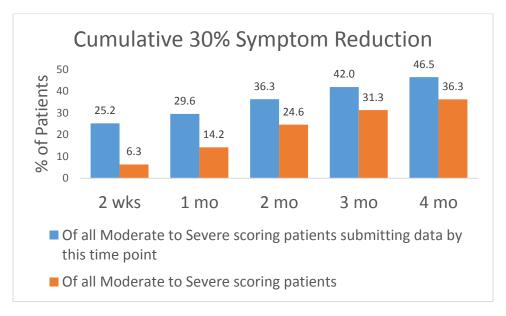


Figure 20. Cumulative percentage of all patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

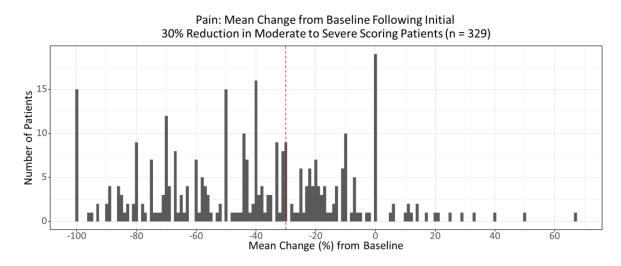


Figure 21. Frequency distribution of all patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

### **Vomiting**

## Vomiting: Distribution of Baseline Responses Across All Patients (n = 1512) State of the property of the prop

Figure 22. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 480) were patients experiencing moderate to severe vomiting at baseline.

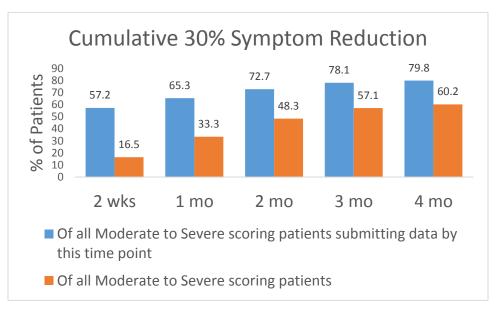


Figure 23. Cumulative percentage of all patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

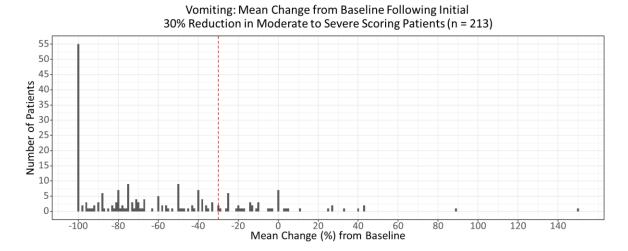


Figure 24. Frequency distribution of all patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

### **Severe and Persistent Muscle Spasm Patients**

### **Anxiety**

## Anxiety: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667)

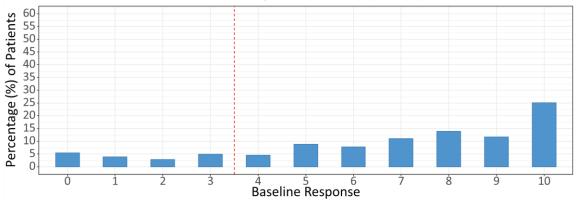


Figure 25. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 553) were patients experiencing moderate to severe anxiety at baseline.

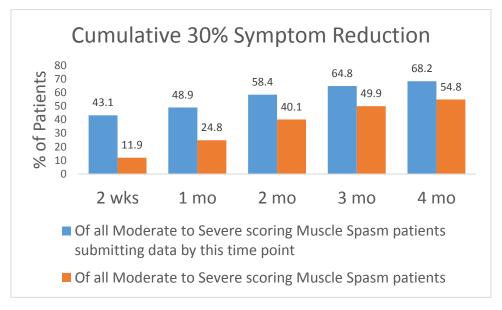


Figure 26. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Anxiety: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Muscle Spasm Patients (n = 250)

Figure 27. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 1. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very				a, t	
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to	l	CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to		Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 302 (n)	Avg Daily CBD Use (mg)
				Х								10.6 (32)	69.8 mg/0.4 mg
		Х		Х								9.9 (30)	113.8 mg/58.8 mg
		Х				Х						9.9 (30)	53.1 mg/37.3 mg
Х				Х								7.0 (21)	81.1 mg/0.4 mg
				Х		Х						6.6 (20)	77.0 mg/12.7 mg
		Х										6.0 (18)	27.6 mg/26.1 mg
Х		Х		Х		Х						3.6 (11)	135.7 mg/19.8 mg
Х		Х										3.6 (11)	242.7 mg/183.9 mg
						Х						3.3 (10)	30.5 mg/17.0 mg
		Χ		Χ		Χ						3.0 (9)	107.1 mg/32.4 mg
		Χ						Χ				2.6 (8)	80.5 mg/19.5 mg
Х		Χ		Х								1.7 (5)	102.2 mg/2.8 mg
Х								Х				1.7 (5)	76.2 mg/0.3 mg
		Х	Х									1.7 (5)	21.5 mg/328.5 mg
			Х	Х		Х						1.7 (5)	78.3 mg/64.5 mg
			Х									1.7 (5)	33.8 mg/645.0 mg
Х		Х				Х						1.3 (4)	30.0 mg/8.5 mg
		Х	Х			Х						1.3 (4)	27.0 mg/79.5 mg
		Х								Х		1.3 (4)	190.0 mg/190.0 mg
				Х				Х				1.3 (4)	154.4 mg/0.6 mg
Х				Х				Х				1.0 (3)	317.0 mg/1.5 mg
				Х	Х							1.0 (3)	216.8 mg/4.8 mg
								Х				1.0 (3)	32.3 mg/0.1 mg
Х	Х			Х								0.7 (2)	194.4 mg/3.5 mg
X		Х	Х	X								0.7 (2)	35.2 mg/47.7 mg
X			-	X		Х						0.7 (2)	71.6 mg/0.2 mg
X						X						0.7 (2)	45.4 mg/10.7 mg
X												0.7 (2)	16.0 mg/0.0 mg
	Х			Х		Х						0.7 (2)	183.6 mg/24.7 mg
	,	Х	Х	X		X						0.7 (2)	74.4 mg/109.2 mg
		X		X		,		Х				0.7 (2)	81.9 mg/30.3 mg

Table 1 Continued. Medical cannabis product(s) purchased by each patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very High	High		High	Very High	High		High	Very High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 302 (n)	Avg Daily CBD Use (mg)
		Х				Х				Х		0.7 (2)	34.6 mg/34.6 mg
				Χ		Х				Х		0.7 (2)	124.7 mg/41.5 mg
Χ	Х	Х	Χ		Х	Χ						0.3 (1)	184.3 mg/8.0 mg
Χ	Х	Χ										0.3 (1)	57.0 mg/11.1 mg
Х		Х	Χ	Х	Х	Χ						0.3 (1)	4232.1 mg/15493.4 mg
Χ		Х		Χ		Χ		Χ		Х		0.3 (1)	91.6 mg/0.5 mg
Χ		Χ		Х		Χ				Х		0.3 (1)	102.1 mg/17.5 mg
Х		Х		Χ						Х		0.3 (1)	62.2 mg/0.4 mg
Х			Χ									0.3 (1)	24.0 mg/160.0 mg
Χ				Χ	Х	Χ		Χ				0.3 (1)	125.0 mg/0.6 mg
Х						Х		Χ				0.3 (1)	52.0 mg/16.9 mg
	Х	Х		Х		Х						0.3 (1)	101.8 mg/15.4 mg
	Х	Х		Х								0.3 (1)	97.7 mg/7.9 mg
	Х	Х										0.3 (1)	41.7 mg/24.7 mg
	Х		Х	Х								0.3 (1)	167.5 mg/101.0 mg
		Χ	Χ	Χ								0.3 (1)	50.0 mg/50.0 mg
		Х	Х							Х		0.3 (1)	32.7 mg/131.3 mg
		Х		Х		Х		Χ				0.3 (1)	95.0 mg/0.8 mg
		Х		Х		Х				Х		0.3 (1)	90.0 mg/17.5 mg
		Х				Х					Χ	0.3 (1)	26.5 mg/73.4 mg
		Х						Χ		Х		0.3 (1)	20.0 mg/20.0 mg
			Х	Х						Х		0.3 (1)	105.8 mg/107.5 mg
			Χ	Х								0.3 (1)	1062.5 mg/1189.2 mg
			Х					Χ				0.3 (1)	18.0 mg/160.0 mg
			Х							Х		0.3 (1)	25.8 mg/115.8 mg
				Х		Х		Х		Х		0.3 (1)	107.1 mg/31.4 mg
				Х		Х		Х				0.3 (1)	115.0 mg/10.4 mg
				Х						Х		0.3 (1)	107.1 mg/31.7 mg
					Х							0.3 (1)	121.4 mg/7.1 mg
						Х				Х		0.3 (1)	67.3 mg/45.8 mg
						Χ					Χ	0.3 (1)	20.0 mg/110.0 mg

Table 1 Continued. Medical cannabis product(s) purchased by each patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very	Very			Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 302 (n)	Avg Daily CBD Use (mg)
								Х		Χ		0.3 (1)	20.7 mg/8.8 mg
										Χ		0.3 (1)	20.8 mg/20.8 mg
											Х	0.3 (1)	52.1 mg/989.6 mg

### **Appetite Lack**

## Appetite Lack: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667)

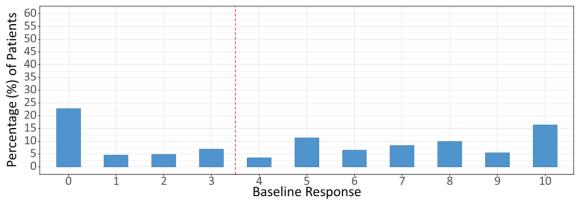


Figure 28. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 407) were patients experiencing moderate to severe lack of appetite at baseline.

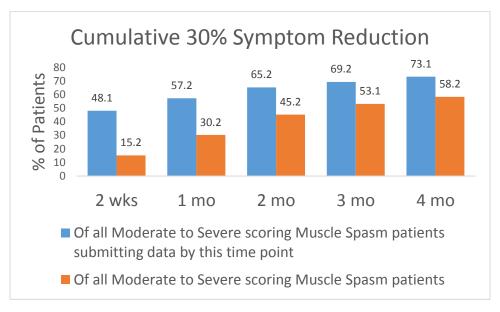


Figure 29. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

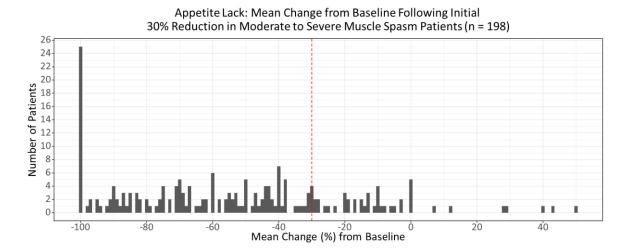


Figure 30. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 2. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral	•	•			Inhalation					Oromucosa				
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	_		Avg Daily THC Use (mg) /
CBD	CBD	Balanced	тнс	тнс	CBD	CBD	Balanced	THC	тнс	CBD	CBD	Balanced	тнс	THC	of 237 (n)	Avg Daily CBD Use (mg)
		Х			Х										11.4 (27)	112.3 mg/63.1 mg
					Х										10.1 (24)	71.3 mg/0.5 mg
		Х					Х								8.9 (21)	1542.2 mg/426.4 mg
Х					Х										7.2 (17)	78.5 mg/0.4 mg
		Х													7.2 (17)	29.4 mg/28.7 mg
					Х		Х								5.1 (12)	80.6 mg/14.6 mg
Х		Х			Х		Х								3.4 (8)	216.1 mg/48.1 mg
Х		Х													3.4 (8)	326.0 mg/263.1 mg
							Х								3.0 (7)	30.2 mg/14.0 mg
		Х								Х					2.5 (6)	58.0 mg/23.5 mg
Х					Х		Х								2.1 (5)	758.2 mg/20.6 mg
		Х	Х												2.1 (5)	14.0 mg/108.8 mg
		Х			Х		Х								2.1 (5)	111.8 mg/28.1 mg
Х		Х			Х										1.7 (4)	75.7 mg/16.3 mg
		Х										Х			1.7 (4)	174.1 mg/170.2 mg
					Х	Х									1.7 (4)	193.0 mg/5.4 mg
Х		Х					Х								1.3 (3)	244.2 mg/21.7 mg
Х					Х					Х					1.3 (3)	132.4 mg/0.6 mg
Х										Х					1.3 (3)	92.5 mg/0.4 mg
					Х		Х					Х			1.3 (3)	115.3 mg/36.0 mg
										Х					1.3 (3)	22.4 mg/0.1 mg
		Х	Х		Х		Х								0.8 (2)	76.4 mg/101.2 mg
		Х	Х									Х			0.8 (2)	35.6 mg/70.4 mg
		Х					Х					Х			0.8 (2)	37.9 mg/33.4 mg
			Х		Х		Х								0.8 (2)	105.8 mg/86.1 mg
			Х												0.8 (2)	4.5 mg/90.0 mg
					Х							Х			0.8 (2)	86.8 mg/28.1 mg
							Х						Х		0.8 (2)	35.0 mg/83.8 mg
										Х		Х			0.8 (2)	38.5 mg/7.6 mg
												Х			0.8 (2)	20.8 mg/20.8 mg
Х	Х	Х			Х										0.4 (1)	191.7 mg/1.2 mg

Table 2 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.s

		Enteral	-				Inhalation		-		. (	Oromucosa	İ			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	тнс	тнс	CBD	CBD	Balanced	тнс	THC	CBD	CBD	Balanced	THC	THC	of 237 (n)	Avg Daily CBD Use (mg)
Х	Х				Х										0.4 (1)	125.0 mg/0.6 mg
Х		Х	Х		Х	Х	Х								0.4 (1)	1664.3 mg/4575.5 mg
Х		Х	Х				Х								0.4 (1)	82.0 mg/43.0 mg
Х		Х	Х												0.4 (1)	27.0 mg/98.1 mg
Х		Х			Х		Х			Х					0.4 (1)	170.0 mg/1.0 mg
Х		Х			Х		Х					Х			0.4 (1)	102.1 mg/17.5 mg
Х		Х			Х							Х			0.4 (1)	62.2 mg/0.4 mg
Х		Х										Х			0.4 (1)	21.7 mg/4.2 mg
Х			Х		Х										0.4 (1)	257.1 mg/0.6 mg
Х							Х			Х					0.4 (1)	52.0 mg/16.9 mg
Х							Х								0.4 (1)	48.6 mg/7.2 mg
Х															0.4 (1)	16.0 mg/0.0 mg
	Х	Х			Х		Х								0.4 (1)	101.8 mg/15.4 mg
	Χ	Х			Χ										0.4 (1)	67.0 mg/31.4 mg
	Χ		X		Х										0.4 (1)	167.5 mg/101.0 mg
	Χ				Х										0.4 (1)	83.3 mg/0.4 mg
		Х	Χ				Χ								0.4 (1)	25.0 mg/55.0 mg
		Χ		Χ											0.4 (1)	6.1 mg/205.0 mg
		Х			Χ		Х					Х			0.4 (1)	90.0 mg/17.5 mg
		Χ			Χ					Χ					0.4 (1)	72.2 mg/30.3 mg
		Χ					Х					Х	Х		0.4 (1)	7.5 mg/7.5 mg
			Χ		Χ							Х			0.4 (1)	105.8 mg/107.5 mg
			Х		Х										0.4 (1)	1562.5 mg/1190.0 mg
			Х				Х								0.4 (1)	33.6 mg/102.1 mg
			Х							Х					0.4 (1)	18.0 mg/160.0 mg
			Х									Х			0.4 (1)	25.8 mg/115.8 mg
					Х		Х			Х					0.4 (1)	62.5 mg/0.3 mg
							Х			Χ					0.4 (1)	207.1 mg/8.0 mg
													Χ		0.4 (1)	52.1 mg/989.6 mg

### **Depression**

## Depression: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667) State of the property of th

Figure 31. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 471) were patients experiencing moderate to severe depression at baseline.

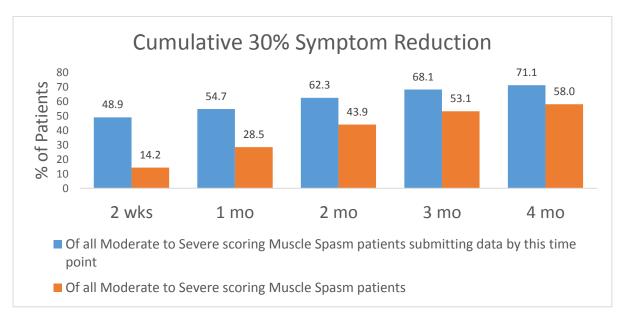


Figure 32. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

## Depression: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Muscle Spasm Patients (n = 227)

Figure 33. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 3. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	Ī			
Very				Verv	Very				Verv	Very				Verv		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	_		Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	тнс	CBD	CBD	Balanced	тнс	тнс	CBD	CBD	Balanced	тнс	тнс	of 273 (n)	Avg Daily CBD Use (mg)
		Х					Х								11.7 (32)	1019.3 mg/275.7 mg
		Х			Х										11.0 (30)	108.2 mg/61.1 mg
					Х										10.3 (28)	72.8 mg/0.4 mg
Х					Х										8.4 (23)	87.4 mg/0.4 mg
		Х													5.5 (15)	22.0 mg/20.6 mg
					Х		Х								5.5 (15)	95.0 mg/15.2 mg
Х		Х			Х		Х								3.7 (10)	181.7 mg/38.9 mg
Х		Х													3.3 (9)	32.7 mg/27.9 mg
		Х								Х					2.9 (8)	80.5 mg/17.0 mg
Х		Х					Х								2.6 (7)	46.9 mg/24.1 mg
		Х			Х		Х								2.6 (7)	113.7 mg/43.1 mg
							Х								2.6 (7)	37.9 mg/15.9 mg
		Х	Х												2.2 (6)	16.3 mg/103.0 mg
Х										Х					1.8 (5)	78.8 mg/0.3 mg
			Х												1.8 (5)	33.6 mg/641.0 mg
Х		Х			Х										1.5 (4)	102.6 mg/2.2 mg
					Χ	Χ									1.5 (4)	205.1 mg/6.1 mg
		Х	Х				Χ								1.1 (3)	41.5 mg/101.5 mg
		Х	Χ									Х			1.1 (3)	28.9 mg/95.1 mg
		Х										Х			1.1 (3)	225.1 mg/225.1 mg
Х					Х		Χ								0.7 (2)	103.0 mg/14.1 mg
Х					Χ					Χ					0.7 (2)	154.7 mg/0.6 mg
Х							Χ								0.7 (2)	45.4 mg/10.7 mg
Х															0.7 (2)	16.0 mg/0.0 mg
	Χ	Х			Χ										0.7 (2)	82.3 mg/19.7 mg
		Х	Х		Х		Х								0.7 (2)	65.4 mg/99.1 mg
					Χ		X					Х			0.7 (2)	124.7 mg/41.5 mg
										Х		Х			0.7 (2)	38.5 mg/7.6 mg
										Χ					0.7 (2)	28.7 mg/0.1 mg
Х	Х	Х			Х										0.4 (1)	125.0 mg/0.9 mg
Х	Χ	Χ													0.4 (1)	57.0 mg/11.1 mg

Table 3 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	ı			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 273 (n)	Avg Daily CBD Use (mg)
Х	Х				Х										0.4 (1)	109.2 mg/4.3 mg
Х		Х	Х		Х										0.4 (1)	40.0 mg/95.2 mg
Х		Х	Х				Х								0.4 (1)	82.0 mg/43.0 mg
Х		Х	Х												0.4 (1)	10.0 mg/0.1 mg
Х		Х			Х	Х	Х								0.4 (1)	80.0 mg/0.4 mg
Х		Х			Х		Х					Х			0.4 (1)	102.1 mg/17.5 mg
Х		Х			Х					Х					0.4 (1)	42.0 mg/10.1 mg
Х		Х										Х			0.4 (1)	21.7 mg/4.2 mg
Х							Х			Х					0.4 (1)	52.0 mg/16.9 mg
	Х	Х			Х		Х								0.4 (1)	120.0 mg/60.5 mg
	Х		Х		Х	Х									0.4 (1)	335.7 mg/7.5 mg
		Х	Х		Х										0.4 (1)	167.9 mg/43.1 mg
		Х		Х								Х			0.4 (1)	43.2 mg/16.4 mg
		Χ			Χ		Х					Х			0.4 (1)	90.0 mg/17.5 mg
		Χ			Χ					Х					0.4 (1)	43.8 mg/0.3 mg
		Χ					Х			Х					0.4 (1)	75.0 mg/75.0 mg
		Χ					Х					Х			0.4 (1)	68.4 mg/68.4 mg
		Χ					Х						Х		0.4 (1)	26.4 mg/71.4 mg
		Χ								Х		Х			0.4 (1)	20.0 mg/20.0 mg
			Χ		Χ		Х								0.4 (1)	117.5 mg/82.8 mg
			Χ		Χ							Х			0.4 (1)	105.8 mg/107.5 mg
			Χ		Χ										0.4 (1)	130.0 mg/95.6 mg
			Χ							Χ					0.4 (1)	8.0 mg/160.0 mg
					Χ		Х			Χ					0.4 (1)	150.0 mg/0.4 mg
					Χ					Χ					0.4 (1)	100.0 mg/0.2 mg
					Χ							Х			0.4 (1)	66.4 mg/24.6 mg
							Х					Х			0.4 (1)	67.3 mg/45.8 mg
							Х						Х		0.4 (1)	43.1 mg/69.4 mg
													Х		0.4 (1)	52.1 mg/989.6 mg

### **Disturbed Sleep**

### Disturbed Sleep: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667)

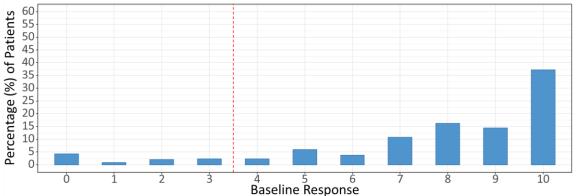


Figure 34. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 604) were patients experiencing moderate to severe disturbed sleep at baseline.

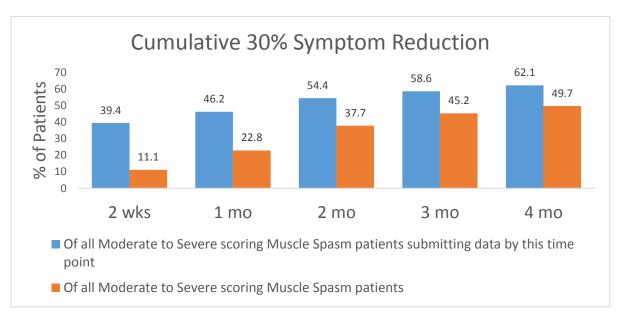


Figure 35. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

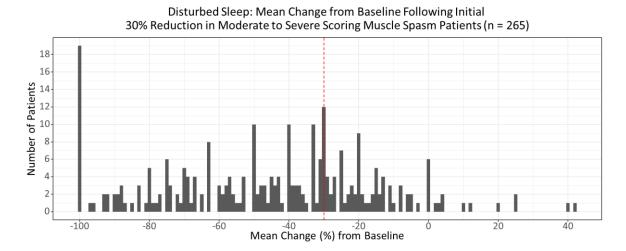


Figure 36. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 4. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral	•		Inha	lation			Oron	nucosal	•		
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 299 (n)	Avg Daily CBD Use (mg)
		Х				Х						10.7 (32)	50.4 mg/32.4 mg
		Х		Χ								10.0 (30)	69.9 mg/22.6 mg
				Х								9.4 (28)	71.3 mg/0.4 mg
Х				Χ								7.0 (21)	77.9 mg/0.5 mg
		Χ										6.4 (19)	26.4 mg/25.5 mg
				Х		Х						5.7 (17)	93.0 mg/17.1 mg
Х		Х		Х		Х						4.3 (13)	127.1 mg/24.9 mg
						Х						4.0 (12)	33.3 mg/19.5 mg
		Х		Х		Х						3.0 (9)	108.8 mg/19.3 mg
		Х						Х				3.0 (9)	51.9 mg/18.6 mg
Х		Х										2.7 (8)	91.3 mg/32.7 mg
		Х								Х		2.7 (8)	108.9 mg/106.5 mg
Х								Х				2.0 (6)	71.1 mg/0.3 mg
		Х	Х									2.0 (6)	24.0 mg/289.8 mg
		Х	Х			Х						1.3 (4)	35.7 mg/95.0 mg
		Χ		Χ				Χ				1.3 (4)	77.1 mg/42.7 mg
				Χ	Х							1.3 (4)	266.2 mg/7.8 mg
				Χ				Х				1.3 (4)	126.5 mg/0.7 mg
Х		Χ		Χ								1.0 (3)	137.5 mg/26.0 mg
Х		Χ				Χ						1.0 (3)	244.2 mg/21.7 mg
			Х									1.0 (3)	4.7 mg/91.7 mg
				Χ		Χ		Χ				1.0 (3)	96.9 mg/0.3 mg
				Χ						Х		1.0 (3)	73.8 mg/24.7 mg
Х	Х			Х								0.7 (2)	2508.1 mg/23.1 mg
Х			Х	Х								0.7 (2)	775.0 mg/3.4 mg
Х				Х		Х						0.7 (2)	1650.8 mg/36.9 mg
Х				Х				Х				0.7 (2)	70.5 mg/0.5 mg
		Х	Х	Х								0.7 (2)	49.2 mg/59.2 mg
		Х		Х		Х		Х				0.7 (2)	215.4 mg/7.2 mg
			Х	Х		Х						0.7 (2)	61.4 mg/60.2 mg
				Х		Х				Х		0.7 (2)	215.8 mg/92.3 mg

Table 4 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral		Ì		lation				nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		_	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	тнс	CBD	CBD	Balanced	THC	of 299 (n)	Avg Daily CBD Use (mg)
								Χ		Х		0.7 (2)	38.5 mg/7.6 mg
								Х				0.7 (2)	23.5 mg/0.1 mg
Х	Х	Х										0.3 (1)	57.0 mg/11.1 mg
Х		Х	Х	Х	Х	Х						0.3 (1)	4232.1 mg/15493.4 mg
Х		Х	Х	Х		Х						0.3 (1)	825.0 mg/3077.3 mg
Х		Х		Х	Х	Х						0.3 (1)	325.0 mg/13.1 mg
Х		Х		Х		Х		Χ		Х		0.3 (1)	91.6 mg/0.5 mg
Х		Х		Х				Х				0.3 (1)	57.3 mg/30.1 mg
Х		Х		Х						Х		0.3 (1)	62.2 mg/0.4 mg
Х		Х								Х		0.3 (1)	26.0 mg/4.1 mg
Х			Х	Х		Х						0.3 (1)	103.3 mg/0.5 mg
Х				Х	Х	Х		Х				0.3 (1)	125.0 mg/0.6 mg
Х				Х		Х		Х				0.3 (1)	173.8 mg/9.0 mg
Х						Х						0.3 (1)	48.6 mg/7.2 mg
	Х	Х		Х		Х						0.3 (1)	101.8 mg/15.4 mg
	Х	Х		Х								0.3 (1)	97.7 mg/7.9 mg
	Х	Х										0.3 (1)	37.5 mg/8.1 mg
	Х		Χ	Χ								0.3 (1)	167.5 mg/101.0 mg
	Х			Χ		Χ						0.3 (1)	85.1 mg/11.2 mg
		Χ	Х	Χ		Χ						0.3 (1)	91.1 mg/121.2 mg
		Χ	Χ	Χ						Х		0.3 (1)	47.8 mg/17.7 mg
		Χ		Χ		Χ				Х		0.3 (1)	90.0 mg/17.5 mg
		Χ				Χ					Χ	0.3 (1)	21.4 mg/21.4 mg
			Χ	Χ	Х					Χ		0.3 (1)	180.0 mg/5.2 mg
			Χ	Χ								0.3 (1)	579.5 mg/456.1 mg
			Χ					Χ				0.3 (1)	18.0 mg/160.0 mg
			Х							Х		0.3 (1)	25.8 mg/115.8 mg
						Х				Х		0.3 (1)	43.8 mg/43.8 mg
						Х					Х	0.3 (1)	20.0 mg/110.0 mg
										Х	Χ	0.3 (1)	89.3 mg/89.3 mg
										Х		0.3 (1)	20.8 mg/20.8 mg
											Х	0.3 (1)	8.9 mg/169.6 mg

### **Fatigue**

### Fatigue: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667)

Figure 37. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 624) were patients experiencing moderate to severe fatigue at baseline.

Baseline Response

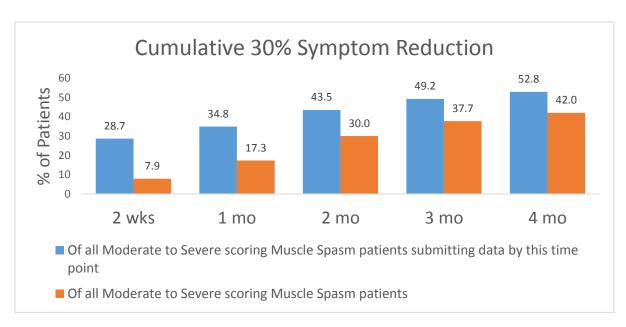


Figure 38. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

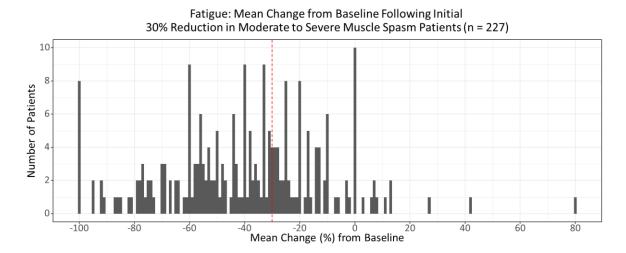


Figure 39. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 5. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	i			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 261 (n)	Avg Daily CBD Use (mg)
		Х			Х										8.8 (23)	111.0 mg/70.8 mg
		Х					Х								8.8 (23)	62.7 mg/35.9 mg
					Х										8.8 (23)	70.7 mg/0.4 mg
		Х													7.7 (20)	27.4 mg/27.1 mg
					Х		Х								6.9 (18)	90.3 mg/16.9 mg
Х		Х			Х		Х								6.1 (16)	179.9 mg/39.6 mg
Х					Х										4.2 (11)	69.3 mg/0.4 mg
							Х								4.2 (11)	38.1 mg/19.6 mg
Х		Х													3.1 (8)	28.6 mg/20.3 mg
		Х								Х					3.1 (8)	50.3 mg/20.1 mg
		Х			Х		Х								2.7 (7)	129.1 mg/35.4 mg
Х		Х			Х										1.9 (5)	79.2 mg/10.4 mg
		Х	Х				Х								1.9 (5)	39.0 mg/83.2 mg
		Х	Х												1.9 (5)	478.2 mg/854.8 mg
		Х			Х					Х					1.9 (5)	95.8 mg/41.2 mg
Х					Х					Х					1.5 (4)	259.7 mg/1.3 mg
Х										Х					1.5 (4)	89.5 mg/0.4 mg
		Х										Х			1.5 (4)	167.0 mg/161.7 mg
			Х												1.5 (4)	41.0 mg/781.3 mg
Х		Х			Х		Х			Х					1.1 (3)	152.7 mg/9.3 mg
			Х		Х		Х								1.1 (3)	62.3 mg/61.7 mg
					Х					Х					1.1 (3)	121.0 mg/0.6 mg
							Х						Х		1.1 (3)	34.6 mg/91.2 mg
Х	Х				Х										0.8 (2)	108.1 mg/3.4 mg
Х		Х			Х		Х					Х			0.8 (2)	80.0 mg/14.6 mg
Х		Х			Х					Х					0.8 (2)	43.3 mg/5.2 mg
Х		Х					Х								0.8 (2)	342.2 mg/27.5 mg
					Х		Х					Х			0.8 (2)	162.8 mg/77.3 mg
										Х					0.8 (2)	26.7 mg/0.1 mg
Х	Х	Х	Х		Х	Х	Х								0.4 (1)	143.8 mg/44.1 mg
Х	Х	Х													0.4 (1)	57.0 mg/11.1 mg

Table 5 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 261 (n)	Avg Daily CBD Use (mg)
Х		Х	Х		Х										0.4 (1)	30.4 mg/0.2 mg
Χ		Х	Х												0.4 (1)	6.5 mg/1.0 mg
Х		Х			Χ		Х			Х		Х			0.4 (1)	59.5 mg/26.3 mg
Х		Х			Χ							Х			0.4 (1)	62.2 mg/0.4 mg
Х		Х										Х			0.4 (1)	21.7 mg/4.2 mg
Х			Х		Χ										0.4 (1)	50.0 mg/0.1 mg
Х			Х												0.4 (1)	24.0 mg/160.0 mg
Х					Χ		Х								0.4 (1)	43.2 mg/0.2 mg
Х							Х			Х					0.4 (1)	52.0 mg/16.9 mg
Х							Х								0.4 (1)	57.1 mg/14.3 mg
	Х	Х			Х	Х				Х					0.4 (1)	510.0 mg/11.3 mg
	Х	Х			Х		Х								0.4 (1)	84.3 mg/30.4 mg
	Х	Х													0.4 (1)	41.7 mg/24.7 mg
	Х		Х		Х										0.4 (1)	167.5 mg/101.0 mg
	Х				Χ		Х								0.4 (1)	85.1 mg/11.2 mg
		Х	Х		Х		Х								0.4 (1)	91.1 mg/121.2 mg
		Х	Х		Х							Х			0.4 (1)	47.8 mg/17.7 mg
		Х	Х							Х		Х			0.4 (1)	22.2 mg/64.4 mg
		Х	Х									Х			0.4 (1)	25.0 mg/6.3 mg
		Х		Х								Х			0.4 (1)	8.1 mg/107.5 mg
		Х					Х					Х			0.4 (1)	68.4 mg/68.4 mg
		Х					Х						Х		0.4 (1)	22.4 mg/59.9 mg
		Х								Х		Х			0.4 (1)	67.9 mg/34.7 mg
			Х		Х							Х			0.4 (1)	75.0 mg/0.1 mg
			Х							Χ					0.4 (1)	18.0 mg/160.0 mg
					Х	Х									0.4 (1)	153.3 mg/3.5 mg
					Х		Х			Х		Х			0.4 (1)	107.1 mg/31.4 mg
					Х		Х			Х					0.4 (1)	115.0 mg/10.4 mg
					Х							Х			0.4 (1)	66.4 mg/24.6 mg
										Х		Х			0.4 (1)	20.7 mg/8.8 mg
												Х	Х		0.4 (1)	89.3 mg/89.3 mg

### Nausea

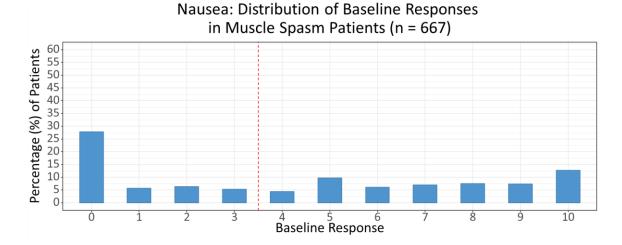


Figure 40. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 366) were patients experiencing moderate to severe nausea at baseline.

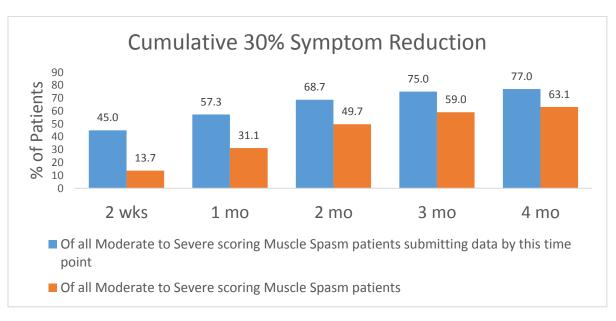


Figure 41. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

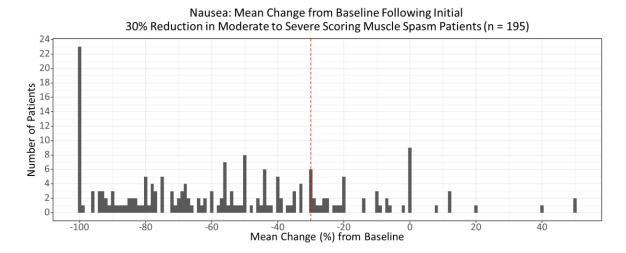


Figure 42. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 6. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral	•		Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 231 (n)	Avg Daily CBD Use (mg)
		Х		Х								10.4 (24)	114.3 mg/66.9 mg
		Х				Х						10.4 (24)	72.1 mg/45.6 mg
				Х								9.5 (22)	90.1 mg/0.5 mg
Х				Х								7.4 (17)	92.6 mg/0.5 mg
		Х										6.1 (14)	28.3 mg/27.4 mg
				Х		Х						5.2 (12)	84.1 mg/15.9 mg
Х		Х		Х		Х						3.5 (8)	69.4 mg/15.1 mg
		Х		Х		Х						3.0 (7)	119.3 mg/36.8 mg
		Х						Х				3.0 (7)	91.3 mg/26.2 mg
Х		Χ										2.6 (6)	60.3 mg/33.6 mg
		Χ								Х		2.2 (5)	149.4 mg/149.4 mg
			Х									2.2 (5)	4.6 mg/91.8 mg
						Χ						2.2 (5)	33.6 mg/17.3 mg
Х								Х				1.7 (4)	76.8 mg/0.3 mg
			Х	Χ		Χ						1.7 (4)	70.5 mg/68.1 mg
				Χ				Χ				1.7 (4)	67.0 mg/0.2 mg
Х		Χ		Χ								1.3 (3)	105.0 mg/19.3 mg
Х		Χ				Χ						1.3 (3)	242.0 mg/21.4 mg
Х				Χ				Χ				1.3 (3)	145.1 mg/0.7 mg
		Χ	Х			Χ						1.3 (3)	41.5 mg/101.5 mg
		Χ		Χ				Χ				1.3 (3)	57.8 mg/31.8 mg
				Χ	Χ							1.3 (3)	221.2 mg/3.9 mg
						Χ					Χ	1.3 (3)	42.8 mg/97.8 mg
								Х				1.3 (3)	23.7 mg/0.1 mg
Х	Х			Χ								0.9 (2)	145.6 mg/3.3 mg
Х		Х		Χ		Х		Х				0.9 (2)	99.4 mg/1.6 mg
Х		Х		Х				Х				0.9 (2)	101.7 mg/30.2 mg
Х												0.9 (2)	16.0 mg/0.0 mg
		Χ	Χ									0.9 (2)	58.0 mg/862.0 mg
		Х				Х				Х		0.9 (2)	14.8 mg/10.3 mg
				Χ		X				Х		0.9 (2)	162.8 mg/77.3 mg

Table 6 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 231 (n)	Avg Daily CBD Use (mg)
Х		Χ	Х			Χ						0.4 (1)	82.0 mg/43.0 mg
Х		Χ		Х		Χ		Х		Х		0.4 (1)	59.5 mg/26.3 mg
Х		Χ		Х		Χ				Х		0.4 (1)	102.1 mg/17.5 mg
Х			Х	Х								0.4 (1)	180.8 mg/95.6 mg
Х				Χ		Χ						0.4 (1)	3258.3 mg/73.6 mg
Х						Χ		Х				0.4 (1)	52.0 mg/16.9 mg
	Х	Χ		Х								0.4 (1)	67.0 mg/31.4 mg
	Х		Х	Х								0.4 (1)	167.5 mg/101.0 mg
	Х			Х		Χ						0.4 (1)	85.1 mg/11.2 mg
		Χ	Χ	Х								0.4 (1)	48.3 mg/68.5 mg
		Χ		Х	Χ			Χ				0.4 (1)	262.4 mg/0.6 mg
		Χ		Χ		Χ		Χ				0.4 (1)	95.0 mg/0.8 mg
		Χ		Χ		Χ				Χ		0.4 (1)	90.0 mg/17.5 mg
		Х				Χ		Χ		Х	Χ	0.4 (1)	41.7 mg/20.9 mg
			Х	Χ	Χ					Х		0.4 (1)	180.0 mg/5.2 mg
			Х	Χ								0.4 (1)	1062.5 mg/1189.2 mg
			Х			Х						0.4 (1)	33.6 mg/102.1 mg
			Х							Х		0.4 (1)	22.2 mg/120.8 mg
				Χ		Х		Χ				0.4 (1)	115.0 mg/10.4 mg
				Χ				Χ		Χ		0.4 (1)	60.0 mg/0.2 mg
						Х				Х		0.4 (1)	67.3 mg/45.8 mg
								Χ		Х		0.4 (1)	20.7 mg/8.8 mg
										Х	Χ	0.4 (1)	89.3 mg/89.3 mg
										Х		0.4 (1)	20.8 mg/20.8 mg
											Х	0.4 (1)	52.1 mg/989.6 mg

### **Pain**

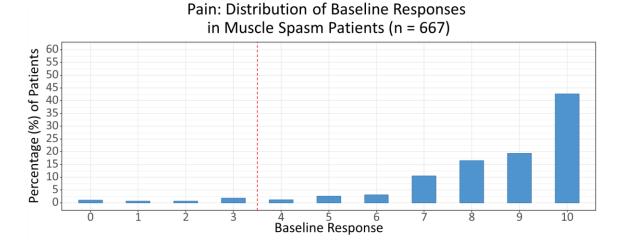


Figure 43. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 640) were patients experiencing moderate to severe pain at baseline.

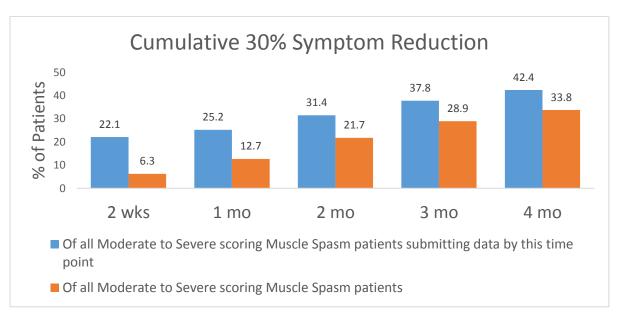


Figure 44. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Pain: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Muscle Spasm Patients (n = 188)

Figure 45. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 7. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral				•	Inhalation		-			Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 216 (n)	Avg Daily CBD Use (mg)
					Х										11.1 (24)	80.5 mg/0.4 mg
		Х					Х								10.6 (23)	75.3 mg/60.2 mg
		Х			Х										8.3 (18)	65.0 mg/22.9 mg
Х					Χ										6.5 (14)	91.6 mg/0.5 mg
		Х													6.5 (14)	63.2 mg/61.4 mg
					Χ		Χ								5.6 (12)	91.7 mg/14.3 mg
		Х								Х					3.7 (8)	48.2 mg/21.0 mg
Х		Х			Χ										3.2 (7)	124.5 mg/8.0 mg
		Х			Х		Х								2.8 (6)	113.6 mg/33.4 mg
Х		Х			Χ		Χ								2.3 (5)	64.7 mg/12.9 mg
Х		Х					Χ								2.3 (5)	42.0 mg/23.9 mg
Х		Х													2.3 (5)	22.9 mg/18.6 mg
Х					Χ					Х					2.3 (5)	191.5 mg/1.0 mg
		Х			Х					Х					2.3 (5)	92.2 mg/35.8 mg
		Х	Х				Х								1.9 (4)	38.0 mg/115.2 mg
			Χ		Χ		Χ								1.9 (4)	78.8 mg/72.6 mg
			Х												1.9 (4)	41.0 mg/781.3 mg
							Х								1.9 (4)	26.0 mg/18.5 mg
X										Χ					1.4 (3)	30.0 mg/0.1 mg
		Х										Х			1.4 (3)	16.6 mg/9.5 mg
					Х	Х									1.4 (3)	166.8 mg/4.7 mg
					Χ		Χ					Х			1.4 (3)	130.6 mg/28.0 mg
		Х								Χ		Х			0.9 (2)	55.1 mg/26.7 mg
					Х					Х					0.9 (2)	103.6 mg/0.2 mg
Х	Х				Х										0.5 (1)	91.3 mg/6.2 mg
Х		Х	Х		Х		Х								0.5 (1)	825.0 mg/3077.3 mg
Х		Х	Х				Х								0.5 (1)	5.0 mg/95.0 mg
Х		Х	Х												0.5 (1)	27.0 mg/98.1 mg
Х		Х			Х		Х			Х		Х			0.5 (1)	59.5 mg/26.3 mg
Х		Х			Х		Х			Х					0.5 (1)	170.0 mg/1.0 mg
Х		Х			Χ		Х					Х			0.5 (1)	102.1 mg/17.5 mg

Table 7 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 216 (n)	Avg Daily CBD Use (mg)
Χ		Χ			Χ							Х			0.5 (1)	62.2 mg/0.4 mg
Χ		Χ								Χ					0.5 (1)	56.1 mg/20.1 mg
Χ					Х	Χ									0.5 (1)	100.0 mg/5.1 mg
Χ							Χ			Χ					0.5 (1)	52.0 mg/16.9 mg
Χ							Χ								0.5 (1)	28.6 mg/7.1 mg
	Χ	Χ													0.5 (1)	41.7 mg/24.7 mg
	Χ		Х		Χ										0.5 (1)	167.5 mg/101.0 mg
	Χ				Χ		Χ								0.5 (1)	282.1 mg/38.1 mg
	Χ				Χ										0.5 (1)	139.3 mg/8.6 mg
		Χ	Х		Χ		Х								0.5 (1)	57.7 mg/97.2 mg
		Χ	X		Х							Х			0.5 (1)	47.8 mg/17.7 mg
		Х	Х							Χ		Х			0.5 (1)	22.2 mg/64.4 mg
		Х	Х									Х			0.5 (1)	28.3 mg/163.3 mg
		Х	Х												0.5 (1)	10.0 mg/10.0 mg
		Х		Χ								Х			0.5 (1)	8.1 mg/107.5 mg
		Х			Χ	Χ	Χ								0.5 (1)	450.0 mg/1.3 mg
		Х			Χ		Х			Х					0.5 (1)	28.6 mg/7.1 mg
		Х			Х							Х			0.5 (1)	99.7 mg/8.6 mg
		Х					Χ			Χ					0.5 (1)	207.1 mg/8.0 mg
		Х					Х					Х			0.5 (1)	68.4 mg/68.4 mg
			Х							Х					0.5 (1)	18.0 mg/160.0 mg
					Х		Х					Х	Х		0.5 (1)	103.6 mg/241.0 mg
					Х							Х			0.5 (1)	66.4 mg/24.6 mg
										Х					0.5 (1)	30.0 mg/0.1 mg
												Х			0.5 (1)	20.8 mg/20.8 mg
													Х		0.5 (1)	8.9 mg/169.6 mg

### **Vomiting**

### Vomiting: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667) State of the document of the

Figure 46. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 192) were patients experiencing moderate to severe vomiting at baseline.

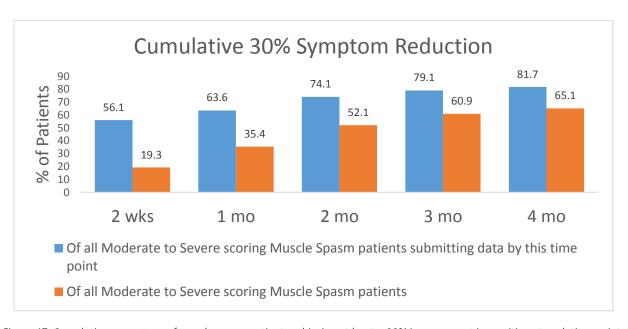


Figure 47. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

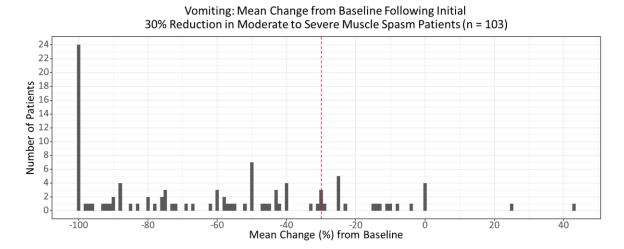


Figure 48. Frequency distribution of muscle spasm patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 8. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal	-		
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 124 (n)	Avg Daily CBD Use (mg)
Х				Х								10.5 (13)	103.7 mg/0.6 mg
		Χ				Χ						9.7 (12)	42.6 mg/30.3 mg
		Χ										9.7 (12)	28.0 mg/26.2 mg
				Χ								9.7 (12)	66.7 mg/0.4 mg
		Χ		Χ								8.9 (11)	78.7 mg/19.8 mg
Х		Χ		Χ		Χ						4.0 (5)	79.6 mg/17.1 mg
		Χ						Χ				4.0 (5)	62.4 mg/27.6 mg
				Х		Χ						4.0 (5)	77.5 mg/13.8 mg
		Χ		Х		Χ						2.4 (3)	106.8 mg/33.5 mg
		Χ								Х		2.4 (3)	225.1 mg/225.1 mg
				Χ	Х							2.4 (3)	195.7 mg/7.9 mg
						Χ					Х	2.4 (3)	48.6 mg/98.6 mg
Х		Χ				Χ						1.6 (2)	44.3 mg/22.6 mg
Х		Χ										1.6 (2)	89.0 mg/33.8 mg
Х				Х		Χ						1.6 (2)	1663.8 mg/40.5 mg
		Χ	Χ			Χ						1.6 (2)	49.8 mg/124.8 mg
			Х									1.6 (2)	4.6 mg/89.6 mg
				Χ		Χ				Х		1.6 (2)	162.8 mg/77.3 mg
				Χ				Χ				1.6 (2)	131.3 mg/0.6 mg
						Χ						1.6 (2)	40.0 mg/10.0 mg
Х		Χ	Х			Χ						0.8 (1)	117.5 mg/127.5 mg
Х		Χ	Χ									0.8 (1)	27.0 mg/98.1 mg
Х		Χ		Χ		Χ		Χ				0.8 (1)	170.0 mg/1.0 mg
Х		Χ		Χ								0.8 (1)	121.0 mg/4.2 mg
Х				Х		Χ		Χ				0.8 (1)	95.0 mg/10.3 mg
Х				Х				Х				0.8 (1)	641.7 mg/3.2 mg
Х								Х				0.8 (1)	31.1 mg/0.1 mg
	Х		Х	Х								0.8 (1)	167.5 mg/101.0 mg
		Х	Х	Х								0.8 (1)	48.3 mg/68.5 mg
		Х	Х									0.8 (1)	41.0 mg/299.0 mg
		Х		Х		Х		Х				0.8 (1)	95.0 mg/0.8 mg

Table 8 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 124 (n)	Avg Daily CBD Use (mg)
		Χ		Х				Х				0.8 (1)	72.2 mg/30.3 mg
		Χ				Х				Х	Χ	0.8 (1)	7.5 mg/7.5 mg
			Х	Χ						Х		0.8 (1)	75.0 mg/0.1 mg
			Х							Х		0.8 (1)	22.2 mg/120.8 mg
				Х						Х		0.8 (1)	107.1 mg/31.7 mg
						Х				Х		0.8 (1)	67.3 mg/45.8 mg
								Χ		Х		0.8 (1)	20.7 mg/8.8 mg
								Χ				0.8 (1)	24.0 mg/0.1 mg
										Х	Χ	0.8 (1)	89.3 mg/89.3 mg
										Х		0.8 (1)	20.8 mg/20.8 mg

### **Weekly Spasm Frequency**

### Weekly Spasm Frequency: Distribution of Baseline Responses in Muscle Spasm Patients (n = 642) Weekly Spasm Patients (n = 642) Weekly Spasm Count

Figure 49. Distribution of patient responses on weekly spasm frequency at baseline (prior to taking any medical cannabis). Patients who experienced spasms during the week (had a baseline response greater than 0) were included in the symptom reduction analysis (n = 629).

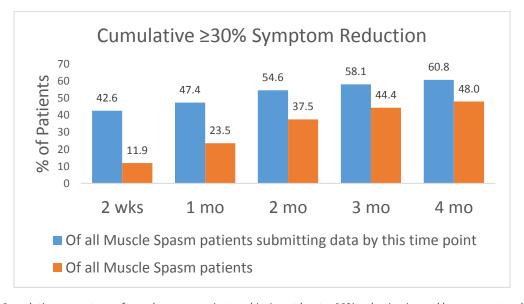


Figure 50. Cumulative percentage of muscle spasm patients achieving at least a 30% reduction in weekly spasms at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

# Weekly Spasm Frequency: Mean Change from Baseline Following Initial 30% Reduction in Muscle Spasm Patients (n = 225) 12-10-10-80 -60 -40 -20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 Mean Change (%) from Baseline

Figure 51. Frequency distribution of muscle spasm patients based on the average change in their weekly spasm frequency (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in spasms.

Table 9. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in weekly spasms. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral	•	•			Inhalation		•			Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	_	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 301 (n)	Avg Daily CBD Use (mg)
		Х					Х								11.3 (34)	55.3 mg/35.1 mg
					Х										10.0 (30)	77.8 mg/0.5 mg
		Х			Х										9.6 (29)	79.6 mg/30.0 mg
		Х													8.3 (25)	23.6 mg/22.4 mg
					Х		Х								7.0 (21)	99.8 mg/17.5 mg
Х					Х										6.3 (19)	87.0 mg/0.4 mg
Х		Х			Х		Х								5.6 (17)	83.1 mg/18.6 mg
		Х								Х					4.0 (12)	48.9 mg/23.2 mg
							Х								3.0 (9)	32.7 mg/17.1 mg
		Х			Х		Х								2.3 (7)	88.8 mg/32.8 mg
Х		Х			Х										2.0 (6)	65.2 mg/16.8 mg
Х					Х		Х								2.0 (6)	87.5 mg/10.6 mg
Х		Х					Х								1.7 (5)	54.0 mg/27.7 mg
Х		Х													1.7 (5)	48.7 mg/23.4 mg
		Х										Х			1.7 (5)	148.5 mg/145.4 mg
		Χ	Х				Χ								1.3 (4)	38.0 mg/91.9 mg
			Х												1.3 (4)	4.5 mg/88.5 mg
Χ										Χ					1.0 (3)	39.3 mg/0.1 mg
			Х		Χ										1.0 (3)	243.1 mg/213.6 mg
					Х		Х					Х			1.0 (3)	176.0 mg/69.9 mg
							Χ						Χ		1.0 (3)	34.6 mg/91.2 mg
												Χ			1.0 (3)	20.8 mg/20.8 mg
Χ					Χ					Χ					0.7 (2)	89.6 mg/0.6 mg
Х							Х								0.7 (2)	41.1 mg/7.2 mg
	Χ	Х			Χ										0.7 (2)	82.3 mg/19.7 mg
		Х	Х		Х		Х								0.7 (2)	70.6 mg/66.8 mg
		Х			Х					Х					0.7 (2)	167.1 mg/30.3 mg
		Х					Х					Х			0.7 (2)	50.0 mg/50.0 mg
			Χ		Χ		Х								0.7 (2)	80.5 mg/72.1 mg
			Χ									Х			0.7 (2)	24.0 mg/118.3 mg
					Χ	Χ									0.7 (2)	208.5 mg/6.8 mg

Table 9 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in weekly spasms. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	ı			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 301 (n)	Avg Daily CBD Use (mg)
					Χ		Х			Х					0.7 (2)	136.7 mg/5.4 mg
					Χ					Χ					0.7 (2)	48.6 mg/0.2 mg
					Χ							X			0.7 (2)	57.1 mg/21.1 mg
										Χ					0.7 (2)	23.5 mg/0.1 mg
Х	Χ				Χ										0.3 (1)	91.3 mg/6.2 mg
Х		Х			Χ		Χ			Х					0.3 (1)	170.0 mg/1.0 mg
Х		Х			Χ					Χ					0.3 (1)	20.0 mg/0.1 mg
Χ			Χ		Χ		Χ			Χ					0.3 (1)	85.1 mg/0.5 mg
Х			Х		Χ										0.3 (1)	180.8 mg/95.6 mg
Х					Χ	Χ				Χ					0.3 (1)	62.5 mg/0.3 mg
Х															0.3 (1)	16.0 mg/0.1 mg
	Χ	Х													0.3 (1)	37.5 mg/8.1 mg
	Χ		Х		Χ										0.3 (1)	167.5 mg/101.0 mg
	Х				Χ										0.3 (1)	100.0 mg/1.1 mg
		Х	Х												0.3 (1)	7.5 mg/97.5 mg
		Х		Х											0.3 (1)	6.1 mg/205.0 mg
		Х			Χ		Х					Χ			0.3 (1)	90.0 mg/17.5 mg
		Х			Χ							Χ			0.3 (1)	33.3 mg/0.2 mg
		Х					Х			Χ					0.3 (1)	21.4 mg/21.4 mg
		Х					Х						Х		0.3 (1)	22.4 mg/59.9 mg
		Х								Х		Х			0.3 (1)	67.9 mg/34.7 mg
			Х		Х							Х			0.3 (1)	75.0 mg/0.1 mg
			Х							Х					0.3 (1)	32.0 mg/177.9 mg
			Х										Х		0.3 (1)	8.9 mg/169.6 mg
						Х									0.3 (1)	121.4 mg/7.1 mg
							Χ					Х			0.3 (1)	43.8 mg/43.8 mg

### **Spasticity (0-10 NRS)**

### Spasticity Scale: Distribution of Baseline Responses in Muscle Spasm Patients (n = 667)

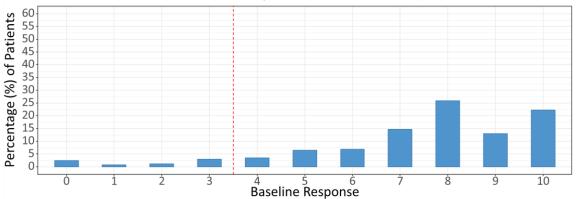


Figure 52. Distribution of patient responses on spasticity (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 618) were patients experiencing moderate to severe spasms at baseline.

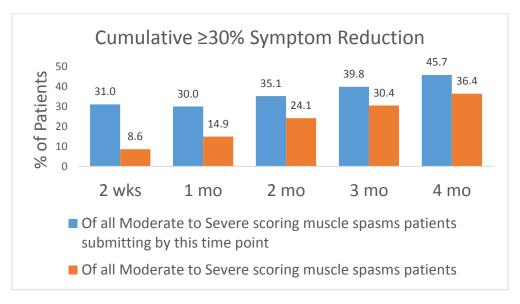


Figure 53. Cumulative percentage of muscle spasm patients achieving at least a 30% improvement in spasticity at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

# Spasticity Scale (0-10 NRS): Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Muscle Spasm Patients (n = 197)

Figure 54. Frequency distribution of muscle spasm patients based on the average change in their 0-10 NRS spasticity scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in spasticity.

Table 10. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in spasticity (0-10 NRS). Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral		-			Inhalation		-			Oromucosa	i			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 225 (n)	Avg Daily CBD Use (mg)
		Х					Х								12.4 (28)	60.4 mg/37.7 mg
					Х										8.4 (19)	74.8 mg/0.5 mg
		Х			Х										8.0 (18)	92.0 mg/27.4 mg
Х					Х										7.1 (16)	84.8 mg/0.4 mg
		Х													6.7 (15)	45.1 mg/31.5 mg
					Х		Х								6.2 (14)	93.5 mg/18.4 mg
Х		Х			Х		Х								4.9 (11)	82.7 mg/25.6 mg
		Χ								Х					4.0 (9)	53.3 mg/22.1 mg
Х		Χ			Χ										3.1 (7)	86.0 mg/7.8 mg
Х		Χ													3.1 (7)	37.6 mg/27.0 mg
Х		Χ					Χ								2.2 (5)	51.2 mg/25.0 mg
		Χ	Х				Χ								2.2 (5)	32.7 mg/89.1 mg
		Χ			Χ		Χ								2.2 (5)	119.5 mg/45.0 mg
							Χ								2.2 (5)	28.5 mg/16.8 mg
		Χ	Х												1.8 (4)	72.2 mg/814.8 mg
		Χ			Χ					Χ					1.8 (4)	65.8 mg/27.2 mg
										Χ					1.8 (4)	49.0 mg/0.2 mg
Х		Х			Χ		Χ			Χ					1.3 (3)	113.8 mg/1.3 mg
Х					Χ					Х					1.3 (3)	75.5 mg/0.4 mg
Х										Х					1.3 (3)	33.3 mg/0.1 mg
		Х										Х			1.3 (3)	210.9 mg/205.7 mg
					Χ		Х					Х			1.3 (3)	167.8 mg/70.4 mg
		Х	Х		Χ		Х								0.9 (2)	23.8 mg/39.5 mg
		Х								Х		Х			0.9 (2)	72.8 mg/39.5 mg
			Х		Χ		Х								0.9 (2)	137.3 mg/766.5 mg
			Χ												0.9 (2)	4.5 mg/90.0 mg
X	Х	Х			Х										0.4 (1)	125.0 mg/0.9 mg
Х	Χ				Χ	Χ									0.4 (1)	121.4 mg/1.0 mg
Х	Χ				Χ										0.4 (1)	91.3 mg/6.2 mg
X		Х	Х		Х		Х								0.4 (1)	825.0 mg/3077.3 mg
Х		Х	Х				Х								0.4 (1)	117.5 mg/127.5 mg

Table 10 Continued. Medical cannabis product(s) purchased by each muscle spasm patient just prior to achieving the initial 30% reduction in spasticity (0-10 NRS). Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 225 (n)	Avg Daily CBD Use (mg)
Χ		Χ			Х		Χ					Х			0.4 (1)	67.5 mg/7.8 mg
Χ			X		Х										0.4 (1)	50.0 mg/0.1 mg
Χ					Χ		Х								0.4 (1)	61.1 mg/18.1 mg
Х							Χ								0.4 (1)	48.6 mg/7.2 mg
	Χ	Х													0.4 (1)	41.7 mg/24.7 mg
	Χ		Х		Χ										0.4 (1)	167.5 mg/101.0 mg
	Χ				Χ										0.4 (1)	100.0 mg/1.1 mg
		Х	Х		Χ		Χ			Χ					0.4 (1)	57.1 mg/116.0 mg
		Х	Х									Х			0.4 (1)	32.7 mg/131.3 mg
		Х		Χ								Х			0.4 (1)	8.1 mg/107.5 mg
		Х			Χ		Х			Χ					0.4 (1)	95.0 mg/0.8 mg
		Х			Х		Х					Х	Х		0.4 (1)	85.0 mg/25.1 mg
		Х					Χ			Χ					0.4 (1)	21.4 mg/21.4 mg
			Х							Х					0.4 (1)	18.0 mg/160.0 mg
					Χ	Χ									0.4 (1)	263.8 mg/10.2 mg
					Х		Х			Х					0.4 (1)	125.0 mg/0.6 mg
					Х		Х					Х	Х		0.4 (1)	103.6 mg/241.0 mg
					Х							Х			0.4 (1)	66.4 mg/24.6 mg
							Х						Х		0.4 (1)	32.5 mg/55.0 mg
												Х			0.4 (1)	20.8 mg/20.8 mg
													Χ		0.4 (1)	8.9 mg/169.6 mg

### **Cancer Patients**

### **Anxiety**

### Anxiety: Distribution of Baseline Responses in Cancer Patients (n = 405)

Figure 55. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 309) were patients experiencing moderate to severe anxiety at baseline.

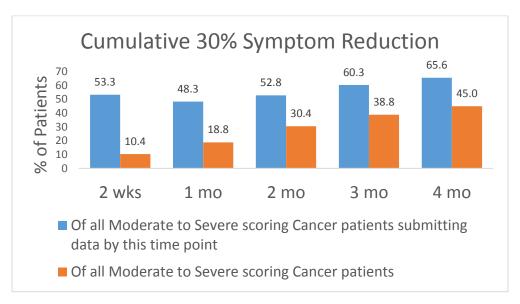


Figure 56. Cumulative percentage of cancer patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

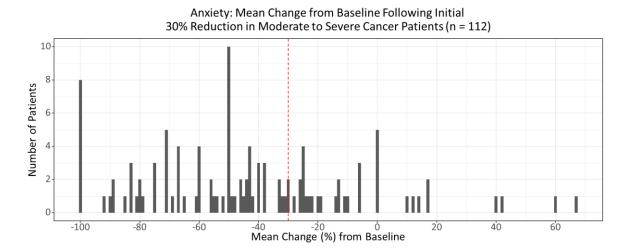


Figure 57. Frequency distribution of cancer patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 11. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral	•	•		•	Inhalation	•	•			 Oromucosa	i			
Very				Verv	Very				Verv	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	_		Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 139 (n)	Avg Daily CBD Use (mg)
					Х										15.8 (22)	54.5 mg/0.4 mg
Х					Х										11.5 (16)	73.2 mg/0.5 mg
		Х													7.9 (11)	90.8 mg/57.0 mg
										Х					5.8 (8)	80.9 mg/0.4 mg
Х		Х			Х		Х								4.3 (6)	354.4 mg/43.5 mg
Х		Х			Х										4.3 (6)	81.5 mg/10.9 mg
		Х					Х								4.3 (6)	32.0 mg/18.1 mg
Х		Х													3.6 (5)	34.0 mg/20.9 mg
Х										Х					2.9 (4)	30.3 mg/0.1 mg
		Х			Х		Х								2.9 (4)	112.9 mg/16.6 mg
					Χ					Χ					2.9 (4)	62.1 mg/0.3 mg
							Х								2.2 (3)	18.4 mg/11.2 mg
Х		Х					Х								1.4 (2)	52.1 mg/23.3 mg
Х					Х		Х								1.4 (2)	209.6 mg/4.5 mg
Х					Х					Х					1.4 (2)	173.8 mg/0.8 mg
	Х				Х		Χ								1.4 (2)	151.5 mg/21.0 mg
		Х	Х				Х								1.4 (2)	62.8 mg/379.2 mg
		Х			Х					Х					1.4 (2)	76.3 mg/15.3 mg
		Х			Х										1.4 (2)	66.2 mg/23.5 mg
		Х										Х			1.4 (2)	68.7 mg/68.7 mg
			Х		Х										1.4 (2)	536.3 mg/689.6 mg
												Х			1.4 (2)	12.7 mg/12.7 mg
Х		Х	Х		Х										0.7 (1)	60.0 mg/0.3 mg
Х		Х			Χ		Х			Х		Х			0.7 (1)	91.6 mg/0.5 mg
Х		Х								Х					0.7 (1)	76.0 mg/20.2 mg
X					Х		Х					Х			0.7 (1)	66.7 mg/66.7 mg
	Х		Х		Χ										0.7 (1)	298.7 mg/527.4 mg
	Х														0.7 (1)	41.7 mg/7.8 mg
		Х	Х	Х											0.7 (1)	16.1 mg/215.0 mg
		Х	Х		Χ		Χ								0.7 (1)	152.1 mg/189.6 mg

Table 11 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	# of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 139	Avg Daily CBD Use (mg)
		Х	Χ										Χ		0.7 (1)	12.5 mg/278.6 mg
		Х		Χ			Х								0.7 (1)	69.9 mg/268.8 mg
		Х		Χ											0.7 (1)	17.5 mg/511.7 mg
		Х			Х		Х						Χ		0.7 (1)	345.6 mg/264.5 mg
		Х								Х					0.7 (1)	114.2 mg/102.2 mg
		Х											Х		0.7 (1)	21.4 mg/21.4 mg
			Х	Х	Х					Х					0.7 (1)	692.0 mg/248.8 mg
			Χ		Х					Х					0.7 (1)	94.8 mg/48.0 mg
			Х				Х					Х			0.7 (1)	34.2 mg/74.2 mg
			Χ				Х								0.7 (1)	51.4 mg/120.0 mg
					Х	Х									0.7 (1)	214.3 mg/7.5 mg
					Х		Х								0.7 (1)	78.6 mg/7.4 mg
							Х			Х					0.7 (1)	65.0 mg/10.1 mg
							Х					Х			0.7 (1)	28.6 mg/7.1 mg
										Х		Х			0.7 (1)	20.7 mg/8.8 mg
												Х	Χ		0.7 (1)	23.3 mg/68.3 mg

### **Appetite Lack**

### Appetite Lack: Distribution of Baseline Responses in Cancer Patients (n = 405)

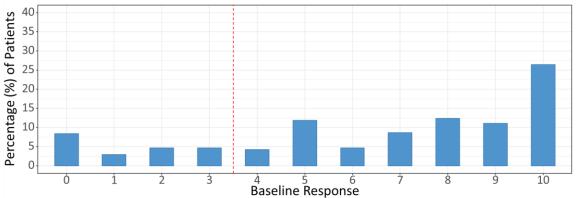


Figure 58. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 321) were patients experiencing moderate to severe lack of appetite at baseline.

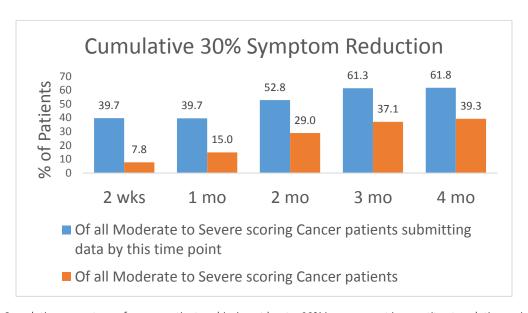


Figure 59. Cumulative percentage of cancer patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

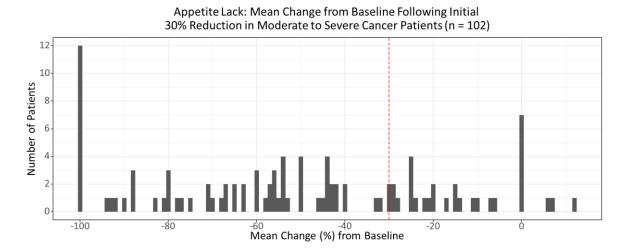


Figure 60. Frequency distribution of cancer patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 12. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral	-	-			Inhalation	-	-			 Oromucosa	 I	-		
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 126 (n)	
					Х										15.9 (20)	52.3 mg/0.4 mg
Х					Х										14.3 (18)	60.0 mg/0.4 mg
										Х					7.1 (9)	77.7 mg/0.4 mg
Х		Х			Х		Х								4.8 (6)	254.2 mg/34.6 mg
Х		Х			Х										3.2 (4)	88.0 mg/0.8 mg
Х		Х													3.2 (4)	35.6 mg/20.6 mg
		Х			Х		Х								3.2 (4)	112.9 mg/16.6 mg
		Χ			Χ										3.2 (4)	47.4 mg/16.1 mg
		Χ					Х								3.2 (4)	26.6 mg/12.1 mg
		Χ													3.2 (4)	126.5 mg/81.5 mg
Х		Χ					Х								2.4 (3)	52.4 mg/25.7 mg
Х					Χ					Х					2.4 (3)	122.6 mg/0.5 mg
Х										Х					2.4 (3)	28.7 mg/0.1 mg
			Χ		Χ										2.4 (3)	576.1 mg/731.9 mg
					Χ		Х								2.4 (3)	110.0 mg/6.9 mg
					Χ					Χ					2.4 (3)	66.2 mg/0.3 mg
		X										Х			1.6 (2)	68.7 mg/68.7 mg
							Х								1.6 (2)	18.6 mg/7.9 mg
												Х			1.6 (2)	12.7 mg/6.4 mg
Х		Х	Х		Χ										0.8 (1)	60.0 mg/0.3 mg
Х		Χ								Χ					0.8 (1)	76.0 mg/20.2 mg
Х					Χ		Χ								0.8 (1)	500.0 mg/2.5 mg
Х							Х								0.8 (1)	178.6 mg/7.9 mg
Х															0.8 (1)	1285.7 mg/6.4 mg
	Х				Χ		Х								0.8 (1)	20.8 mg/3.9 mg
	Х						Х								0.8 (1)	700.0 mg/151.6 mg
	Х														0.8 (1)	41.7 mg/7.8 mg
		Х	Х	Х											0.8 (1)	16.1 mg/215.0 mg
		Х	Х		Х		Х								0.8 (1)	152.1 mg/189.6 mg
		Х	Х				Х								0.8 (1)	106.8 mg/649.5 mg
		Χ	Χ												0.8 (1)	41.0 mg/299.0 mg

Table 12 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 126 (n)	Avg Daily CBD Use (mg)
		Χ		Χ			Х								0.8 (1)	69.9 mg/268.8 mg
		Χ			Χ		Х					Х			0.8 (1)	41.7 mg/10.4 mg
		Χ											Χ		0.8 (1)	51.9 mg/141.9 mg
			Χ	Х	Χ					Χ					0.8 (1)	1003.6 mg/249.2 mg
			Χ		Χ					Χ					0.8 (1)	94.8 mg/48.0 mg
			Χ				Χ					Х			0.8 (1)	34.2 mg/74.2 mg
			Х				Χ								0.8 (1)	48.9 mg/72.5 mg
					Χ	Χ									0.8 (1)	214.3 mg/7.5 mg
					Χ		Χ			Χ					0.8 (1)	50.0 mg/0.3 mg
							Χ			Χ					0.8 (1)	65.0 mg/10.1 mg
							Χ					Х	Χ		0.8 (1)	46.5 mg/80.8 mg
										Χ		Х			0.8 (1)	20.7 mg/8.8 mg
												Х	Χ		0.8 (1)	23.3 mg/68.3 mg

## **Depression**

# Depression: Distribution of Baseline Responses in Cancer Patients (n = 405) State of the state

Figure 61. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 274) were patients experiencing moderate to severe depression at baseline.

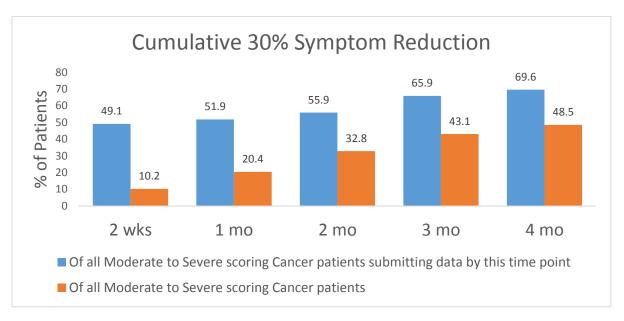


Figure 62. Cumulative percentage of cancer patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

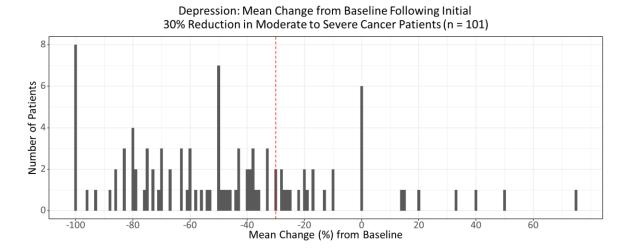


Figure 63. Frequency distribution of cancer patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 13. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral		•			Inhalation		•			Oromucosa	ı	•		
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 133 (n)	Avg Daily CBD Use (mg)
Х					Х										15.8 (21)	80.5 mg/0.5 mg
					Х										15.0 (20)	52.1 mg/0.4 mg
		Х													8.3 (11)	95.7 mg/61.9 mg
										Х					7.5 (10)	81.5 mg/0.4 mg
		Х					Х								6.0 (8)	36.1 mg/21.3 mg
Х		Х			Х		Х								4.5 (6)	221.2 mg/28.3 mg
Х		Х			Х										3.8 (5)	78.5 mg/1.1 mg
Х					Х					Х					3.8 (5)	95.1 mg/0.4 mg
		Х			Х										3.8 (5)	57.0 mg/24.9 mg
Х		Х													3.0 (4)	34.3 mg/20.9 mg
Х										Х					3.0 (4)	36.3 mg/0.1 mg
Х					Х		Х								2.3 (3)	172.6 mg/7.7 mg
					Х					Х					2.3 (3)	48.3 mg/0.2 mg
		Х										Х			1.5 (2)	68.7 mg/68.7 mg
			Х				Х								1.5 (2)	50.2 mg/96.3 mg
					Х		Х								1.5 (2)	94.6 mg/19.9 mg
												Х			1.5 (2)	12.7 mg/12.7 mg
Х		Х	Х		Х										0.8 (1)	60.0 mg/0.3 mg
Х							Х					Х			0.8 (1)	20.7 mg/0.1 mg
	Х				Х		Х								0.8 (1)	20.8 mg/3.9 mg
	Х						Χ								0.8 (1)	700.0 mg/151.6 mg
		Х	Х				Х								0.8 (1)	106.8 mg/649.5 mg
		Х	Х										Х		0.8 (1)	12.5 mg/278.6 mg
		Х	Х												0.8 (1)	41.0 mg/299.0 mg
		Х		Х			Х								0.8 (1)	7.5 mg/7.5 mg
		Х		Х											0.8 (1)	17.5 mg/511.7 mg
		Х			Х		Х						Х		0.8 (1)	345.6 mg/264.5 mg
		Х			Х		Х								0.8 (1)	95.2 mg/11.6 mg
		Х			Х					Х					0.8 (1)	63.3 mg/30.1 mg
		Х					Х					Х			0.8 (1)	68.4 mg/68.4 mg
		Х								Х				_	0.8 (1)	53.3 mg/20.1 mg

Table 13 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 133 (n)	Avg Daily CBD Use (mg)
		Χ											Х		0.8 (1)	21.4 mg/21.4 mg
			Χ	Χ	Χ					Х					0.8 (1)	692.0 mg/248.8 mg
					Χ	Χ									0.8 (1)	214.3 mg/7.5 mg
					Χ		Χ			Χ					0.8 (1)	50.0 mg/0.3 mg
			·				Χ					Χ		·	0.8 (1)	49.4 mg/28.0 mg
												Х	Х		0.8 (1)	23.3 mg/68.3 mg

# **Disturbed Sleep**

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# Disturbed Sleep: Distribution of Baseline Responses in Cancer Patients (n = 405)

Figure 64. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 355) were patients experiencing moderate to severe disturbed sleep at baseline.

4 5 6 Baseline Response 8

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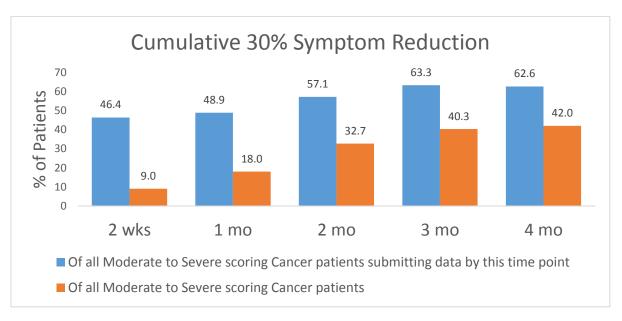


Figure 65. Cumulative percentage of cancer patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

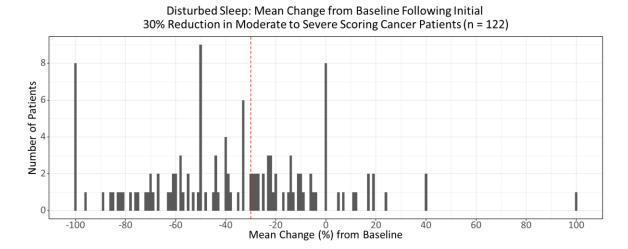


Figure 66. Frequency distribution of cancer patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 14. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral	•	•			Inhalation	•	•			Oromucosa	İ			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 150 (n)	Avg Daily CBD Use (mg)
					1										15.3 (23)	52.7 mg/0.4 mg
1					1										14.0 (21)	70.0 mg/0.4 mg
		1													7.3 (11)	88.0 mg/54.2 mg
										1					7.3 (11)	68.2 mg/0.3 mg
1		1			1		1								5.3 (8)	207.4 mg/23.1 mg
1		1			1										4.0 (6)	87.0 mg/12.3 mg
		1					1								3.3 (5)	34.7 mg/17.7 mg
1		1					1								2.7 (4)	46.5 mg/24.7 mg
1										1					2.7 (4)	29.4 mg/0.1 mg
		1			1		1								2.7 (4)	131.8 mg/7.6 mg
		1			1										2.7 (4)	56.1 mg/19.4 mg
					1					1					2.7 (4)	67.2 mg/0.4 mg
1		1													2.0 (3)	80.8 mg/67.4 mg
1															2.0 (3)	863.3 mg/4.3 mg
							1								2.0 (3)	18.4 mg/11.2 mg
	1	1													1.3 (2)	47.9 mg/10.0 mg
		1			1					1					1.3 (2)	76.3 mg/15.3 mg
		1										1			1.3 (2)	68.7 mg/68.7 mg
			1		1										1.3 (2)	339.8 mg/228.2 mg
1	1	1	1		1		1								0.7 (1)	51.3 mg/10.9 mg
1		1	1		1										0.7 (1)	60.0 mg/0.3 mg
1		1			1		1			1		1			0.7 (1)	91.6 mg/0.5 mg
1		1								1					0.7 (1)	76.0 mg/20.2 mg
1					1		1								0.7 (1)	364.3 mg/8.8 mg
1					1					1					0.7 (1)	90.0 mg/0.5 mg
1							1					1			0.7 (1)	20.7 mg/0.1 mg
	1		1		1										0.7 (1)	298.7 mg/527.4 mg
	1				1		1								0.7 (1)	85.1 mg/11.2 mg
	1						1								0.7 (1)	700.0 mg/151.6 mg
	1														0.7 (1)	41.7 mg/7.8 mg
		1	1		1		1						1		0.7 (1)	58.6 mg/23.0 mg

Table 14 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very High	High		High	Very High	Very High	High		High	Very High	Very High	High		High	Very High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 150 (n)	Avg Daily CBD Use (mg)
		1	1				1								0.7 (1)	18.9 mg/108.9 mg
		1	1										1		0.7 (1)	7.0 mg/87.3 mg
		1	1												0.7 (1)	17.5 mg/62.5 mg
		1		1			1								0.7 (1)	69.9 mg/268.8 mg
		1		1											0.7 (1)	26.7 mg/486.0 mg
		1								1					0.7 (1)	27.6 mg/10.1 mg
		1											1		0.7 (1)	51.9 mg/141.9 mg
			1	1	1					1					0.7 (1)	692.0 mg/248.8 mg
			1		1					1					0.7 (1)	94.8 mg/48.0 mg
			1				1					1			0.7 (1)	34.2 mg/74.2 mg
					1	1									0.7 (1)	214.3 mg/7.5 mg
					1		1					1			0.7 (1)	253.8 mg/128.2 mg
							1			1					0.7 (1)	65.0 mg/10.1 mg
										1		1			0.7 (1)	20.7 mg/8.8 mg
												1	1		0.7 (1)	23.3 mg/68.3 mg
												1			0.7 (1)	16.7 mg/4.2 mg

## **Fatigue**

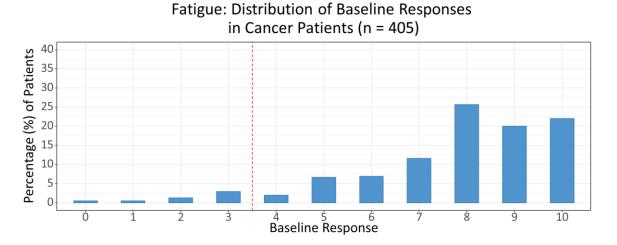


Figure 67. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 384) were patients experiencing moderate to severe fatigue at baseline.

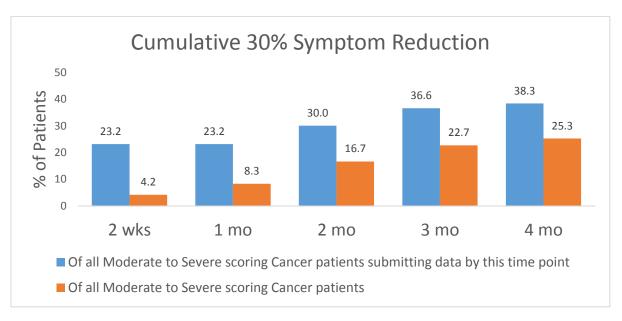


Figure 68. Cumulative percentage of cancer patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

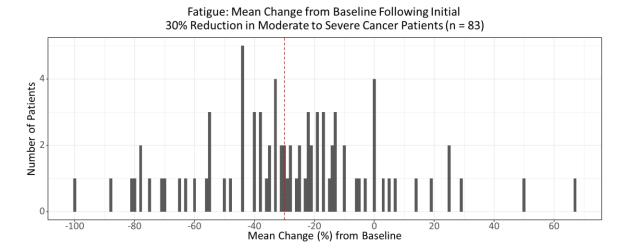


Figure 69. Frequency distribution of cancer patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 15. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 97 (n)	Avg Daily CBD Use (mg)
				Х								17.5 (17)	51.7 mg/0.4 mg
Х				Х								8.2 (8)	67.1 mg/0.5 mg
		Χ										7.2 (7)	20.4 mg/85.2 mg
								Χ				6.2 (6)	20.5 mg/0.1 mg
		Х		Х								5.2 (5)	73.7 mg/57.3 mg
Х		Х		Х		Х						4.1 (4)	285.1 mg/36.8 mg
		Х		Х		Х						4.1 (4)	82.7 mg/10.1 mg
Х		Х		Х								3.1 (3)	106.1 mg/45.1 mg
Х				Х				Х				3.1 (3)	122.1 mg/0.5 mg
				Х		Х						3.1 (3)	72.9 mg/6.0 mg
Х		Х										2.1 (2)	92.5 mg/52.7 mg
Х								Х				2.1 (2)	39.9 mg/0.1 mg
		Х	Х									2.1 (2)	28.6 mg/257.0 mg
		Х				Х				Х		2.1 (2)	53.9 mg/53.9 mg
			Х	Х				Χ				2.1 (2)	549.2 mg/148.6 mg
				Х				Х				2.1 (2)	63.6 mg/0.3 mg
						Χ						2.1 (2)	18.6 mg/7.9 mg
Х	Х	Χ	Х	Х		Χ						1.0 (1)	51.3 mg/10.9 mg
Х	Х	Χ		Х								1.0 (1)	500.0 mg/2.5 mg
	Х	Χ										1.0 (1)	20.8 mg/3.9 mg
	Х			Х	Χ							1.0 (1)	170.0 mg/10.0 mg
	Х			Х		Χ						1.0 (1)	85.1 mg/11.2 mg
	Х					Χ						1.0 (1)	700.0 mg/151.6 mg
	Х											1.0 (1)	41.7 mg/7.8 mg
Х		Х	Х	Х								1.0 (1)	84.8 mg/0.6 mg
Х				Х	Х							1.0 (1)	150.0 mg/0.3 mg
Х				Х		Х		Х				1.0 (1)	50.3 mg/17.6 mg
Х				Х		Х						1.0 (1)	57.5 mg/0.3 mg
Х						Х						1.0 (1)	178.6 mg/7.9 mg
Х												1.0 (1)	1285.7 mg/6.4 mg
		Х	_			Х						1.0 (1)	7.5 mg/7.5 mg

Table 15 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 97 (n)	Avg Daily CBD Use (mg)
		Χ						Χ				1.0 (1)	52.6 mg/10.1 mg
			Х	Х								1.0 (1)	100.0 mg/0.2 mg
			Х			Х				Χ		1.0 (1)	34.2 mg/74.2 mg
			Х			Х						1.0 (1)	48.9 mg/72.5 mg
				Х		Х				Χ		1.0 (1)	253.8 mg/128.2 mg
						Х		Х				1.0 (1)	65.0 mg/10.1 mg
										Χ	Х	1.0 (1)	22.0 mg/104.2 mg
										Х		1.0 (1)	8.7 mg/8.7 mg
											Х	1.0 (1)	2.6 mg/49.5 mg

### Nausea

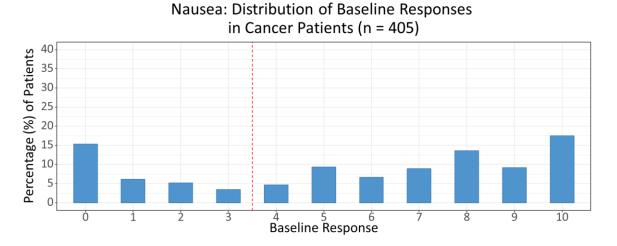


Figure 70. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 283) were patients experiencing moderate to severe nausea at baseline.

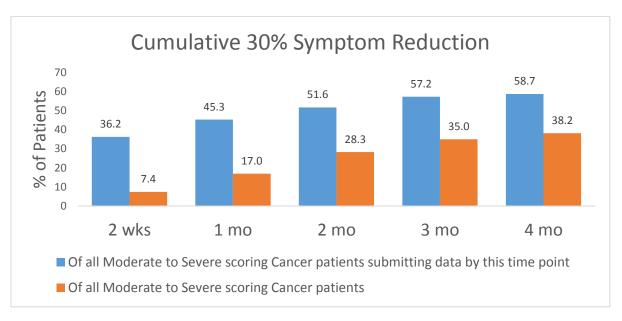


Figure 71. Cumulative percentage of cancer patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Nausea: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Cancer Patients (n = 85)

Figure 72. Frequency distribution of cancer patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 16. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral	-	-			Inhalation					Oromucosa	i i			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 109 (n)	Avg Daily CBD Use (mg)
					Х										18.3 (20)	55.9 mg/0.4 mg
Х					Х										11.0 (12)	71.6 mg/0.5 mg
										Х					8.3 (9)	86.3 mg/0.4 mg
		Х													6.4 (7)	135.5 mg/83.2 mg
Х		Х			Х										4.6 (5)	61.4 mg/15.6 mg
		Х					Χ								3.7 (4)	29.9 mg/13.2 mg
			Χ		Х										3.7 (4)	309.6 mg/596.2 mg
Х		Х			Х		Χ								2.8 (3)	362.6 mg/47.3 mg
Х					Х					Х					2.8 (3)	135.2 mg/0.6 mg
		Х			Х		Χ								2.8 (3)	103.4 mg/7.3 mg
		Х			Х										2.8 (3)	70.8 mg/7.1 mg
					Х		Χ								2.8 (3)	60.7 mg/8.6 mg
					Х					Х					2.8 (3)	62.6 mg/0.4 mg
Χ		Х					Χ								1.8 (2)	52.1 mg/23.3 mg
Χ										Х					1.8 (2)	27.0 mg/0.1 mg
		Х								Х					1.8 (2)	83.8 mg/61.2 mg
		Х										Х			1.8 (2)	68.7 mg/68.7 mg
			Х				Х								1.8 (2)	50.2 mg/96.3 mg
Х	Х	Х	Х		Χ		Х								0.9 (1)	51.3 mg/10.9 mg
Х	Х														0.9 (1)	20.0 mg/0.0 mg
Х		Х	Х												0.9 (1)	47.9 mg/142.9 mg
Х		Х													0.9 (1)	35.0 mg/30.0 mg
Х															0.9 (1)	1285.7 mg/6.4 mg
	Х	Х													0.9 (1)	75.0 mg/16.2 mg
	Х				Х		Х								0.9 (1)	85.1 mg/11.2 mg
	Х						Х								0.9 (1)	700.0 mg/151.6 mg
	Х														0.9 (1)	41.7 mg/7.8 mg
		Х	Х												0.9 (1)	41.0 mg/299.0 mg
		Х		Х			Х								0.9 (1)	69.9 mg/268.8 mg
			Х		Χ					Х					0.9 (1)	94.8 mg/48.0 mg
			Х				Х					Х			0.9 (1)	34.2 mg/74.2 mg

Table 16 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 109 (n)	Avg Daily CBD Use (mg)
					Χ	Χ									0.9 (1)	214.3 mg/7.5 mg
					Χ		Х			Χ					0.9 (1)	50.0 mg/0.3 mg
					Х		Χ					Х			0.9 (1)	253.8 mg/128.2 mg
							Х			Χ					0.9 (1)	65.0 mg/10.1 mg
							Χ					Х			0.9 (1)	49.4 mg/28.0 mg
							Χ								0.9 (1)	17.9 mg/17.9 mg
												Х	Х		0.9 (1)	22.0 mg/104.2 mg

### **Pain**

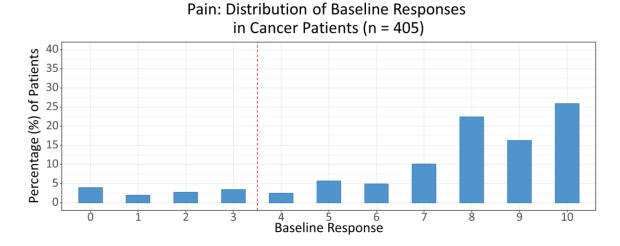


Figure 73. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 356) were patients experiencing moderate to severe pain at baseline.

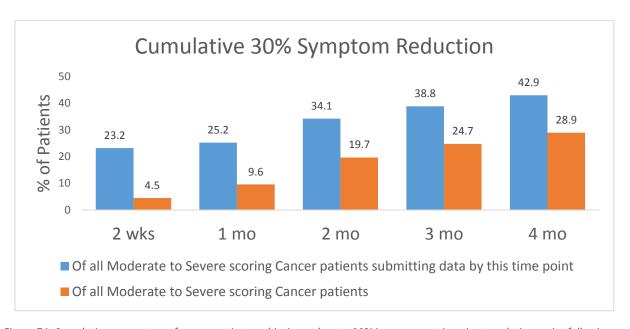


Figure 74. Cumulative percentage of cancer patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

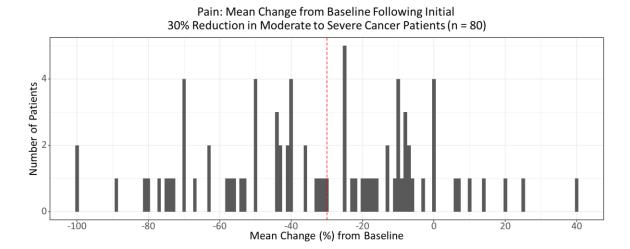


Figure 75. Frequency distribution of cancer patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 17. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral	-				Inhalation					 Oromucosa		-		
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 103 (n)	Avg Daily CBD Use (mg)
					Х										13.6 (14)	61.3 mg/0.3 mg
Х					Х										10.7 (11)	68.0 mg/0.5 mg
										Х					5.8 (6)	25.3 mg/0.1 mg
		Х			Х										4.9 (5)	119.2 mg/11.1 mg
		Х													4.9 (5)	29.7 mg/28.5 mg
Х		Χ			Х		Х								3.9 (4)	342.8 mg/41.8 mg
Х					Х					Х					3.9 (4)	62.1 mg/0.3 mg
Х		Χ			Х										2.9 (3)	146.2 mg/10.4 mg
Х		Χ					Х								2.9 (3)	73.1 mg/36.8 mg
Х										Х					2.9 (3)	26.7 mg/0.1 mg
			Х		Х										2.9 (3)	58.6 mg/398.5 mg
Х		Х													1.9 (2)	37.0 mg/29.5 mg
	Х				Х		Χ								1.9 (2)	183.6 mg/24.7 mg
		Х	Х				Х								1.9 (2)	12.4 mg/262.8 mg
		Х			Х		Х								1.9 (2)	154.8 mg/9.6 mg
		Х					X								1.9 (2)	22.0 mg/8.3 mg
		Х										Х			1.9 (2)	68.7 mg/68.7 mg
					Х					Х					1.9 (2)	89.0 mg/0.6 mg
							Х								1.9 (2)	18.6 mg/7.9 mg
												Х	Χ		1.9 (2)	22.7 mg/86.3 mg
Х	Х														1.0 (1)	20.0 mg/0.0 mg
X		Х	X		Х										1.0 (1)	82.5 mg/0.6 mg
X					Х		Х								1.0 (1)	98.5 mg/14.0 mg
	Х	Х													1.0 (1)	20.8 mg/3.9 mg
	Х				Х	Х									1.0 (1)	345.0 mg/22.6 mg
	Х				Х										1.0 (1)	67.0 mg/6.0 mg
	Х						Х								1.0 (1)	700.0 mg/151.6 mg
	Х														1.0 (1)	41.7 mg/7.8 mg
		Х	Х	Х											1.0 (1)	16.1 mg/215.0 mg
		Х	Х		Χ	Х	Х						Χ		1.0 (1)	114.3 mg/7.1 mg

Table 17 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 103 (n)	Avg Daily CBD Use (mg)
		Χ		Χ	Χ										1.0 (1)	34.1 mg/202.1 mg
		Χ		Χ			Χ								1.0 (1)	69.9 mg/268.8 mg
		Χ			Χ		Χ					Χ			1.0 (1)	41.7 mg/10.4 mg
		Χ					Х					Χ			1.0 (1)	68.4 mg/68.4 mg
		Χ								Χ					1.0 (1)	25.0 mg/0.1 mg
			Χ	Χ	Χ		Χ								1.0 (1)	0.6 mg/100.0 mg
			Х	Χ	Χ					Χ					1.0 (1)	1003.6 mg/249.2 mg
			Χ		Χ					Χ					1.0 (1)	94.8 mg/48.0 mg
			Х				Χ					Χ			1.0 (1)	34.2 mg/74.2 mg
					Х		Χ					Χ			1.0 (1)	142.5 mg/1.1 mg
					Х		Χ								1.0 (1)	78.6 mg/7.4 mg
							Χ			Χ					1.0 (1)	65.0 mg/10.1 mg
												Χ			1.0 (1)	8.7 mg/8.7 mg
													Χ		1.0 (1)	2.6 mg/49.5 mg

# **Vomiting**

### Vomiting: Distribution of Baseline Responses in Cancer Patients (n = 405) 40 Percentage (%) of Patients 35 30 25 20 15 10 5 0 Ó 1 3 4 5 6 Baseline Response 8 ģ 10

Figure 76. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 168) were patients experiencing moderate to severe vomiting at baseline.

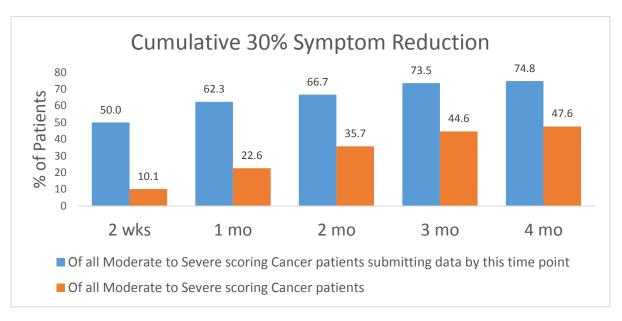


Figure 77. Cumulative percentage of cancer patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

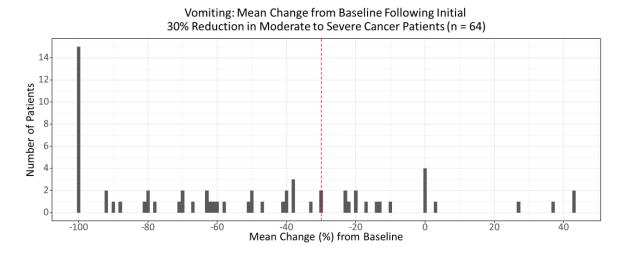


Figure 78. Frequency distribution of cancer patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 18. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral		,			Inhalation		-			Oromucosa	l I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 80 (n)	Avg Daily CBD Use (mg)
					Х										16.3 (13)	60.0 mg/0.4 mg
Х					Х										13.8 (11)	72.1 mg/0.5 mg
		Х													7.5 (6)	147.3 mg/86.3 mg
Х		Х			Х		Х								3.8 (3)	362.6 mg/47.3 mg
Х		Х			Х										3.8 (3)	51.7 mg/0.2 mg
Х					Х					Х					3.8 (3)	103.7 mg/0.6 mg
					Х		Х								3.8 (3)	110.0 mg/6.9 mg
					Х					Х					3.8 (3)	70.7 mg/0.4 mg
										Х					3.8 (3)	191.6 mg/0.9 mg
		Х			Х		Х								2.5 (2)	110.1 mg/5.9 mg
		Х			Х										2.5 (2)	102.1 mg/0.3 mg
		Х					Х								2.5 (2)	58.8 mg/43.8 mg
			Х		Х										2.5 (2)	82.9 mg/502.8 mg
Х	Х	Х			Х										1.3 (1)	500.0 mg/2.5 mg
Х		Х					Х								1.3 (1)	87.9 mg/46.5 mg
Х		Х								Х					1.3 (1)	76.0 mg/20.2 mg
Х										Х					1.3 (1)	26.0 mg/0.1 mg
	Х				Х		Χ								1.3 (1)	85.1 mg/11.2 mg
	Х						Χ								1.3 (1)	700.0 mg/151.6 mg
		Х	Х		Х		Χ								1.3 (1)	152.1 mg/189.6 mg
		Х	Х				Х								1.3 (1)	106.8 mg/649.5 mg
		Х	Х												1.3 (1)	41.0 mg/299.0 mg
		Х		Х			Х								1.3 (1)	7.5 mg/7.5 mg
		Х	_		Х		Х	_		_			Х		1.3 (1)	345.6 mg/264.5 mg
		Х								Х					1.3 (1)	114.2 mg/102.2 mg
		Х										Х			1.3 (1)	26.8 mg/26.8 mg
			Х		Χ					Х					1.3 (1)	94.8 mg/48.0 mg
			Х				Х					Х			1.3 (1)	34.2 mg/74.2 mg
			Х				Х								1.3 (1)	48.9 mg/72.5 mg
					Χ	Х									1.3 (1)	214.3 mg/7.5 mg

Table 18 Continued. Medical cannabis product(s) purchased by each cancer patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 80 (n)	Avg Daily CBD Use (mg)
					Χ		Χ			Χ					1.3 (1)	50.0 mg/0.3 mg
					Χ		Χ					Χ			1.3 (1)	253.8 mg/128.2 mg
							Χ			Χ					1.3 (1)	65.0 mg/10.1 mg
							Χ					Χ	Χ		1.3 (1)	46.5 mg/80.8 mg
							Χ					Χ			1.3 (1)	49.4 mg/28.0 mg
							Χ								1.3 (1)	17.9 mg/17.9 mg
												Х			1.3 (1)	8.7 mg/8.7 mg

## **Cancer: Pain Patients**

### **Pain**

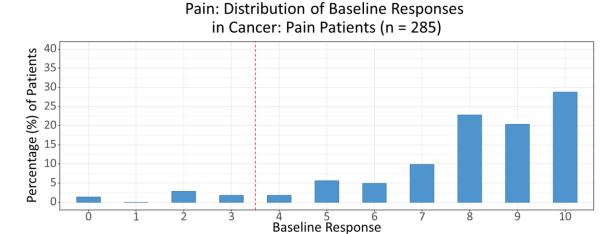


Figure 79. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 268) were patients experiencing moderate to severe pain at baseline.

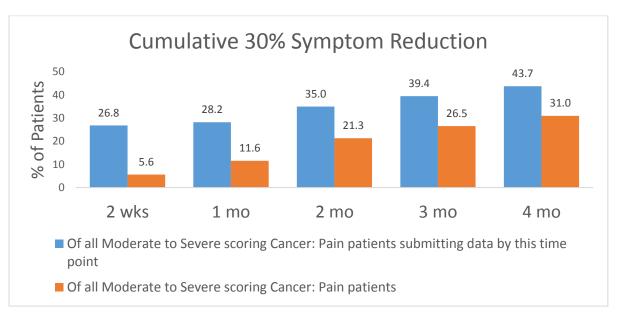


Figure 80. Cumulative percentage of cancer: pain patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

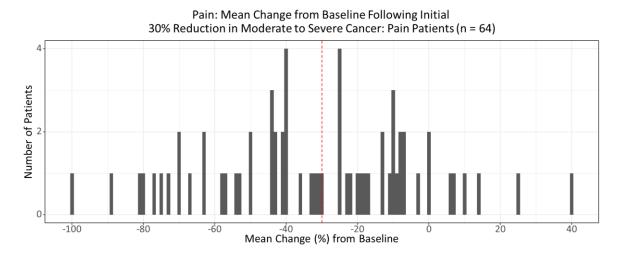


Figure 81. Frequency distribution of cancer: pain patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 19. Medical cannabis product(s) purchased by each cancer: pain patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					 Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 83 (n)	Avg Daily CBD Use (mg)
					Х										15.7 (13)	63.7 mg/0.3 mg
Х					Х										10.8 (9)	67.4 mg/0.5 mg
		Х													6.0 (5)	29.7 mg/28.5 mg
Х		Х			Х		Х								4.8 (4)	342.8 mg/41.8 mg
										Х					4.8 (4)	26.0 mg/0.1 mg
Х		Х			Х										3.6 (3)	146.2 mg/10.4 mg
Х					Х					Х					3.6 (3)	61.7 mg/0.3 mg
Х										Х					3.6 (3)	26.7 mg/0.1 mg
		Х			Х										3.6 (3)	130.2 mg/15.0 mg
Х		Х					Х								2.4 (2)	70.7 mg/32.0 mg
		Х	Х				Х								2.4 (2)	12.4 mg/262.8 mg
		Х			Х		Х								2.4 (2)	154.8 mg/9.6 mg
		Χ					Х								2.4 (2)	22.0 mg/8.3 mg
			Х		Χ										2.4 (2)	57.5 mg/142.6 mg
					Χ					Χ					2.4 (2)	89.0 mg/0.6 mg
												Х	Χ		2.4 (2)	22.7 mg/86.3 mg
Χ	Х														1.2 (1)	20.0 mg/0.0 mg
Х		Х													1.2 (1)	35.0 mg/30.0 mg
Х					Х		Х								1.2 (1)	98.5 mg/14.0 mg
	Х	Х													1.2 (1)	20.8 mg/3.9 mg
	Х				Х		Х								1.2 (1)	282.1 mg/38.1 mg
	Х				Х										1.2 (1)	67.0 mg/6.0 mg
	Х						Х								1.2 (1)	700.0 mg/151.6 mg
	Х														1.2 (1)	41.7 mg/7.8 mg
		Х	Х		Χ	Χ	Х						Χ		1.2 (1)	114.3 mg/7.1 mg
		Х		Х	Х										1.2 (1)	34.1 mg/202.1 mg
		Х					Х					Х			1.2 (1)	68.4 mg/68.4 mg
		Х								Х					1.2 (1)	25.0 mg/0.1 mg
		Χ										Х			1.2 (1)	110.7 mg/110.7 mg

Table 19 Continued. Medical cannabis product(s) purchased by each cancer: pain patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral	-				Inhalation	•			-	Oromucosa	l	•		
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 83 (n)	Avg Daily CBD Use (mg)
			Χ	Χ	Χ		Χ								1.2 (1)	0.6 mg/100.0 mg
			Χ	Χ	Χ					Χ					1.2 (1)	1003.6 mg/249.2 mg
			Χ		Χ					Χ					1.2 (1)	94.8 mg/48.0 mg
					Χ		Χ					Χ			1.2 (1)	142.5 mg/1.1 mg
					Χ		Χ								1.2 (1)	78.6 mg/7.4 mg
							Χ			Χ					1.2 (1)	65.0 mg/10.1 mg
							Х								1.2 (1)	28.6 mg/7.1 mg
	·							·				Х	·	·	1.2 (1)	8.7 mg/8.7 mg
	·												Χ		1.2 (1)	2.6 mg/49.5 mg

# **Cancer: Nausea/Vomiting Patients**

# **Appetite Lack**

# Appetite Lack: Distribution of Baseline Responses in Cancer: Nausea/Vomiting Patients (n = 235)

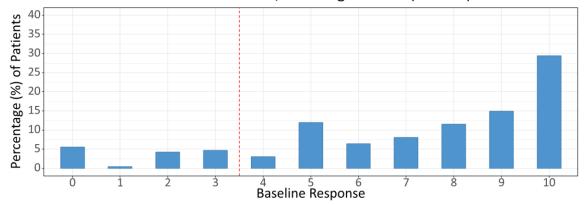


Figure 82. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 200) were patients experiencing moderate to severe lack of appetite at baseline.

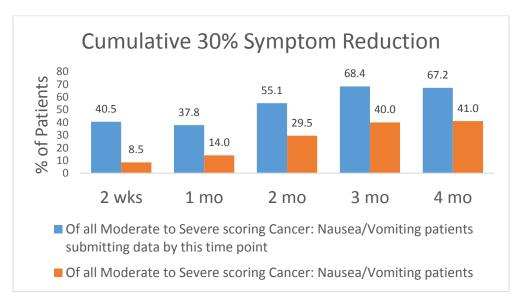


Figure 83. Cumulative percentage of cancer: nausea/vomiting patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Appetite Lack: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Cancer: Nausea/Vomiting Patients (n = 66)

Figure 84. Frequency distribution of cancer: nausea/vomiting patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 20. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral		-		-	Inhalation		-			 Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 82 (n)	Avg Daily CBD Use (mg)
Х					Х										15.9 (13)	56.6 mg/0.4 mg
					Χ										14.6 (12)	50.6 mg/0.3 mg
										Х					6.1 (5)	121.8 mg/0.6 mg
Χ		Х			Χ										4.9 (4)	88.0 mg/0.8 mg
Х					Χ					Χ					3.7 (3)	122.6 mg/0.5 mg
		Х			Х		Х								3.7 (3)	118.8 mg/18.2 mg
					Х					Х					3.7 (3)	66.2 mg/0.3 mg
Х		Х													2.4 (2)	36.1 mg/13.6 mg
Х										Х					2.4 (2)	27.0 mg/0.1 mg
		Х			Х										2.4 (2)	47.3 mg/29.5 mg
		Х													2.4 (2)	20.0 mg/20.0 mg
			Х		Х										2.4 (2)	811.6 mg/1050.2 mg
					Х		Х								2.4 (2)	70.0 mg/5.3 mg
							Х								2.4 (2)	18.6 mg/7.9 mg
Х		Х			Х		Х								1.2 (1)	95.1 mg/27.2 mg
Х		Х					Х								1.2 (1)	77.9 mg/46.5 mg
Х		Х								Χ					1.2 (1)	76.0 mg/20.2 mg
Х					Х		Х								1.2 (1)	500.0 mg/2.5 mg
Х															1.2 (1)	1285.7 mg/6.4 mg
	Х				Х		Х								1.2 (1)	20.8 mg/3.9 mg
	Х						Х								1.2 (1)	700.0 mg/151.6 mg
	Х														1.2 (1)	41.7 mg/7.8 mg
		X	Х	Х											1.2 (1)	16.1 mg/215.0 mg
		X	Х		Χ		X								1.2 (1)	152.1 mg/189.6 mg
		X	Х				X								1.2 (1)	106.8 mg/649.5 mg
		Х	Х												1.2 (1)	41.0 mg/299.0 mg
		Х		Х			Х								1.2 (1)	69.9 mg/268.8 mg
		Х			Х		Х					Х			1.2 (1)	41.7 mg/10.4 mg
		Х					Х								1.2 (1)	25.0 mg/6.3 mg
		Χ										Χ			1.2 (1)	26.8 mg/26.8 mg

Table 20 Continued. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 82 (n)	Avg Daily CBD Use (mg)
		Χ											Χ		1.2 (1)	51.9 mg/141.9 mg
			Х		Χ					Χ					1.2 (1)	94.8 mg/48.0 mg
			Χ				Х					Х			1.2 (1)	34.2 mg/74.2 mg
					Χ	Χ									1.2 (1)	214.3 mg/7.5 mg
							Χ			Χ					1.2 (1)	65.0 mg/10.1 mg
							Χ					Χ	Χ		1.2 (1)	46.5 mg/80.8 mg
						·				Χ		Χ		•	1.2 (1)	20.7 mg/8.8 mg
												Х	Х		1.2 (1)	23.3 mg/68.3 mg
												Х			1.2 (1)	16.7 mg/4.2 mg

### Nausea

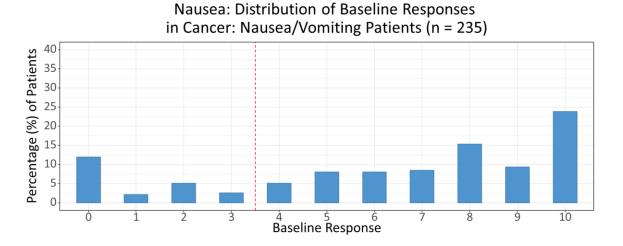


Figure 85. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 184) were patients experiencing moderate to severe nausea at baseline.

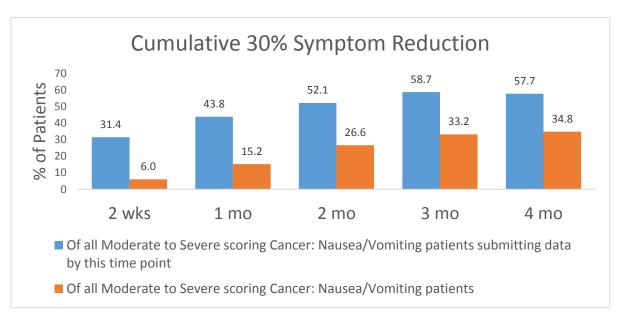


Figure 86. Cumulative percentage of cancer: nausea/vomiting patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Nausea: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Cancer: Nausea/Vomiting Patients (n = 49)

Figure 87. Frequency distribution of cancer: nausea/vomiting patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 21. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral	-	-			Inhalation		-			 Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 64 (n)	Avg Daily CBD Use (mg)
					Х										14.1 (9)	54.5 mg/0.3 mg
Х					Х										10.9 (7)	62.3 mg/0.4 mg
Х		Х			Х										7.8 (5)	61.4 mg/15.6 mg
		Х													6.3 (4)	120.2 mg/73.7 mg
										Х					6.3 (4)	151.5 mg/0.7 mg
Х					Х					Х					4.7 (3)	135.2 mg/0.6 mg
					Х					Х					4.7 (3)	62.6 mg/0.4 mg
Х		Х			Х		Х								3.1 (2)	237.1 mg/21.9 mg
Х										Х					3.1 (2)	27.0 mg/0.1 mg
			Х		Χ										3.1 (2)	561.6 mg/1049.8 mg
					Χ		Х								3.1 (2)	51.8 mg/9.1 mg
Х	Х	Χ	Х		Χ		Χ								1.6 (1)	51.3 mg/10.9 mg
Х	Х														1.6 (1)	20.0 mg/0.0 mg
Х		Χ	Χ												1.6 (1)	47.9 mg/142.9 mg
Х		Χ					Χ								1.6 (1)	87.9 mg/46.5 mg
	Χ	Χ													1.6 (1)	75.0 mg/16.2 mg
	Χ				Χ		Χ								1.6 (1)	85.1 mg/11.2 mg
	Χ						Χ								1.6 (1)	700.0 mg/151.6 mg
	Χ														1.6 (1)	41.7 mg/7.8 mg
		Χ	Х												1.6 (1)	41.0 mg/299.0 mg
		Χ		Х			Х								1.6 (1)	69.9 mg/268.8 mg
		Χ			Χ		Х								1.6 (1)	90.0 mg/10.3 mg
		Χ			Χ										1.6 (1)	45.0 mg/15.2 mg
		Х					Х								1.6 (1)	22.9 mg/22.9 mg
		Х										Х			1.6 (1)	26.8 mg/26.8 mg
			Х		Х					Х					1.6 (1)	94.8 mg/48.0 mg
			Х				Х					Х			1.6 (1)	34.2 mg/74.2 mg
			Х				Х								1.6 (1)	51.4 mg/120.0 mg
					Χ	Χ									1.6 (1)	214.3 mg/7.5 mg

Table 21 Continued. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 64 (n)	Avg Daily CBD Use (mg)
					Х		Χ					Х			1.6 (1)	253.8 mg/128.2 mg
							Х			Х					1.6 (1)	65.0 mg/10.1 mg
		_										Х	Х		1.6 (1)	22.0 mg/104.2 mg

# **Vomiting**

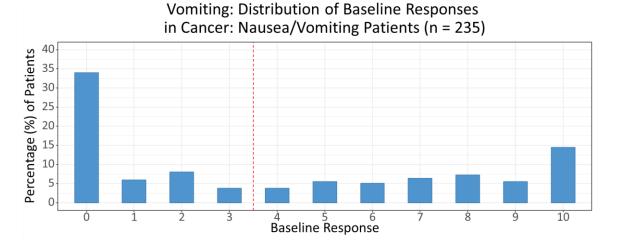


Figure 88. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 113) were patients experiencing moderate to severe vomiting at baseline.

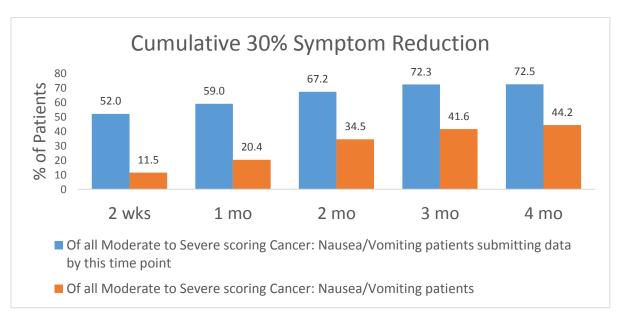


Figure 89. Cumulative percentage of cancer: nausea/vomiting patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Vomiting: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Cancer: Nausea/Vomiting Patients (n = 39)

Figure 90. Frequency distribution of cancer: nausea/vomiting patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 22. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	i			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 50 (n)	Avg Daily CBD Use (mg)
Х					Х										14.0 (7)	60.7 mg/0.4 mg
					Х										10.0 (5)	56.7 mg/0.3 mg
		Х													8.0 (4)	121.4 mg/76.4 mg
Х		Х			Х										6.0 (3)	51.7 mg/0.2 mg
					Х					Х					6.0 (3)	70.7 mg/0.4 mg
Х		Х			Х		Х								4.0 (2)	237.1 mg/21.9 mg
Х					Х					Х					4.0 (2)	110.5 mg/0.7 mg
					Х		Х								4.0 (2)	70.0 mg/5.3 mg
										Х					4.0 (2)	277.1 mg/1.4 mg
Х	Х	Х			Х										2.0 (1)	500.0 mg/2.5 mg
Х		Х					Х								2.0 (1)	87.9 mg/46.5 mg
Х		Х								Х					2.0 (1)	76.0 mg/20.2 mg
Х										Х					2.0 (1)	26.0 mg/0.1 mg
	Х				Х		Х								2.0 (1)	85.1 mg/11.2 mg
	Χ						Х								2.0 (1)	700.0 mg/151.6 mg
		Χ	Χ		Х		Χ								2.0 (1)	152.1 mg/189.6 mg
		Χ	Х				Χ								2.0 (1)	106.8 mg/649.5 mg
		Χ	Χ												2.0 (1)	41.0 mg/299.0 mg
		Χ		Х			Х								2.0 (1)	7.5 mg/7.5 mg
		Χ			Χ		Χ						Χ		2.0 (1)	345.6 mg/264.5 mg
		Χ			Χ		Χ								2.0 (1)	125.0 mg/0.2 mg
		Χ										Х			2.0 (1)	26.8 mg/26.8 mg
			Х		Х					Χ					2.0 (1)	94.8 mg/48.0 mg
			Х		Χ										2.0 (1)	60.7 mg/910.5 mg
			Х				Х					Х			2.0 (1)	34.2 mg/74.2 mg
					Χ	Χ									2.0 (1)	214.3 mg/7.5 mg
					Χ		Х					Х			2.0 (1)	253.8 mg/128.2 mg
							Х			Χ					2.0 (1)	65.0 mg/10.1 mg
							Χ					Х	Χ		2.0 (1)	46.5 mg/80.8 mg

# **Chemotherapy-Induced Nausea**

# Chemotherapy-Induced Nausea: Distribution of Baseline Responses in Cancer: Nausea/Vomiting Patients (n = 188)

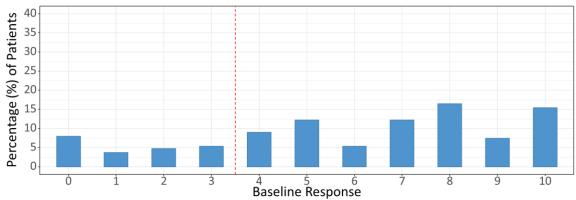


Figure 91. Distribution of patient responses on chemotherapy-induced nausea (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 147) were patients experiencing moderate to severe chemotherapy-induced nausea at baseline.

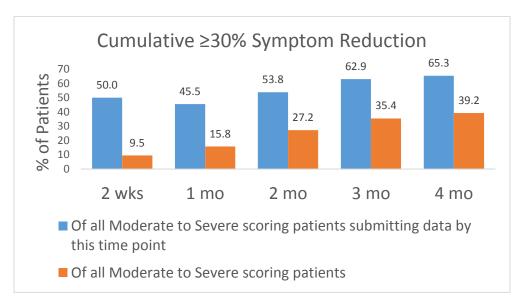


Figure 92. Cumulative percentage of cancer: nausea/vomiting patients achieving at least a 30% improvement in chemotherapy-induced nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

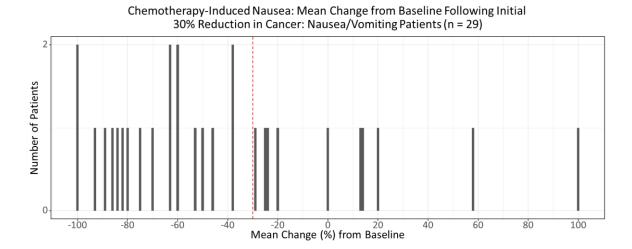


Figure 93. Frequency distribution of cancer: nausea/vomiting patients based on the average change in their chemotherapy-induced 0-10 NRS nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 23. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in chemotherapy-induced nausea (0-10 NRS). Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 55 (n)	Avg Daily CBD Use (mg)
					Х										18.2 (10)	53.9 mg/0.4 mg
Х					Х										16.4 (9)	59.3 mg/0.4 mg
		Х													7.3 (4)	40.2 mg/38.7 mg
Х		Х			Х		Х								5.5 (3)	194.5 mg/19.0 mg
Х					Х					Х					5.5 (3)	135.2 mg/0.6 mg
Х		Х			Х										3.6 (2)	66.4 mg/1.4 mg
Χ		Χ													3.6 (2)	67.1 mg/50.1 mg
										Х					3.6 (2)	272.0 mg/1.3 mg
Х		Χ			Х	Х									1.8 (1)	283.3 mg/16.7 mg
Χ		Χ					Χ								1.8 (1)	87.9 mg/46.5 mg
Χ										Χ					1.8 (1)	37.7 mg/0.1 mg
	Χ				Χ		Χ								1.8 (1)	20.8 mg/3.9 mg
	Χ						Χ								1.8 (1)	700.0 mg/151.6 mg
		Χ	Χ												1.8 (1)	41.0 mg/299.0 mg
		Х		Χ			Х								1.8 (1)	69.9 mg/268.8 mg
		Х			Χ		Х								1.8 (1)	92.7 mg/10.9 mg
		Χ			Χ										1.8 (1)	62.2 mg/20.3 mg
		Х					Х								1.8 (1)	22.9 mg/22.9 mg
		Х											Χ		1.8 (1)	7.8 mg/148.4 mg
			Χ		Χ										1.8 (1)	1562.5 mg/1190.0 mg
			Х				Х					Х			1.8 (1)	34.2 mg/74.2 mg
			Х				Х								1.8 (1)	51.4 mg/120.0 mg
				Χ											1.8 (1)	1.1 mg/200.0 mg
					Х	Χ									1.8 (1)	214.3 mg/7.5 mg
					Х		Х								1.8 (1)	50.0 mg/0.3 mg
					Х					Х					1.8 (1)	83.3 mg/0.4 mg
							Х			Χ					1.8 (1)	65.0 mg/10.1 mg
												Х	Х		1.8 (1)	22.0 mg/104.2 mg

# **Chemotherapy-Induced Vomiting**

# Chemotherapy-Induced Vomiting: Distribution of Baseline Responses in Cancer: Nausea/Vomiting Patients (n = 173)

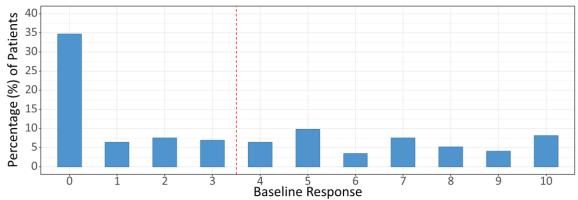


Figure 94. Distribution of patient responses on chemotherapy-induced vomiting (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 77) were patients experiencing moderate to severe chemotherapy-induced vomiting at baseline.

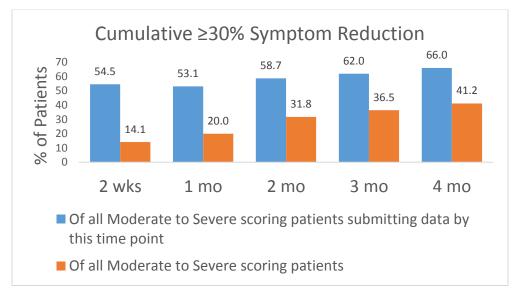


Figure 95. Cumulative percentage of cancer: nausea/vomiting patients achieving at least a 30% improvement in chemotherapy-induced vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Chemotherapy-Induced Vomiting: Mean Change from Baseline Following Initial 30% Reduction in Cancer: Nausea/Vomiting Patients (n = 20)

Figure 96. Frequency distribution of cancer: nausea/vomiting patients based on the average change in their chemotherapy-induced 0-10 NRS vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 24. Medical cannabis product(s) purchased by each cancer: nausea/vomiting patient just prior to achieving the initial 30% reduction in chemotherapy-induced vomiting (0-10 NRS). Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral	•	•		•	Inhalation	•			•	Oromucosa	l	•		
Very High THC to	High THC to		High CBD to	Very High CBD to	Very High THC to	High THC to		High CBD to	Very High CBD to	Very High THC to	High THC to		High CBD to	Very High CBD to	% of Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 32 (n)	Avg Daily CBD Use (mg)
Х					Х										12.5 (4)	64.2 mg/0.5 mg
					Х										12.5 (4)	66.2 mg/0.5 mg
		Х													9.4 (3)	46.4 mg/46.4 mg
Х					Χ					Χ					6.3 (2)	74.8 mg/0.4 mg
		Χ					Χ								6.3 (2)	20.2 mg/16.4 mg
					Χ					Χ					6.3 (2)	59.6 mg/0.3 mg
										Х					6.3 (2)	277.1 mg/1.4 mg
Х		Х			Х	Х									3.1 (1)	283.3 mg/16.7 mg
Х		Х			Х		Χ								3.1 (1)	95.1 mg/27.2 mg
Х		Х					Χ								3.1 (1)	87.9 mg/46.5 mg
Х		Χ													3.1 (1)	59.3 mg/25.1 mg
	Х				Х		Χ								3.1 (1)	20.8 mg/3.9 mg
	Х						Х								3.1 (1)	700.0 mg/151.6 mg
		Х		Х			Χ								3.1 (1)	69.9 mg/268.8 mg
		Х			Х		Х						Х		3.1 (1)	345.6 mg/264.5 mg
		Х			Х										3.1 (1)	62.2 mg/20.3 mg
			Х				Х					Х			3.1 (1)	34.2 mg/74.2 mg
					Х	Х									3.1 (1)	214.3 mg/7.5 mg
					Х		Х								3.1 (1)	50.0 mg/0.3 mg
							Х			Х					3.1 (1)	65.0 mg/10.1 mg

# **Cancer: Cachexia/Wasting Patients**

# **Appetite Lack**

# Appetite Lack: Distribution of Baseline Responses in Cancer: Cachexia/Wasting Patients (n = 147)

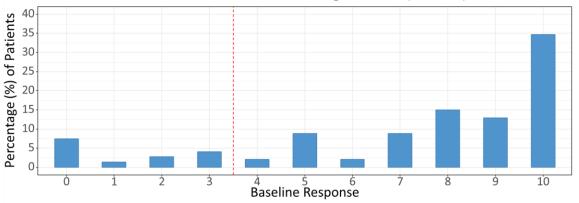


Figure 97. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 124) were patients experiencing moderate to severe lack of appetite at baseline.

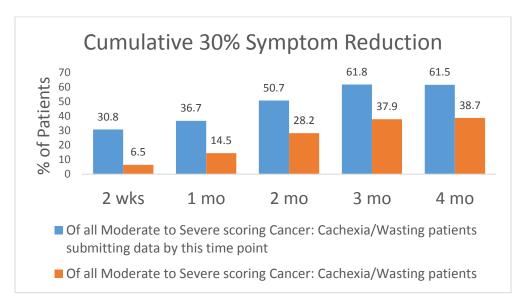


Figure 98. Cumulative percentage of cancer: cachexia/wasting patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Appetite Lack: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Cancer: Cachexia/Wasting Patients (n = 39)

Figure 99. Frequency distribution of cancer: cachexia/wasting patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 25. Medical cannabis product(s) purchased by each cancer: cachexia/wasting patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation	1				Oromucosa				
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 48 (n)	Avg Daily CBD Use (mg)
Х					Χ										16.7 (8)	50.2 mg/0.3 mg
					Χ										10.4 (5)	67.5 mg/0.4 mg
										Χ					10.4 (5)	121.5 mg/0.6 mg
Х					Χ					Χ					6.3 (3)	122.6 mg/0.5 mg
Х		Χ			Χ		Χ								4.2 (2)	89.5 mg/18.8 mg
Х		Χ													4.2 (2)	36.1 mg/13.6 mg
		Χ			Χ		Х								4.2 (2)	134.5 mg/22.5 mg
		Χ			Χ										4.2 (2)	47.3 mg/29.5 mg
		Х					Х								4.2 (2)	23.2 mg/13.8 mg
					Χ		Χ								4.2 (2)	70.0 mg/5.3 mg
					Χ					Х					4.2 (2)	59.7 mg/0.3 mg
Х					Χ		Х								2.1 (1)	500.0 mg/2.5 mg
Х							Х								2.1 (1)	178.6 mg/7.9 mg
Х										Х					2.1 (1)	32.0 mg/0.1 mg
	Χ						Х								2.1 (1)	700.0 mg/151.6 mg
		Х	Х	Х											2.1 (1)	16.1 mg/215.0 mg
		Х	Х				Х								2.1 (1)	106.8 mg/649.5 mg
		Х	Х												2.1 (1)	41.0 mg/299.0 mg
		Х											Х		2.1 (1)	51.9 mg/141.9 mg
			Х		Х										2.1 (1)	1562.5 mg/1190.0 mg
					Х		Х			Х					2.1 (1)	50.0 mg/0.3 mg
	_									Х		Х			2.1 (1)	20.7 mg/8.8 mg
	_											Х	Х		2.1 (1)	23.3 mg/68.3 mg
	_											Х			2.1 (1)	16.7 mg/4.2 mg

# Weight

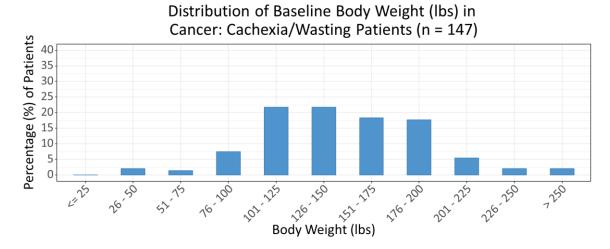


Figure 100. Distribution of patient weight (lbs) at baseline (prior to taking any medical cannabis).

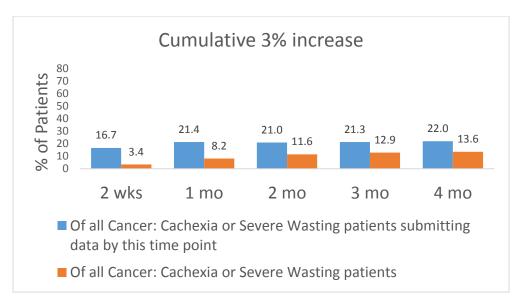


Figure 101. Cumulative percentage of cancer: cachexia/wasting patients achieving at least a 3% increase in weight (lbs) at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

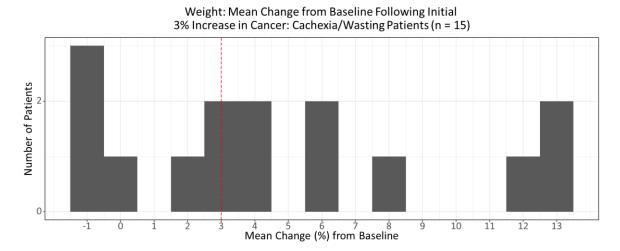


Figure 102. Frequency distribution of cancer: cachexia/wasting patients based on the average change in their weight (lbs; compared to baseline) in the 4-month period following their initial 3% weight increase. Patients falling on or to the right of the dotted red line had, on average, maintained at least a 3% weight increase.

# **Seizure Patients**

# **Anxiety**

# Anxiety: Distribution of Baseline Responses in Seizure Patients (n = 299)

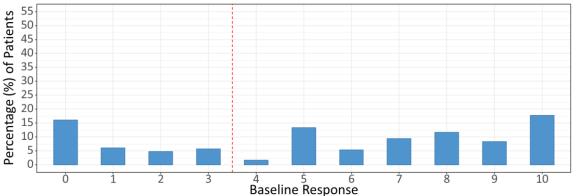


Figure 103. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 202) were patients experiencing moderate to severe anxiety at baseline.

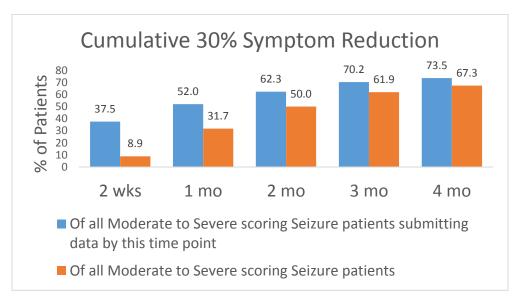


Figure 104. Cumulative percentage of seizure patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

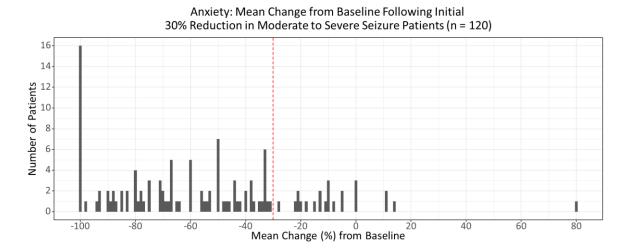


Figure 105. Frequency distribution of seizure patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 26. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 136 (n)	
			Х												44.9 (61)	6.8 mg/144.8 mg
													Х		14.0 (19)	12.8 mg/379.4 mg
		Х					Х								5.1 (7)	55.9 mg/31.9 mg
		Х													4.4 (6)	14.9 mg/11.1 mg
							Х								4.4 (6)	36.1 mg/14.4 mg
		Х	Х												3.7 (5)	87.8 mg/673.5 mg
			Х	Х											2.9 (4)	3.0 mg/235.6 mg
			Х				Х								2.2 (3)	148.1 mg/2421.0 mg
			Х	Х								Х			1.5 (2)	7.5 mg/142.5 mg
				Х											1.5 (2)	1.1 mg/200.0 mg
					Х										1.5 (2)	67.3 mg/0.2 mg
												Х			1.5 (2)	296.1 mg/269.3 mg
Х	Х	Х													0.7 (1)	57.0 mg/11.1 mg
Х		Х	Х		Х										0.7 (1)	30.4 mg/0.2 mg
Х		Х			Х		Х								0.7 (1)	87.0 mg/10.7 mg
Х		Х													0.7 (1)	28.0 mg/20.0 mg
Х			Х												0.7 (1)	18.0 mg/200.0 mg
Х					Х		Х								0.7 (1)	100.0 mg/0.2 mg
Х					Х										0.7 (1)	41.7 mg/0.2 mg
		Х	Χ	Х											0.7 (1)	5.0 mg/5.0 mg
		Х	Χ		Х										0.7 (1)	59.9 mg/84.3 mg
			Х		Х		Х								0.7 (1)	50.0 mg/0.3 mg
			Χ		Χ										0.7 (1)	55.0 mg/95.1 mg
					Χ	Χ									0.7 (1)	189.3 mg/7.3 mg
					Χ		Х								0.7 (1)	35.7 mg/0.2 mg
					Х							Х			0.7 (1)	95.7 mg/35.4 mg
							Х					Х			0.7 (1)	160.7 mg/53.6 mg
							Х						Х		0.7 (1)	20.0 mg/110.0 mg
										Х					0.7 (1)	41.7 mg/0.2 mg

# **Appetite Lack**

# Appetite Lack: Distribution of Baseline Responses in Seizure Patients (n = 299)

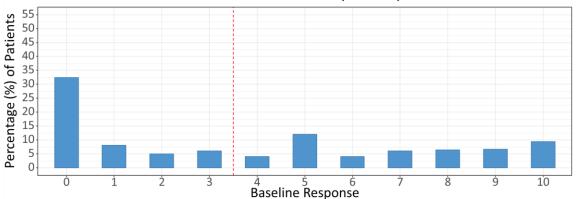


Figure 106. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 145) were patients experiencing moderate to severe lack of appetite at baseline.

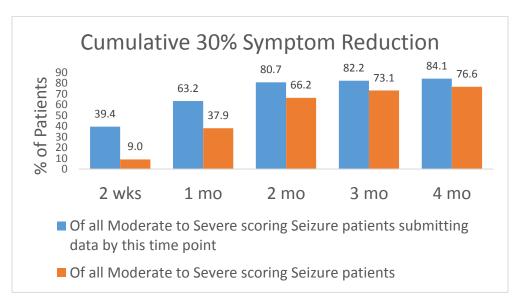


Figure 107. Cumulative percentage of seizure patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

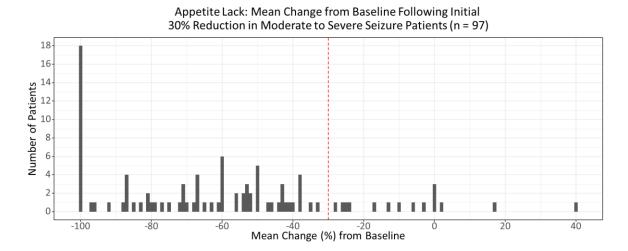


Figure 108. Frequency distribution of seizure patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 27. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 111 (n)	Avg Daily CBD Use (mg)
			Х												48.6 (54)	6.7 mg/135.0 mg
													Х		9.9 (11)	13.7 mg/458.1 mg
		Χ					Χ								8.1 (9)	59.5 mg/35.6 mg
							Χ								5.4 (6)	31.7 mg/13.3 mg
			Χ	Χ											3.6 (4)	5.5 mg/283.1 mg
		X	Χ												2.7 (3)	8.1 mg/97.0 mg
		Χ													2.7 (3)	23.2 mg/21.2 mg
							Χ						Χ		2.7 (3)	35.2 mg/94.5 mg
X		Χ	Χ												0.9 (1)	27.0 mg/98.1 mg
X			Х												0.9 (1)	8.0 mg/0.0 mg
X					Х		Х								0.9 (1)	100.0 mg/0.2 mg
Х					Х					Χ					0.9 (1)	87.7 mg/0.7 mg
Х					Х										0.9 (1)	105.0 mg/0.2 mg
	Χ				Χ										0.9 (1)	83.3 mg/0.4 mg
		Χ			Χ										0.9 (1)	66.7 mg/0.3 mg
		Х					Х					Х			0.9 (1)	24.5 mg/15.5 mg
			Х		Х										0.9 (1)	55.0 mg/95.1 mg
			Х				Х								0.9 (1)	242.9 mg/4292.9 mg
				Х								Х			0.9 (1)	1.1 mg/200.0 mg
				Χ									Х		0.9 (1)	1.7 mg/300.0 mg
					Х	Χ									0.9 (1)	189.3 mg/7.3 mg
					Х		Х								0.9 (1)	64.3 mg/7.3 mg
					Х							Х			0.9 (1)	47.8 mg/17.7 mg
					Х										0.9 (1)	83.3 mg/0.4 mg
										Χ					0.9 (1)	41.7 mg/0.2 mg
												Х			0.9 (1)	520.8 mg/520.8 mg

# **Depression**

## Depression: Distribution of Baseline Responses in Seizure Patients (n = 299) Percentage (%) of Patients 50 45 40 35 30 25 20 15 · 10 · 5 0 Ó 1 3 4 5 6 Baseline Response 8 10

Figure 109. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 158) were patients experiencing moderate to severe depression at baseline.

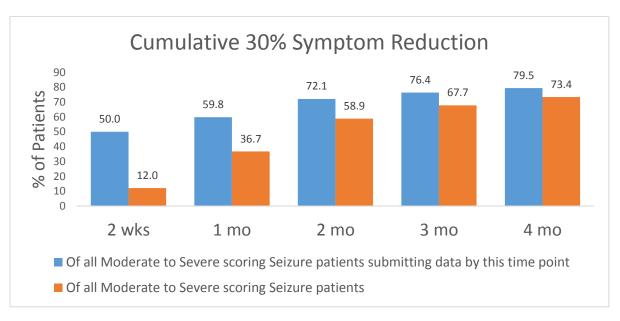


Figure 110. Cumulative percentage of seizure patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

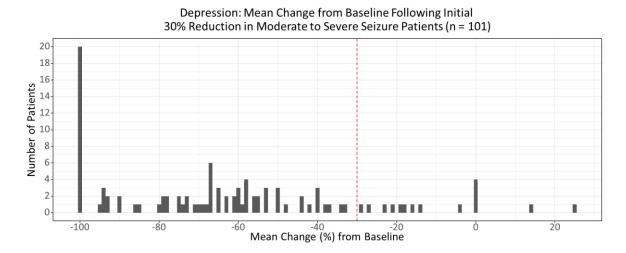


Figure 111. Frequency distribution of seizure patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 28. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	i			
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 116 (n)	Avg Daily THC Use (mg) / Avg Daily CBD Use (mg)
			Х												50.9 (59)	9.6 mg/196.0 mg
													Х		6.9 (8)	9.0 mg/240.8 mg
		Х					Х								6.0 (7)	55.5 mg/35.5 mg
							Х								5.2 (6)	33.5 mg/11.5 mg
		Х													4.3 (5)	17.4 mg/12.8 mg
		Х	Х												3.4 (4)	16.0 mg/73.1 mg
				Х											3.4 (4)	34.5 mg/6125.0 mg
					Х										2.6 (3)	106.0 mg/0.3 mg
			Х	Х											1.7 (2)	3.6 mg/247.5 mg
					Х		Х								1.7 (2)	62.9 mg/5.2 mg
Х	Х	Х													0.9 (1)	57.0 mg/11.1 mg
Х		Х			Х		Х								0.9 (1)	87.0 mg/10.7 mg
Х		Х					Х								0.9 (1)	65.0 mg/55.1 mg
Х					Х		Х								0.9 (1)	145.0 mg/10.2 mg
Х					Х										0.9 (1)	83.3 mg/0.4 mg
		Х	Х	Х											0.9 (1)	225.0 mg/225.0 mg
			Х	Х								Х			0.9 (1)	81.8 mg/215.8 mg
			Х		Х		Х								0.9 (1)	50.0 mg/0.3 mg
			Х				Х								0.9 (1)	33.6 mg/102.1 mg
				Х									Х		0.9 (1)	1.7 mg/300.0 mg
					Х	Х									0.9 (1)	189.3 mg/7.3 mg
					Х							Х			0.9 (1)	47.8 mg/17.7 mg
							Х					Х			0.9 (1)	160.7 mg/53.6 mg
							Х						Х		0.9 (1)	43.1 mg/69.4 mg
										Х					0.9 (1)	41.7 mg/0.2 mg
												Х		•	0.9 (1)	71.4 mg/17.9 mg

# **Disturbed Sleep**

# Disturbed Sleep: Distribution of Baseline Responses in Seizure Patients (n = 299)

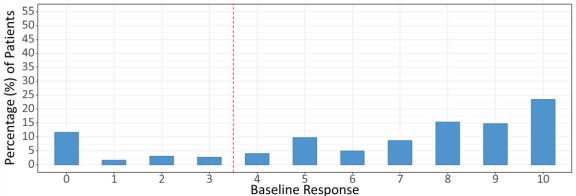


Figure 112. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 242) were patients experiencing moderate to severe disturbed sleep at baseline.

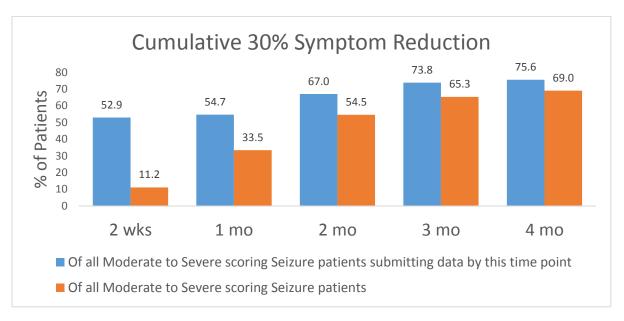


Figure 113. Cumulative percentage of seizure patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Disturbed Sleep: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Seizure Patients (n = 155)

Figure 114. Frequency distribution of seizure patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 29. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral					Inhalation		-			 Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 166 (n)	Avg Daily CBD Use (mg)
			Х												45.2 (75)	6.2 mg/135.0 mg
													Х		14.5 (24)	13.1 mg/523.7 mg
		Х					Х								4.2 (7)	44.1 mg/30.8 mg
		Х													4.2 (7)	17.3 mg/13.6 mg
							Х								3.6 (6)	33.5 mg/11.5 mg
			Х	Х											3.0 (5)	5.0 mg/249.5 mg
			Х										Х		3.0 (5)	4.0 mg/83.0 mg
												Х			2.4 (4)	415.9 mg/201.6 mg
				Х											1.8 (3)	23.3 mg/4133.3 mg
					Х		Х								1.8 (3)	127.5 mg/7.0 mg
					Х										1.8 (3)	78.2 mg/0.2 mg
Х					Х										1.2 (2)	156.7 mg/0.5 mg
			Х		Х										1.2 (2)	49.1 mg/118.9 mg
			Х				Х								1.2 (2)	40.6 mg/75.4 mg
										Χ					1.2 (2)	50.8 mg/0.2 mg
Х	Х	Χ													0.6 (1)	57.0 mg/11.1 mg
Х		Χ			Χ		Χ								0.6 (1)	87.0 mg/10.7 mg
Х					Χ		Χ			Χ					0.6 (1)	173.8 mg/9.0 mg
Х					Χ					Χ					0.6 (1)	87.7 mg/0.7 mg
Х							Χ								0.6 (1)	17.9 mg/17.9 mg
	Х	Χ	Х												0.6 (1)	22.6 mg/128.9 mg
		Χ	Х				Χ						Х		0.6 (1)	56.7 mg/139.7 mg
		Χ	Х												0.6 (1)	7.5 mg/97.5 mg
		Х			Х		Х								0.6 (1)	83.3 mg/0.4 mg
			Х							Х					0.6 (1)	37.5 mg/118.9 mg
			Х									Х			0.6 (1)	72.9 mg/260.4 mg
				Х								Х	Х		0.6 (1)	112.8 mg/327.8 mg
				Х								Х			0.6 (1)	1.1 mg/200.0 mg
					Х							Х			0.6 (1)	95.7 mg/35.4 mg
							Х						Х		0.6 (1)	20.0 mg/110.0 mg
												Х	Х		0.6 (1)	89.3 mg/89.3 mg

# **Fatigue**

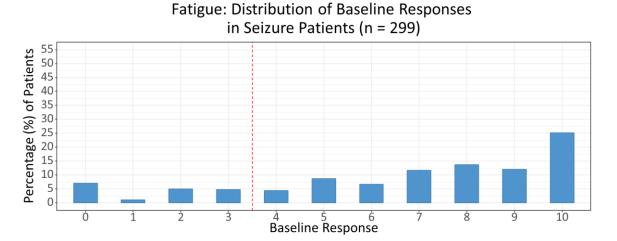


Figure 115. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 246) were patients experiencing moderate to severe fatigue at baseline.

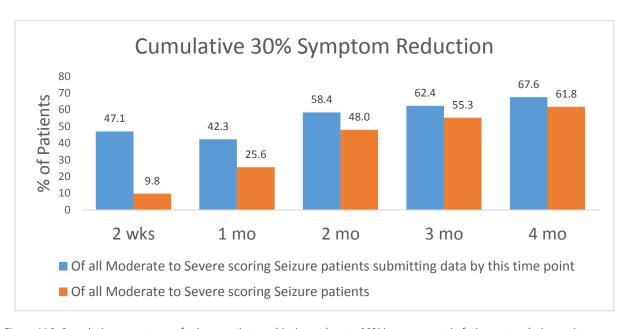


Figure 116. Cumulative percentage of seizure patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

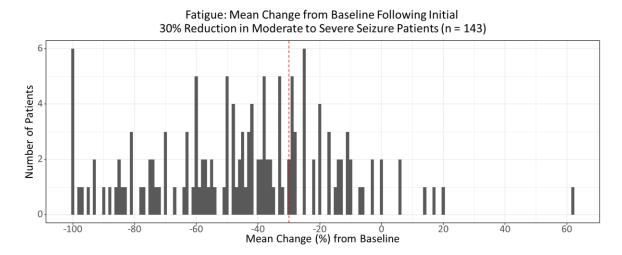


Figure 117. Frequency distribution of seizure patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 30. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral	•	•			Inhalation					Oromucosa	l			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 151 (n)	Avg Daily CBD Use (mg)
			Х												46.4 (70)	8.5 mg/169.1 mg
													Х		13.2 (20)	12.0 mg/361.7 mg
		Х					Х								4.0 (6)	53.4 mg/34.1 mg
		Х													4.0 (6)	17.5 mg/17.0 mg
			Х	Х											4.0 (6)	3.3 mg/212.2 mg
							Х								4.0 (6)	33.3 mg/12.8 mg
			Х				Х								2.0 (3)	110.6 mg/1708.5 mg
					Х		Х								2.0 (3)	129.7 mg/10.3 mg
		Х	Х												1.3 (2)	17.9 mg/65.4 mg
			Х	Х								Х			1.3 (2)	43.4 mg/155.4 mg
			Х										Х		1.3 (2)	3.9 mg/76.9 mg
							Χ						Х		1.3 (2)	35.0 mg/83.8 mg
												Х			1.3 (2)	71.4 mg/17.9 mg
Х	Х	Χ													0.7 (1)	57.0 mg/11.1 mg
Х		Χ	Χ		Х										0.7 (1)	30.4 mg/0.2 mg
Χ		Χ			Χ		Χ								0.7 (1)	87.0 mg/10.7 mg
Χ		Χ													0.7 (1)	37.5 mg/37.5 mg
Х			Х		Χ		Χ								0.7 (1)	83.3 mg/0.4 mg
Х			Х												0.7 (1)	20.0 mg/400.0 mg
Х					Χ					Χ					0.7 (1)	87.7 mg/0.7 mg
Х					Χ										0.7 (1)	105.0 mg/0.2 mg
	Х	Χ	Х												0.7 (1)	22.6 mg/128.9 mg
		Χ	Х	Х											0.7 (1)	225.0 mg/225.0 mg
		Χ	Х				Χ								0.7 (1)	33.6 mg/102.1 mg
		Х			Χ										0.7 (1)	62.5 mg/0.3 mg
			Χ		Χ										0.7 (1)	55.0 mg/95.1 mg
				Χ									Х		0.7 (1)	1.7 mg/300.0 mg
				Χ											0.7 (1)	1.1 mg/200.0 mg
					Χ	Χ									0.7 (1)	189.3 mg/7.3 mg

Table 30 Continued. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation				(	Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 151 (n)	Avg Daily CBD Use (mg)
					Χ							Х			0.7 (1)	47.8 mg/17.7 mg
					Х										0.7 (1)	34.5 mg/0.3 mg
							Χ					Х			0.7 (1)	160.7 mg/53.6 mg
										Х					0.7 (1)	41.7 mg/0.2 mg
												Х	Х		0.7 (1)	89.3 mg/89.3 mg

# Nausea

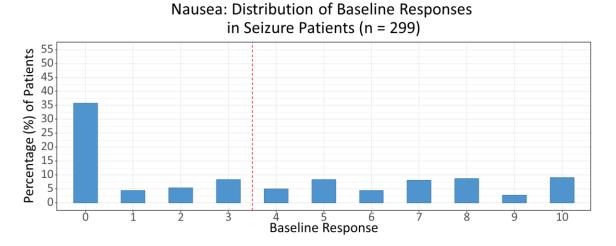


Figure 118. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 138) were patients experiencing moderate to severe nausea at baseline.

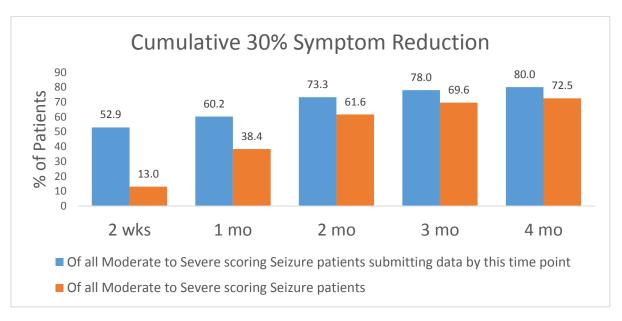


Figure 119. Cumulative percentage of seizure patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

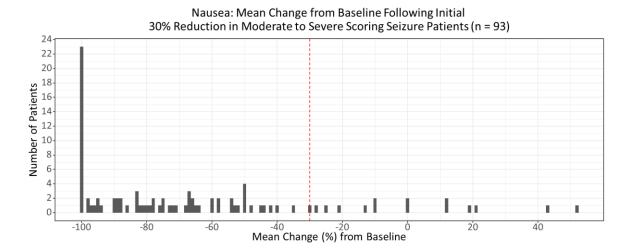


Figure 120. Frequency distribution of seizure patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 31. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral	-	-	Inhalation					Oromucosal						
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 100 (n)	Avg Daily CBD Use (mg)
			Х												47.0 (47)	3.9 mg/90.8 mg
													Χ		11.0 (11)	14.1 mg/446.9 mg
		Χ					Х								7.0 (7)	59.6 mg/39.2 mg
							Х								4.0 (4)	31.3 mg/11.2 mg
		Χ													3.0 (3)	210.0 mg/210.0 mg
					Χ		Х								3.0 (3)	65.8 mg/12.3 mg
							X						Х		3.0 (3)	32.9 mg/98.5 mg
												Х			3.0 (3)	221.2 mg/185.5 mg
Х					Х										2.0 (2)	156.7 mg/0.5 mg
					Х							Х			2.0 (2)	35.9 mg/13.3 mg
										Χ					2.0 (2)	50.8 mg/0.2 mg
Х		Х			Х		Х								1.0 (1)	87.0 mg/10.7 mg
Х			Х												1.0 (1)	18.0 mg/200.0 mg
Х					Х					Χ					1.0 (1)	87.7 mg/0.7 mg
	Χ	Х	Х												1.0 (1)	22.6 mg/128.9 mg
		Х			Х		Х								1.0 (1)	65.7 mg/7.7 mg
		Х			Х										1.0 (1)	66.7 mg/0.3 mg
		Х					Х					Х			1.0 (1)	24.5 mg/15.5 mg
			Х	Х											1.0 (1)	6.1 mg/295.0 mg
			Х				Х								1.0 (1)	47.7 mg/48.8 mg
			Х										Х		1.0 (1)	2.1 mg/39.6 mg
				Х											1.0 (1)	1.1 mg/200.0 mg
					Х										1.0 (1)	183.3 mg/0.6 mg
												Х	Х		1.0 (1)	89.3 mg/89.3 mg

### **Pain**

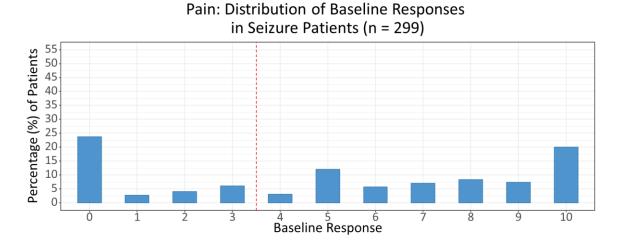


Figure 121. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 190) were patients experiencing moderate to severe pain at baseline.

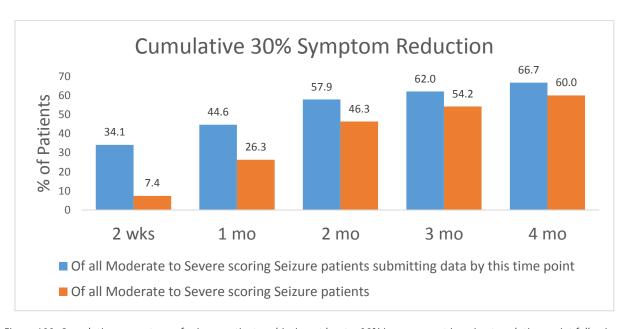


Figure 122. Cumulative percentage of seizure patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Pain: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Seizure Patients (n = 106)

Figure 123. Frequency distribution of seizure patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 32. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	 I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 113 (n)	Avg Daily CBD Use (mg)
			Х												50.4 (57)	9.3 mg/193.0 mg
													Х		10.6 (12)	10.3 mg/401.9 mg
		Х					Х								6.2 (7)	42.0 mg/21.2 mg
		Х													4.4 (5)	19.0 mg/16.2 mg
			Х										Х		2.7 (3)	5.1 mg/97.8 mg
					Х		Х								2.7 (3)	127.5 mg/7.1 mg
Х					Х										1.8 (2)	114.2 mg/0.4 mg
			Х	Х											1.8 (2)	5.2 mg/277.2 mg
					Х										1.8 (2)	108.9 mg/0.4 mg
							Х								1.8 (2)	47.6 mg/11.9 mg
												Х			1.8 (2)	296.1 mg/269.3 mg
Х		Х	Х												0.9 (1)	27.0 mg/98.1 mg
Х		Х			Χ		Χ								0.9 (1)	87.0 mg/10.7 mg
Х		Х													0.9 (1)	28.0 mg/20.0 mg
Х					Χ					Χ					0.9 (1)	87.7 mg/0.7 mg
		Х	X		Х										0.9 (1)	59.9 mg/84.3 mg
		Х	X				Χ								0.9 (1)	33.6 mg/102.1 mg
		Х	Χ												0.9 (1)	5.4 mg/101.0 mg
			Χ	Χ								Χ			0.9 (1)	81.8 mg/215.8 mg
			Χ	Χ									Χ		0.9 (1)	8.3 mg/158.3 mg
			Х		Х		Х								0.9 (1)	50.0 mg/0.3 mg
			Х		Х										0.9 (1)	55.0 mg/95.1 mg
			Х				Х								0.9 (1)	130.4 mg/2155.4 mg
				Χ											0.9 (1)	1.7 mg/300.0 mg
					Χ	Х									0.9 (1)	189.3 mg/7.3 mg
					Χ							Х			0.9 (1)	47.8 mg/17.7 mg
										Χ					0.9 (1)	41.7 mg/0.2 mg

### **Vomiting**

### Vomiting: Distribution of Baseline Responses in Seizure Patients (n = 299) Percentage (%) of Patients 50 45 40 35 30 25 20 15 10 5 0 Ó 1 8 ģ 10 Baseline Response

Figure 124. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 90) were patients experiencing moderate to severe vomiting at baseline.

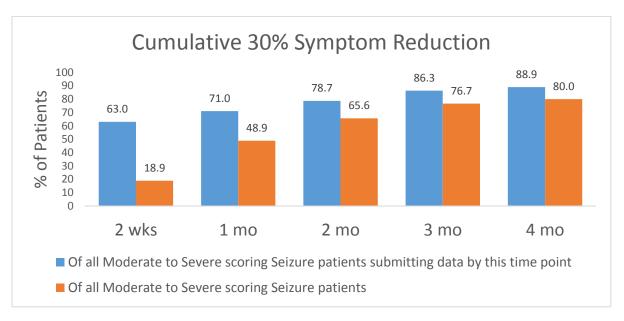


Figure 125. Cumulative percentage of seizure patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

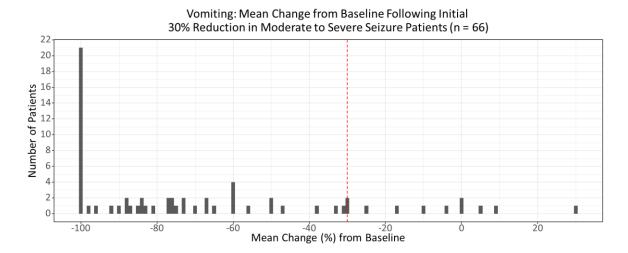


Figure 126. Frequency distribution of seizure patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 33. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Ente	ral			Inhala	ition	•		Oromu	cosal			
Very High		High	Very High	Very High		High	Very High	Very High		High	Very High	% of	
THC to		CBD to	CBD to			CBD to	CBD to			CBD to			Avg Daily THC Use (mg) /
CBD	Balanced	THC	THC	CBD	Balanced	THC	THC	CBD	Balanced	THC	THC	of 72 (n)	Avg Daily CBD Use (mg)
		Х										43.1 (31)	3.7 mg/91.3 mg
										Х		11.1 (8)	3.5 mg/141.3 mg
	Х				Х							6.9 (5)	67.6 mg/45.6 mg
	Х											5.6 (4)	26.9 mg/23.4 mg
					Х							5.6 (4)	23.2 mg/12.5 mg
					Х					Х		4.2 (3)	38.8 mg/99.3 mg
		Χ								Х		2.8 (2)	2.2 mg/103.1 mg
				Х					Х			2.8 (2)	59.8 mg/22.1 mg
				Χ								2.8 (2)	67.3 mg/0.2 mg
									Χ			2.8 (2)	296.1 mg/269.3 mg
Х	Х	Χ										1.4 (1)	27.0 mg/98.1 mg
Χ				Χ	Х			Χ				1.4 (1)	95.0 mg/10.3 mg
	Х	Х										1.4 (1)	5.4 mg/101.0 mg
		Х		Х								1.4 (1)	55.0 mg/95.1 mg
		Х			Х							1.4 (1)	47.7 mg/48.8 mg
			Х						Х	Х		1.4 (1)	112.8 mg/327.8 mg
				Х	Х							1.4 (1)	64.3 mg/7.3 mg
								Х				1.4 (1)	60.0 mg/0.2 mg
									Х	Х		1.4 (1)	89.3 mg/89.3 mg

### **Weekly Seizure Frequency**

### Weekly Seizure Frequency: Distribution of Baseline Responses in Seizure Patients (n = 294)

Figure 127. Distribution of patient responses on weekly seizure frequency at baseline (prior to taking any medical cannabis). Patients who experienced seizures during the week (had a baseline response greater than 0) were included in the symptom reduction analysis (n = 262).

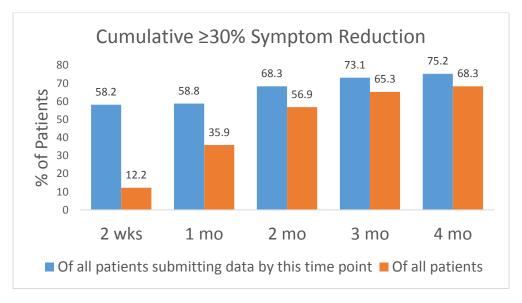


Figure 128. Cumulative percentage of seizure patients achieving at least a 30% reduction in weekly seizures at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

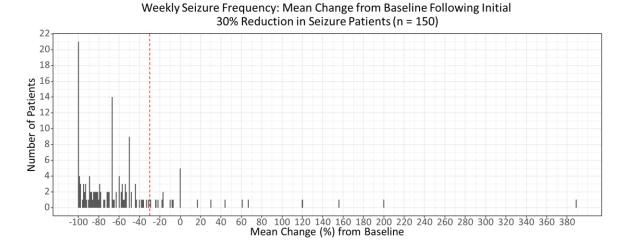


Figure 129. Frequency distribution of seizure patients based on the average change in their weekly seizure frequency (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in seizures.

Table 34. Medical cannabis product(s) purchased by each seizure patient just prior to achieving the initial 30% reduction in weekly seizures. Products are categorized by their THC:CBD ratio and intended route of administration.

	Ente	ral	-		Inhala	ition			Oromu	cosal			
Very High		High	Very High	Very High		High	Very High	Very High		High	Very High	% of	
THC to		CBD to	CBD to	THC to		CBD to	CBD to	THC to		CBD to	CBD to		Avg Daily THC Use (mg) /
CBD	Balanced	THC	THC	CBD	Balanced	THC	THC	CBD	Balanced	THC	THC	of 178 (n)	Avg Daily CBD Use (mg)
		Х										48.3 (86)	7.6 mg/159.5 mg
										Х		16.9 (30)	13.2 mg/407.4 mg
	Х				Х							4.5 (8)	56.0 mg/37.4 mg
		Х	Х									3.4 (6)	4.9 mg/282.5 mg
	Х											2.8 (5)	19.3 mg/15.9 mg
			Х									2.2 (4)	1.7 mg/300.0 mg
				Χ	Х							2.2 (4)	106.9 mg/13.2 mg
									Х			2.2 (4)	183.8 mg/143.6 mg
		Χ			Χ							1.7 (3)	70.5 mg/768.8 mg
					Χ					Х		1.7 (3)	29.4 mg/93.7 mg
					Χ							1.7 (3)	34.1 mg/17.5 mg
Χ				Х								1.1 (2)	156.7 mg/0.5 mg
	Х	Χ										1.1 (2)	13.1 mg/60.9 mg
		Χ		Х								1.1 (2)	49.1 mg/118.9 mg
		Χ								Х		1.1 (2)	5.3 mg/104.0 mg
			Х						Х			1.1 (2)	36.3 mg/108.9 mg
				Χ								1.1 (2)	129.2 mg/0.4 mg
Х	Х	Χ										0.6 (1)	27.0 mg/98.1 mg
Х	Х											0.6 (1)	41.4 mg/21.5 mg
Χ				Χ	Χ							0.6 (1)	100.0 mg/0.2 mg
	Х				Х				Х			0.6 (1)	48.8 mg/48.8 mg
		Χ	Х						Х			0.6 (1)	6.1 mg/295.0 mg
		Χ						Χ				0.6 (1)	37.5 mg/118.9 mg
			Х		Х				Х			0.6 (1)	1.1 mg/200.0 mg
			Х							Х		0.6 (1)	1.7 mg/300.0 mg
				Х	Х			Х				0.6 (1)	110.8 mg/10.4 mg
				Χ					Х			0.6 (1)	95.7 mg/35.4 mg

### Crohn's Disease

### **Anxiety**

### Anxiety: Distribution of Baseline Responses in Crohn's Patients (n = 102)

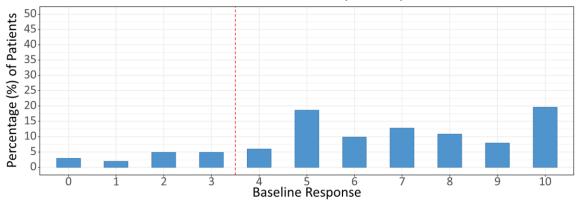


Figure 130. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 87) were patients experiencing moderate to severe anxiety at baseline.

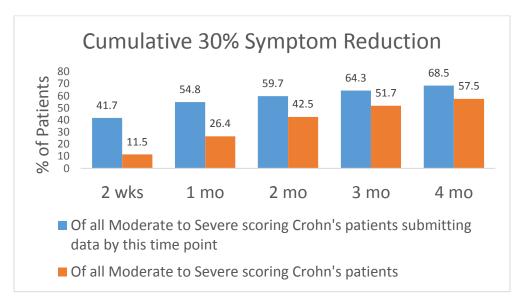


Figure 131. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

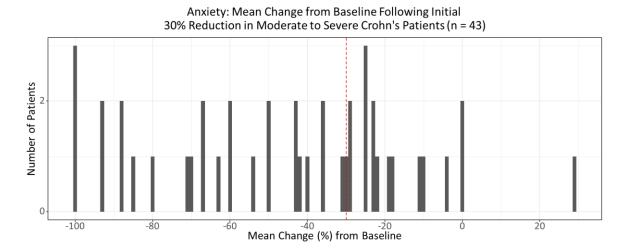


Figure 132. Frequency distribution of Crohn's patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 35. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 50 (n)	Avg Daily CBD Use (mg)
		Х										14.0 (7)	12.7 mg/10.1 mg
				Х								14.0 (7)	58.1 mg/0.5 mg
		Х		Х								12.0 (6)	92.4 mg/12.1 mg
Х				Х								4.0 (2)	38.8 mg/0.2 mg
			Χ	Х		Х						4.0 (2)	61.4 mg/60.2 mg
				Х		Х						4.0 (2)	54.2 mg/12.7 mg
						Х				Х		4.0 (2)	53.4 mg/36.5 mg
						Х						4.0 (2)	23.2 mg/12.5 mg
Х		Х		Х		Х		Х		Х		2.0 (1)	91.6 mg/0.5 mg
Х		Х		Х				Х		Х		2.0 (1)	67.1 mg/55.2 mg
Х		Х		Х								2.0 (1)	102.6 mg/6.5 mg
Х		Χ						Х		Χ		2.0 (1)	43.4 mg/25.7 mg
Х		Χ						Χ				2.0 (1)	30.0 mg/10.1 mg
		Χ	Χ	Χ								2.0 (1)	59.9 mg/84.3 mg
		Χ	Χ			Х						2.0 (1)	25.0 mg/55.0 mg
		Χ		Χ		Х		Χ				2.0 (1)	113.3 mg/12.9 mg
		Χ		Χ		Х						2.0 (1)	83.3 mg/0.4 mg
		Χ		Χ						Χ		2.0 (1)	80.0 mg/30.1 mg
		Χ				Х				Χ		2.0 (1)	17.9 mg/17.9 mg
		Χ				Х						2.0 (1)	50.0 mg/50.0 mg
		Χ						Χ				2.0 (1)	50.0 mg/20.1 mg
				Χ	Х							2.0 (1)	121.4 mg/7.1 mg
				Х		Х				Х	Х	2.0 (1)	63.3 mg/133.4 mg
				Х		Х				Х		2.0 (1)	78.3 mg/34.3 mg
					Х							2.0 (1)	121.4 mg/7.1 mg
						Х		Х				2.0 (1)	14.3 mg/3.6 mg
						Х				Х	Х	2.0 (1)	23.2 mg/66.5 mg
								Χ				2.0 (1)	24.0 mg/0.1 mg

### **Appetite Lack**

### Appetite Lack: Distribution of Baseline Responses in Crohn's Patients (n = 102)

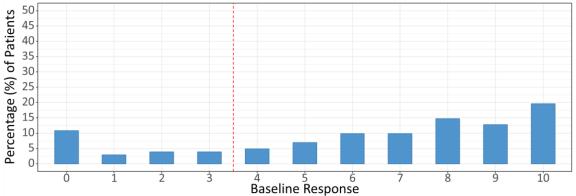


Figure 133. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 80) were patients experiencing moderate to severe lack of appetite at baseline.

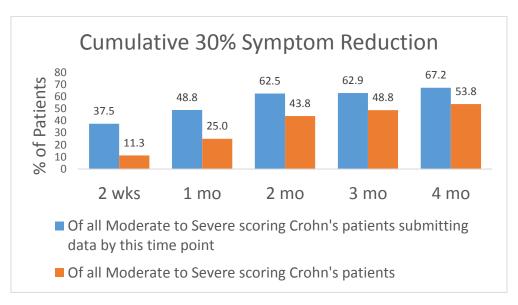


Figure 134. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

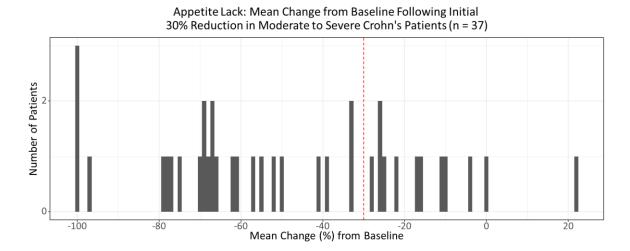


Figure 135. Frequency distribution of Crohn's patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 36. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 43 (n)	Avg Daily CBD Use (mg)
				Х								18.6 (8)	63.1 mg/0.4 mg
		Χ										14.0 (6)	16.7 mg/14.7 mg
Χ				Х								9.3 (4)	53.9 mg/0.4 mg
		Χ		Х								9.3 (4)	91.0 mg/15.6 mg
		Χ				Х						7.0 (3)	48.3 mg/26.2 mg
		Χ		Х		Х		Χ				4.7 (2)	92.4 mg/23.4 mg
				Х		Х						4.7 (2)	99.2 mg/17.8 mg
						Х				Х		4.7 (2)	87.8 mg/52.1 mg
Х		Χ		Х		Х		Х				2.3 (1)	54.5 mg/54.5 mg
Х		Χ						Х				2.3 (1)	30.0 mg/10.1 mg
Х				Х		Х						2.3 (1)	75.0 mg/0.5 mg
Х				Х				Х				2.3 (1)	87.7 mg/0.7 mg
		Χ	Χ			Х						2.3 (1)	25.0 mg/55.0 mg
		Χ						Х				2.3 (1)	20.0 mg/20.0 mg
		Χ								Х		2.3 (1)	30.0 mg/30.0 mg
			Х		_	Х		•				2.3 (1)	33.6 mg/102.1 mg
				Х	Х							2.3 (1)	83.3 mg/0.4 mg
				Х		Х				Х	Х	2.3 (1)	63.3 mg/133.4 mg
						Х						2.3 (1)	17.9 mg/17.9 mg
								Х				2.3 (1)	24.0 mg/0.1 mg

### **Depression**

### Depression: Distribution of Baseline Responses in Crohn's Patients (n = 102) 50 Percentage (%) of Patients 45 40 35 30 25 20 15 10 5 0 Ó 1 3 8 ģ 10 Baseline Response

Figure 136. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 68) were patients experiencing moderate to severe depression at baseline.

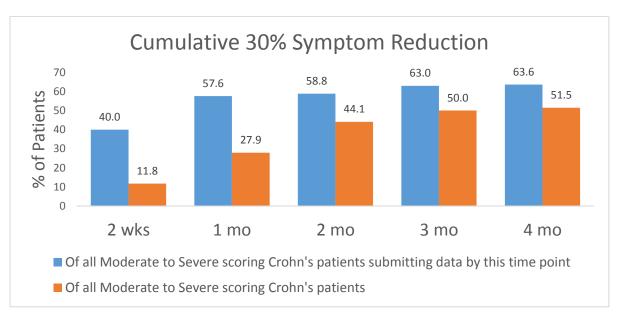


Figure 137. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

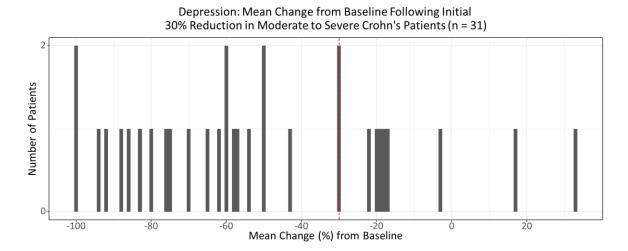


Figure 138. Frequency distribution of Crohn's patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 37. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral	-		Inha	lation			Oron	nucosal	-		
Very High THC to	High THC to		High CBD to	Very High THC to	High THC to		High CBD to	Very High THC to	High THC to		High CBD to	% of Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 35 (n)	Avg Daily CBD Use (mg)
		Х										20.0 (7)	18.1 mg/16.3 mg
		Х		Χ								14.3 (5)	65.1 mg/17.8 mg
				Χ								14.3 (5)	55.3 mg/0.4 mg
				Χ		Х						5.7 (2)	100.0 mg/12.8 mg
Х	Х	Χ	Х	Х		Χ						2.9 (1)	41.7 mg/3.9 mg
Х		Χ						Х				2.9 (1)	30.0 mg/10.1 mg
Х				Х								2.9 (1)	58.2 mg/0.3 mg
		Χ	Х	Х		Χ		Х				2.9 (1)	90.0 mg/10.3 mg
		Χ	Χ			Χ						2.9 (1)	25.0 mg/55.0 mg
		Χ		Χ		Χ						2.9 (1)	83.3 mg/0.4 mg
		Χ				Χ		Х				2.9 (1)	8.0 mg/2.0 mg
		Χ				Χ				Х		2.9 (1)	68.4 mg/68.4 mg
		Χ				Χ						2.9 (1)	8.0 mg/2.0 mg
		Х						Х				2.9 (1)	20.0 mg/20.0 mg
		Х								Х		2.9 (1)	30.0 mg/30.0 mg
			Х	Х		Х						2.9 (1)	123.6 mg/112.2 mg
						Х				Х		2.9 (1)	43.8 mg/43.8 mg
						Х						2.9 (1)	66.7 mg/16.7 mg
								Х				2.9 (1)	24.0 mg/0.1 mg
										Х	Х	2.9 (1)	52.1 mg/989.6 mg

### **Disturbed Sleep**

### Disturbed Sleep: Distribution of Baseline Responses in Crohn's Patients (n = 102) 50 Percentage (%) of Patients 45 40 35 30 25 20 15 10 5 0 Ó 3 4 5 6 Baseline Response 8 ģ 10

Figure 139. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 89) were patients experiencing moderate to severe disturbed sleep at baseline.

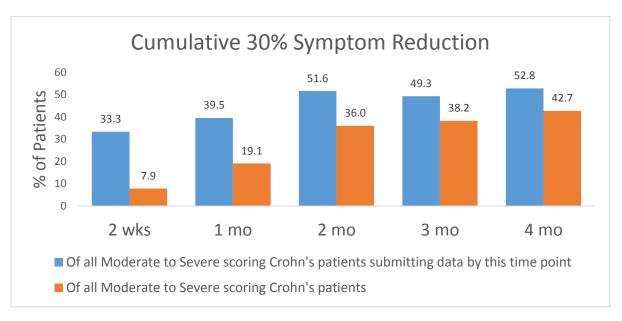


Figure 140. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

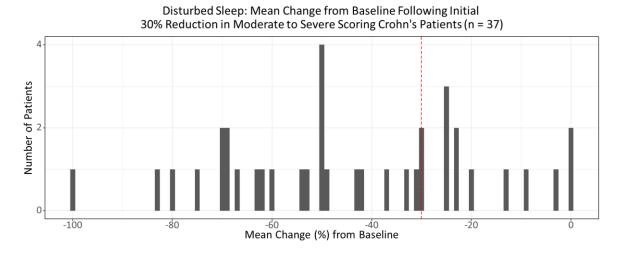


Figure 141. Frequency distribution of Crohn's patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 38. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•		Inhalation			Oromucosa	Ī		
Very High THC to		High CBD to	Very High THC to		High CBD to	Very High THC to		High CBD to	% of Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 38 (n)	Avg Daily CBD Use (mg)
	Х								15.8 (6)	13.1 mg/9.1 mg
			Х						15.8 (6)	48.6 mg/0.4 mg
	Х		Х						10.5 (4)	71.8 mg/10.4 mg
	Х			Х					10.5 (4)	18.3 mg/18.3 mg
	Х					Х			5.3 (2)	35.0 mg/20.1 mg
		Х	Х	Х					5.3 (2)	61.4 mg/60.2 mg
Х	Х		Χ	Χ		Χ	Χ		2.6 (1)	91.6 mg/0.5 mg
Х	Х		Χ	Х		Χ			2.6 (1)	179.6 mg/44.4 mg
Х	Х		Χ						2.6 (1)	102.6 mg/6.5 mg
Х	Х					Х			2.6 (1)	30.0 mg/10.1 mg
Х	Х								2.6 (1)	54.2 mg/46.2 mg
X			Х			Х			2.6 (1)	87.7 mg/0.7 mg
Х			Х						2.6 (1)	57.0 mg/0.5 mg
	Х		Х	Χ		Х			2.6 (1)	113.3 mg/12.9 mg
	Х		Х				Х		2.6 (1)	80.0 mg/30.1 mg
	Х						Х		2.6 (1)	29.7 mg/11.2 mg
			Χ	Х		Χ	Х		2.6 (1)	56.5 mg/0.3 mg
			Х	Х					2.6 (1)	225.0 mg/25.6 mg
				Х			Х	Х	2.6 (1)	23.2 mg/66.5 mg
				Х			Х		2.6 (1)	43.8 mg/43.8 mg

### **Fatigue**

### Fatigue: Distribution of Baseline Responses in Crohn's Patients (n = 102) State of the patients of Baseline Responses in Crohn's Patients (n = 102) Baseline Response

Figure 142. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 96) were patients experiencing moderate to severe fatigue at baseline.

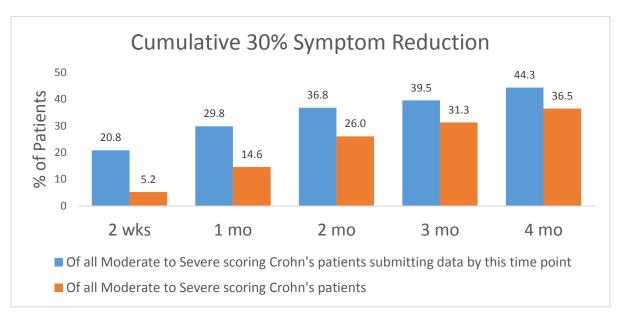


Figure 143. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 months, 3 months, and 4 months after first purchase).

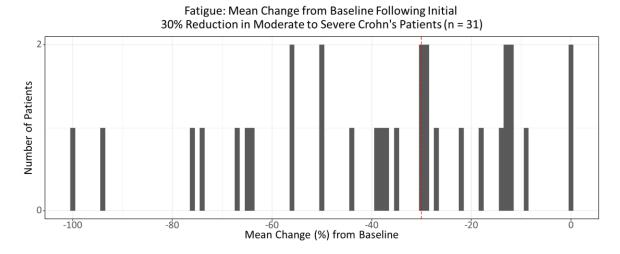


Figure 144. Frequency distribution of Crohn's patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 39. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•		Inhalation			 Oromucosa			
High THC to		High CBD to	High THC to		High CBD to	High THC to		High CBD to	% of Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	тнс	CBD	Balanced	THC	CBD	Balanced	THC	of 35 (n)	Avg Daily CBD Use (mg)
			Х						17.1 (6)	51.0 mg/0.4 mg
	Х								11.4 (4)	14.9 mg/13.4 mg
	Х		Х						8.6 (3)	72.9 mg/23.7 mg
	Х			Х					8.6 (3)	29.5 mg/22.4 mg
				Х			Х		8.6 (3)	73.1 mg/49.3 mg
Х	Х		Х	Х		Х			2.9 (1)	76.0 mg/0.6 mg
Х	Х		Х						2.9 (1)	102.6 mg/6.5 mg
Χ	Х			Χ					2.9 (1)	28.6 mg/7.1 mg
Х	Х					Х	Х		2.9 (1)	43.4 mg/25.7 mg
Χ	Х					Х			2.9 (1)	30.0 mg/10.1 mg
Х	Х								2.9 (1)	64.6 mg/46.2 mg
Х			Х			Χ			2.9 (1)	87.7 mg/0.7 mg
	Х	Х	Χ	Х		Х			2.9 (1)	90.0 mg/10.3 mg
	Х	Х		Х					2.9 (1)	25.0 mg/55.0 mg
	Х	Х							2.9 (1)	14.0 mg/90.0 mg
	Х		Χ	Х		Χ			2.9 (1)	71.4 mg/33.9 mg
	Х		Χ	Х					2.9 (1)	83.3 mg/0.4 mg
	Х		Х				Х		2.9 (1)	30.0 mg/30.0 mg
	Х			Х			Х		2.9 (1)	68.4 mg/68.4 mg
	Х					Χ			2.9 (1)	50.0 mg/20.1 mg
		Х	Х	Х					2.9 (1)	2.5 mg/47.5 mg

### Nausea

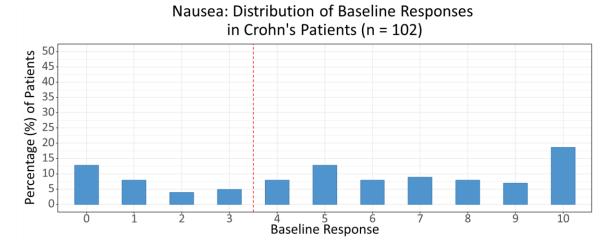


Figure 145. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 72) were patients experiencing moderate to severe nausea at baseline.

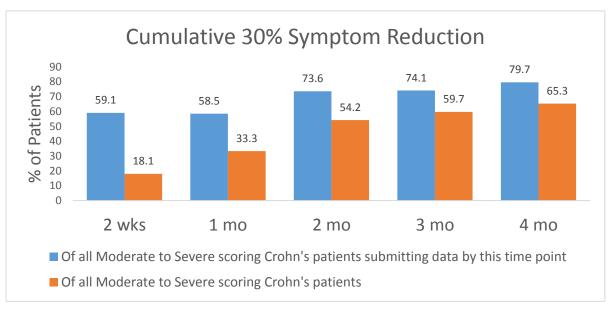


Figure 146. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Nausea: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Crohn's Patients (n = 41)

Figure 147. Frequency distribution of Crohn's patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 40. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation	-		Oron	nucosal			
Very High	High		High	Very High	High		High	Very High	High		High	% of	
THC to	THC to	Balanad	CBD to	THC to	THC to	Dalaman d	CBD to	THC to	THC to	D-II		Patients out	
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 47 (n)	Avg Daily CBD Use (mg)
		Х		.,		Х						12.8 (6)	27.7 mg/24.2 mg
		.,		X								12.8 (6)	53.6 mg/0.4 mg
		X		Х								10.6 (5)	66.6 mg/11.8 mg
		Х										10.6 (5)	24.0 mg/24.0 mg
Х				Х								6.4 (3)	52.5 mg/0.4 mg
		Х		Х		Х						4.3 (2)	85.1 mg/39.0 mg
				Х		Х						4.3 (2)	95.0 mg/30.3 mg
						Х				Х		4.3 (2)	87.8 mg/52.1 mg
Х	Х	Х	Х	Х		Х						2.1 (1)	43.8 mg/43.5 mg
Х		Х		Х		Х		Х				2.1 (1)	54.5 mg/54.5 mg
Х		Х		Х				Х		Х		2.1 (1)	67.1 mg/55.2 mg
X		Χ						Х				2.1 (1)	30.0 mg/10.1 mg
Х		Χ										2.1 (1)	48.9 mg/22.3 mg
Х				Χ				Χ				2.1 (1)	87.7 mg/0.7 mg
		Χ	Х			Χ						2.1 (1)	25.0 mg/55.0 mg
		Χ	Χ									2.1 (1)	14.0 mg/90.0 mg
		Χ		Χ						Х		2.1 (1)	80.0 mg/30.1 mg
		Χ				Χ				Х		2.1 (1)	5.0 mg/5.0 mg
		Х						Х				2.1 (1)	20.0 mg/20.0 mg
			Х	Х		Х						2.1 (1)	56.1 mg/65.5 mg
			Х			Х						2.1 (1)	33.6 mg/102.1 mg
				Х		Х				Х	Х	2.1 (1)	63.3 mg/133.4 mg
				Х		Х				Х		2.1 (1)	78.3 mg/34.3 mg
								Х				2.1 (1)	36.0 mg/0.1 mg

### **Pain**

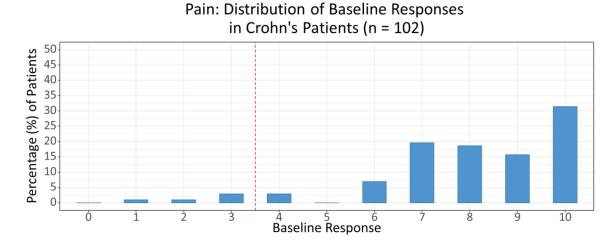


Figure 148. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 97) were patients experiencing moderate to severe pain at baseline.

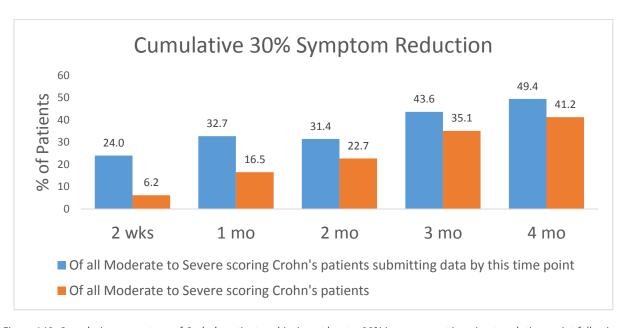


Figure 149. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

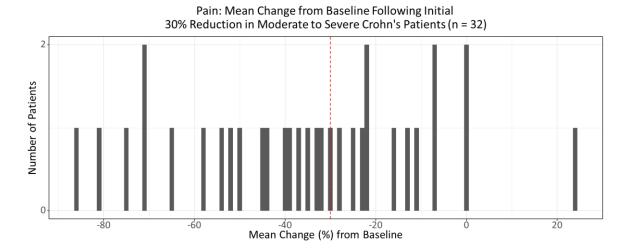


Figure 150. Frequency distribution of Crohn's patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 41. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	# of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 40	Avg Daily CBD Use (mg)
				Х								12.5 (5)	55.3 mg/0.4 mg
		Х		Χ								10.0 (4)	59.3 mg/18.7 mg
		Х				Χ						7.5 (3)	28.8 mg/21.7 mg
		Х										7.5 (3)	31.0 mg/29.0 mg
						Χ				Х		7.5 (3)	73.1 mg/49.3 mg
Χ				Х								5.0 (2)	60.9 mg/0.4 mg
			Х	Х		Χ						5.0 (2)	89.8 mg/88.9 mg
				Х	Х							5.0 (2)	102.4 mg/3.8 mg
Χ		Х	Х			Χ						2.5 (1)	5.0 mg/95.0 mg
Χ		Х		Х		Χ		Χ				2.5 (1)	130.5 mg/55.1 mg
Χ		Х		Х								2.5 (1)	102.6 mg/6.5 mg
Χ		Х						Χ				2.5 (1)	30.0 mg/10.1 mg
Χ				Х				Χ				2.5 (1)	87.7 mg/0.7 mg
	Х			Х								2.5 (1)	139.3 mg/8.6 mg
		Х	Х	Χ		Χ						2.5 (1)	50.4 mg/96.4 mg
		Х	Х	Χ								2.5 (1)	59.9 mg/84.3 mg
		Х	Χ									2.5 (1)	14.0 mg/90.0 mg
		Х		Х		Χ						2.5 (1)	83.3 mg/0.4 mg
		Χ		Χ				Χ				2.5 (1)	53.3 mg/20.1 mg
		Х		Х						Х		2.5 (1)	30.0 mg/30.0 mg
		Х				Х				Х		2.5 (1)	68.4 mg/68.4 mg
		Х								Х		2.5 (1)	29.7 mg/11.2 mg
						Х						2.5 (1)	65.0 mg/35.0 mg
·										Х		2.5 (1)	20.8 mg/20.8 mg

### **Vomiting**

### Vomiting: Distribution of Baseline Responses in Crohn's Patients (n = 102) 50 Percentage (%) of Patients 45 40 35 30 25 20 15 10 5 0 Ó 1 4 5 6 Baseline Response 8 ģ 10

Figure 151. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 31) were patients experiencing moderate to severe vomiting at baseline.

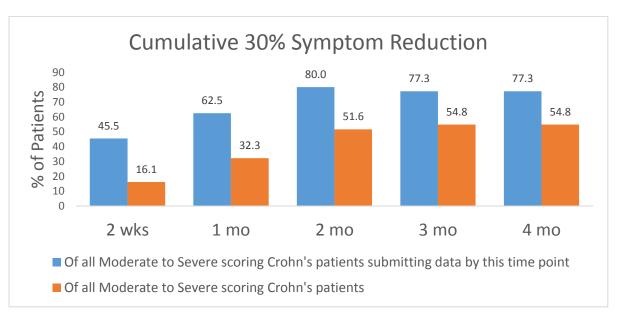


Figure 152. Cumulative percentage of Crohn's patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

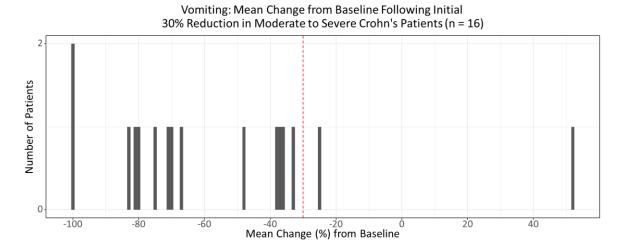


Figure 153. Frequency distribution of Crohn's patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 42. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very		Very		Very			
High		High		High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 17 (n)	Avg Daily CBD Use (mg)
	Χ		Χ			23.5 (4)	24.3 mg/24.3 mg
		Χ				17.6 (3)	41.0 mg/0.3 mg
Х		Χ				11.8 (2)	76.5 mg/0.6 mg
	Χ					11.8 (2)	17.2 mg/14.2 mg
Х	Χ	Χ	Χ	Χ		5.9 (1)	54.5 mg/54.5 mg
	Χ	Χ		Χ		5.9 (1)	82.6 mg/20.3 mg
	Χ	Χ			Х	5.9 (1)	80.0 mg/30.1 mg
	Х	Χ				5.9 (1)	80.8 mg/20.5 mg
	Х				Х	5.9 (1)	48.8 mg/42.8 mg
		Х	Χ			5.9 (1)	75.0 mg/25.3 mg

### Weight

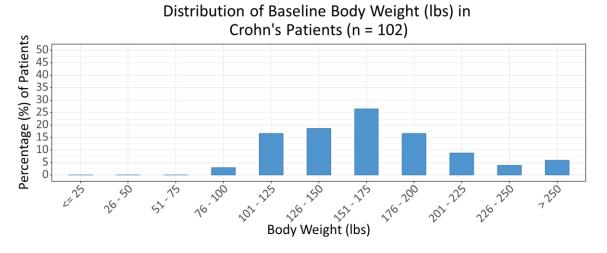


Figure 154. Distribution of patient weight (lbs) at baseline (prior to taking any medical cannabis).

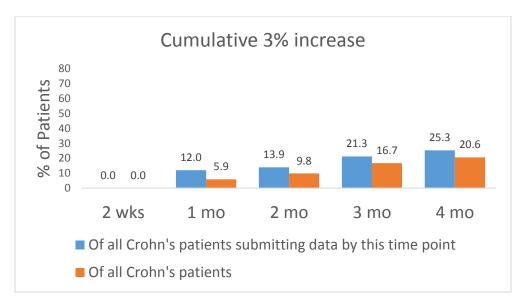


Figure 155. Cumulative percentage of Crohn's patients achieving at least a 3% increase in weight (lbs) at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

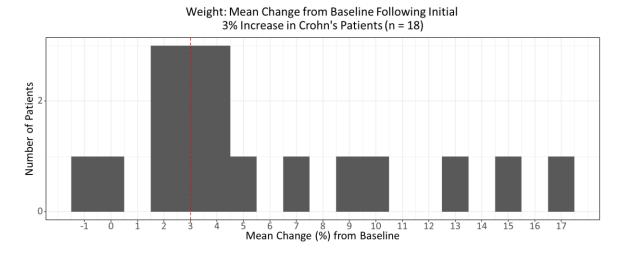


Figure 156. Frequency distribution of Crohn's patients based on the average change in their weight (lbs; compared to baseline) in the 4-month period following their initial 3% weight increase. Patients falling on or to the right of the dotted red line had, on average, maintained at least a 3% weight increase.

### **Crohn's Activity Measure – Combined**

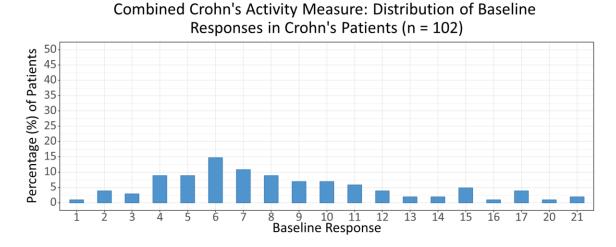


Figure 157. Distribution of patient responses on the combined Crohn's activity measure at baseline (prior to taking any medical cannabis).

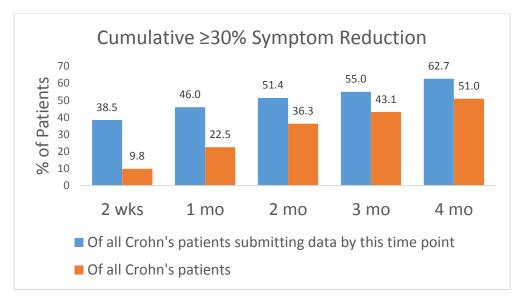


Figure 158. Cumulative percentage of Crohn's patients achieving at least a 30% improvement on the combined Crohn's activity measure at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

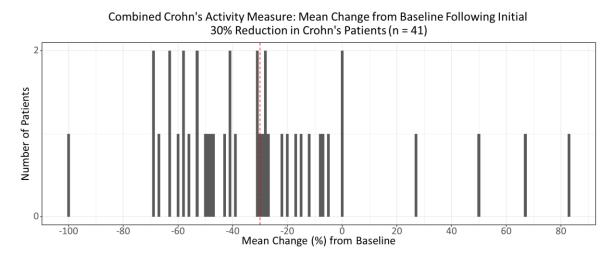


Figure 159. Frequency distribution of Crohn's patients based on the average change in their combined Crohn's activity measure (compared to baseline) in the 4-month period following their initial 30% symptom improvement. The combined Crohn's activity measure was an aggregate score combining scores on a) general well-being, b) abdominal pain, and c) number of liquid stools. These three Crohn's activity measures were taken from the Harvey-Bradshaw Index. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in Crohn's symptoms.

Table 43. Medical cannabis product(s) purchased by each Crohn's patient just prior to achieving the initial 30% reduction in the combined Crohn's activity measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very High THC to	High THC to		High CBD to	Very High THC to	High THC to		High CBD to	Very High THC to	High THC to		High CBD to	% of Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 52 (n)	Avg Daily CBD Use (mg)
		Х		Х								9.6 (5)	99.4 mg/20.5 mg
		Х										9.6 (5)	12.5 mg/10.1 mg
				Х								9.6 (5)	49.8 mg/0.4 mg
Х				Χ								5.8 (3)	70.4 mg/0.5 mg
		Χ				Х						5.8 (3)	26.4 mg/19.3 mg
		Χ								Х		5.8 (3)	36.2 mg/28.0 mg
			Х	Х		Х						5.8 (3)	71.3 mg/438.3 mg
						Х				Х		5.8 (3)	72.4 mg/48.6 mg
						Х						5.8 (3)	34.1 mg/17.5 mg
Х		Χ		Х								3.8 (2)	99.8 mg/18.5 mg
Х		Χ		Χ		Χ		Χ				1.9 (1)	30.0 mg/30.0 mg
Х		Χ				Χ						1.9 (1)	75.0 mg/42.5 mg
Х		Χ						Χ		Х		1.9 (1)	43.4 mg/25.7 mg
Х		Χ						Χ				1.9 (1)	30.0 mg/10.1 mg
Х		Χ										1.9 (1)	54.2 mg/46.2 mg
Х				Χ		Χ						1.9 (1)	75.0 mg/0.5 mg
Х				Χ				Χ				1.9 (1)	87.7 mg/0.7 mg
	Х			Х								1.9 (1)	139.3 mg/8.6 mg
		Χ	Х	Х		Χ						1.9 (1)	50.4 mg/96.4 mg
		Χ	Х									1.9 (1)	14.0 mg/90.0 mg
		Χ		Х		Х						1.9 (1)	50.0 mg/0.3 mg
		Χ				Х				Х		1.9 (1)	17.9 mg/17.9 mg
				Х		Х				Х	Х	1.9 (1)	63.3 mg/133.4 mg
				Х		Х						1.9 (1)	115.0 mg/35.3 mg
					Х							1.9 (1)	121.4 mg/7.1 mg
								Х				1.9 (1)	24.0 mg/0.1 mg
								•		Х		1.9 (1)	25.0 mg/25.0 mg

Well Being: Distribution of Baseline

### Crohn's Activity Measure - General Well-Being

### Responses in Crohn's Patients (n = 102) Percentage (%) of Patients 50 45 40 35 30 25 20 15 10 5 0 Slightly Very Poor Very Well Poor Terrible **Below Par Baseline Response**

Figure 160. Distribution of patient responses on general well-being at baseline (prior to taking any medical cannabis). Patients whose well-being was reported at "Very Poor" to "Terrible" at baseline were included in the symptom reduction analysis (n = 15).

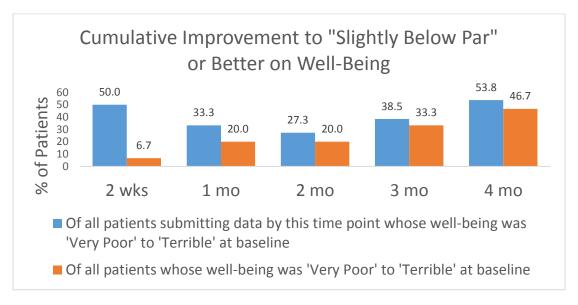


Figure 161. Cumulative percentage of Crohn's patients whose well-being improved to 'Slightly Below Par' to 'Very Well' at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

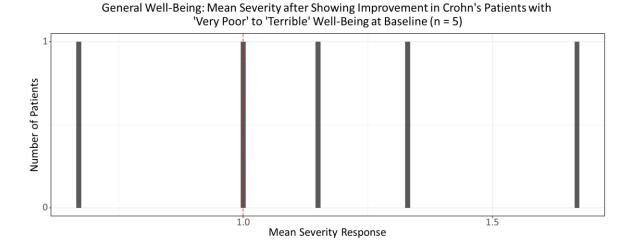
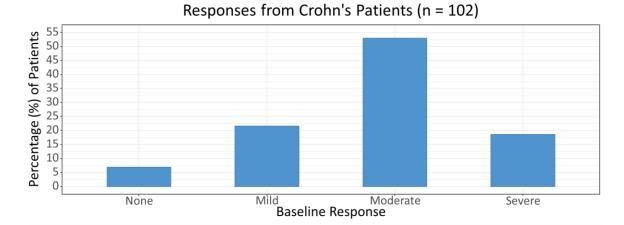


Figure 162. Frequency distribution of Crohn's patients based on the average change in their general well-being (compared to baseline) in the 4-month period following their initial symptom improvement (indicating their well-being was 'Very Well' to 'Slightly Below Par' when they started out with 'Very Poor' or 'Terrible' well-being at baseline). Responses on the general well-being measure were as follows: 0 = 'Very Well', 1 = 'Slightly Below Par', 2 = 'Poor', 3 = 'Very Poor', 4 = 'Terrible'. Patients falling on or to the left of the vertical, dotted red line had, on average, indicated that their well-being was 'Very Well' to 'Slightly Below Par' (average score of 1 or less).

### **Crohn's Activity Measure – Abdominal Pain**



Abdominal Pain: Distribution of Baseline

Figure 163. Distribution of patient responses regarding their abdominal pain at baseline (prior to taking any medical cannabis). Patients whose abdominal pain was reported at "Moderate" to "Severe" at baseline were included in the symptom reduction analysis (n = 73).

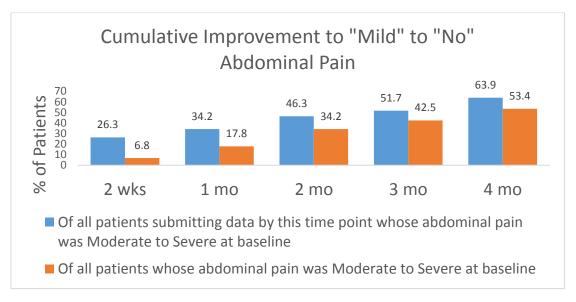


Figure 164. Cumulative percentage of Crohn's patients whose abdominal pain improved to 'Mild' or 'None' at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

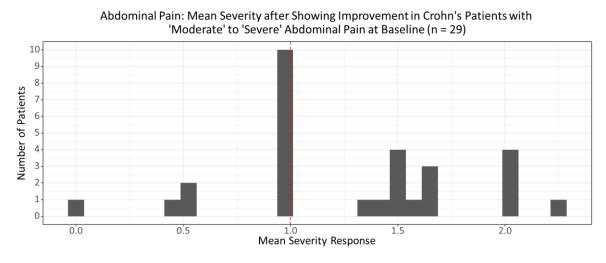


Figure 165. Frequency distribution of Crohn's patients based on the average change in their abdominal pain (compared to baseline) in the 4-month period following their initial symptom improvement (indicating they had no abdominal pain or mild abdominal pain when they started out with moderate to severe abdominal pain at baseline). Responses on the abdominal pain measure were as follows: 0 = 'None', 1 = 'Mild', 2 = 'Moderate', 3 = 'Severe'. Patients falling on or to the left of the vertical, dotted red line had, on average, indicated that their abdominal pain had disappeared or was mild (average score of 1 or less).

# **Crohn's Activity Measure – Number of Liquid Stools**

### Number of Stools: Distribution of Baseline Responses in Crohn's Patients (n = 102) Percentage (%) of Patients 35 15 10

Figure 166. Distribution of patients according to the number of liquid/soft stools experienced in a day at baseline (prior to taking any medical cannabis). Patients who experienced 5 or more stools at baseline were included in the symptom reduction analysis (n = 41).

Baseline Response

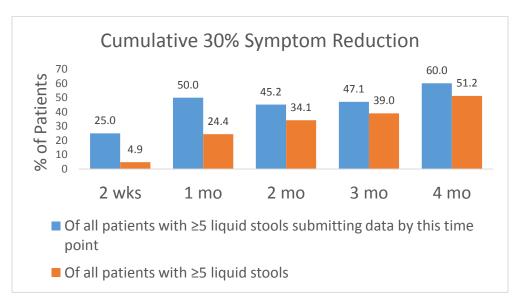


Figure 167. Cumulative percentage of Crohn's patients achieving at least a 30% reduction in the number of liquid/soft stools at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

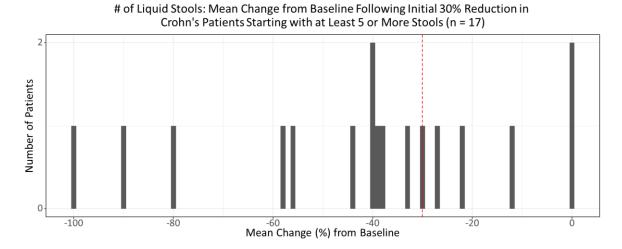


Figure 168. Frequency distribution of Crohn's patients based on the average change in the number of liquid stools they experienced on a given day (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, indicated that the number of liquid stools they experienced had decreased by at least 30%.

# **Terminal Illness Patients**

# **Anxiety**

# Anxiety: Distribution of Baseline Responses in Terminal Illness Patients (n = 81)

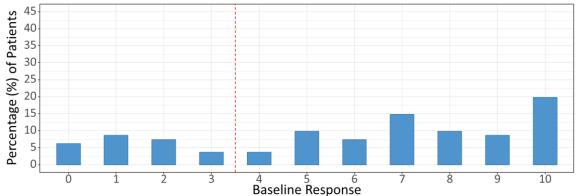


Figure 169. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 60) were patients experiencing moderate to severe anxiety at baseline.

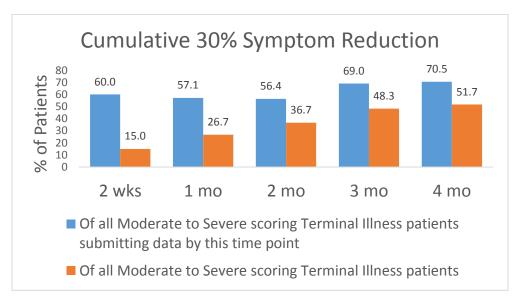


Figure 170. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Anxiety: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness Patients (n = 28)

Figure 171. Frequency distribution of terminally ill patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 44. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 31 (n)	Avg Daily CBD Use (mg)
Х					Х										12.9 (4)	68.7 mg/0.5 mg
					Х										9.7 (3)	46.2 mg/0.4 mg
Х		Х			Х										6.5 (2)	92.9 mg/0.2 mg
		Х			Х		Х								6.5 (2)	134.5 mg/22.5 mg
		Х								Х					6.5 (2)	78.6 mg/61.1 mg
		Х													6.5 (2)	45.0 mg/45.0 mg
			Х												6.5 (2)	4.4 mg/206.7 mg
Х		Х	Х		Х										3.2 (1)	60.0 mg/0.3 mg
Х		Х													3.2 (1)	21.4 mg/21.4 mg
Х			X												3.2 (1)	24.0 mg/160.0 mg
Х					Χ					Χ					3.2 (1)	91.6 mg/0.5 mg
	Χ		Χ												3.2 (1)	4.2 mg/79.2 mg
		Χ		Χ			Х								3.2 (1)	69.9 mg/268.8 mg
		Χ					Х								3.2 (1)	17.5 mg/10.0 mg
		Χ								Х		Х			3.2 (1)	20.8 mg/0.1 mg
					Χ	Χ									3.2 (1)	214.3 mg/7.5 mg
					Χ					Χ					3.2 (1)	76.0 mg/0.6 mg
							Х			Χ					3.2 (1)	65.0 mg/10.1 mg
							Х								3.2 (1)	17.9 mg/17.9 mg
										Χ					3.2 (1)	10.0 mg/0.0 mg
												Х			3.2 (1)	16.8 mg/16.8 mg

# **Appetite Lack**

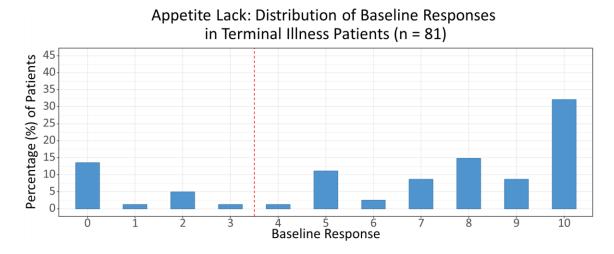


Figure 172. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 64) were patients experiencing moderate to severe lack of appetite at baseline.

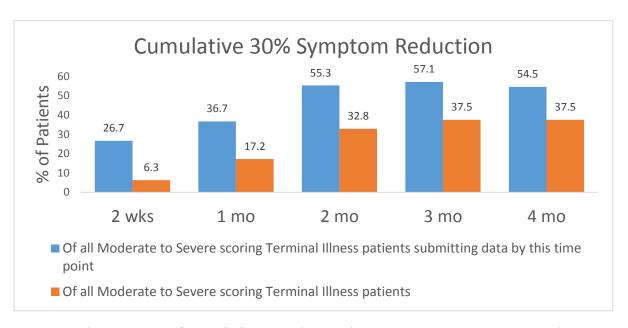


Figure 173. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

# Appetite Lack: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness Patients (n = 19)

Figure 174. Frequency distribution of terminally ill patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 45. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral					Inhalation					Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 25 (n)	Avg Daily CBD Use (mg)
Х					Х										16.0 (4)	52.6 mg/0.3 mg
					Х										16.0 (4)	48.6 mg/0.4 mg
		Х			Χ		Х								8.0 (2)	134.5 mg/22.5 mg
Х		Х	Х		Χ										4.0 (1)	60.0 mg/0.3 mg
Х		Х			Χ		Χ								4.0 (1)	95.1 mg/27.2 mg
Х		Х			Х										4.0 (1)	150.0 mg/0.3 mg
Х					Х					Х					4.0 (1)	91.6 mg/0.5 mg
		Х		Х			Х								4.0 (1)	69.9 mg/268.8 mg
		Х			Х		Х					Х			4.0 (1)	41.7 mg/10.4 mg
		Х								Х		Х			4.0 (1)	20.8 mg/0.1 mg
		Х								Х					4.0 (1)	51.0 mg/20.1 mg
		Х											Х		4.0 (1)	51.9 mg/141.9 mg
		Χ													4.0 (1)	60.0 mg/60.0 mg
			Х												4.0 (1)	4.0 mg/80.0 mg
					Х	Х									4.0 (1)	214.3 mg/7.5 mg
					Χ					Χ					4.0 (1)	71.3 mg/0.4 mg
							Х			Χ					4.0 (1)	65.0 mg/10.1 mg
							Х								4.0 (1)	17.9 mg/17.9 mg

## **Depression**

### Depression: Distribution of Baseline Responses in Terminal Illness Patients (n = 81) Percentage (%) of Patients 40 30 25 15 10 5 0 Ó 1 3 4 5 6 Baseline Response 8 ģ 10

Figure 175. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 54) were patients experiencing moderate to severe depression at baseline.

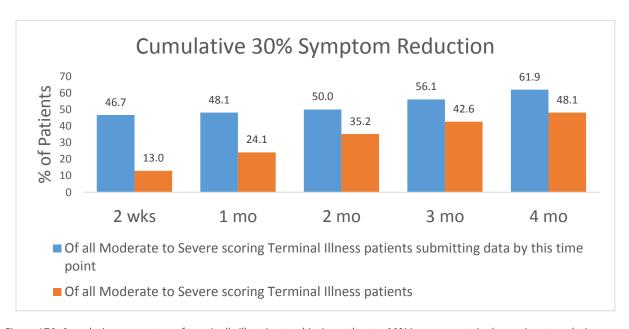


Figure 176. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

# Depression: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness Patients (n = 22)

Figure 177. Frequency distribution of terminally ill patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 46. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 26 (n)	Avg Daily CBD Use (mg)
Х					Χ										11.5 (3)	60.9 mg/0.4 mg
		Χ													11.5 (3)	42.7 mg/40.7 mg
Х		Х			Х										7.7 (2)	90.6 mg/0.2 mg
		Χ			Х										7.7 (2)	64.7 mg/27.0 mg
			Χ												7.7 (2)	4.0 mg/80.0 mg
					Х										7.7 (2)	51.5 mg/0.4 mg
Х		Χ	Χ		Х										3.8 (1)	60.0 mg/0.3 mg
Х		Χ													3.8 (1)	21.4 mg/21.4 mg
Х					Х					Χ					3.8 (1)	91.6 mg/0.5 mg
Х										Χ					3.8 (1)	59.3 mg/0.2 mg
		Χ		Х			Х								3.8 (1)	7.5 mg/7.5 mg
		Χ			Х		Х								3.8 (1)	95.2 mg/11.6 mg
		Χ					Χ								3.8 (1)	17.5 mg/10.0 mg
		Χ								Χ		Χ			3.8 (1)	20.8 mg/0.1 mg
		Х								Х					3.8 (1)	43.1 mg/20.1 mg
					Χ	Χ									3.8 (1)	214.3 mg/7.5 mg
							Х								3.8 (1)	17.9 mg/17.9 mg
												Х			3.8 (1)	16.8 mg/16.8 mg

# **Disturbed Sleep**

# Disturbed Sleep: Distribution of Baseline Responses in Terminal Illness Patients (n = 81) State of the state

Figure 178. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 65) were patients experiencing moderate to severe disturbed sleep at baseline.

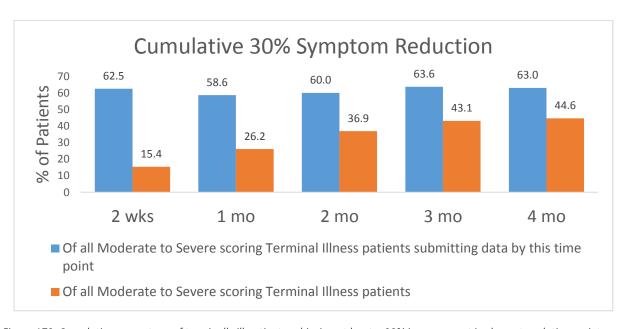


Figure 179. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

# Disturbed Sleep: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Terminal Illness Patients (n = 28)

Figure 180. Frequency distribution of terminal illness patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 47. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	-	Enteral	-	-		-	Inhalation	-	-		-	Oromucosa	 I			
Very High	High		High	Very High	Very High	High		High	Very High	Very High	High		High	Very High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 30 (n)	Avg Daily CBD Use (mg)
Χ					Χ										16.7 (5)	77.1 mg/0.5 mg
		Χ													10.0 (3)	42.7 mg/40.7 mg
					Χ										10.0 (3)	38.3 mg/0.3 mg
		Х			Χ		Х								6.7 (2)	110.1 mg/5.9 mg
			Х												6.7 (2)	4.4 mg/206.7 mg
										Х					6.7 (2)	21.7 mg/0.1 mg
Χ		Χ	Х		Χ										3.3 (1)	60.0 mg/0.3 mg
Χ		Х			Χ		Х								3.3 (1)	95.1 mg/27.2 mg
Χ		Х			Х										3.3 (1)	37.5 mg/37.5 mg
Χ															3.3 (1)	1285.7 mg/6.4 mg
	Х		Х												3.3 (1)	35.4 mg/85.0 mg
		Х		Х			Х								3.3 (1)	69.9 mg/268.8 mg
		Х								Χ		Х			3.3 (1)	20.8 mg/0.1 mg
		Х								Χ					3.3 (1)	43.1 mg/20.1 mg
		Х											Х		3.3 (1)	51.9 mg/141.9 mg
					Χ	Х									3.3 (1)	214.3 mg/7.5 mg
					Χ		Х								3.3 (1)	64.3 mg/7.3 mg
					Χ					Χ					3.3 (1)	136.0 mg/0.8 mg
_				_			Х			Х					3.3 (1)	65.0 mg/10.1 mg

# **Fatigue**

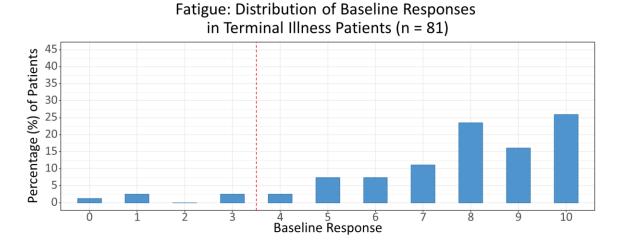


Figure 181. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 76) were patients experiencing moderate to severe fatigue at baseline.

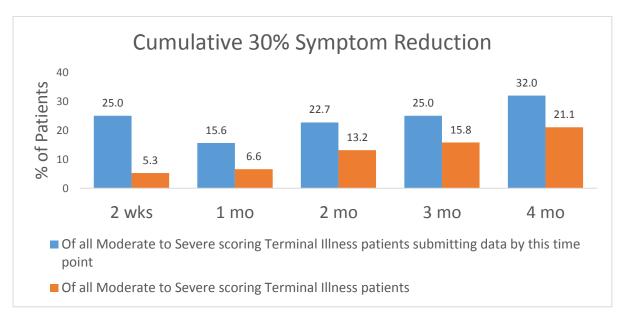


Figure 182. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase)

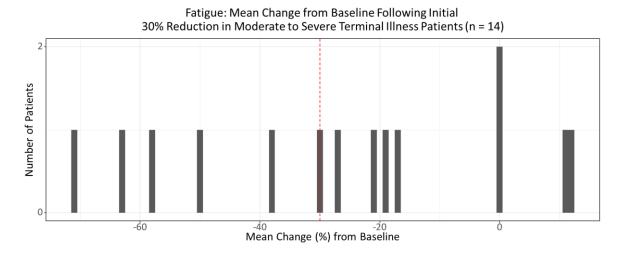


Figure 183. Frequency distribution of terminal illness patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 48. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 17 (n)	Avg Daily CBD Use (mg)
				Χ								17.6 (3)	44.1 mg/0.3 mg
Χ		Χ		Χ								11.8 (2)	96.4 mg/37.6 mg
Χ				Χ								11.8 (2)	101.6 mg/0.7 mg
		Χ		Χ		Χ						11.8 (2)	110.1 mg/5.9 mg
Χ			Χ									5.9 (1)	24.0 mg/160.0 mg
	Х			Χ	Х							5.9 (1)	170.0 mg/10.0 mg
		Χ						Χ		Х		5.9 (1)	20.8 mg/0.1 mg
		Χ						Χ				5.9 (1)	51.0 mg/20.1 mg
			Χ									5.9 (1)	4.0 mg/80.0 mg
				Χ		Х						5.9 (1)	64.3 mg/7.3 mg
				Χ				Χ				5.9 (1)	42.4 mg/0.3 mg
						X		Χ				5.9 (1)	65.0 mg/10.1 mg

## Nausea

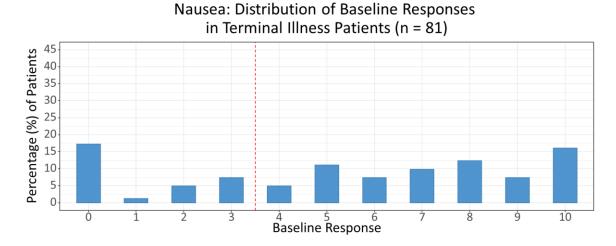


Figure 184. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 56) were patients experiencing moderate to severe nausea at baseline.

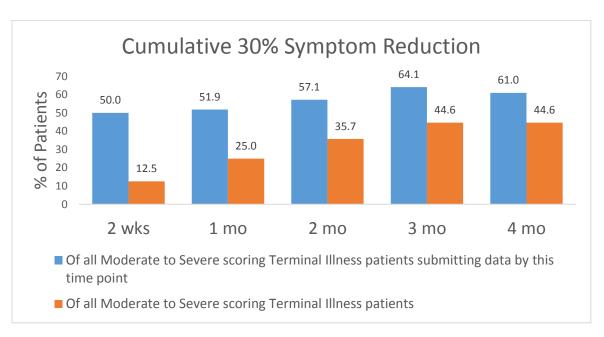


Figure 185. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Nausea: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Terminal Illness Patients (n = 23)

Figure 186. Frequency distribution of terminal illness patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 49. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	Ī			
Very High	High		High	Very High	Very High	High		High	Very High	Very High	High		High	Very High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 26 (n)	Avg Daily CBD Use (mg)
Х					Х										11.5 (3)	67.1 mg/0.5 mg
					Χ										11.5 (3)	44.5 mg/0.4 mg
Χ		Х			Х										7.7 (2)	45.5 mg/37.5 mg
		Х			Х		Х								7.7 (2)	110.1 mg/5.9 mg
		Х								Х					7.7 (2)	78.6 mg/61.1 mg
		Х													7.7 (2)	49.0 mg/46.0 mg
			Х												7.7 (2)	4.4 mg/206.7 mg
Χ	Х														3.8 (1)	20.0 mg/0.0 mg
Χ		Х			Х		Х								3.8 (1)	95.1 mg/27.2 mg
Χ															3.8 (1)	1285.7 mg/6.4 mg
		Х		Х			Х								3.8 (1)	69.9 mg/268.8 mg
		Χ					Х								3.8 (1)	92.9 mg/55.4 mg
		Χ								Χ		Х			3.8 (1)	20.8 mg/0.1 mg
					Χ	Х									3.8 (1)	214.3 mg/7.5 mg
					Χ					Χ					3.8 (1)	71.3 mg/0.4 mg
							Х			Χ					3.8 (1)	65.0 mg/10.1 mg
										Х					3.8 (1)	33.3 mg/0.1 mg

## **Pain**

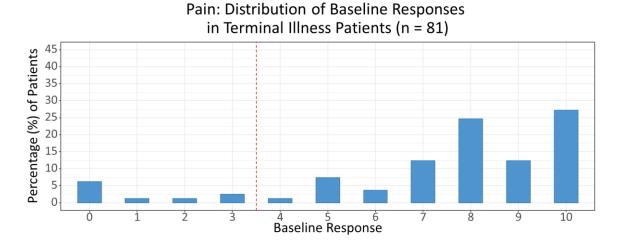


Figure 187. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 72) were patients experiencing moderate to severe pain at baseline.

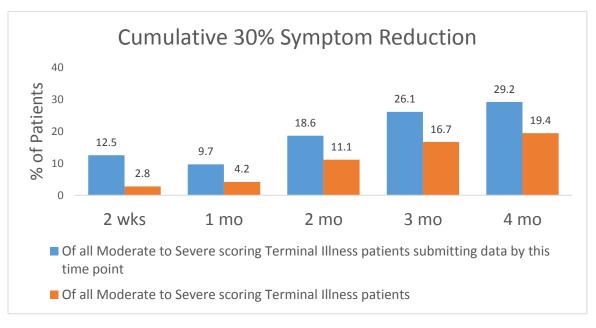


Figure 188. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

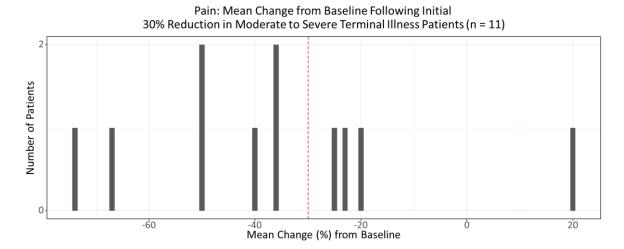


Figure 189. Frequency distribution of terminal illness patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 50. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	l I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 15 (n)	Avg Daily CBD Use (mg)
Х		Χ			Χ										13.3 (2)	92.9 mg/0.2 mg
			Χ												13.3 (2)	4.4 mg/206.7 mg
Х	Χ														6.7 (1)	20.0 mg/0.0 mg
Х					Х					Х					6.7 (1)	91.6 mg/0.5 mg
Х					Х										6.7 (1)	70.3 mg/0.5 mg
	Χ				Χ	Χ									6.7 (1)	345.0 mg/22.6 mg
		Χ		Χ			Χ								6.7 (1)	69.9 mg/268.8 mg
		Χ			Χ		Χ					Х			6.7 (1)	41.7 mg/10.4 mg
		Χ			Χ		Χ								6.7 (1)	95.2 mg/11.6 mg
		Χ			Х										6.7 (1)	150.0 mg/0.3 mg
		Χ								Χ		Х			6.7 (1)	20.8 mg/0.1 mg
					Х										6.7 (1)	45.6 mg/0.4 mg
							Χ			Χ					6.7 (1)	65.0 mg/10.1 mg

# **Vomiting**

### Vomiting: Distribution of Baseline Responses in Terminal Illness Patients (n = 81) Percentage (%) of Patients 40 35 30 25 15 10 5 0 Ó 1 3 4 5 6 Baseline Response 8 9 10

Figure 190. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 35) were patients experiencing moderate to severe vomiting at baseline.

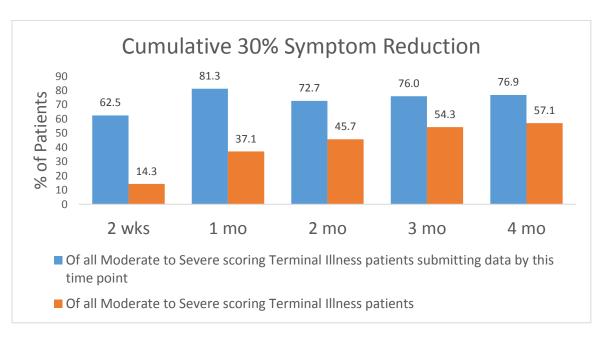


Figure 191. Cumulative percentage of terminally ill patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

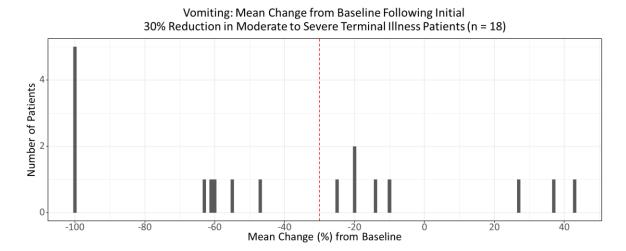


Figure 192. Frequency distribution of terminal illness patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 51. Medical cannabis product(s) purchased by each terminally ill patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	•	Enteral					Inhalation	•				Oromucosa	Ī			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 20 (n)	Avg Daily CBD Use (mg)
					Χ										15.0 (3)	48.4 mg/0.4 mg
Х		Х			Χ										10.0 (2)	23.6 mg/0.1 mg
Х					Χ										10.0 (2)	73.5 mg/0.5 mg
		Х			Χ		Х								10.0 (2)	110.1 mg/5.9 mg
Х		Х			Χ		Х								5.0 (1)	95.1 mg/27.2 mg
Х					Χ					Χ					5.0 (1)	91.6 mg/0.5 mg
		Х		Χ			Χ								5.0 (1)	7.5 mg/7.5 mg
		Х			Χ										5.0 (1)	150.0 mg/0.3 mg
		Х								Χ		Х			5.0 (1)	20.8 mg/0.1 mg
		Х								Х					5.0 (1)	114.2 mg/102.2 mg
		Х													5.0 (1)	60.0 mg/60.0 mg
			Х											·	5.0 (1)	4.7 mg/333.3 mg
					Χ	Χ								·	5.0 (1)	214.3 mg/7.5 mg
							Χ			Χ				·	5.0 (1)	65.0 mg/10.1 mg
							Х								5.0 (1)	28.6 mg/7.1 mg

# **Terminal Illness: Pain Patients**

## **Pain**

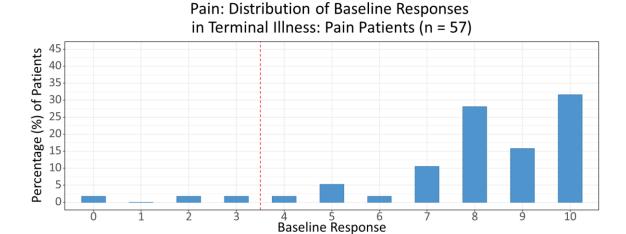


Figure 193. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 54) were patients experiencing moderate to severe pain at baseline.

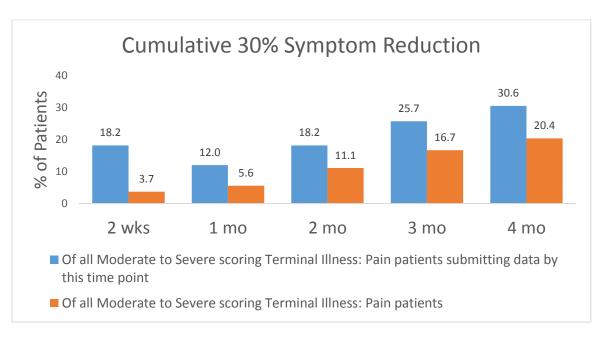


Figure 194. Cumulative percentage of terminal illness: pain patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Pain: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness: Pain Patients (n = 8)

Figure 195. Frequency distribution of terminal illness: pain patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 52. Medical cannabis product(s) purchased by each terminal illness: pain patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 11 (n)	Avg Daily CBD Use (mg)
Х		Χ		Χ								18.2 (2)	92.9 mg/0.2 mg
			Χ									18.2 (2)	4.4 mg/206.7 mg
Х	Х											9.1 (1)	20.0 mg/0.0 mg
Х				Χ				Х				9.1 (1)	91.6 mg/0.5 mg
Χ				Χ								9.1 (1)	70.3 mg/0.5 mg
		Χ		Χ		Χ						9.1 (1)	95.2 mg/11.6 mg
		Χ						Χ		Χ		9.1 (1)	20.8 mg/0.1 mg
				Χ								9.1 (1)	45.6 mg/0.4 mg
						Х		Х				9.1 (1)	65.0 mg/10.1 mg

# **Terminal Illness: Nausea/Vomiting Patients**

# **Appetite Lack**

# Appetite Lack: Distribution of Baseline Responses in Terminal Illness: Nausea/Vomiting Patients (n = 36)

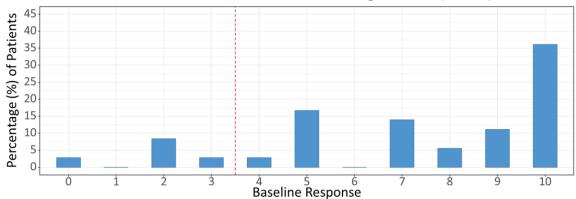


Figure 196. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 31) were patients experiencing moderate to severe lack of appetite at baseline.

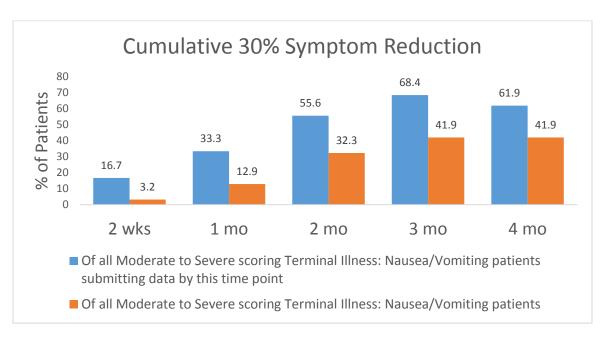


Figure 197. Cumulative percentage of terminal illness: nausea/vomiting patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Appetite Lack: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness: Nausea/Vomiting Patients (n = 11)

Figure 198. Frequency distribution of terminal illness: nausea/vomiting patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 53. Medical cannabis product(s) purchased by each terminal illness: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

		Enteral					Inhalation					Oromucosa	I			
Very				Very	Very				Very	Very				Very		
High	High		High	High	High	High		High	High	High	High		High	High	% of	
THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	THC to	THC to		CBD to	CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	CBD	CBD	Balanced	THC	THC	of 13 (n)	Avg Daily CBD Use (mg)
Χ					Χ										23.1 (3)	49.6 mg/0.3 mg
Χ		Χ			Χ		Χ								7.7 (1)	95.1 mg/27.2 mg
Χ		Χ			Χ										7.7 (1)	150.0 mg/0.3 mg
Χ					Χ					Χ					7.7 (1)	91.6 mg/0.5 mg
		Χ		Х			Χ								7.7 (1)	69.9 mg/268.8 mg
		Χ			Χ		Χ								7.7 (1)	173.7 mg/33.5 mg
		Χ											Х		7.7 (1)	51.9 mg/141.9 mg
					Χ	Х									7.7 (1)	214.3 mg/7.5 mg
					Χ					Χ					7.7 (1)	71.3 mg/0.4 mg
	·				Χ										7.7 (1)	60.8 mg/0.5 mg
							Χ			Χ					7.7 (1)	65.0 mg/10.1 mg

## Nausea

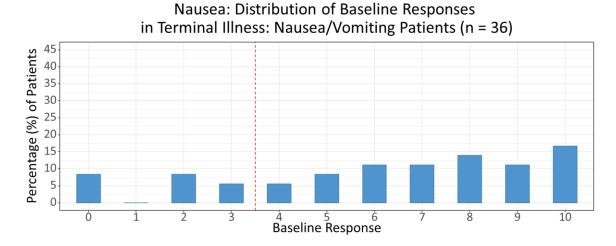


Figure 199. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 28) were patients experiencing moderate to severe nausea at baseline.

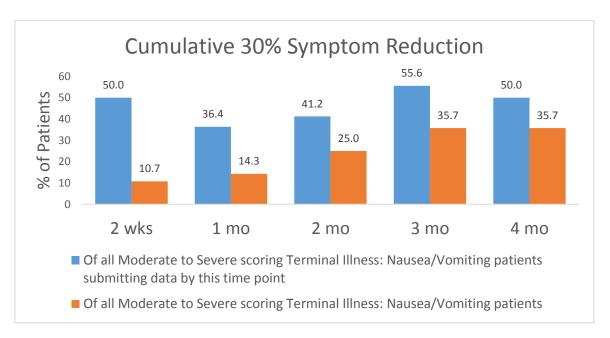


Figure 200. Cumulative percentage of terminal illness: nausea/vomiting patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

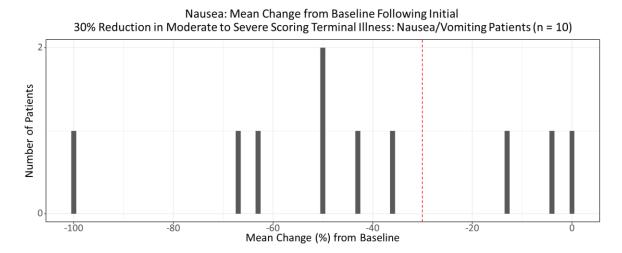


Figure 201. Frequency distribution of terminal illness: nausea patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 54. Medical cannabis product(s) purchased by each terminal illness: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very			Very	Very			Very	Very			Very		
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 10 (n)	Avg Daily CBD Use (mg)
Х		Х		Χ								20.0 (2)	45.5 mg/37.5 mg
Х				Χ								20.0 (2)	62.3 mg/0.4 mg
Х	Х											10.0 (1)	20.0 mg/0.0 mg
Х		Х		Χ		Х						10.0 (1)	95.1 mg/27.2 mg
		Х	Χ			Χ						10.0 (1)	69.9 mg/268.8 mg
				Χ	Χ							10.0 (1)	214.3 mg/7.5 mg
				Χ				Χ				10.0 (1)	71.3 mg/0.4 mg
						Х		Χ				10.0 (1)	65.0 mg/10.1 mg

### **Vomiting**

### Vomiting: Distribution of Baseline Responses in Terminal Illness: Nausea/Vomiting Patients (n = 36) Percentage (%) of Patients 40 35 30 25 20 15 10 5 0 Ó 1 8 9 10 Baseline Response

Figure 202. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 18) were patients experiencing moderate to severe vomiting at baseline.

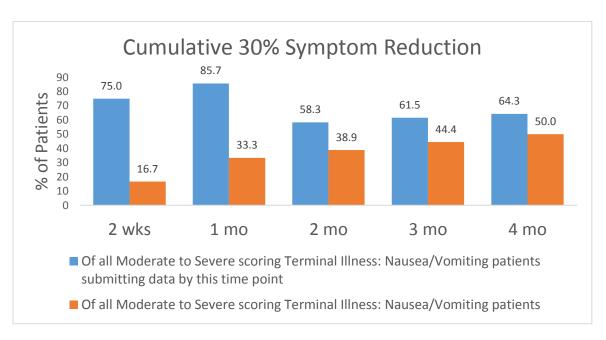


Figure 203. Cumulative percentage of terminal illness: nausea/vomiting patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Vomiting: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Terminal Illness: Nausea/Vomiting Patients (n = 8)

Figure 204. Frequency distribution of terminal illness: nausea/vomiting patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 55. Medical cannabis product(s) purchased by each terminal illness: nausea/vomiting patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oromucosal				
Very			Very	Very			Very	Very			Very		
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 8 (n)	Avg Daily CBD Use (mg)
Х		Х		Χ		Χ						12.5 (1)	95.1 mg/27.2 mg
Х		Х		Χ								12.5 (1)	16.0 mg/0.0 mg
Х				Χ				Χ				12.5 (1)	91.6 mg/0.5 mg
Х				Χ								12.5 (1)	70.3 mg/0.5 mg
		Χ	Χ			Χ						12.5 (1)	7.5 mg/7.5 mg
				Χ	Χ							12.5 (1)	214.3 mg/7.5 mg
				Χ								12.5 (1)	42.2 mg/0.3 mg
						Χ	·	Χ				12.5 (1)	65.0 mg/10.1 mg

### **Terminal Illness: Cachexia/Wasting Patients**

### **Appetite Lack**

### Appetite Lack: Distribution of Baseline Responses in Terminal Illness: Cachexia/Wasting Patients (n = 29)

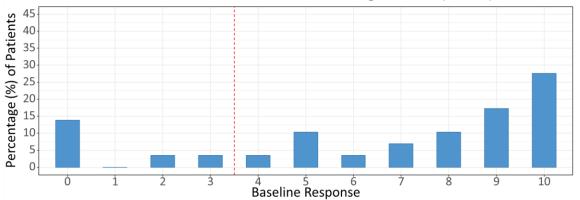


Figure 205. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 23) were patients experiencing moderate to severe lack of appetite at baseline.

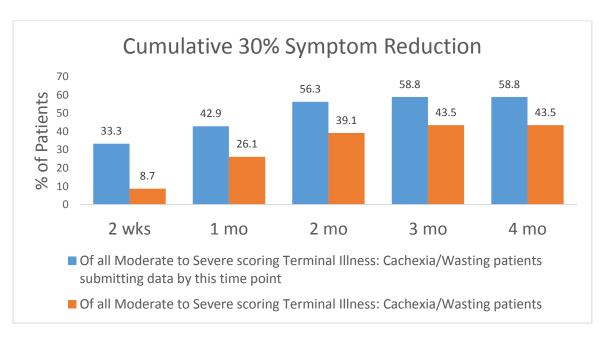


Figure 206. Cumulative percentage of terminal illness: cachexia/wasting patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

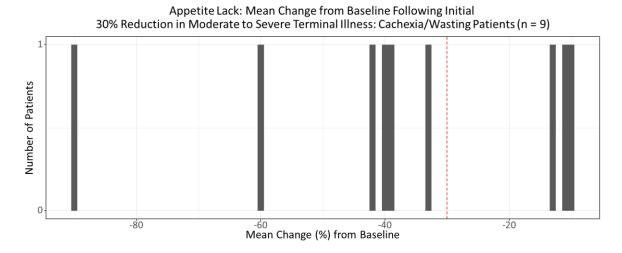


Figure 207. Frequency distribution of terminal illness: cachexia/wasting patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 56. Medical cannabis product(s) purchased by each terminal illness: cachexia/wasting patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalation		(	Oromucosa	i		
Very High		High	Very High		High	Very High		High	% of	
THC to	Dalamand	CBD to	THC to	Dalamand	CBD to	THC to	Dalamand	CBD to	Patients out	0 , , , , ,
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 10 (n)	Avg Daily CBD Use (mg)
	Х		Х	Χ					20.0 (2)	134.5 mg/22.5 mg
Х	Х		Х	Х					10.0 (1)	95.1 mg/27.2 mg
Х			Х			Χ			10.0 (1)	91.6 mg/0.5 mg
Х			Х						10.0 (1)	16.0 mg/0.1 mg
	Х							Χ	10.0 (1)	51.9 mg/141.9 mg
		Χ							10.0 (1)	4.0 mg/80.0 mg
			Х			Χ			10.0 (1)	71.3 mg/0.4 mg
			Х						10.0 (1)	60.8 mg/0.5 mg
		·		Х					10.0 (1)	17.9 mg/17.9 mg

### Weight

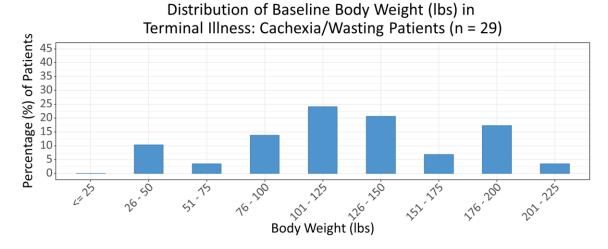


Figure 208. Distribution of patient weight (lbs) at baseline (prior to taking any medical cannabis).

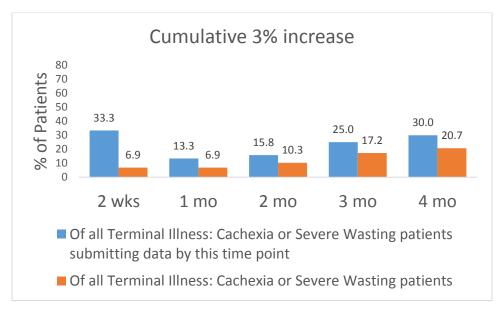


Figure 209. Cumulative percentage of terminal illness: cachexia/wasting patients achieving at least a 3% increase in weight (lbs) at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Weight: Mean Change from Baseline Following Initial 3% Increase in Terminal Illness: Cachexia/Wasting Patients (n = 5)

Figure 210. Frequency distribution of terminal illness: cachexia/wasting patients based on the average change in their weight (lbs; compared to baseline) in the 4-month period following their initial 3% weight increase. Patients falling on or to the right of the dotted red line had, on average, maintained at least a 3% weight increase.

### **HIV/AIDS Patients**

### **Anxiety**

### Anxiety: Distribution of Baseline Responses in HIV/AIDS Patients (n = 48) 40 Percentage (%) of Patients 35 30 25 15 10 5 0 Ó 3 8 10 Baseline Response

Figure 211. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 44) were patients experiencing moderate to severe anxiety at baseline.

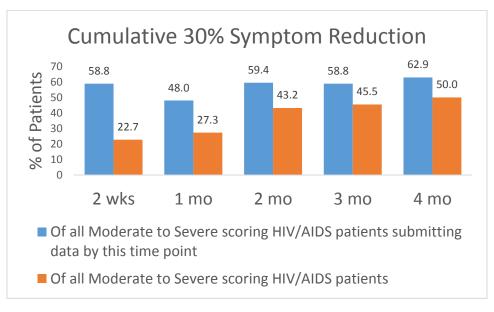


Figure 212. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

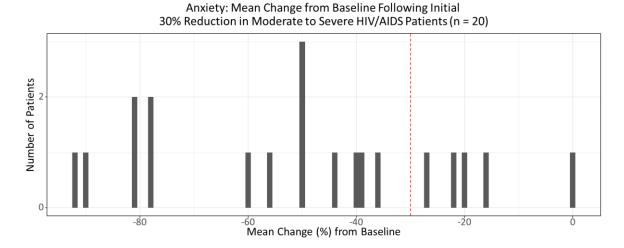


Figure 213. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 57. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n		
Very			Very				
High	High		High	High		% of	
THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	of 22 (n)	Avg Daily CBD Use (mg)
		Χ				45.5 (10)	28.3 mg/27.1 mg
			Х			27.3 (6)	52.0 mg/0.2 mg
Х		Χ				9.1 (2)	22.5 mg/15.0 mg
Х		Χ	Х			4.5 (1)	74.5 mg/0.5 mg
		Χ	Χ		Χ	4.5 (1)	237.5 mg/50.3 mg
	·		Х	Χ		4.5 (1)	153.3 mg/3.5 mg
			Х		Х	4.5 (1)	53.6 mg/18.0 mg

Appetite Lack: Distribution of Baseline Responses

### **Appetite Lack**

### in HIV/AIDS Patients (n = 48) 40 35 30 20 15 10 5 0

Figure 214. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 39) were patients experiencing moderate to severe lack of appetite at baseline.

Baseline Response

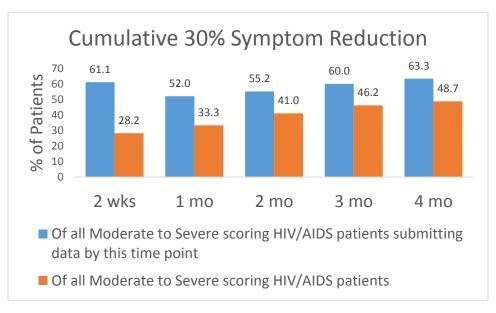


Figure 215. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

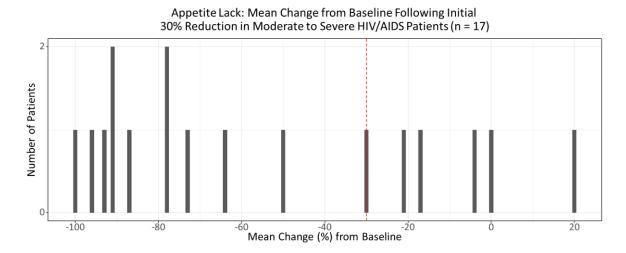


Figure 216. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 58. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•		Inhalatio	n	(	Oromucos	sal		
Very			Very			Very				
High	High		High	High		High	High		% of	
THC to	THC to		THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	CBD	CBD	Balanced	of 19 (n)	Avg Daily CBD Use (mg)
			Χ						36.8 (7)	53.3 mg/0.3 mg
		Х							31.6 (6)	34.8 mg/34.8 mg
					Х				10.5 (2)	23.2 mg/12.5 mg
Х		Х	Χ						5.3 (1)	74.5 mg/0.5 mg
Χ		Χ							5.3 (1)	26.4 mg/21.5 mg
		Х	Χ			Χ			5.3 (1)	100.0 mg/0.2 mg
			Χ	Х					5.3 (1)	153.3 mg/3.5 mg

### **Depression**

### Depression: Distribution of Baseline Responses in HIV/AIDS Patients (n = 48) State of the property of the pro

Figure 217. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 34) were patients experiencing moderate to severe depression at baseline.

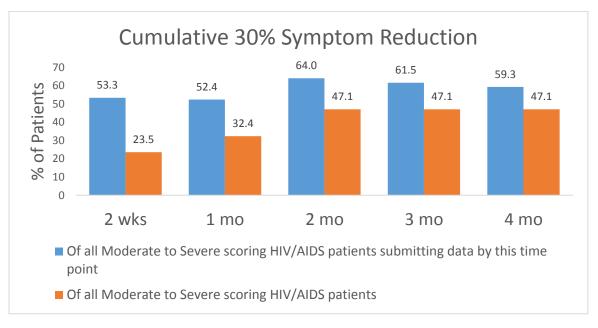


Figure 218. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

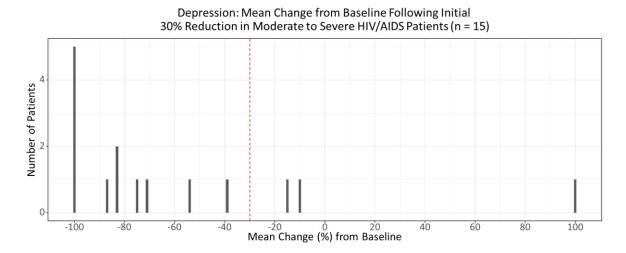


Figure 219. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 59. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n		
Very			Very				
High	High		High	High		% of	
THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	of 16 (n)	Avg Daily CBD Use (mg)
		Х				31.3 (5)	25.2 mg/25.2 mg
			Χ			25.0 (4)	52.9 mg/0.2 mg
Х		Х				18.8 (3)	10.0 mg/5.0 mg
Х		Χ	Х			6.3 (1)	74.5 mg/0.5 mg
		Χ	Χ		Χ	6.3 (1)	237.5 mg/50.3 mg
		Χ			Χ	6.3 (1)	24.6 mg/24.6 mg
			Χ	Χ		6.3 (1)	153.3 mg/3.5 mg

Disturbed Sleep: Distribution of Baseline Responses

### **Disturbed Sleep**

0

### in HIV/AIDS Patients (n = 48) 40 Percentage (%) of Patients 35 30 25 20 10 5

Figure 220. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 44) were patients experiencing moderate to severe disturbed sleep at baseline.

Baseline Response

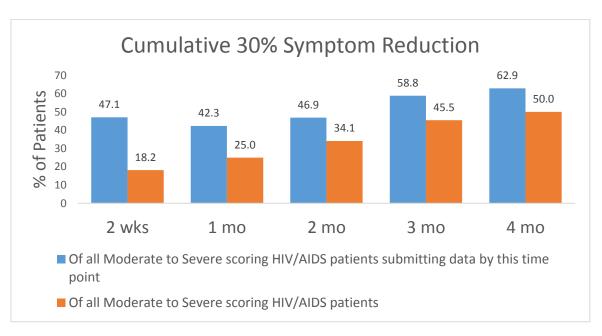


Figure 221. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

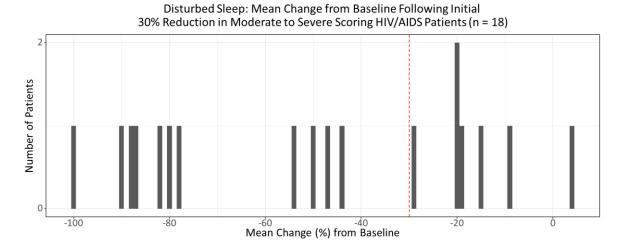


Figure 222. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 60. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•		Inhalatio	n		Oromuco	sal		
Very			Very			Very				
High	High		High	High		High	High		% of	
THC to	THC to		THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	CBD	CBD	Balanced	of 22 (n)	Avg Daily CBD Use (mg)
		Χ							6	29.5 mg/28.5 mg
			Χ						5	39.5 mg/0.2 mg
Х		X							3	65.5 mg/62.2 mg
Х		Х	Х						1	74.5 mg/0.5 mg
Х			Х						1	60.0 mg/0.3 mg
		Χ	Х		Х				1	237.5 mg/50.3 mg
		Χ	Χ			Χ			1	50.0 mg/0.1 mg
		X	Х						1	83.3 mg/0.1 mg
		Х			Х				1	21.4 mg/21.4 mg
			Χ	Х					1	153.3 mg/3.5 mg
			Χ		Χ				1	64.3 mg/7.3 mg

Fatigue: Distribution of Baseline Responses

### **Fatigue**

### in HIV/AIDS Patients (n = 48) 5 40 35 30 20 15 10 5 Baseline Response

Figure 223. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 41) were patients experiencing moderate to severe fatigue at baseline.

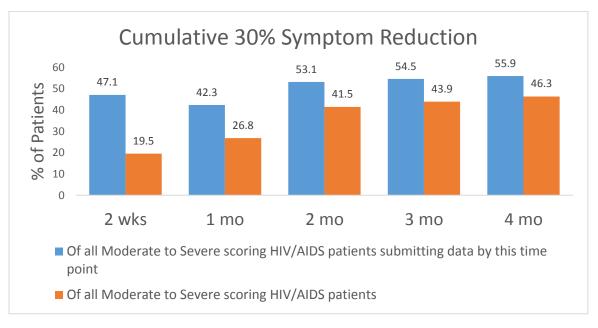


Figure 224. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

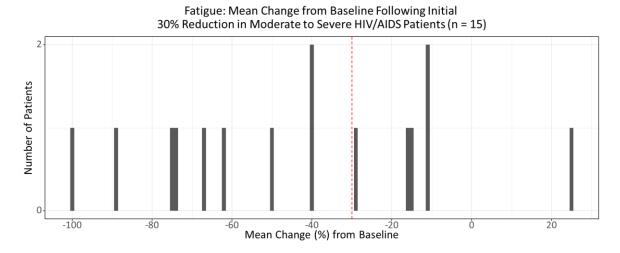


Figure 225. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 61. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n		
Very			Very				
High	High		High	High		% of	
THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	of 19 (n)	Avg Daily CBD Use (mg)
			Χ			31.6 (6)	81.6 mg/0.5 mg
		Х				26.3 (5)	36.5 mg/35.3 mg
Х		Х				15.8 (3)	10.0 mg/5.0 mg
Х		Х	Χ			5.3 (1)	74.5 mg/0.5 mg
		Х	Χ		Х	5.3 (1)	237.5 mg/50.3 mg
		Х	Χ			5.3 (1)	83.3 mg/0.1 mg
		Х			Х	5.3 (1)	50.0 mg/12.5 mg
			Х	Χ		5.3 (1)	153.3 mg/3.5 mg

### Nausea

### Nausea: Distribution of Baseline Responses in HIV/AIDS Patients (n = 48) State of the state of

Figure 226. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 33) were patients experiencing moderate to severe nausea at baseline.

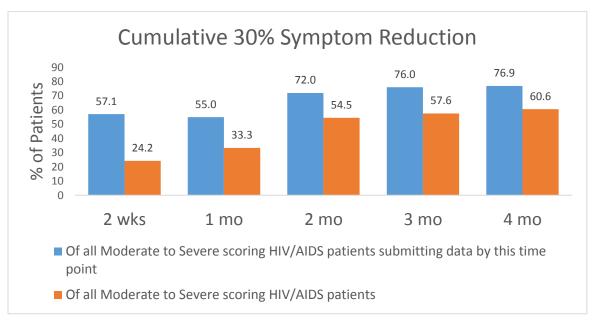


Figure 227. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

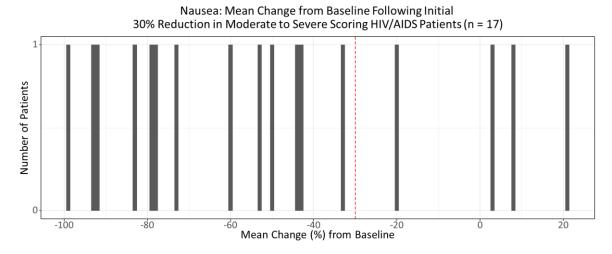


Figure 228. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 62. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•		Inhalatio	n	(	Oromucos	sal		
Very			Very			Very				
High	High		High	High		High	High		% of	
THC to	THC to		THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	CBD	CBD	Balanced	of 20 (n)	Avg Daily CBD Use (mg)
		Х							25.0 (5)	44.1 mg/44.1 mg
			Х						25.0 (5)	49.5 mg/0.2 mg
Х		Х							10.0 (2)	33.2 mg/25.8 mg
Х		Х	Х		Х				5.0 (1)	103.0 mg/12.3 mg
Х		Х	Х						5.0 (1)	155.5 mg/7.5 mg
Х			Х						5.0 (1)	66.7 mg/0.3 mg
Х						Χ			5.0 (1)	35.1 mg/0.1 mg
		Х	Х		Х				5.0 (1)	237.5 mg/50.3 mg
		Х	Χ						5.0 (1)	83.3 mg/0.1 mg
		Х				Х			5.0 (1)	30.0 mg/30.0 mg
			Х	Х					5.0 (1)	153.3 mg/3.5 mg

### **Pain**

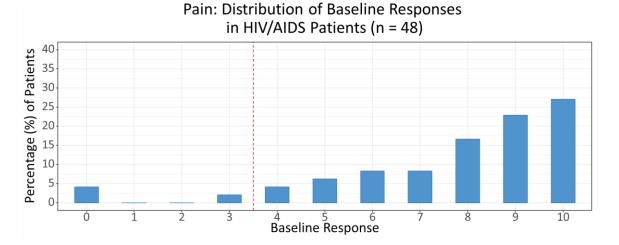


Figure 229. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 45) were patients experiencing moderate to severe pain at baseline.

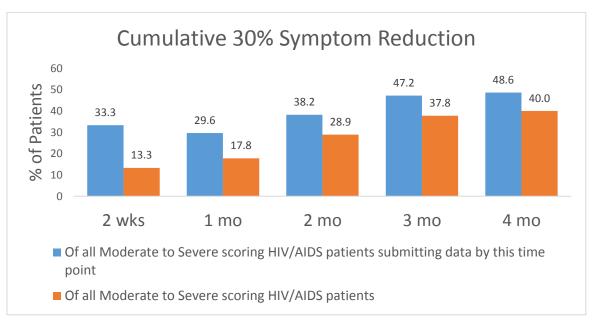


Figure 230. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

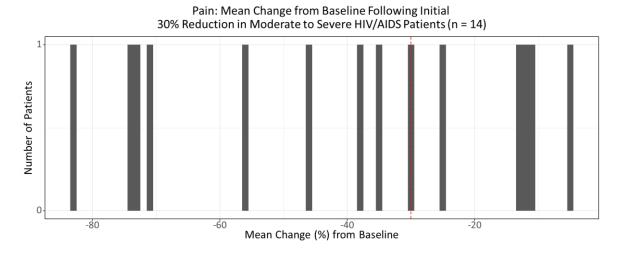


Figure 231. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 63. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n	Ū	Oromucos	sal		
Very			Very			Very				
High	High		High	High		High	High		% of	
THC to	THC to		THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	CBD	CBD	Balanced	of 18 (n)	Avg Daily CBD Use (mg)
		Х							33.3 (6)	23.1 mg/22.1 mg
			Х						16.7 (3)	65.2 mg/0.3 mg
Χ		Х							11.1 (2)	5.0 mg/0.0 mg
			Х		Х				11.1 (2)	51.7 mg/18.2 mg
Χ		Х	Χ						5.6 (1)	74.5 mg/0.5 mg
		Х	Х			Х			5.6 (1)	50.0 mg/0.1 mg
		Х	Χ						5.6 (1)	83.3 mg/0.1 mg
		Х			Х				5.6 (1)	50.0 mg/12.5 mg
			Х	Х					5.6 (1)	153.3 mg/3.5 mg

### **Vomiting**

### Vomiting: Distribution of Baseline Responses in HIV/AIDS Patients (n = 48) State of the property of the prope

Figure 232. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 20) were patients experiencing moderate to severe vomiting at baseline.

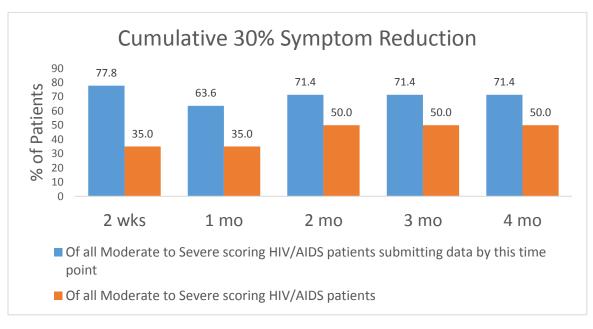


Figure 233. Cumulative percentage of HIV/AIDS patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

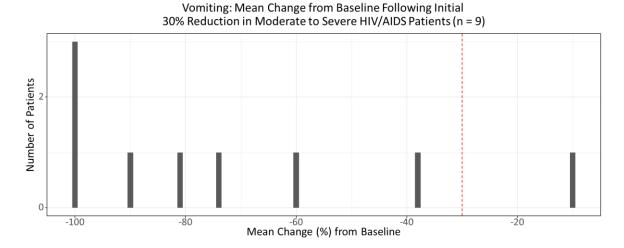


Figure 234. Frequency distribution of HIV/AIDS patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 64. Medical cannabis product(s) purchased by each HIV/AIDS patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n		
Very			Very				
High	High		High	High		% of	
THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	of 10 (n)	Avg Daily CBD Use (mg)
		Χ				40.0 (4)	40.2 mg/40.2 mg
			Χ			30.0 (3)	58.7 mg/0.3 mg
Х		Χ				10.0 (1)	26.4 mg/21.5 mg
		Χ	Χ		Χ	10.0 (1)	237.5 mg/50.3 mg
		·	Χ	Χ		10.0 (1)	153.3 mg/3.5 mg

### Weight

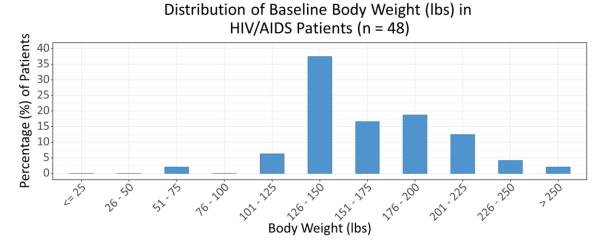


Figure 235. Distribution of patient weight (lbs) at baseline (prior to taking any medical cannabis).

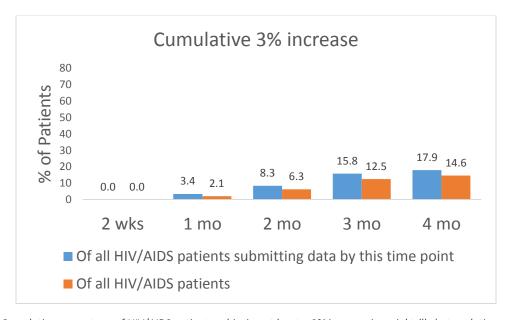


Figure 236. Cumulative percentage of HIV/AIDS patients achieving at least a 3% increase in weight (lbs) at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

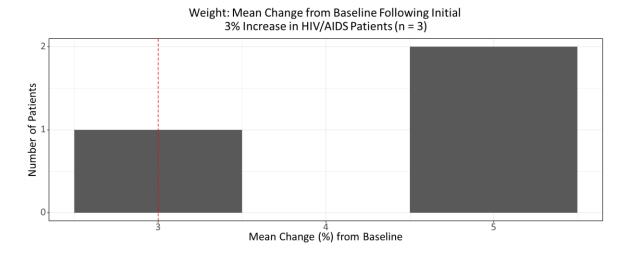


Figure 237. Frequency distribution of HIV/AIDS patients based on the average change in their weight (lbs; compared to baseline) in the 4-month period following their initial 3% weight increase. Patients falling on or to the right of the dotted red line had, on average, maintained at least a 3% weight increase.

### **Tourette Syndrome Patients**

### **Anxiety**

### Anxiety: Distribution of Baseline Responses in Tourette Patients (n = 28)

Figure 238. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 26) were patients experiencing moderate to severe anxiety at baseline.

Baseline Response

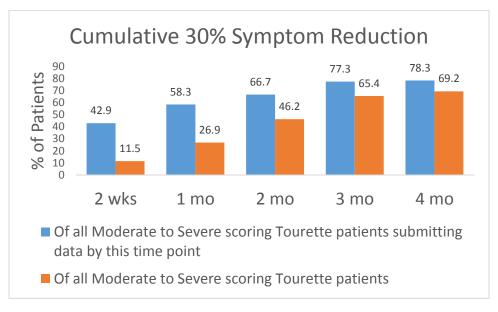


Figure 239. Cumulative percentage of Tourette patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

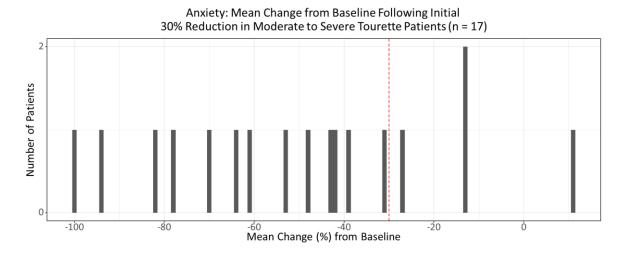


Figure 240. Frequency distribution of Tourette patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 65. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) / Avg
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 18 (n)	Daily CBD Use (mg)
				Х								16.7 (3)	68.1 mg/0.3 mg
		Χ						Χ				11.1 (2)	17.9 mg/7.6 mg
		Χ										11.1 (2)	14.0 mg/11.0 mg
								Χ				11.1 (2)	27.1 mg/0.1 mg
Χ		Χ		Χ		Χ						5.6 (1)	77.3 mg/9.3 mg
Χ		Χ										5.6 (1)	7.5 mg/0.0 mg
Χ				Х								5.6 (1)	61.6 mg/0.4 mg
Χ								Χ				5.6 (1)	16.0 mg/0.1 mg
	Х	Χ										5.6 (1)	41.7 mg/7.8 mg
		Χ				Χ						5.6 (1)	35.0 mg/20.0 mg
			Х						·			5.6 (1)	150.0 mg/2850.0 mg
				Х		Χ			·			5.6 (1)	83.3 mg/0.4 mg
				Χ				Χ	·			5.6 (1)	54.2 mg/0.4 mg

### **Appetite Lack**

### Appetite Lack: Distribution of Baseline Responses in Tourette Patients (n = 28)

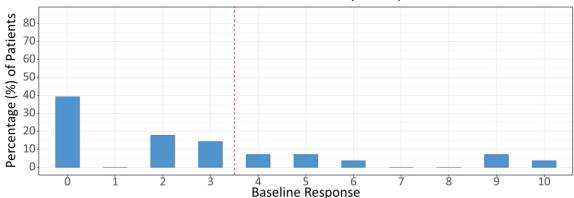


Figure 241. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 8) were patients experiencing moderate to severe lack of appetite at baseline.

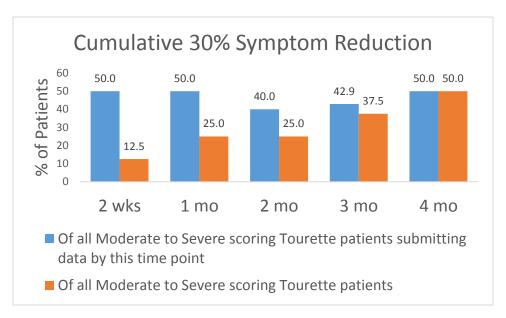


Figure 242. Cumulative percentage of Tourette patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

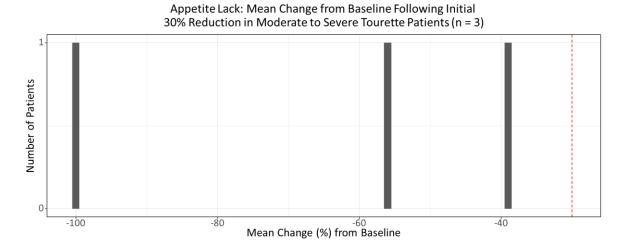


Figure 243. Frequency distribution of Tourette patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 66. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

Ent	teral	Inha	lation	Oron	nucosal		
Very		Very		Very			
High		High		High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 4 (n)	Avg Daily CBD Use (mg)
				Х		50.0 (2)	31.7 mg/0.1 mg
	Χ		Χ			25.0 (1)	35.0 mg/20.0 mg
		Χ				25.0 (1)	50.0 mg/0.3 mg

### **Depression**

Percentage (%) of Patients

30 20 10

Ó

### Depression: Distribution of Baseline Responses in Tourette Patients (n = 28)

Figure 244. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 20) were patients experiencing moderate to severe depression at baseline.

Baseline Response

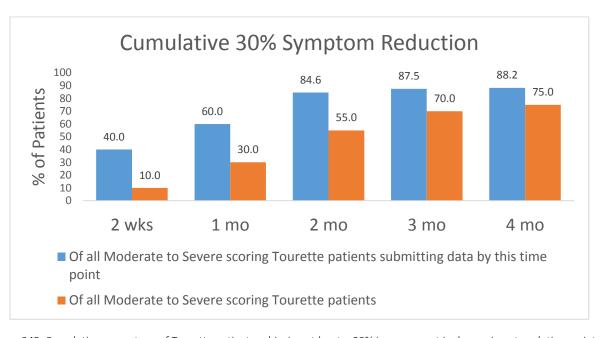


Figure 245. Cumulative percentage of Tourette patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

10

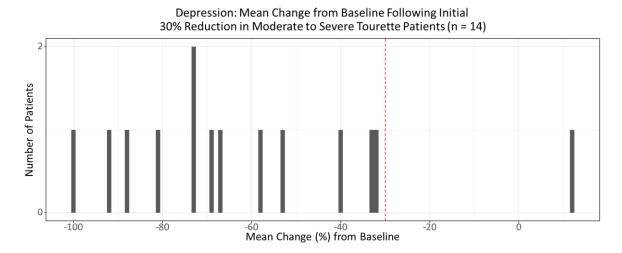


Figure 246. Frequency distribution of Tourette patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 67. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral		Inhalation					Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 15 (n)	Avg Daily CBD Use (mg)
				Χ								20.0 (3)	59.7 mg/0.2 mg
								Χ				20.0 (3)	28.1 mg/0.1 mg
		Χ						Χ				13.3 (2)	17.9 mg/7.6 mg
Х		Χ										6.7 (1)	24.0 mg/6.0 mg
Х								Χ				6.7 (1)	16.0 mg/0.1 mg
	Х	Χ										6.7 (1)	37.5 mg/8.1 mg
		Χ				Χ						6.7 (1)	35.0 mg/20.0 mg
		X										6.7 (1)	10.0 mg/10.0 mg
·			Χ									6.7 (1)	150.0 mg/2850.0 mg
										Х		6.7 (1)	24.2 mg/24.2 mg

### **Disturbed Sleep**

### Disturbed Sleep: Distribution of Baseline Responses in Tourette Patients (n = 28)

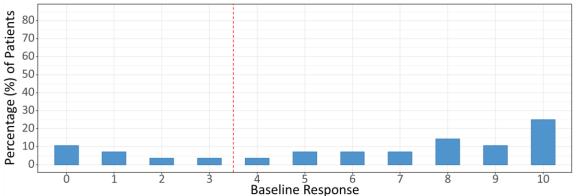


Figure 247. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 21) were patients experiencing moderate to severe disturbed sleep at baseline.

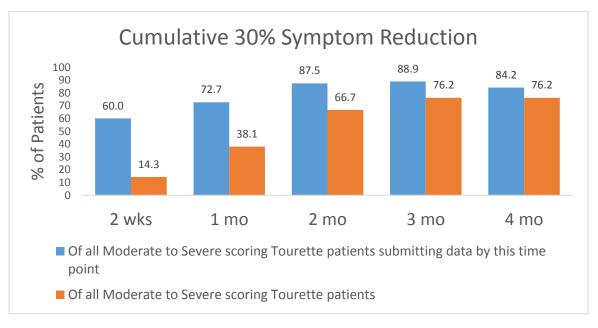


Figure 248. Cumulative percentage of Tourette patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

# Disturbed Sleep: Mean Change from Baseline Following Initial 30% Reduction in Moderate to Severe Scoring Tourette Patients (n = 16)

Figure 249. Frequency distribution of Tourette patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 68. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral		Inhalation					Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 16 (n)	Avg Daily CBD Use (mg)
				Χ								18.8 (3)	68.1 mg/0.3 mg
		Χ						Χ				12.5 (2)	15.0 mg/5.0 mg
		Х										12.5 (2)	11.5 mg/8.5 mg
Х		Χ		Χ		Χ						6.3 (1)	77.3 mg/9.3 mg
Х								Χ				6.3 (1)	16.0 mg/0.1 mg
Х												6.3 (1)	100.0 mg/0.5 mg
	Х	Х										6.3 (1)	37.5 mg/8.1 mg
		Χ	Х									6.3 (1)	7.5 mg/97.5 mg
		Х				X						6.3 (1)	35.0 mg/20.0 mg
				Χ				Χ				6.3 (1)	54.2 mg/0.4 mg
								Χ				6.3 (1)	520.8 mg/2.6 mg
										Χ		6.3 (1)	24.2 mg/24.2 mg

#### **Fatigue**

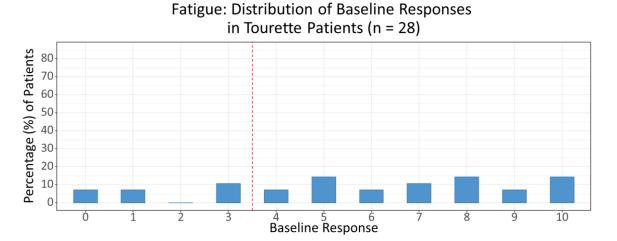


Figure 250. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 21) were patients experiencing moderate to severe fatigue at baseline.

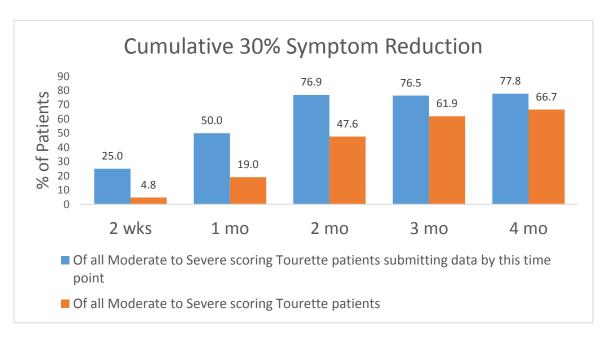


Figure 251. Cumulative percentage of Tourette patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

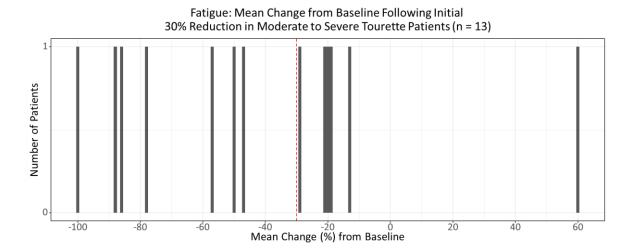


Figure 252. Frequency distribution of Tourette patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 69. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very				% of	
High	High		High	High	High		High	High	High		High	Patients	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	out of 14	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	(n)	Avg Daily CBD Use (mg)
				Х								21.4 (3)	65.2 mg/0.3 mg
								Х				21.4 (3)	25.8 mg/0.1 mg
	Х	Х										14.3 (2)	29.2 mg/6.0 mg
		Х						Х				14.3 (2)	17.9 mg/7.6 mg
Х		Х										7.1 (1)	65.0 mg/50.1 mg
			Х									7.1 (1)	150.0 mg/2850.0 mg
				Х				Х				7.1 (1)	42.2 mg/0.3 mg
										Х		7.1 (1)	24.2 mg/24.2 mg

#### Nausea

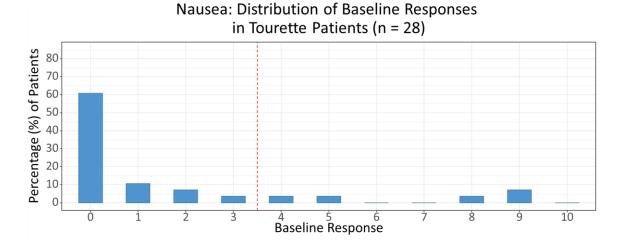


Figure 253. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 5) were patients experiencing moderate to severe nausea at baseline.

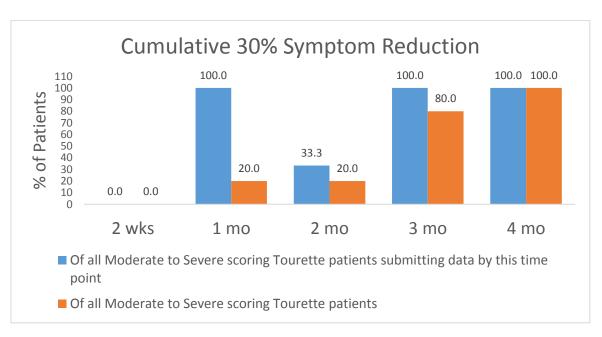


Figure 254. Cumulative percentage of Tourette patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

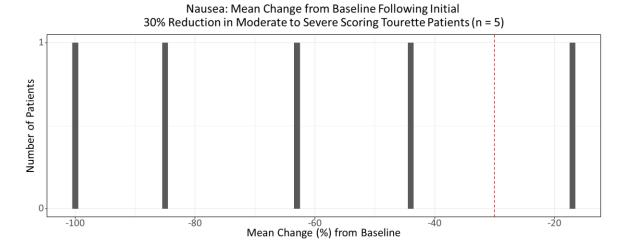


Figure 255. Frequency distribution of Tourette patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 70. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very		Very		Very			
High		High		High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 5 (n)	Avg Daily CBD Use (mg)
				Χ		40.0 (2)	268.3 mg/1.3 mg
	Χ					20.0 (1)	18.0 mg/12.0 mg
		Х				20.0 (1)	100.0 mg/0.2 mg
					Χ	20.0 (1)	23.1 mg/23.1 mg

#### **Pain**

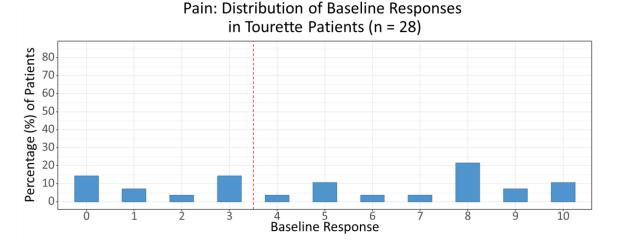


Figure 256. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 17) were patients experiencing moderate to severe pain at baseline.

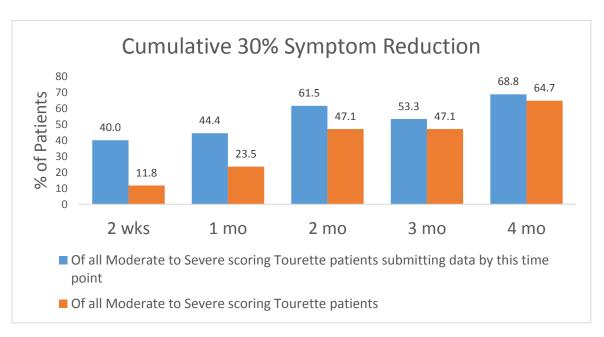


Figure 257. Cumulative percentage of Tourette patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

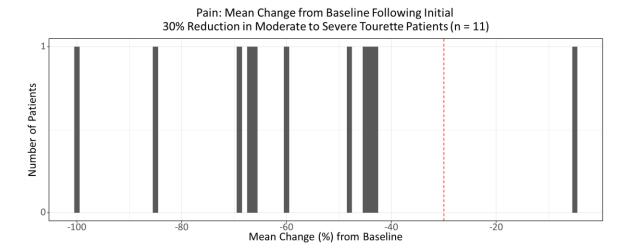


Figure 258. Frequency distribution of Tourette patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 71. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	En	teral			Inha	lation			Oron	nucosal			
Very				Very				Very					
High	High		High	High	High		High	High	High		High	% of	
THC to	THC to		CBD to	THC to	THC to		CBD to	THC to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	CBD	CBD	Balanced	THC	of 11 (n)	Avg Daily CBD Use (mg)
Х				Χ								2	46.0 mg/0.3 mg
								Χ				2	18.3 mg/0.1 mg
Χ		Χ										1	65.0 mg/50.1 mg
	Х	Χ										1	41.7 mg/7.8 mg
		Χ				Χ						1	35.0 mg/20.0 mg
			Χ									1	150.0 mg/2850.0 mg
				Χ		Χ						1	83.3 mg/0.4 mg
				Χ				Χ				1	42.2 mg/0.3 mg
				Χ								1	29.2 mg/0.2 mg

#### **Vomiting**

# Vomiting: Distribution of Baseline Responses in Tourette Patients (n = 28) State of the patients of the patients (n = 28) Baseline Responses in Tourette Patients (n = 28)

Figure 259. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 1) were patients experiencing moderate to severe vomiting at baseline.

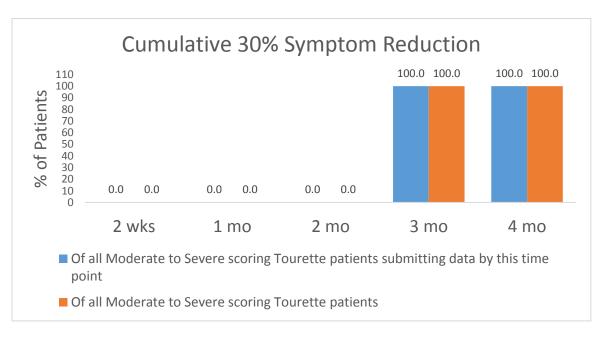


Figure 260. Cumulative percentage of Tourette patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

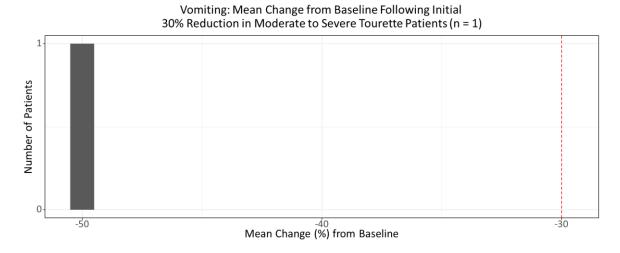


Figure 261. Frequency distribution of Tourette patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 72. The medical cannabis product(s) purchased by the one (n = 1) Tourette patient just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Product(s) are categorized by their THC:CBD ratio and intended route of administration.

Inhalation		
Very High	% of	
THC to	Patients out	Avg Daily THC Use (mg) /
CBD	of 1 (n)	Avg Daily CBD Use (mg)
Х	100 (1)	100.0 mg/0.2 mg

#### **Weekly Tic Frequency**

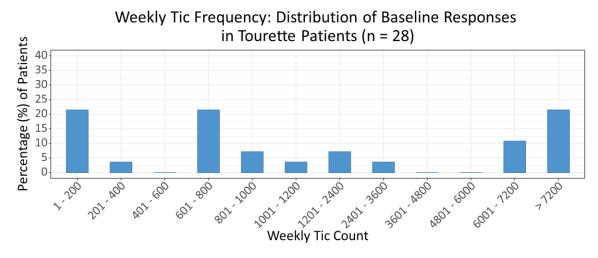


Figure 262. Distribution of patient responses on weekly tic frequency at baseline (prior to taking any medical cannabis).

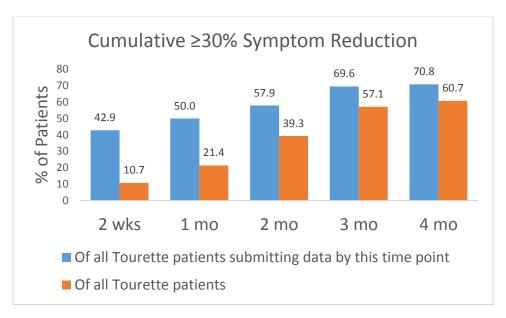


Figure 263. Cumulative percentage of Tourette patients achieving at least a 30% reduction in weekly tics at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

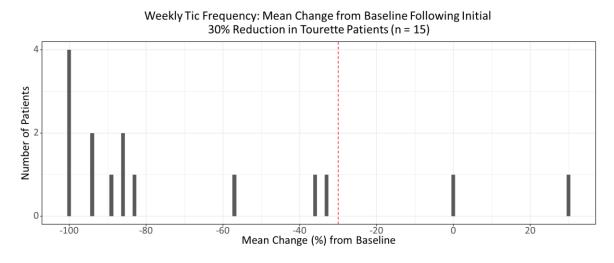


Figure 264. Frequency distribution of Tourette patients based on the average change in their weekly tic frequency (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in tics.

Table 73. Medical cannabis product(s) purchased by each Tourette patient just prior to achieving the initial 30% reduction in weekly tics. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalation		(	Oromucosa	İ		
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 17 (n)	Avg Daily CBD Use (mg)
						Χ			23.5 (4)	147.3 mg/0.7 mg
Х	Х								11.8 (2)	24.0 mg/15.0 mg
	Χ								11.8 (2)	11.5 mg/8.5 mg
			Х						11.8 (2)	64.6 mg/0.2 mg
Х						Х			5.9 (1)	16.0 mg/0.1 mg
	Х	Χ							5.9 (1)	7.5 mg/97.5 mg
	Χ			Χ					5.9 (1)	100.0 mg/25.0 mg
	Х	·				Х			5.9 (1)	22.0 mg/10.0 mg
			Х	Х					5.9 (1)	83.3 mg/0.4 mg
			Х			Х			5.9 (1)	42.2 mg/0.3 mg
		·					Х		5.9 (1)	24.2 mg/24.2 mg

#### **Glaucoma Patients**

#### **Anxiety**

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#### Anxiety: Distribution of Baseline Responses in Glaucoma Patients (n = 21) 50 Percentage (%) of Patients 45 40 30 25 20 15 10 5

8

10

Figure 265. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 14) were patients experiencing moderate to severe anxiety at baseline.

Baseline Response

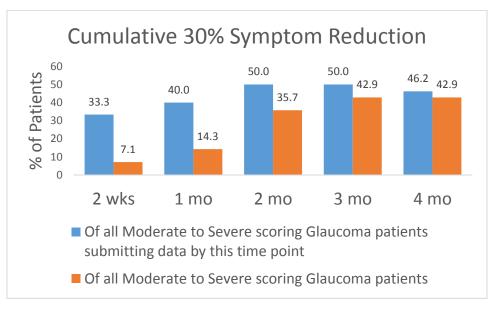


Figure 266. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

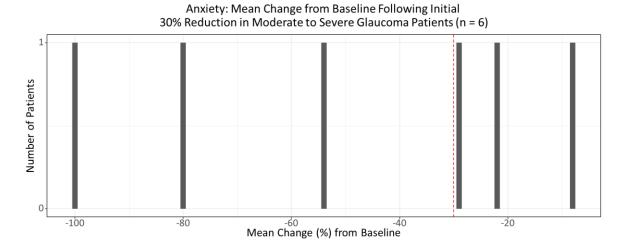


Figure 267. Frequency distribution of glaucoma patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 74. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation		
Very		Very			
High		High		% of	
THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	of 6 (n)	Avg Daily CBD Use (mg)
		Χ	Χ	33.3 (2)	82.0 mg/9.7 mg
Х	X			16.7 (1)	13.0 mg/2.0 mg
Х		Χ	Χ	16.7 (1)	75.0 mg/5.1 mg
	Х		Χ	16.7 (1)	16.9 mg/10.9 mg
		Χ		16.7 (1)	63.3 mg/0.5 mg

#### **Appetite Lack**

### Appetite Lack: Distribution of Baseline Responses in Glaucoma Patients (n = 21)

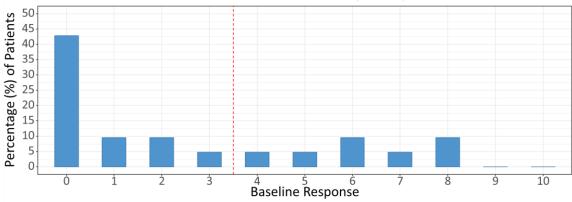


Figure 268. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 7) were patients experiencing moderate to severe lack of appetite at baseline.

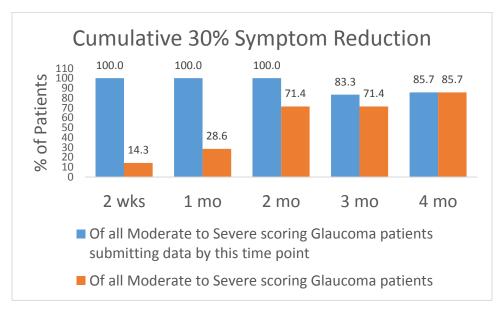


Figure 269. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

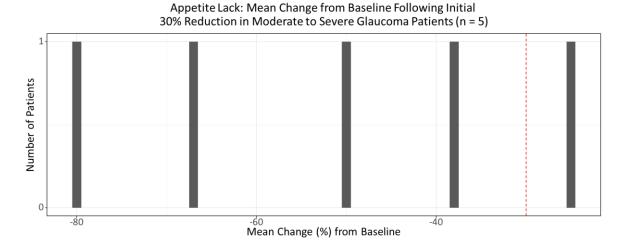


Figure 270. Frequency distribution of glaucoma patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 75. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very High THC to		Very High THC to		Very High THC to		% of Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 6 (n)	Avg Daily CBD Use (mg)
	Χ		Χ			33.3 (2)	26.8 mg/10.0 mg
Х	Χ				Х	16.7 (1)	21.7 mg/4.2 mg
	Χ					16.7 (1)	10.7 mg/10.7 mg
		Χ	Χ			16.7 (1)	23.9 mg/8.8 mg
		Х		Х		16.7 (1)	65.5 mg/0.4 mg

#### **Depression**

50

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Percentage (%) of Patients

# Depression: Distribution of Baseline Responses in Glaucoma Patients (n = 21)

Figure 271. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 14) were patients experiencing moderate to severe depression at baseline.

Baseline Response

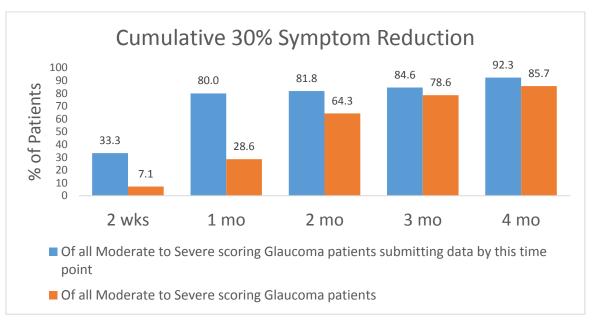


Figure 272. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

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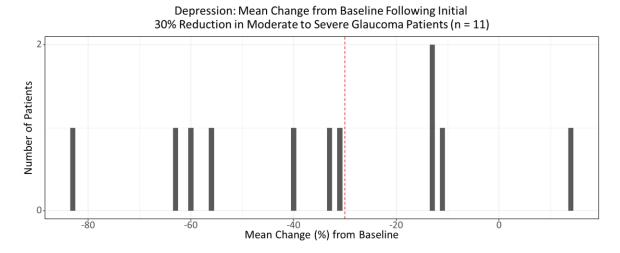


Figure 273. Frequency distribution of glaucoma patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 76. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very		Very		Very			
High		High		High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 12 (n)	Avg Daily CBD Use (mg)
Х						16.7 (2)	14.8 mg/0.1 mg
	Χ					16.7 (2)	118.9 mg/73.9 mg
		Х	Χ			16.7 (2)	82.0 mg/9.7 mg
Х	Χ	Х				8.3 (1)	35.0 mg/5.2 mg
Х	Χ				Χ	8.3 (1)	21.7 mg/4.2 mg
Х		Χ	Χ			8.3 (1)	75.0 mg/5.1 mg
	Χ		Χ			8.3 (1)	16.9 mg/10.9 mg
		Χ		Χ		8.3 (1)	65.5 mg/0.4 mg
		Χ				8.3 (1)	63.3 mg/0.5 mg

#### **Disturbed Sleep**

# Disturbed Sleep: Distribution of Baseline Responses in Glaucoma Patients (n = 21)

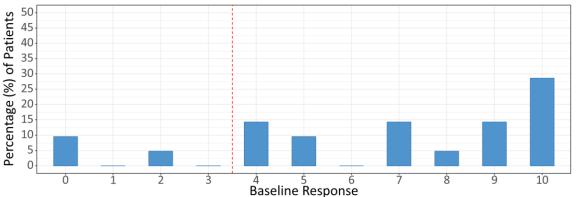


Figure 274. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 18) were patients experiencing moderate to severe disturbed sleep at baseline.

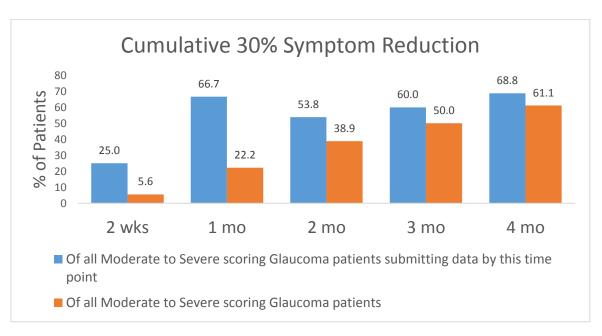


Figure 275. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

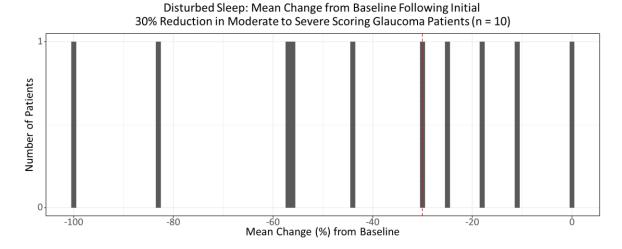


Figure 276. Frequency distribution of glaucoma patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 77. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very		Very		Very			
High		High		High		% of	Avg Daily THC Use
THC to		THC to		THC to		Patients out	(mg) / Avg Daily
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 11 (n)	CBD Use (mg)
	Х		Х			18.2 (2)	26.8 mg/10.0 mg
		Χ	Х			18.2 (2)	82.0 mg/9.7 mg
Х	Х	Χ				9.1 (1)	38.0 mg/0.3 mg
Х	Χ				Χ	9.1 (1)	26.0 mg/4.1 mg
Х		Χ	Χ			9.1 (1)	75.0 mg/5.1 mg
Х		Χ		Χ		9.1 (1)	48.2 mg/0.2 mg
	Χ					9.1 (1)	195.0 mg/105.0 mg
		Χ				9.1 (1)	63.3 mg/0.5 mg
				Х		9.1 (1)	30.0 mg/0.1 mg

Fatigue: Distribution of Baseline Responses

#### **Fatigue**

# in Glaucoma Patients (n = 21) Study 45 45 40 35 20 15 10 0 1 2 3 4 5 6 7 8 9 10

Baseline Response

Figure 277. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 19) were patients experiencing moderate to severe fatigue at baseline.

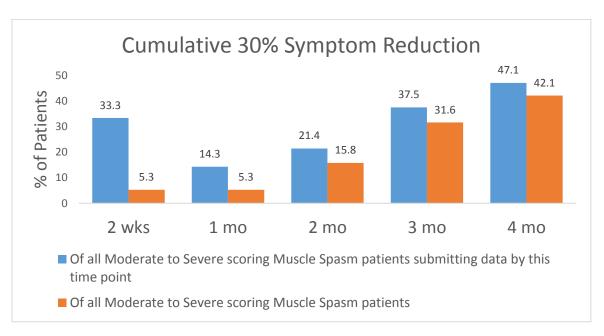


Figure 278. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

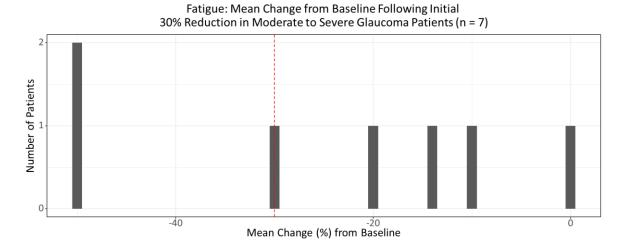


Figure 279. Frequency distribution of glaucoma patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 78. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very High		Very High		Very High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 8 (n)	Avg Daily CBD Use (mg)
	Χ		Χ			25.0 (2)	25.3 mg/11.5 mg
Х	Χ				Х	12.5 (1)	21.7 mg/4.2 mg
Х		Х	Χ			12.5 (1)	75.0 mg/5.1 mg
Х		Х		Х		12.5 (1)	48.2 mg/0.2 mg
Х						12.5 (1)	10.0 mg/0.1 mg
	Χ			Χ		12.5 (1)	43.1 mg/20.1 mg
				Χ		12.5 (1)	20.0 mg/0.1 mg

#### Nausea

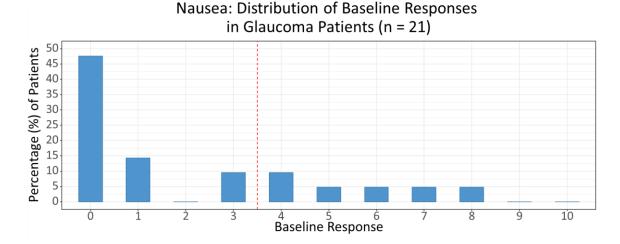


Figure 280. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 6) were patients experiencing moderate to severe nausea at baseline.

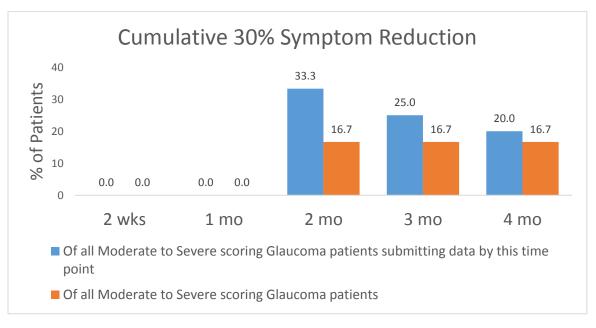


Figure 281. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

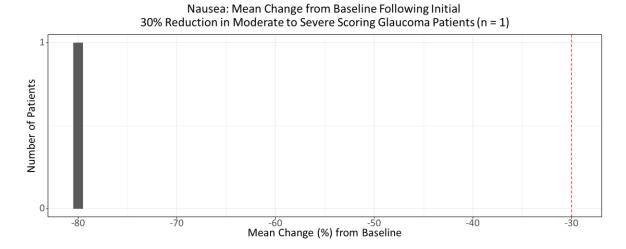


Figure 282. Frequency distribution of glaucoma patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 79. The medical cannabis product(s) purchased by the one glaucoma patient (n = 1) just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

Enteral	Inhalation		
		% of	
		Patients out	Avg Daily THC Use (mg) /
Balanced	Balanced	of 1 (n)	Avg Daily CBD Use (mg)
1	1	100 (1)	16.9 mg/10.9 mg

#### **Pain**

# Pain: Distribution of Baseline Responses in Glaucoma Patients (n = 21)

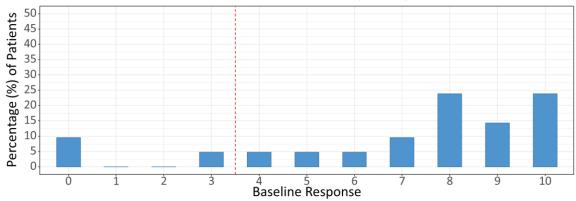


Figure 283. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 18) were patients experiencing moderate to severe pain at baseline.

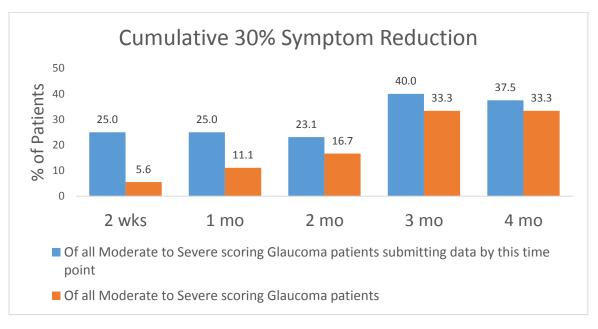


Figure 284. Cumulative percentage of glaucoma patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

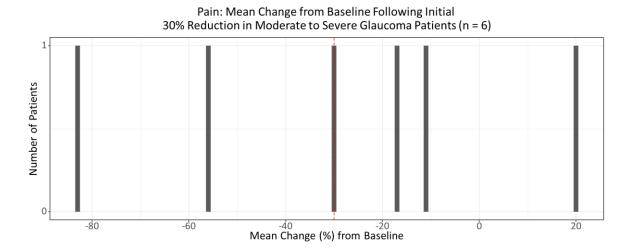


Figure 285. Frequency distribution of glaucoma patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

Table 80. Medical cannabis product(s) purchased by each glaucoma patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

En	teral	Inha	lation	Oron	nucosal		
Very High		Very High		Very High		% of	
THC to		THC to		THC to		Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	CBD	Balanced	CBD	Balanced	of 6 (n)	Avg Daily CBD Use (mg)
	Χ		Χ			33.3 (2)	25.3 mg/11.5 mg
Х		Х	Χ			16.7 (1)	75.0 mg/5.1 mg
Х		Χ		Х		16.7 (1)	48.2 mg/0.2 mg
	Χ			Χ		16.7 (1)	35.0 mg/10.1 mg
		Х				16.7 (1)	63.3 mg/0.5 mg

Vomiting: Distribution of Baseline Responses

#### **Vomiting**

0

#### in Glaucoma Patients (n = 21) Percentage (%) of Patients 90 80 70 60 50 40 30 20 10

Figure 286. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any  $medical \ cannabis).$  Patients falling to the right of the vertical, dotted red line (n = 1) were patients experiencing moderate to severe vomiting at baseline. Note that the y-axis scale range here is different from the y-axis scale range depicted in the other seven figures showing the distribution of baseline responses in glaucoma patients (for the seven other "Standard 8" measures).

Baseline Response

The one glaucoma patient (n = 1) who experienced moderate to severe vomiting at baseline did not achieve at least a 30% improvement in vomiting severity within four months of their first medical cannabis purchase.

#### **ALS Patients**

#### **Anxiety**

# Anxiety: Distribution of Baseline Responses in ALS Patients (n = 21)

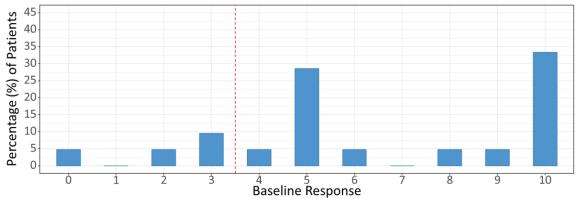


Figure 287. Distribution of patient responses on the Standard 8 anxiety measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 17) were patients experiencing moderate to severe anxiety at baseline.

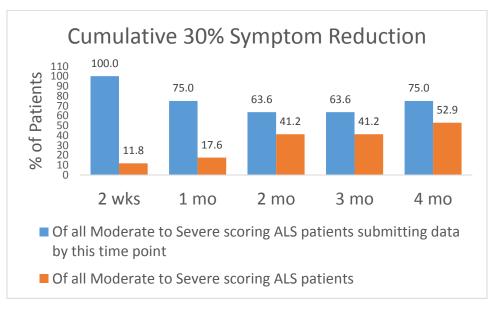


Figure 288. Cumulative percentage of ALS patients achieving at least a 30% improvement in anxiety at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

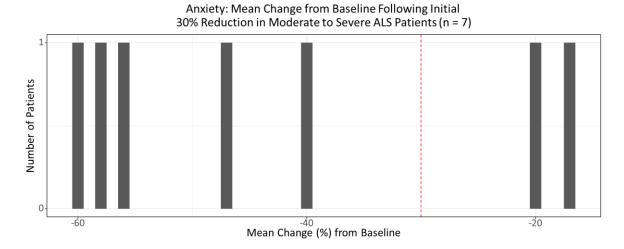


Figure 289. Frequency distribution of ALS patients based on the average change in their Standard 8 anxiety scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in anxiety.

Table 81. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 anxiety measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	•	Inhalation			Oromucosal				
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 9 (n)	Avg Daily CBD Use (mg)
Х			Χ						22.2 (2)	51.0 mg/0.3 mg
	Х					Х			22.2 (2)	47.0 mg/20.1 mg
	Х			Х					11.1 (1)	53.6 mg/13.4 mg
	Х								11.1 (1)	9.0 mg/6.0 mg
			Χ						11.1 (1)	50.0 mg/0.1 mg
				Х					11.1 (1)	46.4 mg/25.0 mg
							Х	Х	11.1 (1)	38.6 mg/171.0 mg

#### **Appetite Lack**

# Appetite Lack: Distribution of Baseline Responses in ALS Patients (n = 21)

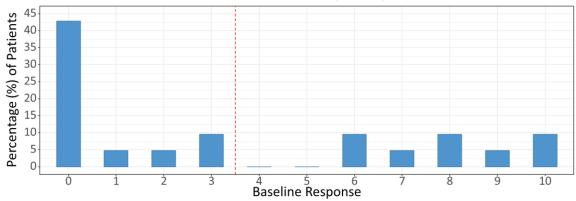


Figure 290. Distribution of patient responses on the Standard 8 lack of appetite measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 8) were patients experiencing moderate to severe lack of appetite at baseline.

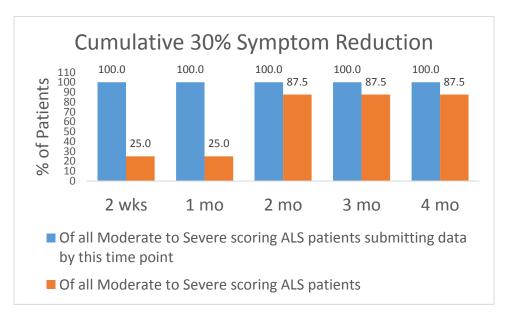


Figure 291. Cumulative percentage of ALS patients achieving at least a 30% improvement in appetite at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

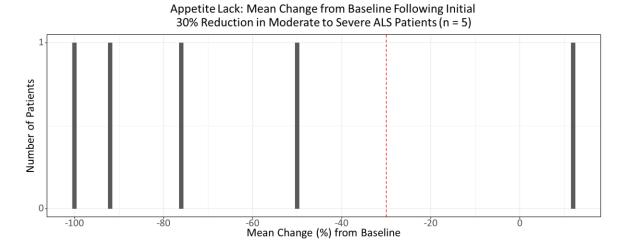


Figure 292. Frequency distribution of ALS patients based on the average change in their Standard 8 appetite scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in appetite.

Table 82. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 appetite lack measure. Products are categorized by their THC:CBD ratio and intended route of administration.

Enteral			Inhalation			Oromucosal				
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 7 (n)	Avg Daily CBD Use (mg)
	Х					Χ			28.6 (2)	47.0 mg/20.1 mg
Х									14.3 (1)	16.0 mg/0.0 mg
	Х			Х					14.3 (1)	53.6 mg/13.4 mg
			Χ						14.3 (1)	50.0 mg/0.1 mg
				Х					14.3 (1)	46.4 mg/25.0 mg
							Х	Х	14.3 (1)	38.6 mg/171.0 mg

#### **Depression**

# Depression: Distribution of Baseline Responses in ALS Patients (n = 21)

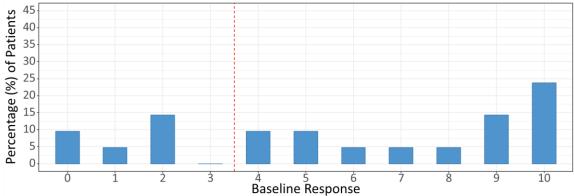


Figure 293. Distribution of patient responses on the Standard 8 depression measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 15) were patients experiencing moderate to severe depression at baseline.

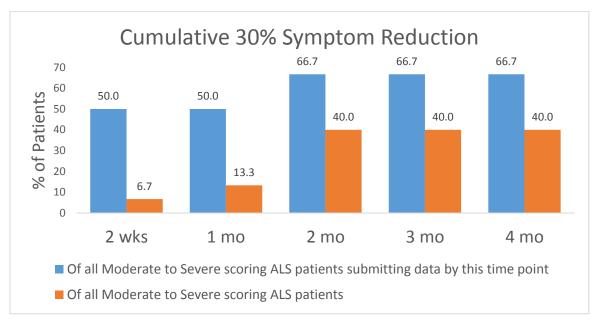


Figure 294. Cumulative percentage of ALS patients achieving at least a 30% improvement in depression at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

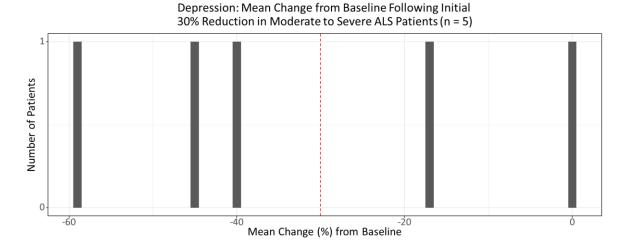


Figure 295. Frequency distribution of ALS patients based on the average change in their Standard 8 depression scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in depression.

Table 83. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 depression measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalation			Oromucosa	İ		
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 6 (n)	Avg Daily CBD Use (mg)
Х			Χ						16.7 (1)	59.8 mg/0.3 mg
Х									16.7 (1)	16.0 mg/0.0 mg
	Х			Х					16.7 (1)	53.6 mg/13.4 mg
	Х					Χ			16.7 (1)	50.0 mg/20.1 mg
			Χ						16.7 (1)	42.2 mg/0.3 mg
							Х	Χ	16.7 (1)	38.6 mg/171.0 mg

#### **Disturbed Sleep**

### Disturbed Sleep: Distribution of Baseline Responses in ALS Patients (n = 21)

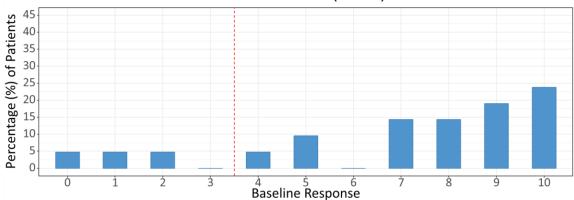


Figure 296. Distribution of patient responses on the Standard 8 disturbed sleep measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 18) were patients experiencing moderate to severe disturbed sleep at baseline.

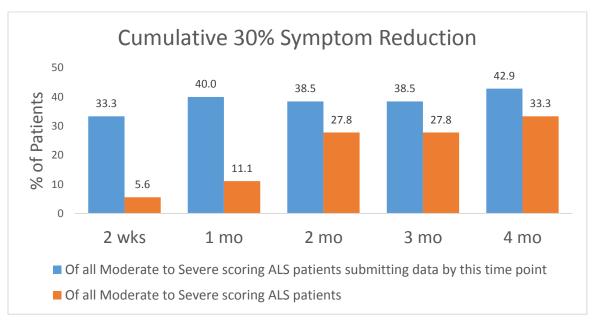


Figure 297. Cumulative percentage of ALS patients achieving at least a 30% improvement in sleep at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

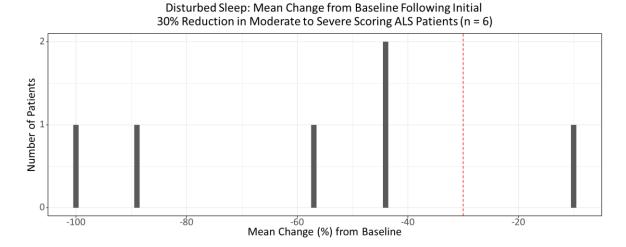
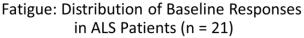


Figure 298. Frequency distribution of ALS patients based on the average change in their Standard 8 disturbed sleep scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% improvement in sleep.

Table 84. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 disturbed sleep measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalation		(	Oromucosa	Ī		
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 6 (n)	Avg Daily CBD Use (mg)
Х			Χ						16.7 (1)	59.8 mg/0.3 mg
	Х			Х					16.7 (1)	53.6 mg/13.4 mg
	Х					Χ			16.7 (1)	44.0 mg/20.1 mg
	Х								16.7 (1)	9.0 mg/6.0 mg
			Χ						16.7 (1)	42.2 mg/0.3 mg
							Χ	Χ	16.7 (1)	38.6 mg/171.0 mg

#### **Fatigue**



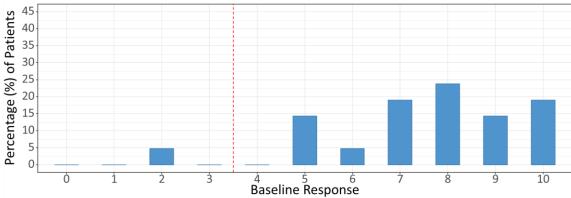


Figure 299. Distribution of patient responses on the Standard 8 fatigue measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 20) were patients experiencing moderate to severe fatigue at baseline.

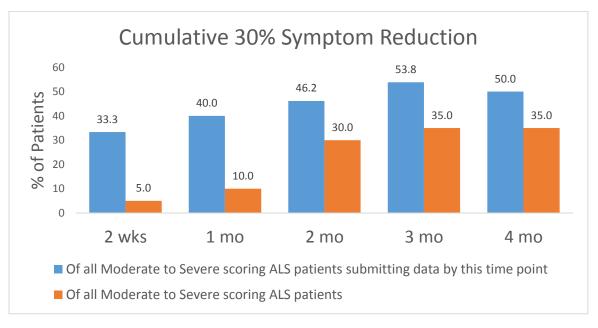


Figure 300. Cumulative percentage of ALS patients achieving at least a 30% improvement in fatigue at each time point following their first medical cannabis purchase (2 weeks, 1 months, 2 months, 3 months, and 4 months after first purchase).

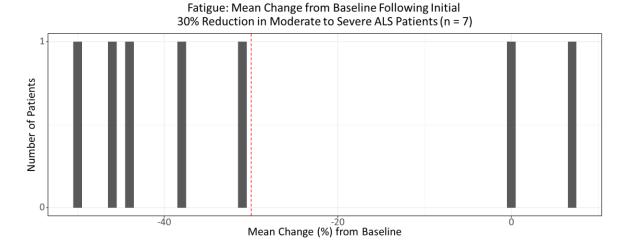


Figure 301. Frequency distribution of ALS patients based on the average change in their Standard 8 fatigue scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in fatigue.

Table 85. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 fatigue measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral		Inhalation			Oromucosal				
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 7 (n)	Avg Daily CBD Use (mg)
Х			Χ						28.6 (2)	57.0 mg/0.4 mg
	Х			Х					14.3 (1)	53.6 mg/13.4 mg
	Х					Χ			14.3 (1)	44.0 mg/20.1 mg
			Χ						14.3 (1)	55.6 mg/0.1 mg
							Х	Χ	14.3 (1)	38.6 mg/171.0 mg
							Χ		14.3 (1)	20.8 mg/20.8 mg

### Nausea

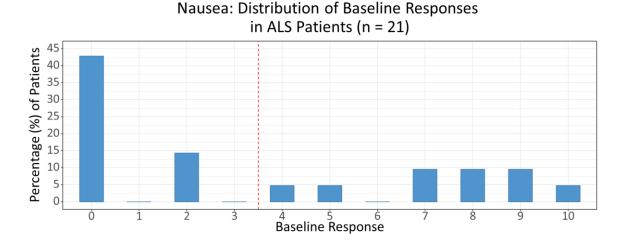


Figure 302. Distribution of patient responses on the Standard 8 nausea measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 9) were patients experiencing moderate to severe nausea at baseline.

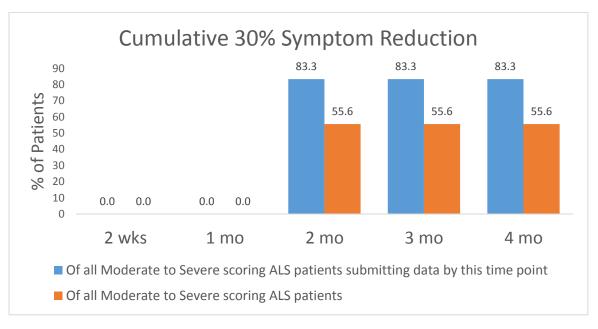


Figure 303. Cumulative percentage of ALS patients achieving at least a 30% improvement in nausea at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

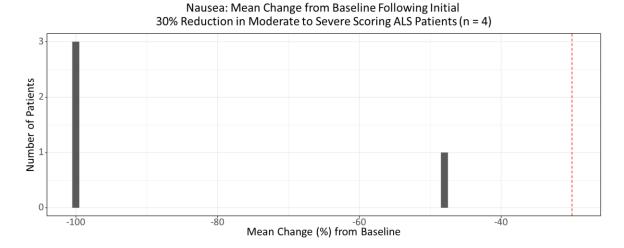


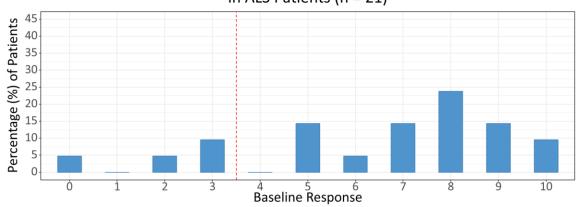
Figure 304. Frequency distribution of ALS patients based on the average change in their Standard 8 nausea scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in nausea.

Table 86. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 nausea measure. Products are categorized by their THC:CBD ratio and intended route of administration.

Enteral			Inhalation			Oromucosal				
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 5 (n)	Avg Daily CBD Use (mg)
	Х					Х			40.0 (2)	47.0 mg/20.1 mg
Х									20.0 (1)	16.0 mg/0.0 mg
			Х						20.0 (1)	50.0 mg/0.1 mg
							Х	Х	20.0 (1)	38.6 mg/171.0 mg

### **Pain**

# Pain: Distribution of Baseline Responses in ALS Patients (n = 21)



### APPENDIX D: SYMPTOM RESULTS ON THE PATIENT SELF-EVALUATION

Figure 305. Distribution of patient responses on the Standard 8 pain measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 17) were patients experiencing moderate to severe pain at baseline.

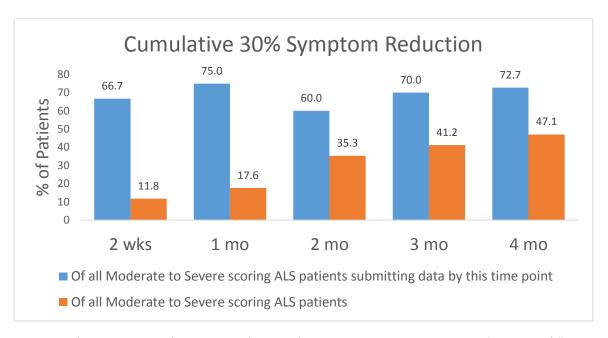


Figure 306. Cumulative percentage of ALS patients achieving at least a 30% improvement in pain at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

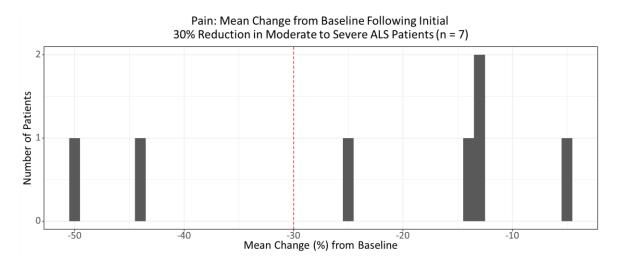


Figure 307. Frequency distribution of ALS patients based on the average change in their Standard 8 pain scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in pain.

### APPENDIX D: SYMPTOM RESULTS ON THE PATIENT SELF-EVALUATION

Table 87. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in the Standard 8 pain measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalation			Oromucosal			
Very			Very			Very				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 8 (n)	Avg Daily CBD Use (mg)
Х			Χ						25.0 (2)	57.0 mg/0.4 mg
	Х			Х					12.5 (1)	53.6 mg/13.4 mg
	Х					Χ			12.5 (1)	44.0 mg/20.1 mg
	Х								12.5 (1)	9.0 mg/6.0 mg
			Х						12.5 (1)	55.6 mg/0.1 mg
				Х					12.5 (1)	46.4 mg/25.0 mg
							Х	Χ	12.5 (1)	38.6 mg/171.0 mg

### **Vomiting**

# Vomiting: Distribution of Baseline Responses in ALS Patients (n = 21)

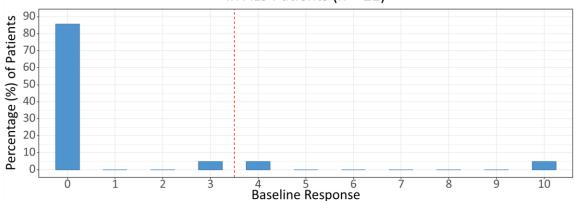


Figure 308. Distribution of patient responses on the Standard 8 vomiting measure (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 2) were patients experiencing moderate to severe vomiting at baseline. Note that the y-axis scale range here is different from the y-axis scale range depicted in the other seven figures showing the distribution of baseline responses in glaucoma patients (for the seven other "Standard 8" measures).

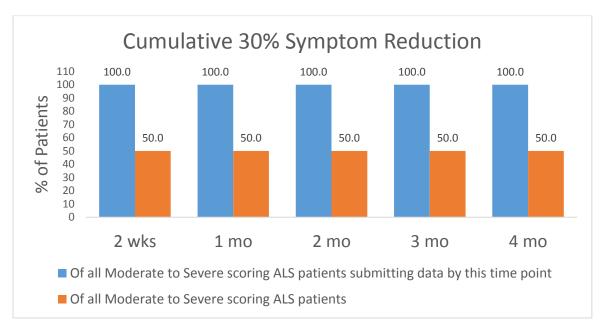


Figure 309. Cumulative percentage of ALS patients achieving at least a 30% improvement in vomiting at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

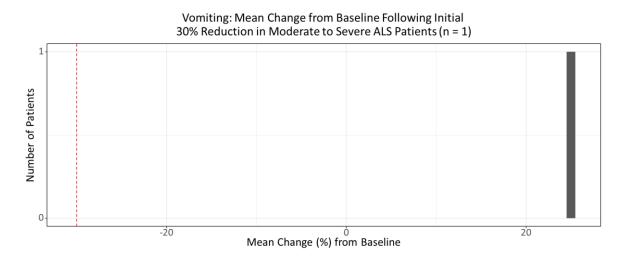


Figure 310. Frequency distribution of ALS patients based on the average change in their Standard 8 vomiting scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in vomiting.

Table 88. The medical cannabis product(s) purchased by the one ALS patient (n = 1) just prior to achieving the initial 30% reduction in the Standard 8 vomiting measure. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral	Inhalation		
			% of	
			Patients out	Avg Daily THC Use (mg) /
	Balanced	Balanced	of 1 (n)	Avg Daily CBD Use (mg)
ĺ	1	1	1	53.6 mg/13.4 mg

### **Weekly Spasm Frequency**

# Weekly Spasm Frequency: Distribution of Baseline Responses in ALS Patients (n = 21) 45 40 35 30 25 10 5 0 Weekly Spasm Count

Figure 311. Distribution of patient responses on weekly spasm frequency at baseline (prior to taking any medical cannabis). Patients who experienced spasms during the week (had a baseline response greater than 0) were included in the symptom reduction analysis (n = 18).

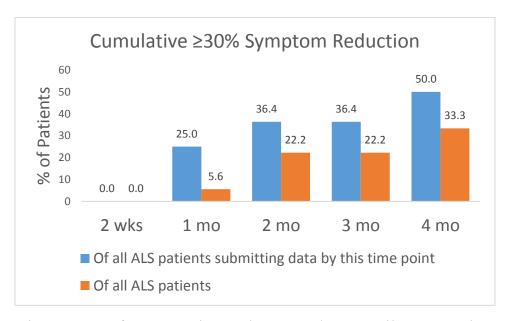


Figure 312. Cumulative percentage of ALS patients achieving at least a 30% reduction in weekly spasms at each time point following their first medical cannabis purchase (2 weeks, 1 months, 3 months, and 4 months after first purchase).

### APPENDIX D: SYMPTOM RESULTS ON THE PATIENT SELF-EVALUATION

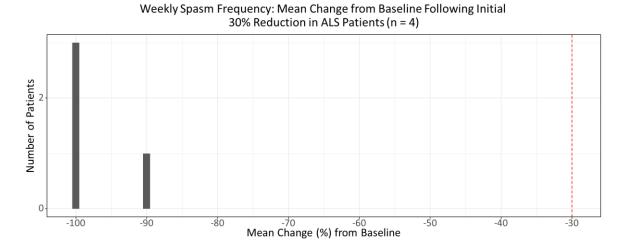


Figure 313. Frequency distribution of ALS patients based on the average change in their weekly spasm frequency (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in spasms.

Table 89. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in weekly spasms. Products are categorized by their THC:CBD ratio and intended route of administration.

	Enteral			Inhalatio	n		
Very			Very				
High	High		High	High		% of	
THC to	THC to		THC to	THC to		Patients out	Avg Daily THC Use (mg) /
CBD	CBD	Balanced	CBD	CBD	Balanced	of 6 (n)	Avg Daily CBD Use (mg)
		Χ				33.3 (2)	12.8 mg/5.1 mg
Х			Х			16.7 (1)	59.8 mg/0.3 mg
	Х	Χ	Х		Х	16.7 (1)	67.0 mg/6.0 mg
	Х	Χ				16.7 (1)	37.5 mg/8.1 mg
			Χ			16.7 (1)	42.2 mg/0.3 mg

Spasticity Scale: Distribution of Baseline Responses

# Spasticity (0-10 NRS)

### 

Figure 314. Distribution of patient responses on spasticity (0-10 NRS) at baseline (prior to taking any medical cannabis). Patients falling to the right of the vertical, dotted red line (n = 15) were patients experiencing moderate to severe spasms at baseline.

Baseline Response

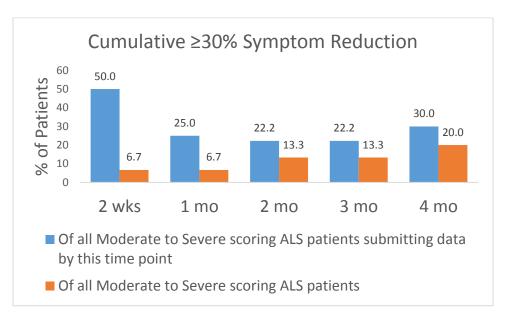


Figure 315. Cumulative percentage of ALS patients achieving at least a 30% improvement in spasticity at each time point following their first medical cannabis purchase (2 weeks, 1 month, 2 months, 3 months, and 4 months after first purchase).

### APPENDIX D: SYMPTOM RESULTS ON THE PATIENT SELF-EVALUATION

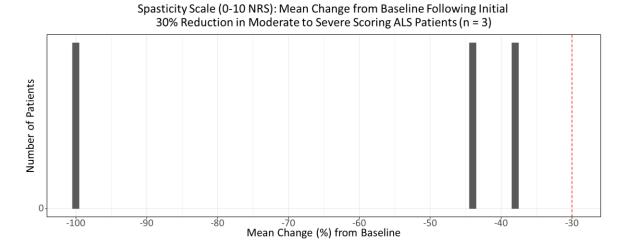


Figure 316. Frequency distribution of ALS patients based on the average change in their 0-10 NRS spasticity scores (compared to baseline) in the 4-month period following their initial 30% symptom improvement. Patients falling on or to the left of the vertical, dotted red line had, on average, maintained at least a 30% reduction in spasticity.

Table 90. Medical cannabis product(s) purchased by each ALS patient just prior to achieving the initial 30% reduction in spasticity (0-10 NRS). Products are categorized by their THC:CBD ratio and intended route of administration.

Enteral			Inhalation			Oromucosal				
High		High	High		High	High		High	% of	
THC to		CBD to	THC to		CBD to	THC to		CBD to	Patients out	Avg Daily THC Use (mg) /
CBD	Balanced	THC	CBD	Balanced	THC	CBD	Balanced	THC	of 3 (n)	Avg Daily CBD Use (mg)
X	Х								33.3 (1)	37.5 mg/8.1 mg
	Х			X					33.3 (1)	53.6 mg/13.4 mg
							Х	Х	33.3 (1)	38.6 mg/171.0 mg

# **Appendix E: Patient-Reported Negative Effects from Surveys**

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 into type of negative effect, and by negative effect score rating.

### Access-Related Issues

### No Score

- Can use cannabis as in a group home
- Travel to get the product

### 1: No Negative Effects

- none, other than difficulty/inconvenience in accessing medical cannabis
- I have to ride 3 to 3 1/2 hours one way for my medicine because there are none in southwest Minnesota.
- The only issue is the distance I need to travel to get it if I don't take into account the cost
- I have to ride 3 to 3 1/2 hours one way for my medicine because there are none in southwest Minnesota.
- the only negative effect i have experienced is when i had to find a Doctor that would certify me. All my health care providers were told not to participate in the cannabis program. Finally my Doctor was able to certify me. Also the self exam questions when getting the medical cannabis from the dispensary are useless.
- Locations of dispensaries. We have to drive from [CITY] to the cities.

2

- Travel to pick up my prescription.
- Difficulty accessing medical cannibis
- Time consuming to order, drive and pick up medicine.
- unable to use outside of the state of MN.

3

Physically having to pick up medication by myself

4

- The fact that my son's home care nursing staff is not permitted to administer PRN or scheduled Medical Cannabis is a difficult component at times.
- Driving so far away to get meds. And [CANNABIS PATIENT CENTER] not being open as much!!!

### 7: Great Deal of Negative Effects

■ Distance.... DISTANCE.

### Physical Negative Effects

### No Score

- tired
- Did not like inhaling the cannabis. Irritated my lungs.
- a moderate dry mouth.
- seizures worsened but unsure if completelly related to medical canibis

### 1: No Negative Effects

- Dry mouth , and too many trips to the fridge
- some nausea after capsule form.
- I experience fatigue but that is a plus because I had problems sleeping at night because of pain. it seems to help with that
- sleep
- Cotton mouth!
- Stomach upset only when not taken with food.
- slight fatigue
- Mild drowsiness
- Do you feel a little tired at times .
- Sometimes my mouth can become dry, but it's fine if I'm hydrated.

- Had a bad reaction to oil suspension, this was corrected by adjusting dosage
- Initial increase in seizures
- We noticed the combination of CBD/THC worsened seizures for [PATIENT]. CBD also seems to be upsetting on her stomach with changes/increases in dosing.
- Getting chest colds from vape pen.
- e-cig- too much inhaled caused excessive coughing and vomiting.
- more small seizures
- sore throat
- fatigue
- Yes ~ In the morning I have to be careful with my blood pressure. It does lower it a bit. I have to watch my fluid intake because of my cathing schedule. Plus I already have low blood pressure in the morning. This lowers it a bit. I'm finding I need to drink Gatorade and get up a bit slower and then I'm fine. But out all the benefits this side effect is so minor and manageable. I could go into the crazy cost, the monthly travel time from [CITY] and having others pick it up for you without having to pay for another background check when the company they work for through you already did one. I shouldn't have to pay for another PCA criminal background study for a current PCA that works for me. That is redundant request. Suggestions: Could there be a 3 month supply given instead of a 30 day supply? This would eliminate some winter driving months, gas money and for people who are suffering in pain (dying of cancer or children having seizures) it's so

hard for them to travel. Some days even hard for them to get out of bed or eat. I wish people understood. I wish people would be more compassionate. People hurting ~ suffering are willing to pay for this with in reason, travel within reason and doctors are willing to come on board but without fear (so I don't blame them). I do not feel it's fair to ask a question on negative effects of a drug without asking the positive and negative effects of the process too! I am only one voice but today please allow me to be the voice of many...

- Increased appetite- causing weight gain
- Some head shaking as side effect.
- bad aftertaste with vaped oil
- Dry mouth
- Increased appetite.
- Dry mouth, and the need to carefully plan when I'm going to take the Cannabis so it doesn't interfere with daily life
- dry mouth
- seems to sleep more. Can not respond to other examples given as [PATIENT] does not have a form of communication that pertains to pain or depression, confusion, etc...
- Tired
- Coughing. Headache
- heaviness in legs
- Sometimes the pills make me too tired and I sleep more than I would like.
- Munchies: (
- with the vapor only, bad taste
- I really dislike the taste from the vape pen.
- We have experienced the occurrence of night terrors which we have not seen prior to starting medical cannabis. We are uncertain if this is related to the medication or a normal developmental step.
- speed of effects and lasting time.
- He just gets a little tired, he ever it doesn't both either of us and I love that it's 1pp% natural!
- slight dizziness and mental cloud
- Some stomach upset.
- Tired
- Smell from vapor pen can cause nausea.
- Tiredness
- 1. Sleepiness/tiredness
  - 2. Hard to regulate dosage on vapor pen, can become paranoid if too much inhaled
- 3. Can hurt lungs and cause coughing if inhaled too hard, after learning how hard to inhale it has been much better.
- Sometimes the cannabis in oral liquid makes me a little gueasy.

- I have gastroparesis with a stomach implant. I found when taking the heather solution it caused constipation.
- Like to rest a moment after vaping a dose.... but just time my day accordingly.
- The vaping can cause congestion, and you already have that going on because of the Chemo.

Some fatigue, but it's once you have been up and moving, so it's not so bad that it causes you to rest from time to time.

It's hard to know if mental clouding is caused from the chemo or the cannabis. However it's not enough to be alarmed.

- Very sleepy if I don't go to bed in a timely matter after my evening dose.
- Fatigue

I have some mental clouding but partly from the effects of chemo

- 1. Increased Heart Rate
  - 2. Sweating and Heat Flashes
- Dry month

the cost is very high

- Feel sleepy so I have to time taking the medications (vape or tincture). It is expensive also so I can't get a refill as easily as I would like since money is tight because of my conditions anyways.
- Sluggish next morning
- To strong
- When on [HIGH CBD PRODUCT], loss of coordination and had increased weakness.
- Fatigue was an initial issue, but medication adjustments have brought it under control. I don't like having to complete the survey every time I refill, it should be mandatory a couple of times a year and self elective if great improvements or noticeable worsening of issues.
- Only side effect is diarrhea at times
- Dry mouth
- Lethargy
- Stomach rumbles after taking the pill
- Maybe increased the appetite
- tired
- Occasional tired, that could also be attributed to the chemotherapy
- dry mouth and dizziness
- While taking the tincture product I got a headache.
- sluggish/drowsy, occasionally
- I haven't been able to tell if from the vapor or pill but I've noticed increased drowsiness.

- initially makes me worse.
- possible drug to dry interaction

- Saw great results with [HIGH CBD PRODUCT], but when we added Indigo at night, [PATIENT]'s sleep/wake cycles were disrupted. 3 weeks in a row after adding [HIGH CBD PRODUCT] he would stay awake for 24 hours, then sleep for 24, & it would take a few days before he could get back on track. That was the only change we made so I think the very small amount of THC in it had adverse effects for him. Went back to [HIGH CBD PRODUCT] only.
- A little off balance if taken when awake
- Nonedry mouth
- coughing and dry throat upon taking. [MANUFACTURER] inhalers worse than [MANUFACTURER] spray but still have bit from spray.
- May be contributing to frequent loose stools
- It takes 1-2 hours for the oral medical cannabis to kick in.
   My throat sometimes gets sore after using the vaporizer.
- Mostly positive. Maybe a bit tired sometimes.
- Tiredness
  - But that's in combination with other seizure medications that he takes
- I just notice that I cough more using the vape pens vs the oil
- [PATIENT] is dead. I can't answer this question in detail. He was not able to communicate much at the end. But I remember him expressing that he did not like the taste.
- cotton mouth
- upset stomach
- seem to be more tired
- Regulating the correct amount and type correct which takes time and experience. Much easier to do with the pills it seems for me personally as smoking it made my lungs worse and often times would be hard for me to control the dosage.
- I would like more edible opptions

- Interaction with other five seizures medications is hard to identify.
- while the cannabis helps with the muscle spasms, it seems to make my nerve damage worse.
- Drowsiness
- Makes me sleepy if I take during the day.
- I have experienced occasional diarrhea from using the oral suspension product.
- speaking quite loudly at home since starting the product
- fatigue
- Reduction in morning energy levels.
- Unsteadyness
- I don't like the side effect that gives me the munchies, I have a weight issue and it makes it hard for me to use it often.

### APPENDIX E: PATIENT REPORTED NEGATIVE EFFECTS FROM SURVEYS

- the oil in higher doses seem to cause me some small belly issues >but I do need it to calm pain/ spasms at night so I can sleep.
- dizziness
- Nausea
- symptoms seem to go up and down as the body adjusts to the cannabis and can be frustrating.
  - still adjusting dose to find what will work best so still having symptoms/tics. can cause both hyperness and sleepiness
- Weight gain
- Sleepiness
- I tend to sleep a longer some days, but the days I am awake I have more energy and I feel better than I have in a long time. I have also lost about 8 lbs. since I started in the program.
- Little tired
- It gives me a sore throat and it tastes really bad
- Fatigue
- increased appetite
- Blurred vision
- Dizziness
- some headache
- I'm a little more tired and eat more
- Constant hunger

5

- increased seizure activity
- possible allergic reaction; i.e., hayfever type symptoms
- Has interacted with my other seizure meds
- The oil made me sick
- Lightheadedness
- Vaping really hurts my throat. And since there is no raw flower available to purchase, I'm stuck with a sore throat. The oral options don't take effect for an hour or two, and even then, they don't relieve my symptoms effectively like vaped or smoked. I hope raw flower is available soon. I bet it's even safer than vaping.
- visual impairment
- Terrible headaches
- Dry mouth
- Notice I tend to eat more which leads to weight gain, sleepiness

- More seizures
- Sublingual tincture seems to be very caustic to the soft tissue under the tongue

- My son's seizures got worse when we moved from CBD only to [HIGH CBD PRODUCT]. It could be a coincidence, but even after I stopped the oil, I could not get his seizures under control and we had to be admitted to the hospital
- stomach pains
- sleepimg
- Shakiness, balanced worsened
- I have stopped the cannabis. While the cannabis helped, I have had two spells of light-headedness and almost passing out. It would appear they are caused by the cannabis
- Dizziness and once passed out

### 7: Great Deal of Negative Effects

- Caused pain on left side of body
   Tried several times to restart with just one kind then the other
- still pain
- Found that I am allergic to cannabis I broke out in hives approx. 6 weeks after starting to use it. Now, after 9 weeks off of it, the hives are almost gone.
- Severe, uncontrollable diarrhea.

Severe, rapid weight loss.

Increased seizure activity due to extra stress on body caused by severe, uncontrollable diarrhea and weight loss.

### Mental Negative Effects

### No Score

b in the question below

### 1: No Negative Effects

- Anxiety increases on occasion.
- None-just cloudiness sometimes
- felt buzzed twice

2

The most irritating part of the program is we have to do oil. I have never liked oil because it makes my short term memory a little worse and gives me mental clouding. It's not that big of a problem but I get annoyed if I forget something or I'm not thinking at my full ability. I had never had any negative side effects when I smoked the plants buds. In my experience oils good if you want to get high. But for treating crohns smoking the plants buds are better. This is because bud contains other chemicals than just the or cbd that help with crohns while oil doesn't. This rule makes absolutely no sense. I understand that this was made law because someone who was ignorant in regards to cannabis thought ""vaping oil"" sounded better than ""smoking bud""

But please please please fix this stupid law and let me treat my crohns with no negative side effects again.

- The fact that the oil makes me too high, mellows me out too much; regular cannabis lets me function on a normal level
- I need to time my dosage at night so I don't feel groggy in morning.
- Some decrease in motivation.
- Generally makes me feel lousy. I couldn't function even with a small dose.
- Slight memory loss (short-term memory)
- Very rarely happens, but losing train of thought when making a point. Now practicing
  my own "tickler techniques" to get my thought pattern quickly back on track.
- The high, it's not bad but I only use at night
- just a couple of times feeling high.
- At first, I had to try the different cbd/thc formulas. There were some times when I felt confused or lightheaded. Now, I know what blend to take to address my symptoms and I've figured out which delivery method works best for me. Now I have almost no negative effects.
- Would prefer not feeling altered and sometimes vapor pen doesn't seem to be releasing and I take in more than planned - very short term impact.
- At first it made my head feel a little funny, but very quickly that has gone away and having less pain has been a huge improvement. I have many more good days.
- nothing significant noticed. maybe some slight ""mental cloudiness" but not every time and very mild
- Getting stupid.
- Short term memory loss.
- Forgetfulness/Losing train of thought
- Some confusion
- using the cbd oil, at times I have felt out of it.

- Makes me lazy.
- I cannot take any cannabis with THC in it. Must take only pure cannabis. With the THC I get anxiety. With out is everything is good
- depression
- Loss of judgment.
- In the beginning he seemed very lethargic, now that is better but [PATIENT] still has lack of appetite often
- Makes me feel rather lazy I try to use that to my advantage and catch up on some sleep or to relax.
- unmotivated, subdued, weak and tired if too much THC still trying to find that right balance
- Unable to drive for four hours after taking.
- Not being able to drive when using the cannabis

- Some mental clouding for about 2 hours
- mental clouding
- mental fog
- Some cognition fog that seems to decrease with time.
- Gotten almost lazy

- Increased anxiety, buut I could still be dtoxing from clonazepam. Todaay has been better.
- Hyper and Impulsiveness
- Disorientation
- Getting high
- Struggle with memory, focus, comprehension, weight gain, staying on task, lose track of time & easily distracted. Which effects my work....however it helps with my intense pain & migraines, which is why i wanted to take it..
- It has added to my cognitive confusion/fibro brain symptoms at times. It does a really good job of masking the pain I get from physical exertion which has been a downside because then I've over-done at times which then has added to my fatigue and exhaustion and pain. Prior to the MM, my pain was my greatest problem. Now that the pain has been managed to a better extent, I now am dealing with overwhelming fatigue and exhaustion a lot of the time.
- Balancing previous existing mental health issues.
- If I use enough to better "control" pain, I can get paranoid. It can also cause urinary retention, but other times, it helps me to go.
- I do not feel like myself
- Anxiety, chills, sometimes fatigue and/or confusion, sore throat/coughing from vaporizer
- High feeling
- increased sedation, lightheadedness
- social anxiety not wanting to be around people when I'm on the medicine
- makes me loopy
- Small amount of paranoia
- High feeling
- Uncooperative
- I've felt depressed and sad and wanting to be in the dark liking it to be very silent and also not wanting to be around others.
- I'm not effective or efficient when I'm using canabis. I'm awake, but impaired. When I've had to use different things in the past like opioids, I'm ineffective, but I'm usually asleep the whole time. Being awake and impaired, I spend a lot of time confused and unable to follow conversations, read or watch TV. Canabis doesn't make me sleepy.

- anxiety
- it's difficult to take it during my work hours, because it makes me feel less attentive, NO pain or pain.
- When taking it sometimes, maybe a little paranoia set in. That is something I can't have.

6

Crying and irritability non stop once we increase the dose from 1 ml to 1.2 ml.

### 7: Great Deal of Negative Effects

- change in behavior and mood, digestive/pancreas?/liver? upset
- not aware of day/time, not remembering what I was saying mid-sentence, increased anxiety

### Cost-Related Negative Effects

### No Score

- the hardest part for me is the cost. I wish it was covered by insurance. Our insurance premiums are so high and then the additional cost for this just puts us up over the edge in costs...which depresses me.
- Was only on med. cannabis for 4 days and had to quit due to other medical issues and cost!

### 1: No Negative Effects

- Cost
- The cost!!!!!!
- I'm not allowed to list financial cost
- cost
- The cost is outrageous
- cost
- cost
- Cost price availablity
- None beside cost
- Cost
- The cost is so much that i think in time people will search out other otions
- The cost is very high! Have to find a way to lower it???
- expensive
- Cost and accessibility I live in northern mn
- The price and not available in leaf form.
- None, except expensive
- Cost is unreasonable
- None..just the cost
- Cost..., way too much.

- Just cost and lack of ability for [PATIENT]'s MA Tefra to help us with the out of pocket expense.
- can't afford to try a more therapeutic dose have to drive 180 miles round trip to the dispensory
- Cost of Medicine
- Cost and way of consuming. THC oil is 70%. Plant matter is 20-25%. Hundreds of other elements in the cannabis plant besides THC, CBD that is useful consumption. Some want the canbabis glowered bud to consume in smoking or edibles extracted from the cannabis buds.
- The price.
- cost
- The cost of the medicine. The extract version of the cannabis plant is definitely more potent than loose leaf cannabis. However, the introduction of lower cost leaf cannabis would help patients afford the medicine.
- The cost of the cannabis and it NOT at all whatsoever being covered by insurance it is medicine just as any other medicine.
- none just cost
- The cost
- Cost
- cost!
- None beyond funding.
- the cost of medication is high for someone out of pocket with out insurance paying for it
- None,no negative effects .,only the cost has been a factor as it is not covered by medical insurance and it is too much money and is hard to afford.
- cost
- Besides cost, nothing is negative.

- The cost for a young person. Insurance does not cover it.
- cost, or lengthy road trip to dispensary
- Price
- The cost is high and month to month I do not know if I will be able to afford a monthly supply.
- cost

3

- cost
- The cost of the product is crazy high and not in line with the market. The same product in WA, CA, or CO costs about half of what things cost in MN.

4

Cost (2 reports)

Financial. It is very expensive. That is the only negative.

5

Cost

6

- Way too expensive where I can't afford it!
- money that is charged

### 7: Great Deal of Negative Effects

- I'm broke and still need medicines that other states get at a much lower price. I lied and borrowed just for my first time. It's hard buying not know for sure that's what I want or need. Purchased unless items.having a choice between strain IE sour diesel, headband,kush and etc.
- would rather suffer than go to [MANUFACTURER] again, thy are worse thiefs than the drug dealer down the street. [MANUFACTURER] was ok.

### Negative Attitudes Toward Medical Cannabis Use

### 1: No Negative Effects

- the only negative effect i have experienced is when i had to find a Doctor that would certify me. All my health care providers were told not to participate in the cannabis program. Finally my Doctor was able to certify me. Also the self exam questions when getting the medical cannabis from the dispensary are useless.
- what other people would think if they know- so I don't tell them
- The only negative impact would be not telling anyone what is turning my health around because of the views of some people with cannabis.
- Poor reception to cannibis at [HOSPITAL]. Serious lack of staff knowledge and support.

2

The nay-sayers tire me out. Two [HOSPITAL] employees (my sister/aunt of my son and a [HOSPITAL] doctor friend of our family) insisted that there is no proof that medical cannabis helps. "You might as well give your son dirt". Was a comment I heard from the [HOSPITAL] MD friend. I typically, patiently, point out that our son is on 4'heavy duty anti seizure medicines, has been most of his life, that can't be increased due to ill effects, has a VNS, yet is still slammed to the ground, on to his face, from seizures many times a day, or can't breath for up to 30 seconds during a tonic seizure. So are we not to try anything that might help?! Now, 3-months in to starting medical cannabis, I can show anyonemwho,asks how,it is,going his seizure diary, where there are far fewer entries for daily seizures. Just a glance at my son's monthly calendar these past 3 months tells it all. Is medical cannabis perfect? No, it is not as fast acting as anti seizure mess (for those that work), it is a very slow process, ramping up the oil, trying to get it just right. The beauty of medical cannabis is that we are seeing no negative side effects!

No shortening of his QT waves, no lowered white blood cell counts, no rage and attacks on family. Just a slow improvement on seizures, making all of our lives so much easier.

- People laugh when I tell them I'm trying Medical Marijuana. No one believes it can help they believe it's only recreation. The only people that understand are people like me that have run out of options.
- Public opinion.
- Stigma of MJ
- I have only shared that I use cannibas to very few people. One person shared her (negative) opinion. I let go of her.
- The only negative effect is the possible stigma that I face from using, what most people consider, a drug.
- Getting over the stigma of marijuana use in society. I.E. Some family members don't approve.

3

New neighbors felt that it wasn't right for anyone to used medical cannabis.

4

- Care providers, other than my registered provider, that are apprehensive to participate in the program. Lack of education, wide spread communication in the medical community regarding the benefits and laws regarding medical cannabis in MN.
- Medical communities (hospitals) need to be educated on medical cannabis. We were not allowed to bring into the hospital
- embarrassment taking treatment with others around.

5

- People saying that I am on drugs
- Doctors dont wanna treat medical cannabis patients. Cost.

### Other Negative Effects

### No Score

Need more distributors

### 1: No Negative Effects

- It hasn't worked to stop her seizures
- any break through seizures. [PATIENT] had 3 in November, yet none this month as of this writing.
- Not able to use it. Didn't like it and did not feel relief
- the same amount does not always have the same effect every time
- Wish it worked better.
- The pen leaks??
- not having proper bottle caps for liquid cannabis
- Running outs month ago I have not been able to function

- OTHER TREATING PAIN CLINIC IS PROHIBITING USE OF MEDICAL MARIJUANA SO I HAVE BEEN UNABLE TO TAKE IT THE LAST 30 + DAYS
- I wish they could leave more of the recreational in the pot, it helps me forget that I have MS for a while, and street pot does this I think it's part of the therapy. So I am having a hard time giving up my street pot.
- Maybe if they add more so it can last longer it leaves so quickly even if I measure the time.
- A negative impact of having only THC and CBD products is that they aren't as effective as natural whole plant cannabis.

- Not fully effective
- Seizures cluster after 7 days or so and she gets tired too.
- Inconsistency of seizure activity.
- It took several tries to find an appropriate dosage and combination to work at minimizing tics.
- It has not helped the increased ammonia level [PATIENT] has had the past few years. With the direction of his neurologist, we are currently weaning off one of his seizure medications, depakote, which he has been taking for 26 years! We are hopeful that this may help reduce the ammonia level.
- Haven't been able to find the right form of treatment (Suspension/Vape/Pills) that works best for me.
- Prefer the oil but trying to utilize the syringe with my fingers is really tough! Would really like it if I could administer the oil myself with a different tool.
- I would like to have a type for bedtime. I can't always get to sleep and while I have cut down my 2 50mg a night Trazadone to one one 50mg maybe 3-4 times per week.
- Trying to determine correct dosages.
- I can't get other medicines due to being on this program.
- Having to take the medicine several times per day.
- having to refrigerate pills. if the tincture does not require refrigeration, I may try that...
- Program does not allow enough "options" or other products..VERY limited

- I do not want to drive after using medical cannabis for fear of being arrested for DUI even if I can pass the roadside sobriety tests because my blood has THC in it and I could be charged with DUI just from using medical cannabis even if I have not used it for days before driving.
- Worry about changing jobs/company due to drug testing
- Im worried about my employer or future employment drug testing
- Regulating the correct amount and type correct which takes time and experience. Much easier to do with the pills it seems for me personally as smoking it made my lungs worse and often times would be hard for me to control the dosage.

I would like more edible opptions

4

- I have more anxiety that police may take me for a blood test of charge me with DUI if they know I'm a patient at dispensary. I also had a Warning of illegal drug use in a urine test from the so called pain clinic I'm required to go to by [CLINIC] By my now ex primary Dr of 20 years. I told the pain clinic when I signed contract not to use illegal drugs that I took cannabis by prescription in medical form thru Dept of Health etc. The Dr said OK, as long as it wasn't in organic form for smoking! He said I was the 1st patient at [CLINIC] to be on legal cannabis. I advised him, I maybe to 1st but surely not the last patient. They said this will be resolved ok but I still was warned for illegal the drug use, which is upsetting but it will be straightened out. Thank u!!
- The stick does not always work
- I have sciatica nerve pain, and don't get as much pain relief for that. Also, it is hard to get the dosages down right so that a steady stream of it stays in your system. I mainly use the gel caps.
- No help with seizures.
- As an adult with muscle spasms I need [HIGH CBD PRODUCT] or maybe even [HIGH CBD PRODUCT], I would like to have a broader range of treatments on the CBD CBD range. I understand that this is more for children, but vaporizer for adults would be wonderful. I can not take pills due to stomach problems. I do have vaporizers to help with pain, sleeping issues due to spasms. Please consider more CBD CBD VAPORIZERS for adults.
- Some negative ONLY because of the MCT, not the cannabis it self! Why do they add such an expensive product like (MCT) to something when it could be more reasonably priced without it??? I had to really do my research on MCT to know what this awful stuff can do. There is blog after blog with people complaining about MCT. There are people out there that have not done their research and think it is the cannabis. It is really too bad because they could really benefit from the cannabis without the MCT. Again it would be cheaper without the MCT in it.
- Variations in batches.
- Not quite strong enough or
- could use more

- Continued loose to diarrhea stools.
- Because certain types are not available yet, i haven't been able to try all of the varieties. Having all of them available may give patients better options as to what works best, especially in the first few months. I experience both muscle spasms and chronic pain, and have seen benefit from [1:1 THC:CBD PRODUCTS] and occasionally [HIGH THC PRODUCT]. But I do wonder if one of the other colors would work longer.

• Mixed strains make the medication unreliable. Made him very sedated and "high" acting even at very low doses.

### 7: Great Deal of Negative Effects

- My ex using it as an excuse to get custody of my children
- Seizures are the same and mobility is still down. She walks and sits hunched over:(

# Appendix F: Healthcare Provider-Reported Negative Effects from Surveys

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 into type of negative effect, and by negative effect score rating.

### Cost and Access-Related Issues

### 0: Not Enough Information to Report

- -doc lock
  - -lower cost can't afford

### 1: No Negative Effects

- Actually, the major negative impact is the cost of the CBD oil
- Cost (Four HCP Reports)
- Cost of the drug
- Cost of the drug is too expensive.
- distance of the dispensories are the only negative.
- expenses
- none except too costly
- Though not a direct negative impact the cost obtaining the amount that would most help him is almost prohibited

2

- Cost (Three HCP Reports)
- Cost and no reduction in seizures
- cost of and travel to get
- Cost of the drug is excessive and insurance does not cover the cost
- cost of travel to get
- Patient states the one negative effect is the unavailability of certifying physicians.
- The cost and she is not able to take cannabis if she goes to work as she said it can make her loopy during the day, but when she is at home in the day time and using it she is fine and has no pain and no spasms.
- time and travel

3

GETTING IT FROM OTHER STATES

# APPENDIX F: HEALTHCARE PRACTITIONER REPORTED NEGATIVE EFFECTS FROM SURVEYS

4

- cost
- too expensive

5

- Cost (Two HCP Reports)
- Costs more than purchasing street marijuana

### 7: Great Deal of Negative Effects

can't afford it

### Physical Negative Effects

### 1: No Negative Effects

- "some tiredness"
- Patient reports it is harder for him to get going in the morning.
- Some tiredness
- stomach upset

2

- Fatigue
- Patient reports having some concern of migraine rebound headaches two hours after using cannabis. This is limited and infrequent.
- sleepiness
- Tiredness when first started the medication.
- Very tired

3

- Dizziness
- Drowsiness with the medication, but is using this at night and is sleeping better with better pain control as well
- Feeling drowsy
- He gets sleepy
- insomnia
- sleepy

- Possible worsening of Parkinsonism.
- She found the tincture burned when used sublingually so used it down her gastrostomy tube. She felt 'irritable' from the cannabis, but overall felt the improvements were worth it
- Diarrhea
- Did not feel well after consuming edibles provided by a state dispensary.

# APPENDIX F: HEALTHCARE PRACTITIONER REPORTED NEGATIVE EFFECTS FROM SURVEYS

5

 constipation, lethargy, increased seizure types. some seizures improved and others worsened.

6

dizziness

### 7: Great Deal of Negative Effects

Abdominal discomfort

### Mental Negative Effects

### 0: Not Enough Information to Report

He can feel sedated

### 1: No Negative Effects

- none--except she is a little "loopy" at times--which she and her mother don't seem to mind because at least she feels pretty good on cannabis.
- When he takes the recommended dose, he feels "loopy".

2

- "feels stoned"
- a little "high" at first? improved with cutting down dose
- At the dose originally offered by the pharmacist, she was excessively sedated. She uses half the offered dose.
- irritability, but not too bad
- mild sedation
- psychological side effects were too great.
- transient mood/sleep change only

3

- mild sedation
- some mild paranoid thoughts
- worsened behavior

4

mental fogginess

6

Sedation

# APPENDIX F: HEALTHCARE PRACTITIONER REPORTED NEGATIVE EFFECTS FROM SURVEYS

### Other Negative Effects

### No Score

- Inability to trial medication
- I am not aware of any. He originally had some mental clouding, but that resolved with dose adjustment by his supplier.

### 1: No Negative Effects

sometimes the oils are a bit strong, but you get used to it.

2

- did not help much
- no improveement in spasiticity. Constipation
- We have had more challenges managing her phenytoin levels

3

- Lack of benefit
- The patient reports that the illicitly smoked cannabis provided greater calming effect than the prescribed medical cannabis

4

unwillingness to try other proven therapies

- Delay in appropriate medical treatments
- Too strong per patient

# Appendix G: Patient Suggestions For Improving the Program from Surveys

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 haven't been able to afford the cannabis. But right now we are living paycheck to paycheck right now. My back is out of wack. They will be operating on it. But would still like to stay on the medical cannabis. I does work.
- As a caregiver- I would have liked to be involved in the process up-front. I was not able to assist as much as I wasn't aware of website. I also couldn't help with picking up cannabis when my husband became too ill. I was never registered. I recommend requiring a caregiver to be named and registered early-on.
- It costs way too much to find out there is no benefit in the use for my type of cancer. I wasted many hundreds of dollars for nothing!
- I have a permanent work comp injury.
  Work comp. won't pay for my medicinal cannabis even though it is used for the pain and muscle spasms caused by my injury and I have been able to use medical cannabis in place of the medications work comp pays for. I shouldn't have to spent \$800.00 out of my pocket each month of which I must borrow because social security has been denying me benefits for the last 5 years making me penniless, literally.
- The cost needs to come down to make it accessible to the people who need it the product At [MANUFACTURER] is well manufactured and easy to dose yourself and adjust the medication that you're getting at first I was against this process and I have been happily surprised at how well it works the counseling and In formation that I received at [MANUFACTURER] has been very helpful I am glad the program is available but still the costs are going to be prohibitive to me and others forcing us back onto opioid base medications that are covered by insurance
- [PATIENT] is dead. He was an awesome little boy who loved Jesus. He was only 8 years old. Thank you for the Cannabis, I believe it helped with his potential pain and nausea associated with his brain cancer. He had very little pain at the end. I believe even his hospices nurses were surprised at how little pain he had. Thank God for his painless passing.

The only wish I had as a parent, was I wish I could have got Medical Cannabis sooner for his brain cancer than right at the end.

He was not able to talk for the last month or so of his life so I was not able to as detailed questions. But I believe it helped in some capacity. For one thing, he had very little nausea while on the Medical Cannabis.

Thank you for helping my son.

- I wish the [CANNABIS PATIENT CENTER] were open daily
- I'm glad to be asked!

I find the lack of dispensaries, very prohibitive. (My husband is driving down to [CANNABIS PATIENT CENTER] TODAY, to pick up oral tinctures that were supposed to be included in our last pick-up, but weren't. We were only there 2 weeks ago and are using the product AS DISCUSSED with an online employee of the dispensary.

That means 330 miles of road travel that we weren't planning on this weekend, which is frustrating AND expensive!

I live in [CITY] and got started with [MANUFACTURER] and don't think it would be wise for my son's health, to start with a different dispensary (like [CANNABIS PATIENT CENTER]), which has different products.

Also, I find the lack of knowledge of staff at the 2 locations I've been to (including the pharmacists) disconcerting. I feel like the people working have less knowledge about medical cannabis than I do, and that is unsettling and doesn't inspire my confidence. I think the program is much too limited and restrictive. I would prefer to grow my own plants, so I could use whole-plant therapies, that would potentially benefit my son. Also, I have added my husband's information Multiple times on the website, as a caregiver, and every time I checked, NONE of his information was linked to his account. It was only when I called and spoke to [MDH STAFF] this morning that this issue was resolved. She was kind and prompt, but I shouldn't have had to waste my time doing this.

- some doctors are reluctant to certify condition because of the stigma of prescribing
   "dope" and don't even know the process of registering to certify their patients
- Refills through mail would help immensely.
- Thank You for helping improve lives. About 25 yrs ago a psychiatrist at the [CLINIC], told me that he believed that medical cannabis would be the best medicine for me. He added that he did not believe that I would see Minnesota legalize it in my lifetime!! I'm so grateful, and my family as well, that this healing medicine is now legal, in Minnesota!!! Thank You
- A list of providers that actually prescribe cannabis NOT a list of every provider that is licensed in Minnesota. This makes it incredibly difficult for some to get the care they need.
- I think that people in Minnesota need to have the information available to them about where they can begin to get approved.
- If you could make a questionnaire designed for patients younger than 5 it would be helpful in answering some questions

- Thank you for giving me the opportunity to change my life for the better and experience less pain in a day. I am so happy to go through each day without needing to use narcotics. Medical cannabis has changed my life significantly, and for that I am grateful.
- The [CANNABIS PATIENT CENTER] site personnel of [MANUFACTURER] has been very helpful
- I died
- make [MANUFACTURER] provide quality medical the or get rid of the company and their grower. he says he is a farmer, he needs go to school in colorado or find a different career. people are suffering becuase of his lack of knowlege in the medical marijuana industry
- I am on social security so the cost is a bit of a challenge.
- It should be less expensive rather than arbitrary, inconsistent discounts offered!
- While I'm confident that there is nothing that can be done at this time, I do feel that this medicine needs to be federally legal so that more testing can be done. I am also looking forward to the day that my insurance will be able to cover this life saving medicine for myself as well as those who can not afford to pay \$500 + cash out of pocket each month.
- The cost should be lowered since most insurance companies will not cover medical cannabis. Consistent relief depends on regular dosage. Dosage requirements vary from patient to patient just like prescription drugs.
- I am very fortunate to have access to this program. Related to that, thank you for what you do! A few things: The price of the medicine is unfortunate. It costs me \$690 a month and I can't afford that, so I often go without. If this is happening for me, I am sure it will drive others to obtain cannabis illegally. Also, the delivery systems available are not most effective for my needs. Having access to the plant material would be most effective, and I believe it would also be cheaper. The option for patients to grow their own plants would be an ideal situation for me, both medically and financially.
- I live in [COUNTY] and have epilepsy. it is hard for me to get the medicine regularly since I can't drive and can't be mailed.
- I am on SSDI, so when it came to the initial registration, I entered the payment info incorrectly, because the screen stated something about Medicare, and I'm not on Medicare, so I clicked the other option and ended up having to pay the \$200 and didn't get the discount for being disabled.
  - I'll call tomorrow and see what paperwork I need to provide in order to get a refund.
- [PATIENT] passed away [DATE] from cancer
- It is a great benefit to my social and work life, and my ability to function feels closer to normal. Although it is used along with my medication, (Trileptal) without it I am not the same person.
- Get more attention in the media if possible.

- I think the program should be expanded to include more edible ways to consume the cannabis such as brownies or candy instead of capsules which can be hard on the stomach n difficult to digest. also the current cost is extremely un affordable and I am only able to afford a half month supply which then limits my ability to be consistent in the relief of spasms and pain.
- Please keep up the great work and know that you have helped change one life out there from having no hope in the future to loving life.
- I really wish it was available in capsule form
- Please work on the cost ..otherwise thank you
- Cannabis has given me part of the day back.
- It would be nice to get health insurances to help cover some cost..
- The cost is 2 high
- I appreciate this medicine so much. It has changed my life.
- Again I cannot not say enough how great cannabis has been for my son. The MCT in it however is awful. It is not at all like coconut oil which is what they claim is in it, until I requested information on what "exactly is in this stuff" If he was at his ideal dose quality of life would be much better for him but the MCT has to go first. I believe people would be much, much happier and sales would go up if you removed it.
- This program is very important for giving patients a safe and most importantly, effective alternative to treating disorders that otherwise they would have to just suffer through, If you need someone to be a part of studies or other research I would be happy to participate.
- Assist very low income people with disabilities, and make it affordable for them. Some of the pills I have been on triple in cost. I don't get it. Pills seem to wreak havoc on my system, not the case using a vaporizer for my medical cannabis use.
- Changed my life, blessed when nothing else worked
- Please help the medicine be affordable because this could help a great deal of people. It is way less dangerous than opiates.
- Its great but expensive, hard to buy when I'm on SS Disability. The smokable was more effective than the pills.
- Not happy that there isn't an office closer to where I live. I am on disability and the cost of gas and the trip to the cites is too much for me.
- I wish the price was a little lower or that insurance would help with the cost
- hard to manuever the site to find specific answers or sites. confusing
- I think you should have a sativa strain and a indica strain
- patient was computer programmer for 29 years but feels the design of website lacking, wife is not computer literate, most problems centered around getting online, issues with caregiver registration
- The spray bottles need upgating, they tend to clog up easily

- Thank you for taking the time to hear patients thoughts and concerns. Medical cannabis is a literal God send for me. Unfortunately, the cost is so prohibitive that I am not able to participate in the program nearly as much as I would like. Thanks again for listening
- The reduction in pain associated with central nerve disorder caused by a stroke is short-lived between doses.
- Just want to say Thank You!!!
- List of doctors , better law will make last 2 answers much better. nice people but can not answer main question of where can I find a certifying Doctor because it is hidden from patients due to way law was made.
- Make it free for people who need it
- We are so very thankful to have this available for my son. It has not only improved his life but helped all of us as a happy child makes for a happy home.
- Wish it were more affordable & was federally legal.
- Would like a branch CPC to open closer to home, or be able to receive cannabis delivered to our local pharmacy or to local HCP as an alternative to the current travel troubles to the [CANNABIS PATIENT CENTER].
- I wish there were more centers to be more convenient to get refills and also open it up to more patients to help drive the cost down.
- From the benefits I've experienced from medical cannabis it would be nice to have it available to more medical conditions
- It is pretty interesting.
- I am finally able to get a good nights sleep.
- For my Crohn's my appetite has increased, intestinal disorder has reduced (not eliminated) and I have gained weight. I am still working with dosage adjustment but so far my experience is positive.
- Less expensive
- Didn't realize there was a call center.
- Just that I greatly appreciate all the staff that work there for the noble cause and all the great assistance and all around help I was given by great and caring, committed people!!! I'm worried about this talk of the panel not impressed that pain is a valid condition to add to the list of acceptable conditions for cannabis treatment . I'd like to be up to date on any and all upcoming hearing on this issue and I want to be a pro active patient for the pain inclusion as a condition and please don't be bashful in letting me know of upcoming events / hearings. I missed one in Nov due to being in Calif. until a few days ago . Thank u all, for what you do!!
- Medical cannabis has greatly improved my mothers quality of life at the end stages of her cancer. I am eternally grateful that this was available to her.
- It can be difficult to afford for everyone, is there any kind of insurance that will help with the cost?

- Cost for patients on ma/medicare that are terminal patients is impossible. Get \$700 a
  month and have to decide to have relief or pay for my phone bill. As someone who's
  terminally ill its an awful situation to be in
- The vapor pen at [MANUFACTURER] was NOT useable/crystalized Would be nice to have online resource to help with dosing adjustments and how to choose formulations. Staff at locations not really knowledgeable- MD would be helpful.
- [MANUFACTURER] products only contain THC and CBD as their active ingredients. Recent studies have shown that the therapeutic and medicinal qualities of cannabis are a result of what's referred to as the "Entourage Effect". The "Entourage Effect" is the inclusion of many different vital chemical compounds in a plant which work together to produce a desired effect. A series of studies have revealed that terpenes/terpenoids play a much more important role in creating the "Entourage Effect" than was previously thought. Also, it was discovered that terpenes/terpenoids are more responsible for the overall experience than the specific variety of plant (Indica vs Sativa). Cannabis products containing only THC and CBD lack the necessary ingredients needed to create the "Entourage Effect". THC and CBD alone, or mixed together have some medicinal qualities, but their full potential is not reached without certain cannabinoids, terpenes/terpenoids and other vital chemical compounds. As a result, [MANUFACTURER] products do not provide adequate therapeutic and medicinal relief. I found this to be the case with the oil for vaporization as well as the capsules. The lack of certain cannabinoids, terpenes/terpenoids and other vital chemical compounds in [MANUFACTURER] products dramatically increases the negative side effects of THC such as anxiety, paranoia, confusion and disorientation. The inclusion of CBD alone does not adequately reduce the side effects of THC. Dr. Jeffery Hergenrather, President of the Society of Cannabis Clinicians and Dr. Raphael Mechoulam of Hebrew University in Jerusalem both have a great deal of expertise studying the cannabis "Entourage Effect" and have released their findings.
- I feel that the cost of the product right now is going to drive a lot of people away from trying cannabis as a treatment option. I think that the few conditions and people allowed in the program has an effect. But also only having two suppliers I think will drive prices up.
- make it cheaper please...allow more patients and convince drs to be ok with referrals of patients
- Please advocate for the expansion of the program to include pain and other conditions.
- Thank You!
- There should be a formula available for patients to be able to rub on their skin. I really like that there is a range of potency; it allows for personalized medicating. I think that patient access should be expanded to include other individuals with pain related to non terminal illnesses on a case by case basis.
- Too much filling out nultiple forms,

- The program's offerings are far too limited to treat my Crohn's disease as well as I've been able to in the past. This is not the fault of cannabis; this is the fault of the entire program and law as it's written. So, not only are the costs completely insane and prohibitive, but the actual products don't work as well as what I've used in the past. I'm currently living the worst case scenario for someone who's been waiting for over six years to legally treat my disease.
- I am forever grateful. I'm hoping someday they can get the price down. I have met people that are suffering and cannot afford to go this route. They are stuck on the percocet and anti nausea drugs because they are paid for by the insurance.
- I have been nothing but pleased with the program and really appreciate it in our state.
- I want to thank you for taking the time to listen educate and understand your patients.
  My life is forever changed!
- Thank you for putting together this program but...PLEASE make this more affordable. I haven't felt this wonderfully "normal" in years because of my epilepsy and, if I could afford to have a higher dose things would continue to get better!
- Keep up the good work. We have been able to reduce some of the medications with serious side effects now that the Medical Cannabis is been so helpful. Thank you.
- How to add a caregiver. Was never given the chance
- Cost is insane!!!
- Thank you!
- Yes by continuing to share the positive benefits that patients have, we need to also continue to work towards allowing the use of medical cannabis for conditions such as Autism, ADHD, Anxiety, etc. I believe there are many Minnesotans who could benefit from this program just as our son has the difference being that our son has Tourette's as well as Autism, Anxiety and ADHD. Additionally, we need to move towards removing the rule that public schools in MN are not allowed to distribute medical cannabis even if a patient is on the registry (even a registered school nurse) it's hurtful to those who could benefit from a dose during school hours.
- the 250 dollar fee to the doc and the state
- I was reading that medical cannabis is also available in suppository form, in Colorado and Washington. I find this very interesting, and hope that Minnesota will eventually offer this, as I suffer from terrible bladder/pelvic pain and spasms. Currently, I have to take Valium for this, which causes dependence and side effects. I would prefer the medical cannabis!
- This is a positive to me. But the costs and travel time to get it are ridiculous and only the fault of the state. There is plenty of data for years in other states. Really, there is no excuse that the state makes it this difficult. I am told by one of the employees that some hospitals are prohibiting their doctor from making a referral. And of course, the way the state makes doctors jump through hoops- some don't want to anyway. I got lucky to have a good doctor, but not all patients with the same disease as me are able to

access this. Really, the state forces patients to a black market or to heavy duty prescription drugs which has proven to cause deaths. Yes, I suppose we must worry about whether a police union gets mad at us... But at some point- why go into politics if you won't act in the best interest of the voters. Minnesota should not contribute to death and pain of their voters- but they do.

- So far the products that are available have not helped me with my pain of neuropathy. I am hopeful that the future will bring new effective pain relievers.
- Thank you
- I have stop coming so much because I cannot pay for the medications all the time,insurance isn't helping much but I'm sure you guys already know that at the office.
- I think it would be better if people had access and choice to the various forms cannabis can come in, as in other states.
- Financially, however, makes it almost impossible for me to pay for. The cost really needs to come down.
- My child is doing so much better on the CBD oil then she was on Keppra. Before starting she was living in her own world unable to communicate and interact with others. We are so happy that we have been able to meet this little girl who was trapped due to the seizure med induced zombie state she lived in before CBD oil.
- Provide in pill form.

Lower cost.

- Yes. It is difficult to talk directly with [NAME], the pharmacist at [CANNABIS PATIENT CENTER]. There have been several rounds of phone tag. Because he is the only only pharmacist available, this is been very inconvenient as we often need information back in a timely manner.
- Not at this time
- Additional positive benefit for our daughter is that she sleeps better at night.
- should have a N/A choice on the patient self-eval. and a box for explanation. Again, ,my daughter does not communicate feelings or needs or pain.
- a sliding scale fee or coverage by insurance for medical cannabis would help a great deal in the managment of prescribed conditions.
- I wish that people with arthritis could used this product in MN. I hope there will come a time that the CBD oil is sold over the counter for people with inflammatory issues. Thank you for everything you do!
- I wish this would have been available sooner. We have had so many positive effects from the CBD oil! If it does this for Epilepsy, what other benefits for other disorders or diseases have we been missing out on.
- Wonderful this available...especially since I get relief! I wish I could afford to use it more often to control all my side effects.
- thank you for helping with my pain. it was extreme at times.
- Get more offices and make it totally legal

- you use highly refined products to transport the marijuana. why can't you use the unrefined products like coconut oil which can be measured out by the person. our son can't sleep on the alcohol and the refined coconut oil given 3 times a day he can't tolerate digestively and we tried the pills and that made his seizures more sever. we need a more natural product as it does decrease pain but the side effects he can't tolerate in the dosage needed. Do you have organically grown cannabis? Do you think people are going to abuse the natural cannabis after they have gone through all the hoops to be registered and the expense of it all? We would like to be able to try the pure product. Our son has been off additives and preservatives for many years so these products he does not tolerate well.
- For me, I have only experience positive effects from medical cannabis with no negative ones. I believe this program could be immensity helpful to thousands of Minnesotans struggling with chronic conditions; however, I would like to point out that those of lower incomes and underprivileged status experience chronic illnesses at higher rates and that the cost of this program is still excessive without being able to cover it with insurance. I believe the next best steps would be: 1) to consider being inclusive to more conditions as appropriate 2) to consider ways to make this program more accessible and affordable which would include both increasing available information as well as instating policy that may reduce cost such as subsidies and/or allowing more companies to distribute within MN and compete for customers.
- we really need to add pain to the list of qualifying conditions. AS a mother and as a RN that works with a variety of patients everyday- pain and PTSD needs to be added sooner than later. Compassion please! Give these people the option for a better life. This needs to be added this next year.
- It works and it's much better that opioids.
- The hours of operation should be increased. And there should be an emergency access for medical cannabis.
- The application forms are messy vape pipes clog and product is too thick to put into pipe easily. Oral oil is messy. Result is product wasting and expense of waste.
- no
- It should be legal to grow your own medicinal/personal use canibus. It's not fair I have to pay or suffer.
- I would love to see NON flower products offered more like Colorado. The price is by far cheaper. Being I'm taking for pain and taking the cbd the pain is still far from in control in my opinion and the current pricing here does not allow me to take the strength i need. i get by, however whith not much work i and many others could feel so much better even just adding edibleds and better concentrates.
  Thank You
- You will need a better delivery system for the [HIGH THC PRODUCT]. It's very thick and even if you warm it up it very tough to get out of the syringe.

- Medicine is very effective, it also allows me not reach for my pain medication and also anxiety medicine, to my muscle spasm medicine. Not only does it help me in my muscle spasms but in many more symptoms not listed. I use less prescribed pills when I have medical cannabis accessible to me. I risk less addiction to my prescribed oxy, when I take advantage of my medical marijuana prescription. I am just thanful to have access to it, specially when it helps my way of life.
- would like to see the symptoms covered, to include pain.
- It's definitely a benefit to have a NATURAL medicine! I'm glad that we finally have it, but it's unfortunate that others look down on it. The stigma attached to it is unfortunate.
- Timetable of Saturdays that the [CANNABIS PATIENT CENTER] is open.
- I really resent that cannabis is so restricted in Minnesota. All the costs involved with getting on the registry are too high. The cost of the cannabis is too high. I should be allowed to grow a supply for personal use. After all, it is simply a beneficial plant.
- promote the use of medical cannabis 4 cancer patients and let the general public know the healing power it has
- they do a wonderful job and are always able to answer any of my questions. they are very helpful in the [CANNABIS PATIENT CENTER]
- Thank you.
- I have been learning extra little "helpful hints" in the use of CBD that I have not heard from anyone in Minnesota and would like to share with your office. I have learned of this through researching and attending online "Orientations on Cannabinoid Usage" from the [OUT OF STATE MANUFACTURER]. I realize [OUT OF STATE MANUFACTURER] may not be accurate in their findings either but I guess when they have been at this for 3 years, they have more experience than Minnesota does. I feel VERY misguided by [MANUFACTURER]. Here are a couple of key points: 1. When you start and/or change a dose, you should stay at that dose for a minimum of 4 weeks to allow the body to adjust and to see its effects. You then can adjust for the next 4 weeks and see if symptoms have changed for the better or worse. This is how you start to find the therapeutic level best for your child. You may need to decrease or you may need to increase. [MANUFACTURER]- first had us increasing slow, but then we had done changes sooner than the 4 week point. They may have talked about a therapeutic level in the beginning but have not discussed it since.: (2. Cannabis should be given 2 hours before or after other pharmaceuticals. This was NEVER spoken of. 3. can let it sit in the cheek, that is great for absorption. [MANUFACTURER] MC solution is disgusting, no way to let this sit in cheek. [OUT OF STATE MANUFACTURER]oil is mint chocolate. 4. [MANUFACTURER] MC- cost is \$256 per bottle which holds 25ml's. We need 5 bottles a month: \$1000 [OUT OF STATE MANUFACTURER] is \$250 per bottle which holds 100 ml's. One bottle should last at least 2 months. [PATIENT] was at the max dose that [MANUFACTURER] recommended a few weeks ago. (which is at an adult

level, 4ml's a day, she is 80 lbs). Realm of Caring said that was way too much for her!!! Her dose of [OUT OF STATE MANUFACTURER] Botanical's would be .20 ml twice a day.....NOT EVEN 1 FULL ML!! Makes sense now, as we were seeing her walking and transitioning was very bad. She was not eating well, and her seizures are as they were before MC. Through my research and looking back over the last 3 months, this all makes sense now that she has been overdosed and that could be the reason for the negative things that we have been experiencing¿!!! Also after the [MANUFACTURER] announced their 15% discount, I emailed [MANUFACTURER] on this and wondered if they were going to do something similar? They responded that they had a news release coming out later that week [LINK TO NEWS RELEASE]. [PATIENT] was set up in [MANUFACTURER]'s system as to being on Minnesota MA but until I brought up what they released, and wondered if [PATIENT] qualified under the reasons for the discount they said yes she does. They did refund my 15% back from the purchases I had made previously but I have to wonder if that would have ever come about had I not brought it up. We have decided to pull back from [MANUFACTURER] and try [OUT OF STATE MANUFACTURER]. Although very disappointing for what we have encountered we are still grateful that it is available in Minnesota for others. I honestly feel like [MANUFACTURER] is only in it for the money

- Though I qualified under the muscle spasm condition, the chronic pain that I suffered in for years was relieved when I could afford the medication. I have used prescribed opiates in the past and had to stop and suffer in pain instead of experience the negative side effects of oxycodone, oxycontin and fentanyl use. This medicine is miraculous in the way it improved my quality of life but it is too limited in access and too expensive to use. I am back to suffering constant spasms and pain because I won't use opiates anymore.
- Thank you for being so helpful and kind. My experience so far has been fabulous. I am very grateful.
- I have discontinued my usage of medical cannabis temporarily because I am fearful my employer will terminate me. My husband is enrolled in the Medical Cannabis program and was suspended without pay until it was out of his system. He had to attend drug counseling and be monitored for two years. He is not a federal employee. His employer said because it's a Schedule I controlled substance and illegal federally, he cannot use it and remain employed. I'm afraid my employer would not give me a second chance. The Minnesota statute seems to protect employers more than patients. All an employer has to say is it would violate federal law to allow you to work while any detectable amount of THC is found in your drug sample. However, Marinol is apparently okay according to the lab that tested my husband.

I will continue to take my medication once the law are strengthened and the DEA reschedules it. It's unfortunate because I successfully withdrew from a prescription addition to Oxycontin and medical cannabis has really help my symptoms with virtually no ill side-effects.

- Sorry, still in the process of adapting to the medicine and finding the right application for me.
- Please, please make this program more accessible and allow medical patients to have a small amount of leaf. My friends in CO and WA pay less than \$100 a month (compared to my \$400-\$500) because the market is competitive and multiple forms of cannabis is available to them. I don't care about recreational use, but this medicine has so helped my quality of life. Like I said, I at first cut my pain meds in 1/2 and for the past 4 weeks have used cannabis alone for pain and spasms. For example, my pain and spasm meds costs about \$30 a month because I have good health insurance. The contrast of all the side effects of those meds compared to almost no side effects with cannabis is amazing. I used pot twice in college, some 40 years ago, so I'm not some recreational user. I am a professional full time employee as I have been all my adult life. I say this because I did a fair amount of research on medical cannabis, and I'm so thankful that MN allows me to have this medicine. (Although I think several other states are way ahead of MN in cost and product access.)

If there is some way I can advocate for medial cannabis, please let me know. I looked into [ADVOCACY GROUP] and I feel they confuse recreational with medical, maybe they do good, I don't know. I want to advocate for affordable medical cannabis. Feel free to contact me if you want more information about my experience.

- Glad to have access to product. Was hoping Cannabis would help with MS muscle spasms and stiff muscles better. Am hoping not to have to try Botox since it is so toxic, but will check into that.
- I feel there needs to be a registry of health care providers in all fields of care. SOOO many people (with a qualifying condition) cannot find a provider to refer them to program. Very frustrating.
- Work at reducing cost of medicine. It would be helpful if there were more academic research reports available.
- the price should come down, and insurance programs should strongly pay for it. It is a natural medication that God created. Also the raw plant should be made available to patients who are interested in juicing it and utilizing it as a vegetable, that is what it is.
- The enrollment fee is very expensive.
- This program has truly changed our lives for the better. My daughter is "awakened". It is a beautiful thing to see someone you love stop suffering and enjoying life. My experience with [MANUFACTURER] has been all positive. I wish there were subsidies for the financial expense of the medicine. My daughter has Disability Insurance through M.A., which covers pharmaceuticals, but not this medicine. I am not able to work much because of the extra care which [PATIENT]'s conditions require, and the medicine is a huge financial strain, (even though [MANUFACTURER] have been amazing

at helping us with some discounts). I know a lot of families that share the same concerns about affording this medicine. If I can't afford to buy this medicine, my daughter could get very sick and certainly would end up in the hospital with seizures. I'm dreading the day that could happen.

- Chronic pain needs to be added. No one overdoses on medical cannabis, but narcotics are a huge problem.
- allow use of the flower
- It would be nice if the patient surveys allowed a place to add benefits from cannabis instead of just the negative side effects. The survey seems very limited in collecting good data from patients.
- Traveling to the Twin cities and back is difficult for me...8 hour round trip.
- I feel lucky that MN has adopted this program, and that you are doing it in a clinical and responsible way which can provide useful data. I do wish that more formulas were available, with specific strains to address specific diseases/symptoms.
- The patient survey that is done prior to appointment is too general in regard to seizure activity. More specific questions such as length & severity of seizures would be helpful in determining the success of using cannabis. The nurse assessment prior to refill doesn't seem to be thorough.
- The process makes me feel like a criminal and the survey that is done each time I pick up does not identify benefits as well as this survey.
- The cost of the medication is preventing my friends with qualifying conditions to register with the program. I am the administer of a Facebook group with patients/caregivers and potential patients
- As a veteran I believe this has saved my life. I have bad PTSD and anxiety along with my pain and since starting this everyone says they say how much I have gotten better. I just wish the cost comes down or insurance would cover some of it.
- I am not able to afford a monthly supply
   So I'm not using it as often as I should.

Shouldn't disabled people on ssdi not have to spend a third of their income on medicine, especially when the harmful narcotics are free.

- I would like to know when you have meetings or volunteer opportunities I could join. I
  would love to be apart of this new craft and culture that has finally made it to MN
- Please Help me afford the med.... MN MA-EPD.....It's the ONLY thing that works.... Off symptomatic relief drug immediately. Could withdraw from 1 or 2 others if I could afford consistently....PLEASE, HELP.
- As you already know from recent email conversation, there is a problem in the website design with the initial registration and it not being clear about the eligibility for the discount rate if a person is on SSDI. The language used makes it sound like you need to have government sponsored insurance to be eligible and just not be on SSDI or SSA. I hope you are fixing that.

- This is a great way to relieve pain but you need to be a wealthy person to afford this! I tried desperately to use this knowing it helped but was so ridiculous expensive that had to stop or go broke. Getting rich from other people's pain is very sad.
- I am very grateful for being able to find some type of relief after all these years...it may not take it all away, but definitely helps a lot! Thank you! I like that its a natural medication & not habit forming or addictive or harmful & u cant overdose on it...I very grateful to God & to those who made it possible...
- Your prices and prohibitively high. Also, the process to register is a maze and only the most determined to participate succeed. I find the whole system both discouraging and costly.
- I know you hear this from everyone but I have to say it too. Please try to find a way to lower the cost of this. I have been on so many meds over my life. I want to quit the meds but know I cant unless the cost of the cannabis comes down. This is really making a difference and we don't know how long we will be able to keep going on the program with the cost of it. The thought of going without it knowing it is working is a depressing thought. We are pulling money from every possible corner of our budget to keep me on the program. I cant keep it up financially for long however.
- If my PSA keeps dropping I may not need surgery or radiation. Cannabis oil is giving me my life back, so far.
- the program is good for me.
- I wish they were able to help me with my seizure meds and the cannibis program they
  are not able to offer any assistance regarding my meds
   I wish they had more variety of products
- It is too damn expensive!
- Interstate travel, there should be some courtesy between the various departments in case there is a traffic stop, I should be able to take my medications with me and travel safely with meds
- After the first couple of months of being on the cannabis, all my medical care personnel were shocked at how my health changed for the better. I went from being so weak (in a wheelchair) to walking into offices. I began sleeping through the night which allowed my body to accept healing. With the nausea gone, I began eating and actually gained a few pounds. I've grown stronger and am now walking around the block each day. And I appreciate the pain control... which keeps me moving forward! I've gone from believing I was dying (which I was) to believing I can heal and live!!! Thank you for this wonderful herb that has changed my life =) I also appreciate that Minnesota is a MEDICAL cannabis state and that cannabis is in measured doses. It gives me confidence that what I am taking is constant and dependable. I am soooo grateful!!!
- Financial Assistance for those with low or fixed income.
- Prices are way too high!! Can get cheaper

- Thanks for all your help! Please try and get the prices down currently the cost of a gram of the high grade oil in Minnesota is \$206.66 per gram. In some of the other states like California, Colorado, Washington the cost is \$30.00 per gram cost for me to do 90 days of medical cannabis in Minnesota is \$18,600.00 cost for me to do 90 days medical cannabis in California is \$2700.00 HUGE COST DIFFERENCE
- I am hoping as more conditions are added for the use of medical cannabis, that the price will drop.
- No phone calls please.
- Only that it has been very helpful for nausea
- No, But thank you
- In conversations w/ friends and family who have symptoms that might be helped we are hearing that there is a problem finding doctors who are willing to prescribe.
- Doctors dont want to treat patients that are on medical cannabis.
- Hard to find these doctors as the website doesn't provide a list of doctors prescribing the cannabis. Very frustrating to those looking for help with their condition.
- Thant they are am.amazing group of people with a fabulous, upbeat attitude, they answer all of my questions and the company itself is absolutely wonderful!
- the self-eval is not really applicable to seizure disorder/epilepsy.
- Should make efforts to make more affordable and available to more patients and remove stigma and fear for doctors and patients.
- I don't worry about over dose like other pain meds
- I was recently in Washington state and your medical cannabis is about 500% more expensive. I will not be buying anymore of your products at these prices.
- It would be nice to know some of the cost before you go to the pharmacy.
- If the price of the prescription can come down would be a benefit for those of us who are on a fixed budget.
- It would be nice if insurance would cover part of the treatment to make it more affordable
- Just the cost, being on Social Security Disability doesn't leave me much and this cannabis has been a godsend! But I can only afford small amounts, not the recommend RX.
- I dont think patients should have to register every year with some of their conditions (like seizues, crohns, cancer, ect) maybe every 5 years or more, its a fricken hassel!! THAT NEEDS TO BE CHANGED ASAP!!!
- I really haven't given it a fare test. The small amount I'd take of the 50 50 mix was too much and actually fear taking it during the day. My work requires me to be sharp but with the side effects I get I couldn't function. I may stop in soon to discuss the problem. As I said, I really haven't given it a chance.
- Please try to get medical coverage to make it afford to us that need help!

I feel your website is user friendly. Its taking that first step, myself having a health care background, figured out rather quickly the patient needs to take the initiative to go online, do a little research, come across your website to then print the email permissions form for your doctor, bring the form to your primary only for the primary doctor [CLINIC SYSTEM] to ask me, the patient what to do next...

After a week or so I called my doctor who had figured out how to get in touch with the office of medical cannabis. I believe through fax my doctor was able to confirm I had a qualifying condition.

Shortly after I did receive my email approving me for medical Cannabis, which after that the registration process, choosing a pharmacy location and then buying the cannabis is very user friendly and straight forward.

I hope to see some type of patient advocates in the future or even more advertisement of this great alternative to prescription drugs.

Frustrated with our healthcare system in whole I ended my 12 year healthcare career and found other employment. I'm pleased to see the direction [MANUFACTURER] is going and one day hope to join the company as an patient advocate.

- Service is very slow and inefficient at [CANNABIS PATIENT CENTER].
- While my wife, [PATIENT], is now enrolled the difficulty it takes to find a certifier was certainly not easy.

The ambiquity of dosing combinations of cbd and thc and amounts, frequency of dosing, etc is a lengthy, expensive process. Your assistance in moving this out of a level one drug will aid research which may one day clear some of the ambiquity. The [MANUFACTURER] staff we work with have been generously helpful, but we are all limited due to the lack of good research.

We really need to see an increase in numbers of patients in order to lower costs. Depending on what we end up with, our costs run between \$8,000 & \$12,000 per year. That's a lot for a middle class retired couple.

As I fill out the questionnaire before each visit I cannot help wondering if that thing is designed to give useful information. Have you had a good data scientist help design the questionnaire? What are the objectives/outcome studies you hoped to publish? If there aren't goals to have published data, what's the point? Not to mention having rock solid information for the resistive political folks.

- I have not been able to complete the pre-evaluation on the website from my home, I have to take it at the lab prior to purchase of my cannabis.
- cut cost
  - more convenient location
- There needs to be more strains available, just a choice between indica and sativa would benefit Patients.

There needs to be raw flower available. Vaping has unknown effects! Patients should be allowed to grow their own cannabis. This would solve my first two concerns.

Lastly, thank you! This program has improved my quality of life, really, thank you!!

- We would like to encourage the inclusion of Autism or Anxiety to the list of conditions. [PATIENT] is in the program for Tourettes, and we have definitely seen a decrease in his tics. But we have also seen additional positive benefits that have made a world of difference for his quality of life and we believe there are many families who could benefit.
- I did this survey on 5/18/16 and got a "unexpected problem" error.
- The process is easy, convenient and quick. Questions are answered quickly and effectively.
- I appreciate the clinical and professional way this is handled.
- The pharmacist has been incredibly helpful to me. Very patient and helpful as far as answering my questions and concerns and taking the time to talk to me.
- The program works and should be expanded to others
- make it easier to get
- price reduction
- Reduce the cost- insurance should cover Rx medical cannabis!!
- I would like to thank both the Dr and the team at pharmacy!! They helped me to understand more and are so easy to talk with!!! I'm so GREATFUL for all that you do.
- It would be great to have a support group or online chat group for those of us taking it to connect with others and ask questions regarding dosage/type/travel etc... Also feel the people you meet with should be offered trainings with other medical canibus providers. Meeting with some from Colorado where they have been doing this would be great!
- Please lower cost of cannabis.
- The cost of medication is incredibly high, but the medication very effective. It's so expensive I've considered ceasing treatment.
- Thank you for your help
- In my personal experience, I found it difficult to find a doctor who would recommend and monitor me on the program. My current gastroenterology doctor believes any benefit I am feeling is placebo effect, so I had to scour the internet for any doctor who was willing to take me on and perform necessary treatment. That search didn't seem to yield many options. Perhaps I missed a "find a doctor" link somewhere, but that is my experience. However, I will say that now I am on your MN Medical Cannabis program, I am terrified to leave the state and start over (I move a lot) or live in a state that does not have a Medical Cannabis program
- IT IS TOO DARN BAD MY OTHER PAIN CLINIC WILL NOT LET [DOCTOR] CO-MANAGE MY PAIN ISSUES SO, NOW IF I CAN'T FIND ANOTHER CLINIC TO OVERSEE MY MORPHINE PUMP I AM A BIT HELPLESS.
- I will write my federal representatives to request the federal government consider reclassifying medical cannabis dispensed in the program to Schedule II so purchases can be made via bank cards or checks. I also worry about other families that cannot treat

- their children due to the cost of the program, and hope that when more patients gain access to the system that costs will decrease
- Obviously the cost and the accessibility I have A3 hour drive one way to get my medication
- Thank you for helping me. I am so very, very frustrated that I am being shamed by regular doctors for using Canabis when then refused to help me when I was in such pain.
- If prices were lower across the board the program would be more beneficial from a patient standpoint
- Thank you! I no longer have to be a criminal to stay healthy.
- I would like to be able to use HSA money to pay. It shouldn't be any different than any other medicine. I do not understand why I had to pay \$200 to register. It seems like a lot for people who are sick and already faced with huge medical bills.
- I think the cost could be evaluated and lowered just a bit
- Please continue the great work! You are transforming lives. At a point in our society where chronic pain patients are often made to feel like criminals (many who responsibly take their medication), it is so refreshing to feel like you have someone in your corner. I was 21 when my journey with pain began and am now 30. The day I heard it was being approved it MN I cried tears of joy hoping one day I would be able to use it as a treatment. It has helped improve my quality of life drastically.
- Finding a doctor is next to impossible because you have to call around to find a doctor that can certify you. The cost is so high that I cannot purchase what I truly need to help my condition, so I am forced to go back to the black market.
- Need flower edibles and all forms to be pushed there substantial benefits from them too. Also we need to look at the numbers of people who were addicted to hard drugs and now are looking to mmj for help.
- u need a way better web designer
- Excellent staff. Customer service orientated
- make it more affordable for people who are sick or disabled on a fixed income because its very expensive outrageous it has the potential to make alot of ill peoples quality of lifes better and anything that does that for someone is a blessing and for people to be held back from something like that is absolutely sad
- Please help
  - Lower costs and move towards allowing plant materials
- It just costs way too much =(
   Otherwise it seems to help with the constant pain and has other positive effects in relation to anxiety, stress, etc.
- I have had at least 3 of the vaporizer pen vials leak. One leaked from the very first time I screwed it in, and within 24 hours had leaked entirely through. Another, I had in a pocket of my pants and forgot about and a day later had a big brown stain that I couldn't get out that leaked. Lastly, one was in its original packaging but upside down

for a couple weeks and leaked totally out..... I was able to return one, but the two others, I felt weird about bringing up... I've since stored every one fully upright. Never at an angle... But, because of the huge cost, I've basically wasted at least \$200 cash, and that makes a big difference.... So without a doubt, my only complaint is that they have to be made better to avoid leaks. Even small leaks will quickly reduce the amount of oil.

- Thank you for all the hard work in providing a once again comfortable life in a natural way of treatment. ¿¿¿ MN has joined almost half the nation in Medical Cannabis availability for patients. Thank you [HOSPITAL] as well.
- the medicine I get is the only thing that helps my feet otherwise they hurt all the time
- To have more locations to be able to pick up and to get prices lowered so a person can afford this- get approved to have insurance pay.
- cost- make plant available in other forms and having it more accessible and affordable for those on disability.
- The prices are outrageous, I have to go and buy my medicine illegally now.
- Lower cost so I can participate
- It has been really helpful and I am very grateful for this program
- the process to get an additional party certified to pick up the medical cannabis is confusing and frustrating. sent in the background check 2 months ago and never received a response as to whether or not it was approved. Unsure how to get information about the status of this.
- Very knowledgeable staff and left feeling confident on how to use the product.
- When I fill out the questioner online there are some questions that are hard to answer accurately like how many loose/watery bowel movements I've had the previous day. I have an ilyostomy so I never have a solid bowel movement and they are always more frequent than a normal person
- The cost is financial suicide for me. I make 730 a month from disability. After the 650 rent. The cheapest I can find. I must find the money to pay for my car and insurance and the gas to make the 150 mile round trip. It's oppressive
- I am glad I tried this program, but because of the side effect I mentioned, I will probably not continue.
- Add more patients so you can reduced cost market!
- making it more affordable for patients would be great.
- Nursing homes and assisted living will not dispense the medical cannabis.
- making it affordable or able to be covered by insurance
- the ink on the syringes comes off when in contact with the cbd oil
- The option to use medical cannabis has been life-changing and we hope it continues to be. The only request going forward is a cost reduction as it is incredibly expensive.
- I hope that Medical Assistance or County Programs like CAC/CADI/CDCS Waiver Programs will allow it.

Its the BEST seizure control our Son has had in 20 months and we are very, very thankful that he was certifiable for it but it is cost prohibitive. I hope that this issue is being addressed for patients, especially for the epileptic children as parents we can work minimally and have to have qualified staff/licensed nurses that we know and TRUST with him to be able to work.

It would be great is coverage and cost issues could be addressed for accessibility, please, thank you!! We are very thankful for everyone in Minnesota that made it possible and that our son has access to it as it's proven to have affected his quality of life in a positive way.

- Thank you for helping me stay functionally independent!
- The price ranges of the different medications so I know beforehand and if there are any discounts or offers that would help me procure my medicine.
- I think that medical cannabis in plant for patients that requested over liquid form for patients they can't afford the liquid form because of the cost
- this is a wonderful drug and should not be so hard to get. I would have to be taking much stronger medications that are habit forming if I couldn't get medical cannabis.
- Doctors don't know about this and seem to be afraid of it. I got a doctor to register me but I need him to certify my wife as a caregiver so she would be able to pick up my med. if I am not able to.
- My daughter will run out of her CBD oil because of the 30 day supply rule and also the dispensable amounts. She is currently prescribed 1.2 mils twice daily. The CBD oil comes in 60ml and 120ml bottles. She ends up receiving enough for 25 days. We'll be on vacation for 11 days and will run out of CBD oil on the last day of our trip.
- I really need the prices to come down. Live is unbearable without the help of cannabis.
   Also going to prison is ridiculous. please help
- The prices are outrageously high, compared to other states in MN we pay triple the cost for the exact same medicine. The people who need this medicine are seriously ill and are being taken advantage of and it makes me sad.
- PLEASE LOWER THE COSTS!! IT IS THE ONLY THING PREVENTING ME FROM RELYING ON THIS PROGRAM WITH FULL TRUST IN MY HEART!! PLEASE MAKE THE THICK OILS IN BETTER PACKAGING!! THE METHODS PROVIDED TO TRANSFER THEM TO THE VAPE DEVICE ARE VERY COUNTER PRODUCTIVE, AND BECAUSE OF THAT AND THE COST, IT MAKES IT JARRING EVERY TIME YOU WASTE A DROP OR 2 OF THIS OIL!! PLUS WITH THE COST LOWERED, IT WILL GIVE ME MORE BENEFIT THAT I HAVEN'T EVEN FATHOMED YET!

\*\*\*\*\*\*THANK YOU FOR PUTTING OUT THIS SURVEY!!\*\*\*\*\*\*

- More knowledge at the dispensary level
- Would like other consumption options. Various breeds of plants have differing results.
- Improve technology of the delivery mechanisms
   Mouth spray is beneficial in avoiding vaporization while still getting a relatively immediate onset, but the spray bottle is very glitchy.

- open the rest of the sites
- working with the product provider [MANUFACTURER] has also been easy
- Lower the price, difficult for people with limited income, no insurance covers it.
- The distance of travel to the dispensary is greater than 300 miles one way, motel and time is an ongoing issue. Hoping the [CANNABIS PATIENT CENTER] will open soon as my wife and I are both seniors and have trouble with the traffic in [CITY].
- I would like to know if others have experienced symptoms such as mine Is there someone I could discuss what has happened with me?
- This program has been really beneficial to me, it has brought more improvement to my quality of life then i ever anticipated. I would to say thanks to all of the people who worked to make this happen and to those who run the program.
- Medical cannabis has changed my entire treatment course. Before becoming certified it was extremely difficult to live the life I wanted to. Now I can make it through my treatment course knowing that I will not have to deal with the nausea, lack of appetite, difficulty sleeping and pain management. It has made the stress of dealing with cancer much easier to manage and has allowed me to focus on the life I have and my family.
- Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
  - Lower the price :-)
- Have an alternate way to retrieve a forgotten password OTHER than the security questions, or fix the security questions so they work.
- There has to be a way for us patients to receive our medication for a REASONABLE price! Almost all of my money goes to my medication because it is so damn expensive!!
- My greatest hurdle is the cost of the program. People with these medical conditions have a lot of health care costs, and the cost of this program is not cheap.
- It should be less expensive and some of the costs should be covered if you're using State Paid medical insurance. I'm a patient unable to work and have little money that's expendable each month. It would be very helpful to have some assistance using a medication that is helping me so much.
- It can be difficult to regulate which pills do best for each condition when I can speak to 2 different people who give different opinions. It is so individualized though (especially beings each individual is taking many other different medications along with the cannabis) that I can easily see why it would be hard to advise without trial and error, which I have found is the best way in finding how to manage symptoms. However, this not only takes time, it can also be very expensive.

I would love to be able to substitute many of my current prescribed medications with cannabis and strongly believe that it could very well be possible, if it was also affordable.

- Open a branch in [CITY]
- The impact on my life has been very positive. I am taking less of other medications so that's always good.
- make it cost effective
- should be covered by insurance all states should be legal
- I am waiting for more product to come to market, mainly a lotion to apply directly to muscle spasm area so it will not make nerve damage worse.
- Make it available in whole leaf or cigarette form. It costs less to use that way in my opinion
- I have interacted several times with the D of MC and have had no follow thru or fulfillment of any resolutions. This has caused me to back off a bit in my regards of participation and purchasing of Medical Cannabis.
- It was difficult to initially understand that once I was approved, I could go in for my first appointment at the cannabis clinic. I thought I needed to wait for a response after taking the survey before going in.
  - Understanding the actual purchase fees was also difficult to plan for. I had a friend who qualified and didn't go in because her doctor told her it was going to be \$2000/month, which is not accurate either.
- It's expensive, like all prescriptions and drugs, and insurance doesn't pay....when I first purchased I got fifty percent off, that was somewhat affordable..... Thank you...
- I am grateful to have medical cannabis as an alternative here in MN. After my injury I was given several different types of "pain killers" over the years an it only made me feel less functional. I.e., not being able to do things because they were too strong. I feel cannabis is a much better balance of pain/spasm relief and I can still go about my daily activities. I truly feel this option is the right choice for myself and my particular situation. I would also like to add, while I have mostly benefited from being a part of this program, it negatively affects my financial situation. Which if you have medical issues, it's just another expense. I hope others can/will try this alternative and perhaps that will lower the cost. Thank you.
- Staff at [MANUFACTURER] have been extraordinarily compassionate and kind.
- Just an FYI Medical Cannabis has not helped my migraines much if any and has only mildly improved my sleep. These were symptoms I was told might be improved by my treatment with medical cannabis.
- I need to learn more about the different products. I want to try to stop with Baclofen and wonder if I shall move from the [1:1 THC:CBD PRODUCT] to the [1:1 THC:CBD PRODUCT]. I also need to try to use only tablets because the vaporizer stops working after airline travels.

- Less expensive, s more individuals could purchase
- sell M Mj like Colorado, allow home grown products for patients.
- I use the individual vaporizers. I have found issues of using the full vaporizer. They don't always come with the same amount or they are leaking when upside down waiting for use. When they don't vaporize until gone you loose a day or two worth of medication. When the vaporizer is in complete working conditions I get 6 days of use when it don't I get 4 days. With the cost it gets frustrating. It would be nice to find a way to fix this for others.
- Medical cannabis has been a godsend in relieving the pain from my advanced cancer and in mitigating the side effects of the anti-cancer treatment. I am grateful that medical cannabis is available to Minnesota cancer patients and wish the law were more friendly to patients from the standpoint of certification, access, and cost.
- Just the pricing
- We believe the Medical Cannabis program has been a success for our daughter. We werent expecting a miracle, but the improvement in her health status has been more than we anticipated.
- Just finding ways to help people afford it and maybe helping others that could benefit from it that are not in the list of conditions.
- Cost of it.
- This program will give so many of us chronically ill patients a better quality of life
- There are many advantages to this drug that could be used for other conditions.
- I would like to see the edibles and cream.
- Make the cream or oil with cannabinoids available for onsite pain relief. Used some legal cream in California, amazing relief from spasms and pain.
- More competition and reduced cost.
   Let me use my HSA card to purchase.
- Cost, Quality. Potency for a variation of strains, for effect on specific people ailment's, would be nice too, just saying if your asking... But thank you. Cuz the new stuff youz have made with the number's different of the medicine, has been helpful I think too so that is good.
- Please open St cloud location
- Yes neither the pills or tincture have any effect. A total waste of money and time. Very upset about that
- If MN MA could cover some or all of the cost for patients who are covered by medical assistance that would help ensure the continued use of medical cannabis.
- This program is absolutely wonderful and is helping me on my road to managing life with multiple sclerosis and mental illness.
- [MANUFACTURER] staff very accessible and professional.
   Wish we'd had the program at least 30 years ago (49 yrs Crohn's)
- Thank you for your support of the program.

- right now i think that the medical cannabis is to expensive. And other forms of use would be helpfull also.
- They should keep updating places to purchase the product. For quite some time it said there was an office in [CITY] opening in the fall of 2015, but that isn't happening until some time in 2016. Keep info current.
- That there are child-custody court cases that are influenced by the negative image of marijuana - even after disclosing its medical benefits.
- I have not been able to afford the oil I was going to try the black oil but not in my budget for I only receive 700 a month on my disability benifits. Iam returning to my dr. I've been having like quick flashes accompanying dizzyness
- Good program. God grown medicine. That is always the purest.
- Allow capsules or patch as a form of delivery for this medication. I did try a capsule that I
  had no benefit noted from the use for two weeks. Changes to PRN tincture
- My inability to drive the distance necessary to purchase medical cannibis has disrupted my access to it. I would like to be able to purchase a 60 or 90 day supply instead of 30. I am relying on getting rides from others, which hasn't always worked well.
- Have more information available at participating hospitals.
- The cost to register is prohibitive and unnecessary, our taxes should be able to handle this important medical help then the cost of the product would not be so bad.
- I haven't had any contact with them since we registered
   So I don't have any positive or negative experiences with them to report
- The cost is outrageous and unattainable!!
- The website has been difficult to use because the home page for this program has not has an easy to see link to log in to do this survey. The home page has so much information about the law, the restrictions, etc. Maybe there should be a different page or a clearer link for those of us already in the program to get to this survey.
- More affordable pricing, and offer cannabis that you can smoke. I have found that smoking cannabis in the bud stage is more effective.
- Why isn't the under fill problem of canabis oil corrected with [MANUFACTURER] yet? It was still not corrected on 12-16-15
- I am hoping in the near future to see a dispensary much closer and the cost of medicine to go down.
- I appreciated talking to [MDH STAFF] today over the phone. I would rather talk to someone about my experiences than fill out surveys. I have benefited by using medical cannabis and hope to become a big supporter of the program once I am no longer a state employee myself. Thanks for all of your efforts on behalf of the citizens of Minnesota that benefit from this helpful program.
- It seems unreasonable that the state charges \$200 annual registration fee and requires annual recertification by a medical provider which is not covered by insurance. In

- addition to dealing with the high monthly cost of cannabis in the Minnesota program, I also have to find \$450 each year just to be in the program.
- Try to lower the prices, get more options like other states, candies in other states.
   Maybe once they see that they are helping people they will add more options.
- That medical cannabis works and can benefit so many people. It has helped my pain, helped me sleep better at night, and made for more rapid recovery after surgery.
- It should be easier to open a dispensary-this is important to me because the price of medical Marijuana is to high and this is the way to lower it.
  - Patients need more freedom in choosing how to take cannabis. Smoking bud is healthier than vaping oil!
  - Also I'd like to say thank you! I never thought I could have this high of a quality of life. I'm truly grateful to everone who helps with the program.
- It is too costly for these items here in Minnesota. You could easily buy it from some legal states, or Medical States and get is a better life to live. The things posted from MN. are not good.
- Would like the medical cannabis to be more cost effective. I would try administering it differently if the cost were not so high.
- more medicen locations north of the citys for people access to it would be helpful also doctors information for the public to get certified would help also for people trying to accesses the program finding a doctor is hard to find
- People on fixed incomes such as medicaid SSI, and disability cannot easily afford these medicinrs. It would seem that they could be offered on a sliding scale dependent on their individual incomes.
- I would like for you to know that after using conventional [CLINIC] treatments for Crohn's Disease for the last 11years, I still had a pretty poor quality of life. I could not tell if any of the medication worked because I suffered from all the side effects of the nasty meds. On top of generally feeling like hell, I still had 5-10 daily loose/watery stools, it hurt to eat, I had pain daily and I was trying to be a full time mother to 3 boys, a wife, and a full time employee. Since I began the Medical Cannabis, life has become normal. My quality of life is normal, I eat daily, pain is rare, I can enjoy being active. Thank you to all who worked so hard to bring relief and normalcy to those of us who suffer from diseases we did not ask for nor could avoid. So many years of my life was taken from me during the most active time in my sons lives that I can't get back. I will certainly not take for granted being able to look forward.

Again, Thank You

FYI, I started with the [1:1 THC:CBD PRODUCT] tincture and have added the [HIGH CBD PRODUCT]. I wish the [CANNABIS PATIENT CENTER] carried the [HIGH CBD PRODUCT] tincture, I find that the higher CBD is key but a little THC is still needed for pain management.

- It has been difficult at times to find the login for the "refill" survey and the dosing is over analyzed and constricting at times.
- Other than the cost no.
- please put a big login button on the home page as this is difficult to locate
- Thank God for this!!!!!! It's as great as getting a black president. Please, please, it should become covered by insurance soon.
  - It'll backrupt me from my entire retirement savings eventually but at least I have a better quality of life for now while it lasts. That's what it's all about. Thank you all.
- The costs are unsustainable
- It has been very beneficial to me as a chemotherapy patient. I am very glad that we in Minnesota are now allowed to use it. It should never have been an issue. It should be legal.
- Prices NEED to come down!
- An office closer to the East Side of the state
- Thanks for the add. Super proud to be apart the Medical Cannabis program!
- It is unaffordable
- Yes, Even though the registration of patients has been slow, I don't think that current patient's should have to bear the brunt of low registration, financially.

The program, as it sits now is very hard to qualify for...thus the slow rate of applications. We patients did not design the program or any processes. So the onus for the higher costs should be held by the State or MDH.

I understand the dispensary/pharmacies are having less income than expected. Let MDH figure that out with them.

Please lower the cost of Medical Cannabis, so it can be obtainable by disabled persons on limited, fixed incomes. (I appreciate that the \$200 fee to register, was lowered for lower income patients down to \$50. I totally appreciate that.) I already spend most of any disposable income I get, on medical supplies, medications, copays, and medical insurance premium

But, as Insurance companies consider this an ""experimental"" pharmaceutical, they won't help pay the patients costs. And this makes getting enough medicine to help my condition almost impossible to buy. Some family members are helping me financially, but they really can't afford to do that for me on a long-term basis.

I will contact my new Medical Insurance company to see with my positive results from the use of MC, that they may, through the appeal process, someday also help lower costs.

Thank you, respectfully submitted by: [PATIENT]

100 % kindest help from all that have helped me through this process>the program is a godsend for myself & others A true thank you to Mark Dayton / & all others who are making this possible\*\*\*\* ( the price is almost impossible for some who need more than there budget can handle, which doesn't work to sustain that level of feeling able to function throughout ones day>ends up being a circle of 1 mos feel good as your med.

- If you lower the cost and put a little more recreation in it you will have a better product to market.right now the reputation of the program on the street is the no fun program, I find my self advocating for the program of other benefits it offers.
- That I'm not discontinuing my medical cannabis card. Also would like to know when I'm supposed to receive a physical med card to show my apt and job to ensure I am backed by the states laws..
- The information is there, but it's not always easy to find or complete
- Just hoping the cost will begin to come down soon so we are not forced to stop it.
- The staff were very helpful when we first registered. That was very appreciated.
- This is too long in coming and MN continues to make it difficult for patients with the rules and regulations. Also the cost to just register! This seems like it has been set up to fail so the lawmakers can say see we tried it and...
- I am looking forward to the time when a dispensary is much closer. It is now 110 miles from our home. It will also be wonderful when the price declines. Thank you so much. This has been a life changing process. Free of pain.
- This medication is priced to high and will make the medication unavailable to me in not to long of a time. I am glad to have it for now, and hope to be able to continue to have this available to me.
- Yes, I guess I should not have been honest with the person I spoke with about [DOCTOR] and how I was approved as it now appears you are trying to get me kicked off the program. Why am I seeing [DOCTOR] again less than a year of being approved and what is that fee? How many other people have a check up within 3.5 months with [DOCTOR]? It seems coincidental that I speak to the gal at MDH on friday and by Monday I have a letter telling me to address these issues and see the same Dr.? It seems you are questioning my qualifications to be in the program. If you look at my medical records, You will see I suffer from Wasting Disease from no stomach etc. I have cancer and depression as both my folks died within 5 yrs of each other etc. I deserve and need to be on this program. You should use me to stop the abuses in other states from happening here unless it is in your master plan. I am not for full Legalization or recreational Marijuana. But medicinal, I now it works or I would not be alive today. I would have an ileostomy bag and feeding tubes as I did before I began smoking the leaf material years ago.
- It;s nice to feel human again!
- I would like to restart the cannabis soon. A mechanical valve known as a shunt in my sons head failed it regulates fluid pressure. It has taken a long time and several

adjustments to get the flow pressure set to the right place. He was having increased seizure activity when the pressure was too high. Getting the implanted device working properly had to come before messing with medicine to get a fair trial of medicine. He is still having seizures at his more usual frequency. I plan to contact [MANUFACTURER] in January to restart. He does have a follow up appointment with his neurologist in late January. Thanks

- We need to travel 100 miles one way to pick our Cannibis up. With weather guestionable some days, we would like to have at least 2-3 weeks supply extra to go on. This trip also is an added expense to the cannibis.
- The staff at [MANUFACTURER] has been fantastic and very supportive. I was not a believer in medical cannabis and do not utilize it to its fullest extent and it still has had a significant positive impact- improving sleep, decreased arthritic pain, increasing overall quality of life and decreasing the amount of pain meds I need to use.
- I just wish more doctors were certified- and they would certify more patients. It has changed out lives- and I want more people to experience- or have the ability to try for a better life.
- Let people grow there own and get rid of the monopoly of the plant.
- lower cost and improve the quality of the vaporizer. I bought the low-end model.
- We have had great staff walk us through any problems and answer all of our questions we may have. We are very happy with the program. We will be thankful when the other sites are open.
- I feel like someone is picking between Door #1 through Door #8 as a complete guess as to what will most likely work for me. I was always told a pharmacist would ""create"" the proper dose just for me. That is not the case. I am NOT giving up on the program, just need to find the time to get downtown and the \$\$ to pay for it. I will be back the beginning of 2016, but will need a significant jump in which Door # is provided. The 2 that were given to me did nothing to effect my spasms. COST, COST, COST is unbelievable which makes the medicinal cannabis out of reach for many people who really need it and would benefit.
  - The people who work at the downtown location are kind, respectful, discreet and charming.
- The cost involved is crazy high and limits my use of the medicine.
- I need to try and find out which delivery system works best for me to get the best treatment for my condition? Vaporizing works well but want to try capsules and see if I benefit from something that is a little longer acting.
- Expanding dispenseries to the northern suburbs to have easier accessibility
- This medicine has made every single day better.
- The [CANNABIS PATIENT CENTER] has the best staff ever all workers are great in every way please give those guys the credit they deserve you have an excellent staff please keep them all..

- How grateful our family is for you; for the kindness, intelligence, empathy, humor and total dedication to what you do. Thank you from all of us.
- Monthly form could be better
- I think it is ridiculous that insurance will cover SYNTHETIC medical cannabis, but will not cover the natural GOD given plant medical cannabis. It really is about the money and not about the needs of the people who need it!!!!!!
- Education needed for professionals.
- I think that ALL patients experiencing symptoms of chronic pain, cancer, migraines and other qualifying conditions should have access to medical cannabis and that state run programs should add this medication to prescription drug programs as they do other medications. After taking narcotic pain meds for 8 years... I wish I would have had access to the medical cannabis. I have had great relief from almost ALL of my symptoms. I only wish that this medication ( cannabis ) would have been prescribed to me first, before all the narcotics with undesirable side effects.
  - Also, I am having great difficulty finding rides to the facility as medica provide a ride does not allow. I have limited income due to my disability; as most patients needing this medication. How are we supposed to afford this if we are disabled, or are on social security? I just don't understand....all the benefits of medical cannabis and it is not covered, yet narcotics with deadly side affects are covered....??
- Need to get the feds to change the classification of medical cannabis
- pay less or get more
- We should use the actual plant. This would also help cost, which is currently too high.
- when I went to [MANUFACTURER], no one told me that the levels of my son's seizure meds could be affected by the oil. I would have liked to know this. It seems very important.
- Open an office in Moorhead!
- I am great full for the opertunity to get The cannabis to treat my condition the first time it relieved my symptoms in over 15 years it brought tears to my eyes I hope someday soon that insurance will start to pick up the cost as it would be cheaper than the other prescriptions I would take that have super bad side effects putting me in the hospital and are not effective at all.
- a large amount of medicine required to achieve symptom control and that costs a lot of money.
  - there needs to be a dispensary in central in northern Minnesota. Its a four hour around trip and two days after in bed resting for me to get my medicine.
  - not all cannabis is the same, some strain have different cannabinoids and terpenes that work better for certain conditions its a shame we don't get that options. as patients even our doctors have no access to what type of marijuanna is being used. is it sativa is it indica? I'm guessing it's indica cause it puts you to sleep where sativa does give you that i'm glued to the couch feeling.

the cost of the medicine is too high. the two privileged companies seems more interested in trashing each other or just boasting that they got the best product. [PROFANE COMMENT]

im glad the commissioner saw the writing on the wall that the program needs more patients to survive and he added intractable pain.

the lack of support from doctors and clinics for use of medical cannabis; numerous doctors denied by health freedom, laughed at me for even asking. I have heard from other patients of doctors treating them saying they can not use medical cannabis and still get pain pills from them.

the amount of misinformation and bias against that is put out there about this program is amazing. from headlines like 'pot is approved for pain' MPR,org to may that believe there is no THC in the products being sold which very well could be true considering the non-transparency of the companies involved.

- Very effective, I appreciate that it's there. Other people that go into the office are relieved that they have something.
- There are many people who could benefit from cannabis but they can't find an MD to prescribe it! MN must push the federal government to change the schedule of cannabis from I to either II or III and do it soon!
- It has been very helpful. I would like to know more about different varieties for different ailments that target specific symptoms and conditions that other states have done. We need more variety of strains to choose from.
- I appreciate them so much.
- I'm glad I tried it. I did receive two prescriptions. I think the second was a placebo. I tried two max doses, and felt absolutely nothing. And with the cost, some paranoia, and the second prescription. I'm letting this experiment sit.
- it works
- If state legalizes cannabis your insurance should cover it.
- 1. Add more qualifying conditions, \*chronic pain\*
  - 2. Add other forms of using medical cannabis
  - 3. More manufacturers need to be added
- Lower cost
- Keep up the good work!!!
- Lower cost- better availability
   Better advise about doseage- timing
- Just make it more user-friendly and cheaper.
- reduced price.
- He has not actually used the cannabis at this time. Started feeling better after we picked it up. Will keep on hand in case needed in the future weeks/months.
- Concerns about theft of vaporizer pens, ignorance from other people about the program
- Prices need to come down & more products need to be offered! For my child I would like access to THCa & CBN (liquid or patches). Also, salves work great! I also do not

understand the MA discount..don't get me wrong, that's "nice" of the companies but MA is not allowed to be used to pay for it..now because we are not on MA we have to pay full price? When you are talking about these high prices, that discount is significant! I have only purchased once from [MANUFACTURER]..prices are higher than CO (for the High CBD/Low THC).

- please lower the price
- Cost Are way too high!
   Accessibility is too difficult
- Not in program anymore didn't help
- increase diseases so price can go down. MN has a great program and has made life much better for my patient
- I dont want to be discharged finacial reasons are keeping me from getti g my meds it be nice to use my med assistance to purchase meds
- Larger print on prescriptions (bottles, etc.)
   Can't hardly see in bi-focals

Also, hopefully future additions or variations of medical cannabis will more specifically target (formula specific) different diseases like MS. Currently my wife's prescription ([HIGH THC PRODUCT]) only really helps with the pain of her spasticity, but does not noticeably have an actual affect on the spasticity (which causes the pain).

- I wish it was more affordable and the hours at the Rochester center were open later in the day so I could get there.
- The obvious concern is the cost not being covered by Medicaid or insurance. This should not be a program only for the wealthy. Our initial two months were \$1000+ per month. We are still trying to fine tune the formula/dose to get optimum positive effects for seizure control The distance to get the cannabis is an issue and the fact that it cannot be mailed is an impediment. I travel 100 miles each way. Could there be a way to contract with pharmacies throughout the state to receive the cannabis and then to hand it over to the patient? I am sure that setting up the facilities is very costly. I did contact our senators with my concerns. The problem for many of the concerns seems to be with the federal illegal status of cannabis.
- Next to imposiable to find primary doctor to work with you because of cannabis laws for doctors and new opioids laws extremely frustrating and painfull
- The woman who answers the phone is amazing!!! She is knowledgeable, caring, and always respectful. I suggest you give her a raise.
- You must provide some Dr.'s!

Lower the price I can't keep spending approximately 350\$ every month.

Supply more options such as the med in food or pills.

Help patients understand how much to use.

The assistance at the service station downtown is great but they don't have the medical knowledge to truly help.

Get research from other states and country's that are using Medical Marijuana.

Separate how people see medical and recreational as the same thing. Get the federal government to help.

- I'm a full-time student. I use cannabis daily, and I'm making all A's :)
- The cost is too high, but the benefits so far have made it affordable.... but as I am now on permanent disability this may not be and option down the road and I may have to give it up.
- In happy [PATIENT] has had this opportunity
- Minnesota has made great strides, but the medicine is still very difficult for people to access.
- I wish we could could get legal access for more illnesses. We need more patients using the cannabis.
- I wish the type of medication I wanted to try was available ([HIGH CBD PRODUCT OR 1:1 THC:CBD PRODUCT]?) Picking the correct prescription and dosage was kind of a roll of the dice. Staff really wanted to be helpful.
- Hoping that stores can have hours operation. I live in [CITY] and hours of operation make it very difficult to obtain my meds due to my work hours usually keeping me busy during their hours of operation. Just hoping for more availability.
- Please do what is needed to reduce the cost of this medicine. It actually works and should be available to those who need it.
- Keep up the good work
- The benefit on my over all treatment of my cancer has been incredible, after the first month without it then the last four months with it has been %100 better, and the added benefit of pain relief has been a huge impact.
  - Any doctor who has a patient that has trouble with nausea and lack of appetite that does not try cannabis is doing a giant disservice to their patient.
- Keep expanding and helping people .. Especially making it wayyyyy more affordable
   !!!!!!!
- good job very helpful people
- A major concern that I have is that there isn't a lot of market competition and that demand seems less than was expected when the program was conceived - I worry about pricing (it is very high), but also about what would happen if my provider went out of business - the latter issue actually worries me a lot.
- Cannabis has always only helped me, it's the only drug I would choose if I couldn't get
  the other pills/medication I am prescribed to and could just have one kind of medicine.
- Thank you!
- We are SOOOOO appreciative to have this program in MN!! Last year [PATIENT] had NO quality of life, he laid there and did nothing and had seizures. No eye contact, no interaction with us or toys, he could not even sit up on his own and was wheelchair bound. We are originally from WI. My mom and I moved to CO and CLOSELY watched MN progress on their cannabis bill. Then we ([FAMILY MEMBERS]) made our official

move to MN this past June. We are TREMENDOUSLY THANKFUL to be so close to the rest of our family in WI. We want to thank the MN dept of Health & Cannabis for all your work to keep this program in MN!! p.s. today [PATIENT] walks, laughs, plays, hugs and enjoys life again!! :) He is also down to ONE anti-eleptic pharmaceutical (down from 4 and almost daily rescue medication) and his cannabis oil!

- additional locations for availability of medical cannabis.
- It is a blessing in disguise to finally have access to this modern medicine. Versus painkillers, this medication has almost erased my use of narcotics to treat pain.
- easier wesite navigation would be help full. some protacohl between and From the state on products from both suppliers being the same
- Extreme cost is unacceptable, this trial is a last option available to medical vulnerable individuals, as all other medical measures tried have failed or provide absolutely no benefit putting the individual in a very vulnerable spot. We are continuing to try other forms of cannabis at this time. I tried to recover some expense for distance traveled and have been told that transportation for medical cannabis is not covered. It is a minimal 4 hour drive in one direction, as you see, the driving alone involves a whole day.
- Work on finding a way to reduce the cost. Or find programs to help patients be able to afford it. Finally I found something that works great against my crohns except that I can not afford it.
- cost to much, not enough help with talking to others
- When I first registered it was not made clear if I had been accepted to the program and also what the next steps were in the process. The page that s used for registration is not conducive for people to know what steps to take and if they have been accepted. I had to call the OMC call center to see where I stood and what the next steps were
- The relief, mentally and physically have been positive. My only concern is the cost factor. Your staff in [CANNABIS PATIENT CENTER] are very helpful. Thank you
- treatment for pain for all ages needs to be included as a qualifing condition.
- It would be nice to have policy guided by patient needs rather than political fears... but then, we'd also all world peace and a pony, right?;)
- Whole plant is better.
- Thank you for your time in creating the survey. Without feedback from the patients how can any program improve!
- We are very appreciative to have the medical cannabis available for [PATIENT] and the improvements to his quality of life and significant reduction in seizures.
- Thank you for helping me get my appetite back, and getting rid of the grumps and nausea.
- There are patients that are adults that need/want CBD CBD VAPORIZERS with broader spectrum for beneficial properties of this side of the spectrum. I can't take the medication as much information would like because of the price. I can my pain prescriptions paid for. Even though I believe in medical cannabis (I was a skeptic before)

- I can do/get the full benefits because of the costs. It would be wonderful to able to afford (I don't receive any disability or monies). My family has been great to try and donate monies to get some treatments. I have hope to get off some prescriptions and afford medical cannabis. I'm 38 years old. Thank you
- We were led to believe a center would be opened in [CITY]. It is very inconvenient and expensive to have to drive to [CITY] and only be able to obtain not even quite a month's amount. Also the cost has become so out of line that we are not sure if we can continue for our son. This brings about a very hard ethical choice to make now that we have begun the therapy and would discontinuing cause a relapse in the severity of the seizures or an increase in their frequency? Our son has life threatening seizures and we are spending close to \$1000 per month not including travel costs and caregiver expenses. The [HOSPITAL] will not allow us to give the cannabis while our son is admitted so we have been keeping him home after seizures events so we can keep giving him the therapy. Not a perfect system, probably should have thought through these obstacles prior to starting this program. Thanks
- Became difficult to obtain cannabis as the [CANNABIS PATIENT CENTER] kept cutting back on their hours (I understand the low demand). Most importantly, even if I could not speak with them directly in the clinic, the pharmacists were always helpful and patient and seemed to really make the effort to work with us as we adjusted medication and dosages. I have been very impressed with their professionalism and appreciate their time.
- Need to get the cost down, it's much more efficient to go out and buy it on the street, however wanting to be legal I would rather pay the higher price. But if I could not afford it I would definitely buy it on the street, which is what a lot of people are doing because of the costs ... It is helping tremendously with my back pain and muscle spasm's, I feel better and everybody I talk to says they can tell I am much better off being on medical cannabis compared to the heavy duty narcotics I was on.
- I have many friends and family in an age group over 60, that would benefit greatly if they had access to medical cannabis in reliving chronic pain due to injuries and aging conditions. A much wider number of people could be helped if their conditions were included in the standards.
- Price. Way too expensive. I don't like being taken advantage of. Other states have affordable cannabis in plant form because in other states care about patients and understand most patients can't afford to pay for expensive oils. It is an absolute disgrace that the only known way to afford this medicine is to start a gofundme account. Parents are having to beg strangers online for money to pay for this medicine! It breaks my heart but I doubt you guys can fix this mess you've made. Many of us need to smoke the plant. The [MANUFACTURER] vape oils have propylene glycol. Terrible! Propylene glycol or not the oils just don't work the same. Something's missing! The oils ease SOME of my symptoms by 60%, smoking the plant eases ALL of my symptoms by 98%. I'd much

rather consume my medicine in natural plant form. My dr certified me for legal medical cannabis but medical cannabis in MN is far inferior to smoking it in plant form and is impossible to afford for the vast majority of us. What a mess!

- The legalization for medical cannabis for the entire USA and health plan coverage and being able to travel outside of Minnesota is very important to me.
- The cost of the medical cannabis needs to come down.
- Everyone at [MANUFACTURER] is beyond supportive and we are treated as equals in our efforts to control our son's seizures...we feel like a team working together...the whole experience has made us feel like someone cares and there is hope...and that is such a big piece that we did not have.
- Just by stating the price is a problem and as a patient we should be allowed to grow are own medicine strain that works in leaf/bud form. I know this would work best for me financially and physically in getting the best relief from medical cannabis.
- Cost of the medicine is very high. I'd like the manufacturer to list the other cannabinoids present in addition to THC and CBD. A terpene profile as well as the strain origin of the medicine, ie: indica, sativa, hybrid is also quite important to me. Thanks for all you do.
- Let me know what proportions of CBD or THC I would most likely benefit from.
- A patient "login" on the main page would have been nice. I had to click two different links from the main page before finding the "login" in the upper right corner of the page. I missed it twice before finally spotting it there. It's not bad, I just feel it could have been a little more obvious, especially for the less tech savvy folks. Overall though, it's a well designed easy to use site.
- We need more participation in this program. We also need the plant available in its raw form. Only having high potency oil products available is somewhat over kill for what patients need. The concentrate will raise tolerance immediately since the oil from [MANUFACTURERS] is tested at 48-95 % THC. Cannabis in its raw form ranges from 5% to 43%. I just think that some patients may be over medicated with the few options available.
- The law as written isn't relieving people as much as it can because the processing requirements and methods are not adding back the critically important terpenes that are removed during processing. They either need to be added or allow patients flower.
- I believe that my last paragraph said it all. We are following the recommendation from the MN Epilepsy Foundation, "Start low, go slow." And [MANUFACTURER] pharmacist, [NAME] is a great resource for help and information. I don't know if medical cannabis will stop my son's seizures, but we are willing to try, especially since our on,u other option is to add a 5th anti seizure med. We've been doing the 'seizure dance' with our son for 23 years, and I finally feel good about trying a new medicine with him. I hope that medical cannabis continues to help my son, one seizure at a time.

- I think edible forms of the medicine would be helpful, rather than just oils, pills or liquids. It would give another avenue for taking the med. Im thankful though that we have what we have here. My quality of life has improved. It has not only helped my spasms, but has helped me sleep, and helped with depression.
- There are many more people who could benefit from medical cannabis. Opening the program to treat more conditions would better serve Minnesota. In doing so, it would also drive costs down.

#### Appendix H: Healthcare Practitioner Suggestions for Improving the Program and Requests for Additional Information from Surveys

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.

- It should be tied into the MN Prescription drug database
- Information of the percentage of patients with epilepsy it seems to be helping.
- Offered doses were perceived as too high by the patient.
- He also was able to get street cannabis much cheaper then the cost from the dispensary.
- A huge, unforeseen benefit for medical cannabis in this child is the overall decrease in raging behaviors and aggression that is a key component to his underlying diagnoses. Controlling his tics with cannabis has lead to an overall increased control of his dysregulation!
- Paitent unhappy with cost of the medication and difficultiy in getting to the sites available for dispensing medication.
- there is no change in seizure frequency with either formulation
- Feedback from his supplier regarding doses, adjustments, their recommendations and conversations withe pt, etc. would be beneficial.
- Very helpful for this patient
- Reassurrance to all providers regarding potential interactions when medical marijuana is used.
- would like to know patient reported outcomes (specific) and whether participation impacts patient narcotic dependence(in general for Crohn's)
- When the costs come down, more people will benefit.
- pharmacists should put notes in the system that are viewable to physicians regarding dosing, patient refills, any other pertinent clinical info
- Cost is an issue for some of my patients
- The patient states there was very little education on what to expect, or what she would experience, so found it very hard to decide if it was helping.
- Updates from the pharmacy on what kind of dosing has been recommended and any dose changes.
- Cost is a huge issue for patients. I have had some patients enroll and then when seeing the cost do not end up picking up the medication.
  - My other huge concern is that as a provider I have no idea how much cannabis they have or are using. Because we don't actually ""prescribe" it, I think this is a huge issue.

I have patients come in with confusion, etc from their disease or from medications. I don't have any idea if it is from their cannabis given I don't know what they are taking. My other big concern is that when patients are admitted to the hospital, they cannot use it. It is illegal on our campus grounds to use. When patients get admitted for worsening symptoms, this can be a problem.

- What other methods are available for extended release or extended effect without having to re-dose throughout the day.
- Continue to keep the process simple.
- My concern is that he finds it too expensive so will continue to use street product.
- Make it easier to get certified.
- More information on the different types of medical cannabis such as, are the tinctures/oils better than the capsules?, for example.
- The criteria for certification should be broadened to include pain management.
- The distance that patients have to drive is concerning. There should be more facilities available to meet the needs of the patients seeking medical cannabis instead of so few facilities.
- was counseled appropriately, he had many different processes in progress.
- no complaints. pt appreciated having a pill for his IBD, vape for his pain issues that were in different formulations.
- I have received no information about any of my patients as to whether they ever purchased anything through your program, and if they did what it was, and if they did how much they took.
- reduce cost to patient
- This patient is followed by a colleague pediatric neurologist, [DOCTOR]
- Beneficial in pain management
- How does it work with insurance coverage?
- CBD dose and schedule of change over time
- Dose range over time (Three HCP Reports)
- Hoping expansion to include chronic pain will occur soon.
- I have learned about the forumulations, cost, and dosing options from my patients it would be nice to have that information easily obtained on this site.
- It would be great to have a pharmacy in the local area for our patients to cut down on time of travel
- so far this pt best responder!
- This patient is my only patient (of the handful I have certified) to have significant benefit from medical cannabis so far, but he has found it extremely helpful.
- Delay in appropriate medical treatments
- Is is possible to receive an email confirmation that a patient I have registered has actually shown up and is receiving medical marijuana?
- It would be helpful to have more physicians involved in medical cannabis certification

- More physician participation
- It would be helpful to have more physicians involved in medical cannabis certification (Three HCP Reports)
- a handout to give the patient with instructions or what to expect after the physician enrolls them into the program.
- Patient cannot afford additional cannabis treatment
- price is the main issue raised by many patients
- Not in favor of planned expansion to include other medical diagnosis to be eligible for medical cannabis, research does not support use.
- Would like more product choices at dispensary
- Lowered cost for medication
- Continuing Medical Education courses.
- More awareness of the program availability
- Many patients ask me about the cost and I would like more information about that to be able to give them some anticipatory guidance
- Keep the enrollment simple, as it is now.
- Keep the registration process simple
- Would like to know about the formulations available, how they are chosen for each patient, etc.
- Make this more available to more people.
- Hard time finding Doctors.
- making it easier to obtain. Cost is an issue.
- notifying when he refills the cannabis so I know how frequently he is using for knowing health effects
- More accessibility to get the medical cannabis.
- Patient went from 3-4 times a week with severe spasms to only having 1 severe spasm in the last 5 months. Which is a great improvement.
- Decreasing the prices of medical cannabis.
- Cost reduction if at all possible. Better communication by dispensaries with providers.
- Unfortunately, cost has been prohibitive for many patients who may benefit
- Consider higher starting doses of cannabis oil for those who have previous experience with THC.
- Cost has been a concern, so in my opinion cost control will be important for future success of th program.
- Cost is a big factor. I have other patients who would benefit from medical cannabis but would not be able to pay for it. It is my hope that this will change. I would like to see an expansion in the number of diagnoses that are approved for medical cannabis use, particularly in the pediatric population. This patient has an apt in a week and I have received nearly weekly reports from his parents on the effect of medical cannabis on his and their quality of life.

- communication with neurologist with dose / formulation change.
- communication with neurologist regarding dose / formulation change.
- The cost still is going to be prohibitive for some patients.
- Feedback from his supplier regarding doses, adjustments, their recommendations and conversations withe pt, etc. would be beneficial.
- appropriate research trials
- cost is almost a prohibitive barrier
- Price is high for medication
- Could medical marijuana provider/dispenser provide update of plan on this website accessible my certifying providers?
- being able to edit patient information after submission, I had entered the wrong email for one of my patients and couldn't edit.
- Insurance coverage! Well, one can dream...
- Program is good.
- Patient could not afford to continue purchasing the oil
- pharmacists have provided info to family that has no scientific basis ie need to be on CBD for 6 mos before you know it will work. There is evidence that it works best with some THC. There is no scientific basis for these comments!
- Rate of increase in dose is far too slow. This is costly for families. We can increase the dose much more quickly and if no benefit after 2 wks, pts can wean off.
- Education of the patient. Patient states she had trouble getting her husband recertified as a care giver
- Cost is prohibitive for most
- I feel it is working
- Lowering the cost to the end user and increasing the amount of locations.
- Consider providing the patient with simple survey or medication log, so they can record their dosing and clinical response.
- Include chronic pain syndrome in the list of indications.
- I appreciate that most of the prescription issues are handled by the pharmacist
- Streamline the certification process.
- No suggestions of improvement.
- The same as question 8, just better info on the different forms of the medication and data on those.
- YES, EACH BOTTLE SHOULD BE LABELED WITH MG/ML OF PRODUCT.
- need mg/ml on each bottle and bottles should be labeled with contents more clearly
- mg/ml of each form on bottle4
- mg/ml of product on each bottle please.
- worked well.
- Cheaper
- none. Website difficult to navigate

- Continue to work hard to expand the program now that Chronic pain is an accepted condition. (Seven HCP Reports)
- Any other healthcare system/provider I share patients with would routinely let me know they had seen the patient and what they are doing for them.
   I can't even answer the question below since I have no way of knowing if/when the patient patient purchased anything
- Cannabis should be available to treat chronic pain syndrome. The adverse effects of opioids are far more serious and detrimental to the patient's health than any adverse effect I have observed with the use of cannabis.
- My experience is too limited to offer meaningful suggestions
- Cost of the medication for the patient
- my experience is limited to this particular pt. Seems to be expensive which will limit access.
- reduce cost (Three HCP Reports)
- List all qualified conditions and information about cannabis clinics in pamphlets and distribute to clinics
- The patient's family was just frustrated with the cost. The monthly dosage cost was \$700 and she is a brain injured patient that is cared for at home and they could not afford this high cost so they discontinued the program
- The addition of other chronic illnesses and chronic pain would be beneficial to potential users. Cost is a barrier for my patients. Street prices are far below medical prices.
- mg/ml on each bottle....
- Demonstration of dosing on website and summary of dose and changes over time
- The cost can be quite prohibitive. I've heard pts state, "I can get it on the street for way less". Cost clearly needs to be reevaluated.
- The cost and distance is a significant factor.
- Topical cannabis oil for elderly QA
- Yes. I did not know that by certifying a patient that they automatically get medical cannabis prescribed. If I had known this I would not have certified the patient.
- Reduce cost
  - Many pts that are eligible are unable to afford this treatment.
- More information for the cerfitying physician I learned the details of the program, formulas, routes, etc from my first patients.
- Why do we have to wait until August to certify patients with chronic pain syndromes for the cannabis? That's 6 more months of suffering that they have to go through for no rational reason.
- There are now case series of open label trials of CBD, using higher goal doses, ie. 20 mg/kg/day divided two times daily. It would be worthwhile to set up a standardized titration schedule for epilepsy patients and not linger on low doses without proven efficacy.

- lower the cost
- I was disturbed to hear of an interaction a patient (not this particular patient) had at the [CANNABIS PATIENT CENTER] when discussing different forms of medical cannabis with the pharmacist. She was directed toward a more expensive form than she wanted and the pharmacist referred "our competition" having the other form. Shouldn't these pharmacists be unbiased in dose recommendation and not be directly employed by one supplier or the other?
- For two other patients I've seen in program I am very concerned with program. They were given option of high THC forms, given at first visit three different forms, pills, vapor, tincture, and not given follow up. This is very different that my experience in [STATE]. I cannot support this approach. I have left email and messages to discuss to [MANUFACTURER] with no response.
- getting federal approval for supervised treatment
- cost issue
- Lets get more physicians involved
- It would be helpful to have more physicians involved in medical cannabis certification (Two HCP Reports)
- Increase awareness level and make available to appropriate patients.
- Difficulty to print my active list of patients from the Office of Medical Cannabis.
- improve cost for patients
- I would like to cancel my certification for this patient. Is this possible?
- Make it easily available toaccess
- better access to pharmacist notes with regard to adjustments/reasons for dose changes.
- Client prefers that more than a few states in the country provide medical cannabis.
- Educate the public.
- group of pt in a board together we are not going to be ignored. users in front of people to support. help break down doc loc- pt standpoint need to hear the pts
- patient complained of expense
- Having it open doors for patients who have Chronic pain.
- Increase patient awareness
- Expand criteria to include chronic pain
- Include chronic pain as a certifiable medical condition
- Allow those with chronic pain to be certified.
- My experience has been good but the cost issue is making the program prohibitive for many
- Reduced cost
- Put the list of patients approved in alphabetical order.

- Await any guidelines about intractable pain
- The indication should be expanded to cover chronic pain syndrome, and certain forms of anxiety and personality disorders.
- Indication should soon include chronic pain syndrome, certain types of anxiety disorders, and personality disorders.
- Cost is prohibitive for some patients.
- Client now uses walker and no longer uses wheel chair.
- from my standpoint it runs smoothly. Not necessarily for this patient but it would be nice to see how often they come in for refills and how often changes have to be made
- More sites to make the program more accessible
- Great program! I would consider getting involved and would love to work and become involved in the program myself!
- It would be helpful to receive documentation from the dispensaries about what product the patient is receiving, and how much.
- Documentation from dispensaries about which product patient is taking and how much.
- Patient has complained about the taste. She is using the oil, but she plans on trying the pill form next time if she is allowed to.
- expenseive