



Medical Cannabis Program Update

JANUARY 2017

Minnesota's medical cannabis program began distributing medical cannabis to registered patients on July 1, 2015. This update reports information collected from July 1, 2015 through December 31, 2016. The data for this update, unless otherwise noted, come from the medical cannabis patient registry system, a secure, web-based application system. This document is updated quarterly.

Cannabis Manufacturers

The Minnesota Department of Health (MDH) registered two medical cannabis manufacturers on December 1, 2014. They are responsible for the cultivation, production, and distribution of medical cannabis in the state. The manufacturers are Minnesota Medical Solutions, LLC and LeafLine Labs, LLC.

Minnesota Medical Solutions operates distribution facilities, or Cannabis Patient Centers (CPCs), in Minneapolis, Rochester, Moorhead, and Bloomington.

LeafLine Labs operates CPCs in Eagan, St. Cloud, Hibbing, and St. Paul.

Figure 1 displays the total number of patient visits to a CPC that resulted in medical cannabis purchases between July 1, 2015 and December 31, 2016. Each visit may have resulted in the purchase of multiple products and variable quantities; additionally patients may have made several purchase visits during this time period. Only the number of total CPC visits is reflected in this figure.

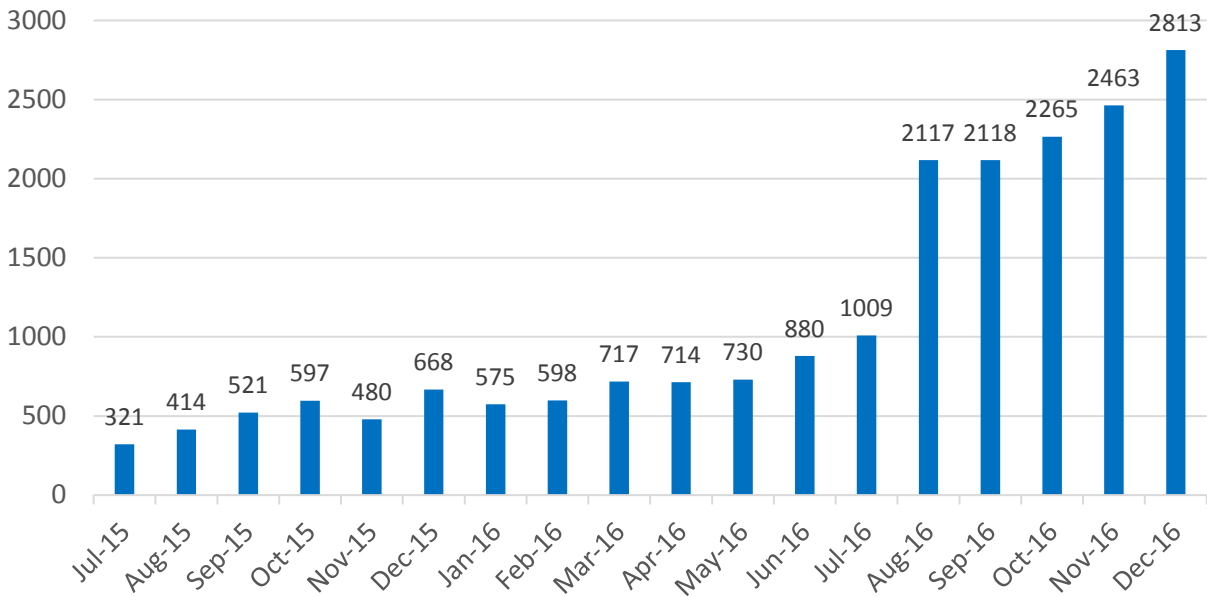


Figure 1. Total number of patient visits to a Cannabis Patient Center which resulted in purchase of medical cannabis products, by month.

Patients

Qualifying patients must be enrolled in the medical cannabis patient registry to be eligible to legally purchase and possess medical cannabis. As part of the application process, a patient’s qualifying medical condition must be certified by a health care practitioner; this qualifying medical condition and the patient must be re-evaluated and re-certified by a health care practitioner every year.

Figure 2 displays the weekly number of patients enrolled and in active status in the registry. As of December 31, 2016, there were 4,017 patients actively enrolled in the patient registry, an increase of 2,429 from the 1,588 enrolled on June 30, 2016. This increase is due primarily to the addition of Intractable Pain as a qualifying medical condition, effective August 1, 2016.

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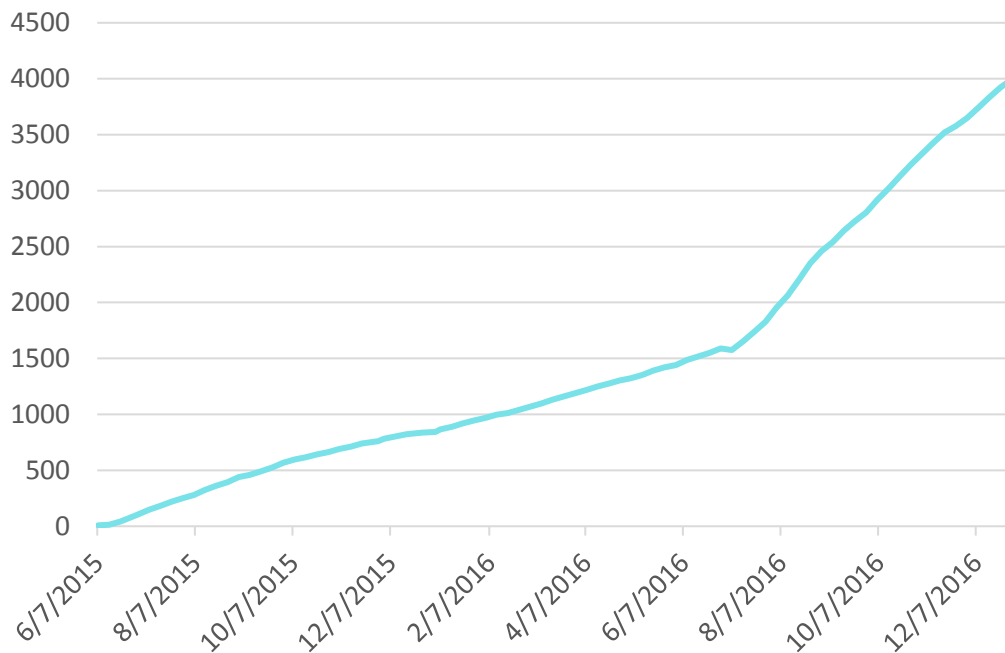


Figure 2. Weekly number of patients enrolled and in active status in registry.

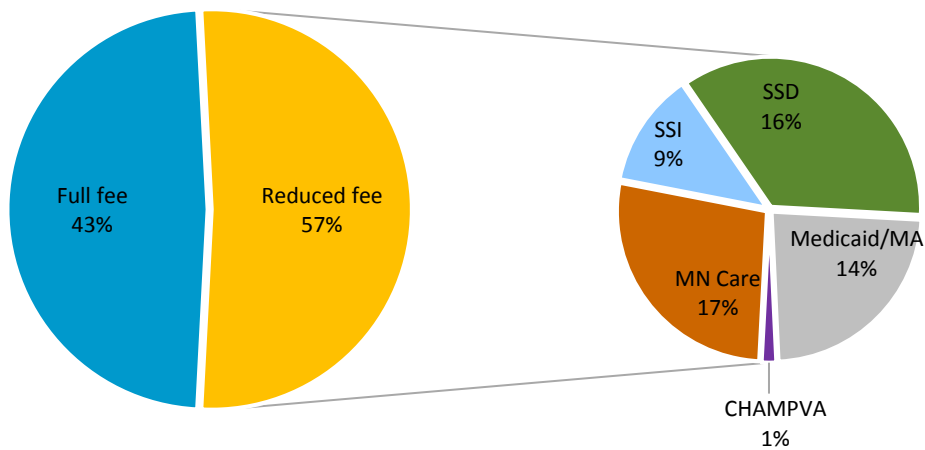


Figure 3. Breakdown of active patients by fee type (reduced vs. full fee) and types of government assistance for reduced fees.

Patients must pay an enrollment fee before they are eligible to legally purchase and possess medical cannabis. Minnesota Statutes section 152.35 sets the annual patient enrollment fee at

\$200; patients who receive government assistance, such as Minnesota Care (MN Care) , Social Security Disability (SSD), Supplemental Security Income (SSI), Medicaid/Medical Assistance (MA) and CHAMPVA, qualify for a reduced fee of \$50. Figure 3 shows that approximately 57 percent of registered patients have qualified for the reduced enrollment fee, unchanged from the 57 percent qualifying for the lower fee as of June 30, 2016.

The racial/ethnic distribution of active patients in the registry reflects the state’s demographics, as can be seen in Table 1.

Table 1

Active Patient Race and Ethnicity Compared to Overall State Demographics

| Race/Ethnicity | Medical Cannabis Registry | 2014 Census Bureau Estimates* |
|-----------------------|----------------------------------|--------------------------------------|
| American Indian | 110 (2.7%) | 1.9% |
| Asian | 52 (1.3%) | 5.0% |
| Black | 198 (4.9%) | 6.5% |
| Hawaiian | 6 (0.1%) | 0.1% |
| White | 3470 (86.4%) | 87.5% |
| Hispanic | 88 (2.2%) | 4.9% |
| Other | 64 (1.6%) | 1.7% |
| Unknown | 64 (1.6%) | |

*<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

The qualifying medical conditions are: Cancer or its treatment (must be accompanied by severe or chronic pain, nausea , or severe wasting); Glaucoma; HIV/AIDS; Tourette Syndrome; Amyotrophic Lateral Sclerosis (ALS or Lou Gehrig’s Disease); Seizures, including those characteristic of epilepsy; Severe and persistent muscle spasms, including those characteristic of multiple sclerosis; Terminal Illness with life-expectancy of less than 1 year (must be accompanied by severe or chronic pain, nausea , or severe wasting); and, Crohn’s Disease was extended to Inflammatory Bowel Disease (including Crohn’s Disease) effective July 1, 2016. Intractable Pain was added as a qualifying medical condition by the commissioner of health, effective August 1, 2016.¹

Table 2 shows the number of active patients in the patient registry who have been certified as having that qualifying medical condition. The three most frequently certified qualifying conditions are (1) intractable pain, (2) severe and persistent muscle spasms, including those characteristic of multiple sclerosis, and (3) cancer or its treatment, accompanied by severe or chronic pain, nausea, or severe wasting.

¹ Post-Traumatic Stress Syndrome (PTSD) was approved by the commissioner of health to become a qualifying medical condition effective August 1, 2017.

Table 2

Count (%) of Active Patients by Condition*

| Qualifying Condition | Patients: N (%) |
|---|-----------------|
| Glaucoma | 43 (1%) |
| HIV/AIDS | 60 (1%) |
| Tourette Syndrome | 41 (1%) |
| ALS | 16 (0%) |
| Seizures | 326 (8%) |
| Muscle Spasms | 935 (23%) |
| Inflammatory Bowel Disease, Including Crohn's Disease | 160 (4%) |
| Cancer | 577 (14%) |
| Terminal Illness | 92 (2%) |
| Intractable Pain | 2282 (57%) |
| Total | 4017 |

*12.0% of the 4017 patients have more than one qualifying condition; in this table each certified condition is counted.

Figure 4 displays the number of active patients by age and gender. The average age of registered patients is 49.6 years, however the average age varies by qualifying medical condition.

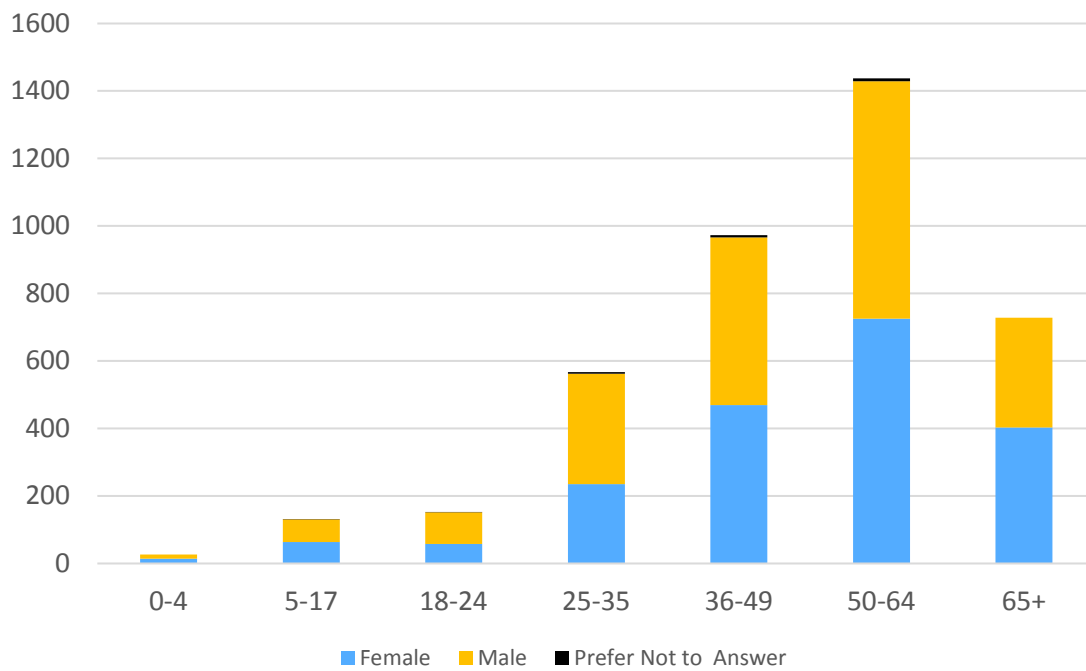


Figure 4. Breakdown of active patients by age and gender.

Table 3 demonstrates the breakdown of active, condition-specific patient counts by age. Patients certified as having Tourette syndrome have the lowest average age of 23.2 years; patients with glaucoma have the highest average age of 57.7 years.

Table 3

Breakdown of Active Patients by Age Group and Qualifying Medical Condition

| Age (y) | All Conditions | Glaucoma | HIV/AIDS | Tourette Syndrome | ALS | Seizures | Muscle Spasms | Crohn's Disease | Cancer | Terminal Illness | Intractable Pain |
|---------------|----------------|-------------|-------------|-------------------|-------------|-------------|---------------|-----------------|-------------|------------------|------------------|
| 0-4 | 27 (1%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 22 (7%) | 1 (0%) | 0 (0%) | 2 (0%) | 1 (1%) | 2 (0%) |
| 5-17 | 132 (3%) | 0 (0%) | 1 (2%) | 17 (41%) | 0 (0%) | 87 (27%) | 9 (1%) | 3 (2%) | 14 (2%) | 5 (5%) | 8 (0%) |
| 18-24 | 153 (4%) | 1 (2%) | 1 (2%) | 7 (17%) | 0 (0%) | 45 (14%) | 28 (3%) | 18 (11%) | 4 (1%) | 4 (4%) | 59 (3%) |
| 25-35 | 567 (14%) | 3 (7%) | 14 (23%) | 11 (27%) | 1 (6%) | 66 (20%) | 162 (17%) | 48 (30%) | 37 (6%) | 7 (8%) | 306 (13%) |
| 36-49 | 973 (24%) | 5 (12%) | 16 (27%) | 5 (12%) | 5 (31%) | 71 (22%) | 277 (30%) | 47 (29%) | 81 (14%) | 18 (20%) | 594 (26%) |
| 50-64 | 1437 (36%) | 20 (47%) | 27 (45%) | 1 (2%) | 5 (31%) | 23 (7%) | 345 (37%) | 36 (23%) | 253 (44%) | 32 (35%) | 871 (38%) |
| 65+ | 728 (18%) | 14 (33%) | 0 (0%) | 1 (2%) | 5 (31%) | 12 (4%) | 113 (12%) | 8 (5%) | 186 (32%) | 25 (27%) | 442 (19%) |
| Mean Age (SD) | 49.6 (17.3) | 57.7 (14.3) | 44.3 (11.6) | 23.2 (12.5) | 55.9 (15.1) | 27.2 (17.6) | 48.2 (14.5) | 40.3 (14.2) | 57.1 (15.5) | 53.1 (19.8) | 52.0 (15.5) |

Figure 5 provides a graphic representation of how far registered patients travel to visit a CPC to access medical cannabis. The graph represents the one-way distance between the patient's home address and the nearest CPC. Registered patients live an average of 29.5 miles from the nearest CPC.

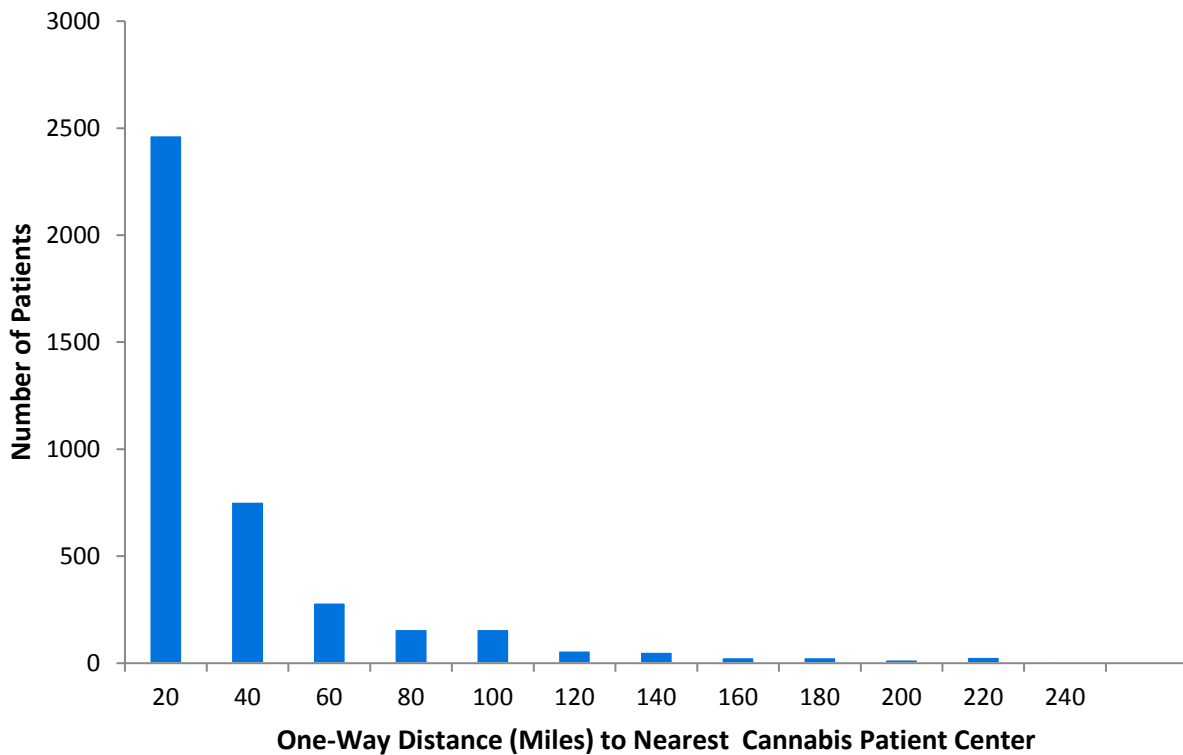


Figure 5. Distance Travelled to Nearest Cannabis Patient Center

Caregivers

There are two different groups of caregivers in the Minnesota medical cannabis program: designated caregivers and parents or legal guardians acting as caregivers. All caregivers must be enrolled in the patient registry system. A patient’s parent or legal guardian may act as caregiver and be entered in the registry without having to qualify as a designated caregiver. A patient may have both registered designated caregivers and registered parents or legal guardians acting as caregivers.

The law permits patient to have a registered designated caregiver only if the patient’s health care practitioner certifies that the patient suffers from a developmental or physical disability that prevents the patient from either self-administering the medication or acquiring the medication from a distribution facility. Registered designated caregivers must pass a criminal background check.

Table 4 displays the number of patients with active designated caregivers by condition.

Table 4

Active Designated Caregivers by Condition*

| Qualifying Condition | Total Patients | Patient with Caregivers: N (%) |
|---|----------------|--------------------------------|
| Glaucoma | 43 | 4 (9%) |
| HIV/AIDS | 60 | 1 (2%) |
| Tourette Syndrome | 41 | 2 (5%) |
| ALS | 16 | 7 (44%) |
| Seizures | 326 | 38 (12%) |
| Muscle Spasms | 935 | 98 (10%) |
| Inflammatory Bowel Disease, Including Crohn's Disease | 160 | 11 (7%) |
| Cancer | 577 | 93 (16%) |
| Terminal Illness | 92 | 21 (23%) |
| Intractable Pain | 2282 | 148 (6%) |
| All Conditions | 4017 | 355 (9%) |

*A designated caregiver is limited to caring for one patient at a time, unless the patients live at the same address.

Table 5 shows the number of patients with registered parents or legal guardians authorized to pick up medical cannabis on the patient's behalf.

Table 5

Active Patients With Parents/Legal Guardians Authorized to Pick Up Medication

| Qualifying Condition | Total Patients | Patients with PLGs: N (%) |
|---|----------------|---------------------------|
| Glaucoma | 43 | 1 (2%) |
| HIV/AIDS | 60 | 1 (2%) |
| Tourette Syndrome | 41 | 24 (59%) |
| ALS | 16 | 1 (6%) |
| Seizures | 326 | 194 (60%) |
| Muscle Spasms | 935 | 26 (3%) |
| Inflammatory Bowel Disease, Including Crohn's Disease | 160 | 7 (4%) |
| Cancer | 577 | 24 (4%) |
| Terminal Illness | 92 | 10 (11%) |
| Intractable Pain | 2282 | 30 (1%) |
| All Conditions | 4017 | 298 (7%) |

Health Care Practitioners

Health care practitioners who can certify a patient’s qualifying medical condition are Minnesota licensed physicians, physician assistants, and advanced practice registered nurses (APRNs). The health care practitioner must be enrolled in the medical cannabis registry before certifying a patient’s qualifying medical condition.

As can be seen in Figure 6, the number of health care practitioners registering with the program continues to increase.

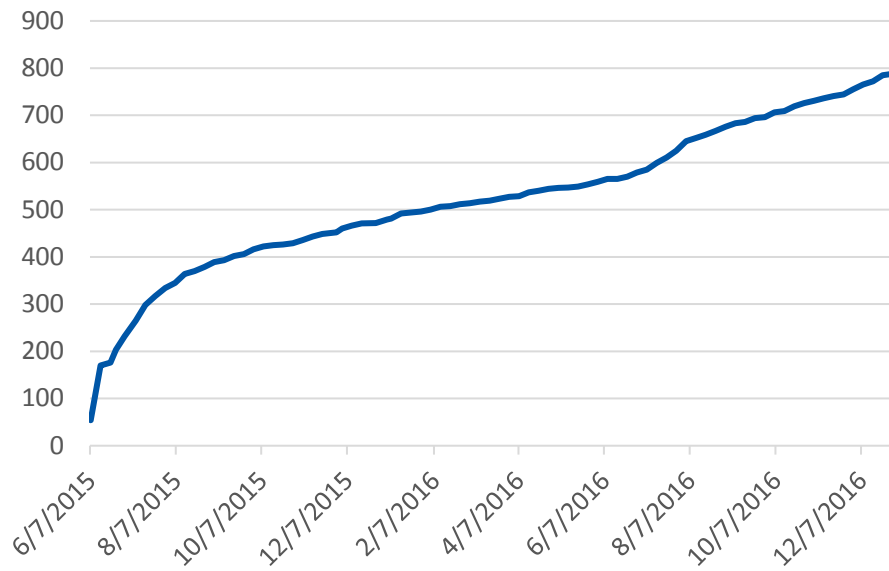


Figure 6. Count of registered health care practitioners actively in the patient registry since the program start.

Table 6 shows that as of December 31, 2016, 790 health care practitioners are approved in the registry system), and 639 are physicians, 44 are physician assistants, and 107 are APRNs.

| Table 6 | |
|---|-----------|
| <i>Breakdown of Registered Health Care Practitioners by Type</i> | |
| Physician | 639 (81%) |
| Physician Assistant | 44 (6%) |
| Advance Practice RN | 107 (14%) |
| Total | 790 |

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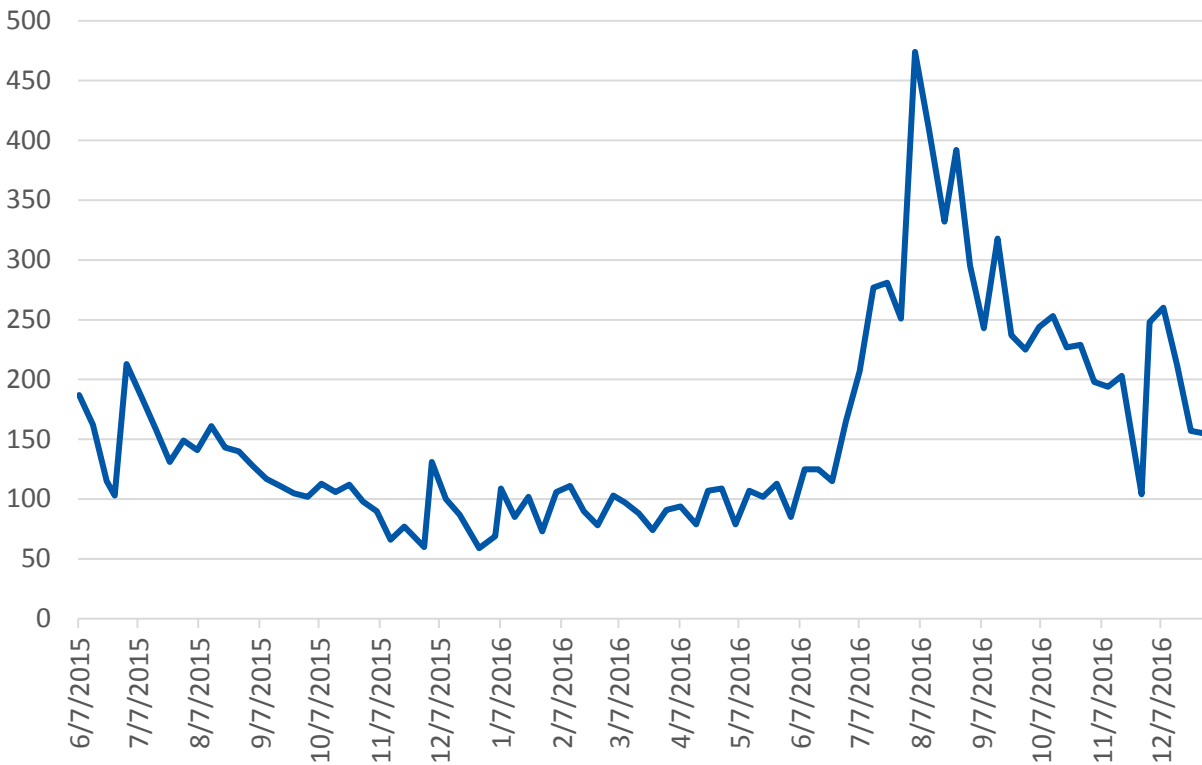


Figure 7. Number of weekly calls received since the program start.

Activity in the program increased beginning July 1, 2016, when patients with Intractable Pain became eligible to have their medical condition certified to be eligible for the program. Phone calls received by OMC increased beginning in June and the highest call volume week for the program came the first week of August with 474 calls received. OMC support center staff handled 225.2 calls per week (where they spoke with a caller) during the last quarter of 2016, an increase of 240 percent over the average of 93.9 calls handled per week during the last quarter of 2015.

Minnesota Department of Health
Office of Medical Cannabis
PO Box 64882,
St. Paul, MN 55164-0882
1-844-879-9688
health.cannabis@state.mn.us
www.health.state.mn.us/medicalcannabis

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