Missouri
DHSS
Department of Health and Senior Services

MEDICAL MARIJUANA REGULATORY PROGRAM

2021 ANNUAL REPORT

MedicalMarijuana.Mo.Gov

History

Article XIV of the Missouri Constitution grants the Missouri Department of Health and Senior Services (DHSS) the authority and responsibility to create a well-regulated program to ensure the availability of, and safe access to, medical marijuana.

The Section for Medical Marijuana Regulation was created within DHSS to administer the Medical Marijuana Regulatory Program (MMRP). Per Article XIV, DHSS is required to annually submit a report to the Governor detailing the efficient discharge of its duties.

Reported activities herein are based on the MMRP program year (PY) of Dec. 6, 2020, through Dec. 5, 2021.

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Definitions

AHC	Missouri Administrative Hearings Commission
ATO	Approved to Operate
CANNRA	National Cannabis Regulators Association
CI	Commencement Inspection
DHSS	Department of Health and Senior Services
DOR	Department of Revenue
FY	State Fiscal Year
ID	Identification
IVR	Interactive Voice Response
lbs	Pounds
Mg	Milligrams
MMRP	Medical Marijuana Regulatory Program
PY	Program Year
SCI	Supplemental Commencement Inspection
Veterans' Fund	Missouri Veterans' Health and Care Fund

Executive Summary

Key Achievements

- $190,674,516 in cumulative retail sales;
- $6,058,915 in taxes deposited into the Missouri Veterans' Health and Care Fund (Veterans' Fund);
- $6,843,310 transferred to the Missouri Veterans Commission bringing the cumulative amount transferred to $8,978,820;
- 267 Commencement Inspections (CI) conducted, for an average of five inspections per week;
- 269 Approvals to Operate (ATO) issued bringing cumulative number of operating facilities to 302;
- 5196 agent identification cards issued to allow applicants to work in and around medical marijuana.

Patient Licenses Issued During PY21

New	Renewed
119,894	38,347

What we do

Our Mission

To administer Missouri's Medical Marijuana Regulatory Program in alignment with the provisions of Article XIV of the Constitution, as determined by the will of the citizens of Missouri.

What we aspire to be

Our Vision Statement

A program that provides safe and secure access to medical marijuana for qualifying Missouri patients through consistent regulation, enforcement, and education.

How we plan to get there

Our Strategic Priorities

1. Make medical marijuana accessible for qualifying patients in Missouri;
2. Uphold safety and quality standards for medical marijuana; and
3. Regulate the medical marijuana industry to comply with Missouri law and keep communities safe.

Who we are

Our Values

Transparency
We are committed to being transparent in our processes and accountable for our decisions that impact those we serve.

Evidence Based Practices
We believe that research and analysis informs our practices and leads to the most effective high quality programs.

Partnerships
We believe that collaboration with partners leads to administrative efficiencies and has a positive impact on service delivery.

Quality of Service
We strive to provide the highest level of quality in the delivery of our services.

Introduction

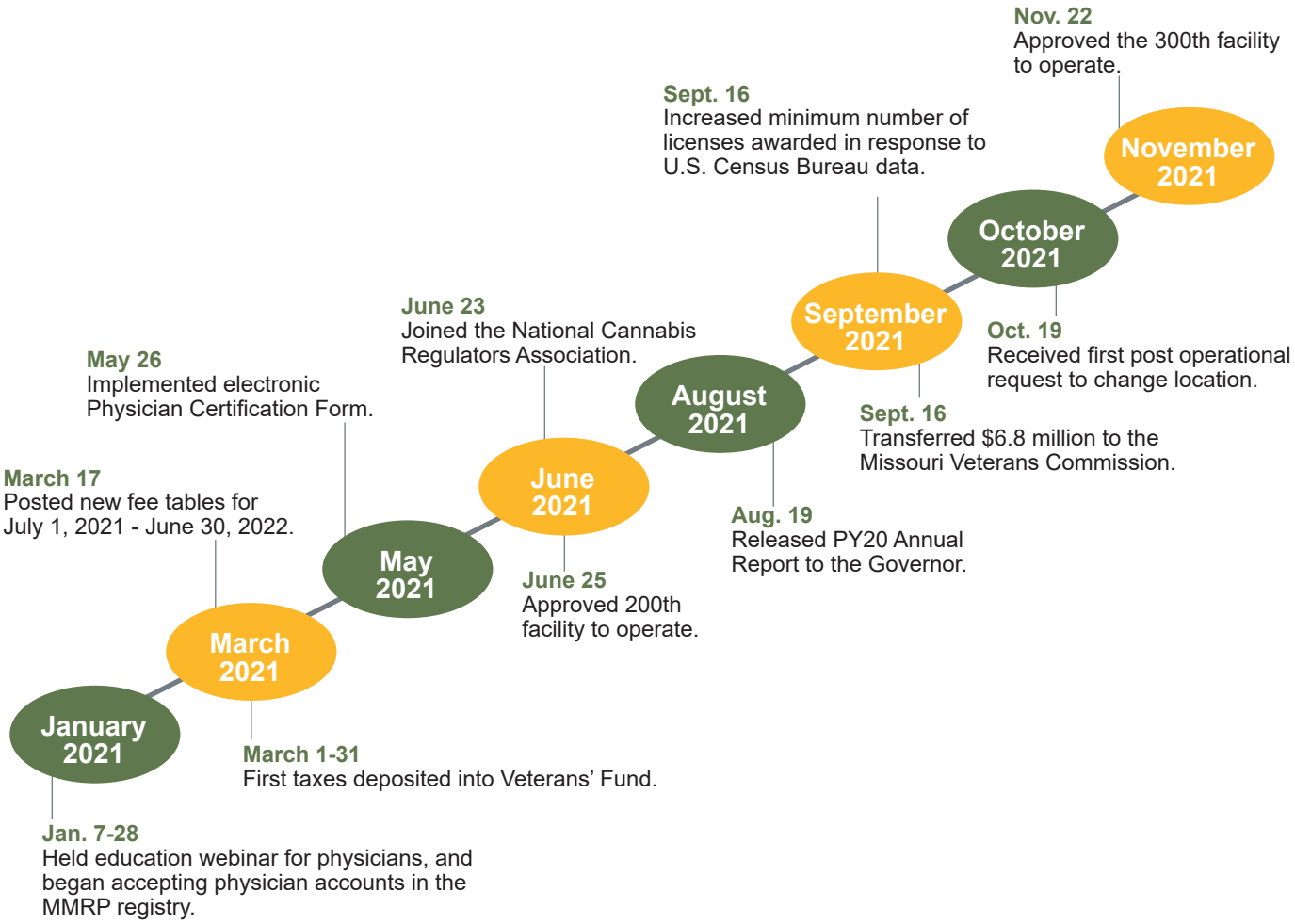
This report is the annual accounting to the Governor regarding the efficient discharge of responsibilities granted to the DHSS by Article XIV, Section 1 of the Missouri Constitution and encompasses activities occurring during the Program Year (PY) of December 6, 2020 – December 5, 2021. These activities include:

- Promulgate rules;
- Receive fees for licenses and certifications;
- Approve or deny licenses and certifications; and
- Suspend, fine, restrict, or revoke licenses and certifications.

Following the start of regulated retail sales at the end of PY20, there was a surge in the number of patient applications received which continued into PY21. Despite the increased work volume, DHSS continued to provide quality customer service and ensured constitutional deadlines were met.

At the close of PY20, there were many facilities still in the commencement process. During PY21, DHSS continued to work on approving these facilities to operate. Per rule 19 CSR 30-95.040(5)(B), a facility shall request a commencement inspection when it believes it will, within a month, be ready to begin operations. By the end of PY21, 302 (78%) facilities were operational and DHSS was able to shift focus from the commencement of facilities, to the compliance of operational facilities.

Figure 1: Key Program Dates



Promulgate Rules

Article XIV grants DHSS the authority and responsibility to promulgate rules necessary for the proper regulation of qualified patient access to medical marijuana. The initial proposed rules governing the persons and entities regulated by DHSS became effective in January 2020 with very few changes from the emergency rules, which were filed in May 2019. The rulemaking process for this set of rules was detailed in the MMRP's PY19 Annual Report to the Governor.

During PY21, DHSS considered several rule changes to 19 CSR 30-95. DHSS continued the adopted process of engaging the public early in its consideration of whether to promulgate revisions to its rules by posting a link on November 4, 2021 to a Suggestions Form on its Draft Rules webpage. This process provided the public with an opportunity to view and comment on draft changes prior to DHSS filing proposed amendments with the Missouri Secretary of State's Office and the subsequent formal 30-day public comment period.

Public Forums and Public Comments

On November 4, 2021, DHSS posted proposed changes to 19 CSR 30-95.080 Dispensary Facilities to its website and accepted public feedback until November 18, 2021. There were twenty suggestions received. The draft revisions for this rule included:

1. Changes related to general cleanup of the language;
2. Warning labels for vaping;
3. Changes to home delivery of medical marijuana;
4. Modifications to drive-through lane requirements;
5. The sale of medical marijuana plants and seeds to patients, including the number of plants that a dispensary may sell in a given period;
6. Setting an age limit for employees; and
7. Setting forth a prohibition against selling chemically converted cannabinoids.

Filed Rules and Rule Amendments

No rules or amendments were filed during PY21.

Missouri Veterans' Health and Care Fund

The Veterans' Fund was established for receiving all fees and taxes collected pursuant to Article XIV. In addition to licensing fees collected by DHSS, Article XIV requires a four percent tax on the retail sale of medical marijuana to be submitted to the Missouri Department of Revenue (DOR). Article XIV permits DOR to retain up to five percent of the collected tax for its administration. DOR must deposit the remaining taxes into the Fund.

Article XIV also requires that DHSS use the Veterans' Fund to carry out its responsibilities in implementing the MMRP and allows a reserve to be held in the Veterans' Fund in order to maintain a reasonable working cash balance for DHSS. Any remaining funds after administration and the reserve are to be transferred to the Missouri Veterans Commission.

Administration of the MMRP

The MMRP is a self-funded program, meaning DHSS' operating costs to administer the MMRP are fully funded through fees and taxes. DHSS' operating costs include fixed and variable expenditures. Fixed expenditures include costs such as personnel salaries and benefits, as well as contracts to maintain the MMRP licensing registry and the constitutionally required track and trace system. Variable expenditures include costs such as maintaining the supplies and equipment; travel to inspect facilities; and defense of licensure, suspension, and revocation appeals. The legislature appropriates a budget for each state fiscal year cycle, which runs July 1 through June 30. The tables below detail the legislatively appropriated budgets and the amount of budget expended during each fiscal year since program establishment in Fiscal Year (FY) 19.

Figure 2 details the administration of MMRP, while Figure 3 details the transfer to the Veterans Commission. During PY21, DHSS transferred $6,843,310 to the Missouri Veterans Commission, bringing the cumulative amount transferred to $8,978,820.

Figure 2: MMRP Administration: DHSS Appropriated Budget and Expenditures

Fiscal Year (July 1 - June 30)	MMRP Appropriated Budget	Collected Fees, Taxes, and Interest	MMRP Expended Budget	Transfer to Veterans Commission	Veterans' Fund Ending Balance
FY19	$3,161,975	$3,978,496	$585,014	$0	$3,291,266
FY20	$13,311,557	$21,530,724	$6,276,380	$0	$17,535,778
FY21	$13,543,316	$13,971,784	$9,393,434	$2,135,510	$17,750,378
FY22	$13,827,511	$8,097,618	$4,291,046	$6,843,310	$14,713,640

Notes: Appropriations are the annual mechanisms which authorize departments to utilize funds, and departments cannot exceed their appropriated amount. FY21 was the first year the legislature appropriated a transfer to the Veterans Commission. FY22 amounts are current as of November 30, 2021.

Figure 3: Transfer to The Veterans Commission

Fiscal Year	Appropriated Transfer Amount	Tax Deposited into Veterans' Fund	Collected Fees	Veterans Commission Transfer Amount
FY19	$0	$0	$3,958,000	$0
FY20	$0	$0	$21,338,720	$0
FY21	$2,135,510	$2,004,425	$11,888,074	$2,135,510
FY22	$6,843,310	$4,054,490	$4,019,212	$6,843,310

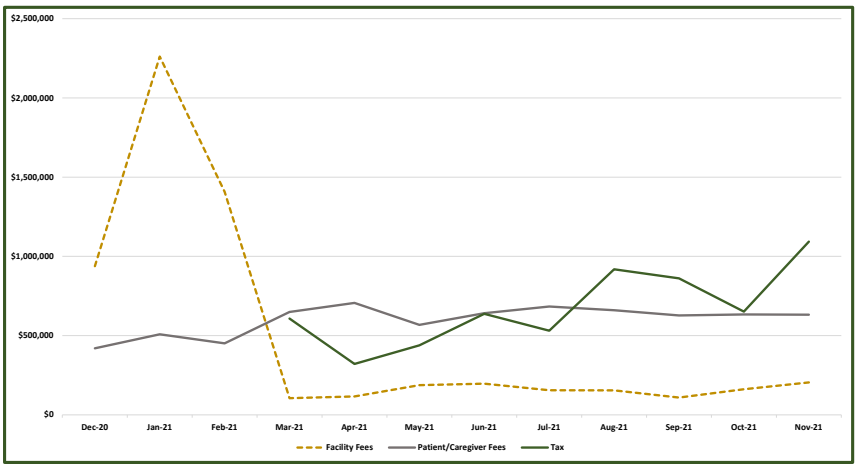
Notes: Transfer amounts are comprised of revenues from fees as well as the four percent tax. The first four percent tax was deposited into the Fund in March 2021 (FY21), and the first transfer of funds to the Veterans Commission occurred Sept. 2020 (FY21). FY22 tax and fee amounts are current as of Nov. 30, 2021.

Program Revenue

While the fiscal year begins July 1, the substantial majority of revenues for the program are collected during December and January in the form of facility annual fees, as seen in Figure 4 below.

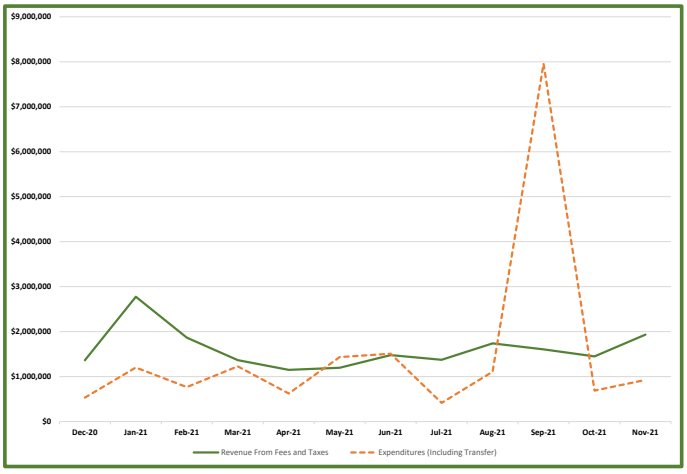
Figure 4: Program Fees And Taxes Deposited Into Veterans' Fund: By Month

This uneven revenue flow results in a need to maintain enough of a reserve balance in the Veterans' Fund each June 30th to cover MMRP's estimated operating expenses for the first six months of the next state fiscal year of July through December.



Facilities remit collected taxes monthly to the DOR, and additional information about tax remittance schedules is available on the DOR website. The first retail sales occurred October 16, 2020, while the first taxes were deposited into the Veterans' Fund in March 2021.

Figure 5: Program Fees, Taxes And DHSS Operating Expenditures: By Month



In Figure 5, there were three months when the MMRP monthly expenditures exceeded the monthly collected revenues. Funds were transferred to the Veterans Commission in September.

Fees Structure

Per Article XIV Section 1, certain application fees and licenses are "...increased or decreased each year by the percentage of increase or decrease from the end of the previous calendar year of the Consumer Price Index, or successor index as published by the U.S. Department of Labor, or its successor agency." This language has been published with the fee schedules since May 2019. Annual fee adjustments are effective July 1 to align with the MMRP's budget cycle and Missouri's state fiscal year.

The Consumer Price Index rose 1.4% from 2019 to 2020. There is no provision in Article XIV allowing MMRP to waive annual adjustment of fees, so the 1.4% increase was applied to licensure fees for July 1, 2021 – June 30, 2022. New fee schedules were posted to the website in March 2021. The Patient, Caregiver, and Patient Cultivator Fee Chart and Facilities Fee Chart below illustrate the current application fees.

Figure 6: MMRP Fee Charts

Patient, Caregiver, and Patient Cultivator Fees				
Fee Type	**New Application (7/1/2020-6/30/2021)**	**Renewal (7/1/2020-6/30/2021)**	**New Application (7/1/2021-6/30/2022)**	**Renewal (7/1/2021-6/30/2022)**
Patient	$25.58	$25.58	$25.94	$25.94
Caregiver	$25.58	$25.58	$25.94	$25.94
Patient Cultivator	$102.30	$102.30	$103.73	$103.73
Facility Fees				
Type	**New Application (7/1/2020-6/30/2021)**	**Annual (7/1/2020-6/30/2021)**	**New Application (7/1/2021-6/30/2022)**	**Annual (7/1/2021-6/30/2022)**
Change Request	$2,046.00	N/A	$2,074.64	N/A
Cultivation Facility	N/A	$25,575.00	N/A	$25,933.05
Dispensary Facility	N/A	$10,230.00	N/A	$10,230.00
Facility Agent	$76.73	N/A	$77.80	N/A
Laboratory Testing	N/A	$5,000.00	N/A	$5,000.00
Manufacturing Facility	N/A	$10,230.00	N/A	$10,373.22
Seed to Sale	$5,000.00	$5,000.00	$5,000.00	$5,000.00
Transportation	$5,000.00	$5,000.00	$5,000.00	$5,000.00

Per Article XIV, some fees are non-refundable. For the refundable fees, most refunds occur due to overpayments. Patient, caregiver, and/or patient cultivator application fee overpayments occur when applicants select the wrong payment category in the payment portal or double pay for patient cultivation when both the patient and the caregiver submit a patient cultivation application.

Missouri's Medical Market

Article XIV Section 1 Right to Access provides qualifying patients certain privileges: right to possess, right to acquire, and right to use for qualifying medical conditions. The MMRP vision is to provide safe and secure access. Access can be influenced by several factors including the ability to receive a patient license, how far a patient or authorized caregiver must travel to a dispensary, price of retail product, and the selection of retail product choices. In this report, retail product refers to a product that has passed testing requirements and is sold by a DHSS-licensed dispensary.

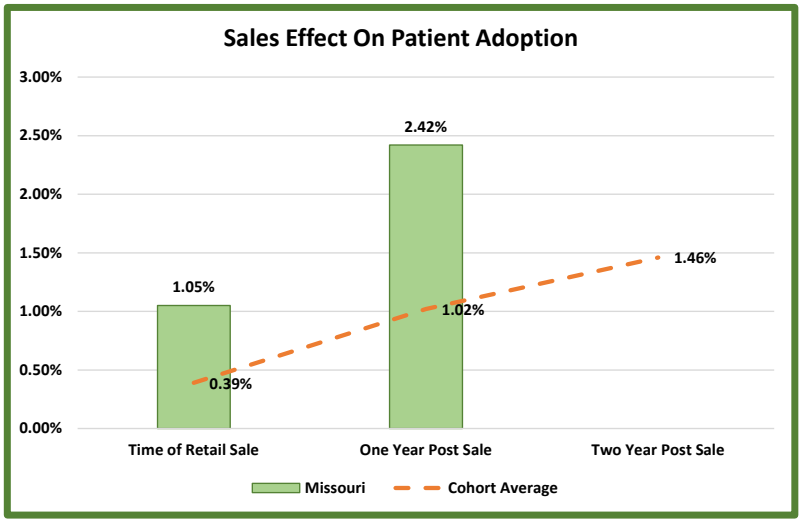
In order to evaluate the MMRP, DHSS conducts an annual survey of licensed facilities, analyzes data from the MMRP registry and Track and Trace systems, and reviews publicly available data from states who have implemented marijuana laws since 2005, which include: Arizona, Arkansas, Connecticut, Delaware, Illinois, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Utah, and West Virginia. More information regarding analysis methodology including cohort selection can be found in Appendix C.

Access to MMRP

The patient adoption rate refers to the percentage of a state's population who become qualified patients. In the 2020 review of medical marijuana program reports from cohort states, there was indication that onset of retail sales had an increasing effect on patient adoption. This report refers to this phenomenon as the "sales effect". During PY21, DHSS conducted further analysis into the sales effect to understand how much of an increase is likely to occur and for what time duration. Three points in time were chosen: time of retail sale, one year post sales and two years post sales. Missouri law allowed patients to register prior to the commencement of sales.

The sales effect indicates likelihood of a significant increase in patient adoption one-year post retail sales, which slows after two years. While Missouri will not have two years of sales data until October 2022, there is an expectation of at least a slight increase in patient adoption based on this analysis.

Figure 7: Sales Effect On Patient Adoption



Missouri's patient adoption rate in December 2021 was 2.61%. For perspective, Illinois had a patient adoption of 1.27%, Michigan 2.46%, Arkansas 2.63%, Arizona 3.8%, and Oklahoma 9.64%. It is relevant to note that Arizona and Michigan also had recreational markets in 2021 as a recreational market impacts the medical market.

While a high or increasing patient adoption rate is not a goal of the MMRP, a lower than anticipated patient adoption rate might trigger analysis for unanticipated barriers to access, and a higher than anticipated patient adoption rate would be a factor to consider in long-term planning for sufficient supply.

Future patient and caregiver active counts are projected in the table below.

Figure 8: Patient and Caregiver Projections

	2022	2023	2024	2025	2026
Patients	201,735	220,793	229,767	233,994	235,984
Caregivers	3,963	4,290	4,444	4,517	4,551

Access to Retail Product

Supply

DHSS surveyed licensed cultivation facilities in 2020 and again in 2021. In the 2020 survey, cultivation facilities indicated production capacity at 0.495 pounds per square foot of canopy space. This projection mirrors the assumption used in the 2019 market study, "Missouri's Medical Marijuana Market: An Economic Analysis of Consumers, Producers, and Sellers," which estimated potential production at 0.5 pounds per square foot of canopy space. DHSS estimated if all 60 cultivators yielded on-average around 0.5 pounds per square foot of canopy space, then production would be upwards of 900,000 pounds of marijuana annually. Each patient is allowed an allotment of four ounces every 30 days, which equates to three pounds annually. If this were all sold as flower, then 900,000 pounds of marijuana could supply 300,000 patients.

In the 2021 DHSS survey of facilities, DHSS estimates cultivation facilities utilized approximately 35.06%, on-average, of their licensed canopy space for 2021, but responses indicate this is likely to increase to approximately 63.53% for 2022 and 85.02% for 2023.

Figure 9: Average Production (Projections)

Percent of Licensed Flowering Canopy Space Planned For Production				
Calendar Year	2021	2022	2023	2024
Percent*	35.06%	63.53%	85.02%	85.39%
Pounds Produced	315,544	571,727	765,193	768,527

Note: Portion percent planned out of total amount allowed by license.

Figure 10: Annual Average Pounds Transferred Per Cultivation Facility (Projections)

	2021	2022	2023	2024
To Infused-Product Manufacturer	1,107	2,301	3,860	4,220
To Dispensary	1,381	3,937	6,835	7,883
Total	2,488	6,238	10,695	12,103

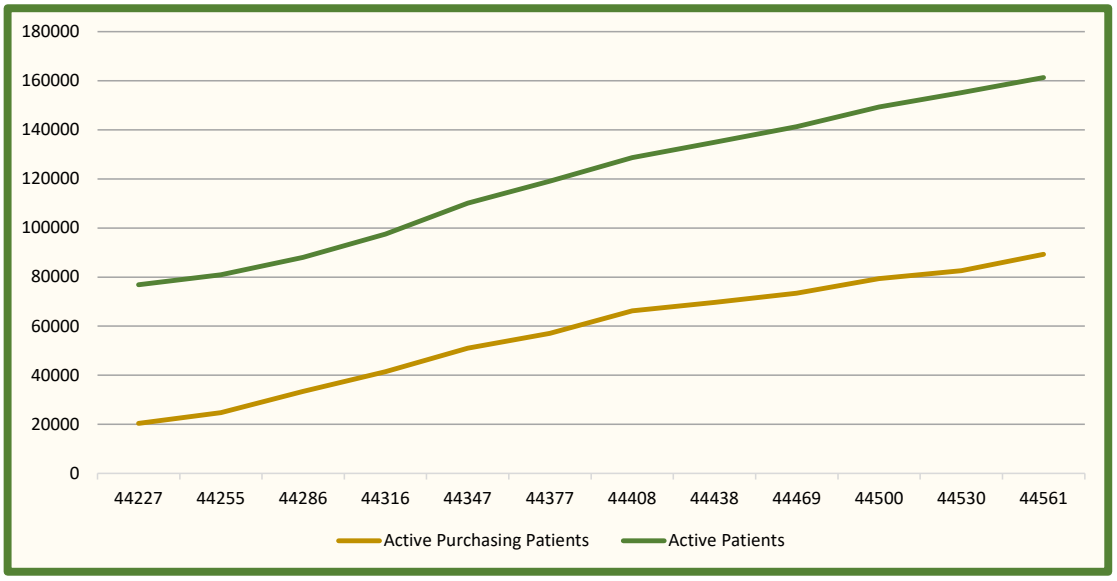
Because some of a cultivation facility's product is used for manufactured goods, market supply projections should be refined to anticipate how much cultivated product will be needed to meet Missouri patients' needs for both flower and manufactured products. As more data is gathered about operating facilities' production, DHSS will be able to refine supply projections.

Demand
Patient purchase data and retail product sales information are data points which only a few cohort states include in publicly available reports. DHSS made two assumptions from a review of state cohort reports: 1) some amount less than 100% of licensed patients purchase retail products, and 2) purchasing patients purchase some amount less than their allotment, the amount of medical marijuana allowed for purchase. In Missouri, the allotment is four ounces every 30 days, unless two physicians certify a higher amount.

Missouri retail sales commenced October 16, 2020. The small portion of active patients purchasing retail products in January 2021 was not unexpected as there were few dispensaries operating across the state, low retail product choices, and 27.32% of patients either cultivated or had a caregiver cultivating on their behalf.

As more retail product choices became available in the market in April 2021 and more dispensaries opened, patient cultivator licenses declined to 24.74%, and there was a steady increase in the number of patients making purchases. By July 2021, over half of dispensaries were operating. Sales of non-flower retail products increased as retail product choices increased, and there was an expected further decline in the percent of licensed patient cultivators. At the close of PY21, the large majority of licensed dispensaries were operating.

Figure 11: Active Purchasing Patients Vs. Active Patients



Prior to retail sales, access to legal product was limited to patients who opted to cultivate or have a caregiver cultivate on their behalf. These individuals hold an additional license called patient cultivation. Additionally, patients could be licensed and legally purchase in another state that offered reciprocity. It is not known what portion of Missouri patients purchase product in another state, but consumer discussions posted on social media indicate Missouri patients did so pre-sales and continued through the close of PY21.

Geographical Access
Missouri is a predominantly rural state with little to no public transportation infrastructure throughout rural communities. For qualified patients in these communities, access to retail product is influenced by how far they or their designated caregiver must travel to reach a dispensary and whether the dispensary offers home delivery.

The figure below denotes how many dispensaries in each county were operating as of December 5, 2021. While 19 dispensaries (10%) offered patient delivery services, these were located in urban areas of Kansas City, St. Louis, Springfield, Columbia, and St. Joseph.

Figure 12: Number of Dispensaries Per County

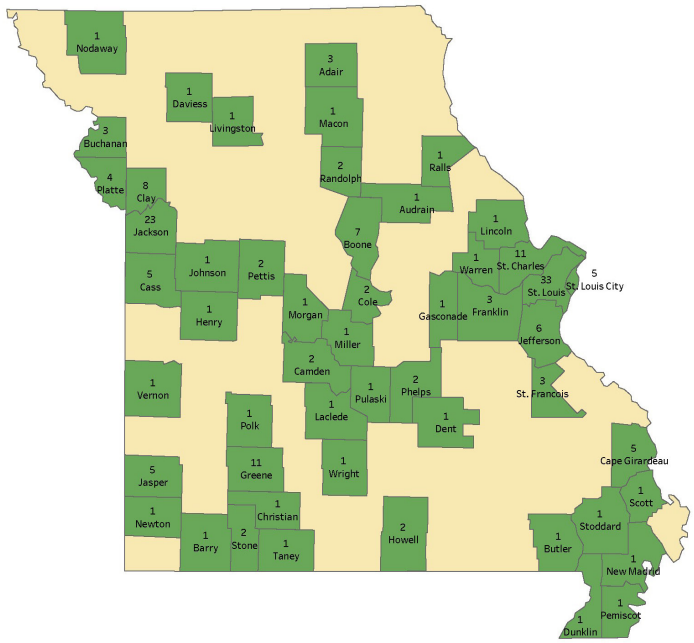
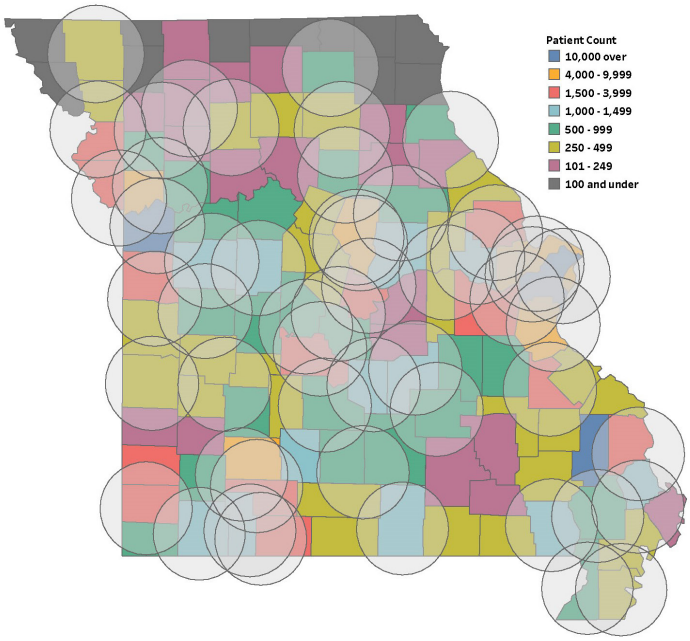


Figure 13: Dispensary Twenty-Five Mile Radius



The map above shows a 25 mile radius around operating dispensaries in each county where there is at least one dispensary operating. In PY21, 31% of all patients reside in the urban areas of St. Louis, Jackson, and Greene counties. Counties with low patient counts were also counties where it is more likely that a patient would reside more than 25 miles from an operating dispensary.

- The majority of patients (85.5%) reside across 49 out of 114 counties, and these patients have access to at least one dispensary located within their county.
- The remaining 14.5% of patients reside in a county without a dispensary.

DHSS analyzed zip codes of patients in counties without a dispensary:

- Approximately, 17% of patients reside in a zip code that is 26 miles or more from a dispensary.
  - All of these patients are less than an hour's drive from a dispensary; and
  - 25% of these patients are also licensed as patient cultivators.

To evaluate how MMRP compares to medical programs in other states, DHSS analyzed data from cohort states. Missouri only has a medical program, and states with both recreational and medical marijuana were excluded from the analysis. This left 13 cohort states, including Missouri. Except for Oklahoma, which was established without traditional medical state requirements like product testing and tracking, Missouri has more licensed facilities than any of its cohort medical only states.

Figure 14: Medical Only States

State	Dispensary Facilities (Number)	Cultivation Facilities (Number)	Manufacturing Facilities (Number)
Arkansas	40	8	
Delaware	12	6	
Louisiana	9	2	
Maryland	101	21	26
Missouri	192	62	89
New Hampshire	3		
North Dakota	8	2	
Ohio	60	29	37
Oklahoma	2,519	9,402	1,713
Pennsylvania	50	25	
Rhode Island	9	68	
Utah	14	8	11 Tier 1 and 2 Tier 2, plus 4 Tier 1 with intent to license
West Virginia	100	10	10

Some states are vertically integrated and issue single licenses that allow for both cultivation and manufacturing activities.

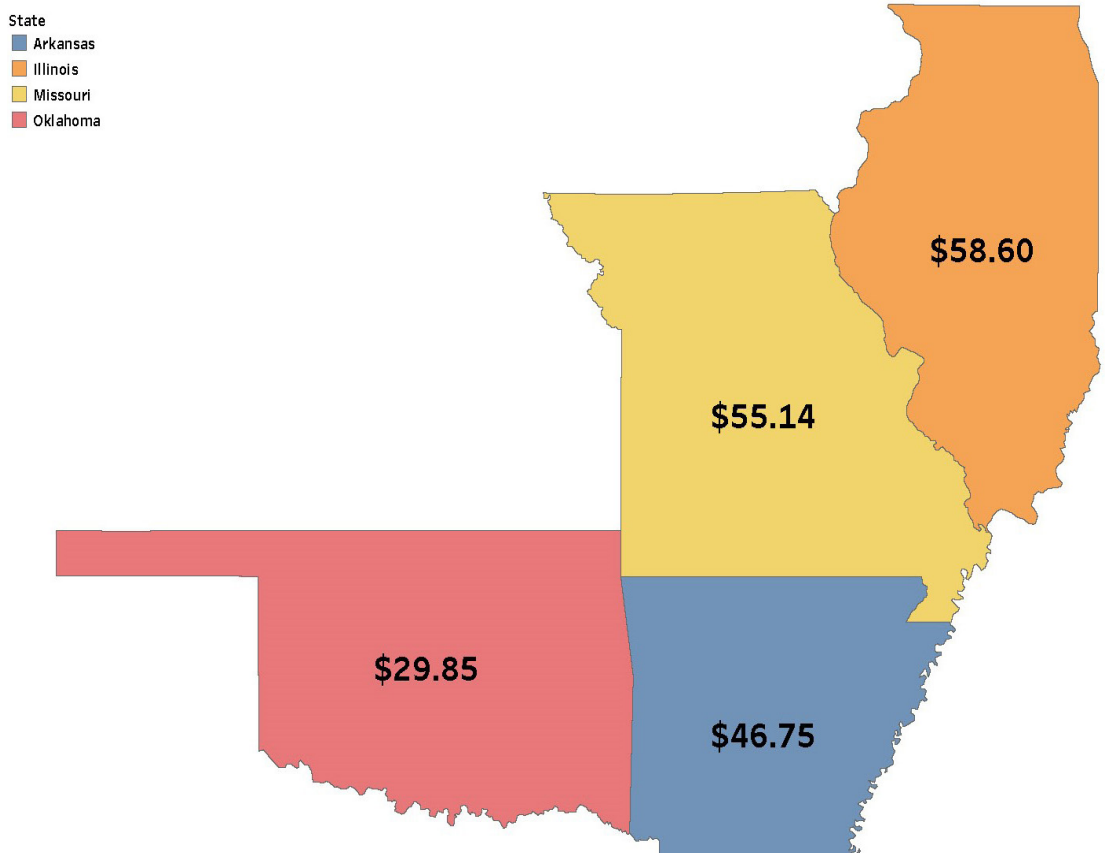
Retail Product Prices

Retail product prices fell throughout PY21 as additional facilities commenced operations. In July 2021, prices also decreased when many dispensaries began offering discounts to seniors, low-income, veterans, and/or patients with a disability. In the DHSS annual survey of licensed facilities, dispensaries were asked their opinion about retail price changes in the coming year of 2022. The majority of dispensaries anticipate a decrease in retail prices. Additionally, many dispensaries, who have not implemented patient discounts, are considering doing so in the future.

In the DHSS survey to Missouri dispensaries, 46.28% reported being located within a 1-hour drive of Oklahoma, Arkansas, or Illinois, and the majority of these dispensaries reported feeling they had to compete with retail prices in those border-states. Both Oklahoma and Arkansas allow patients licensed in another state medical marijuana program to apply for a temporary license to purchase medical marijuana. This practice is not allowed in Missouri under Article XIV or its associated rules. In the PY20 Annual Report to the Governor, DHSS reported that Oklahoma had 51.78 licensed dispensaries for every 100,000 population, while Missouri had 3.13, Arkansas had 1.33, and Illinois had 0.47.

To compare Missouri retail prices to medical markets in bordering states, DHSS surveyed retail pricing from numerous dispensary websites. A $1.46 to $29.85 price span exists between Missouri's market and these markets.

Figure 15: Average Price Of 3.5 Grams Of Flower



Licenses and Certifications

Agent ID Cards

Certain owners, managers, operators, and employees are required by rule to obtain an agent identification (ID) card in order to be in and around medical marijuana. Agent ID cards are a 3-year license.

Figure 16: Agent Program Year Comparisons

Applications			Cards Issued		
PY20	PY21	TOTAL	PY20	PY21	TOTAL
1,005	5,196	**6,201**	934	4,979	**5,913**

PY21 agent ID applications increased by 417.01% over PY20 as facilities created job opportunities. DHSS received an average of 432 agent applications per month and issued an average of 415 agent IDs per month. On average, 95.82% of PY21 agent applications were granted a license, compared to 93% in PY20. Article XIV and associated rules require that DHSS approve or deny facility agent ID applications within 14 days of receiving a complete application. On average, DHSS processed agent ID applications within eight days.

Figure 17: Agent Monthly Counts

Month	Applications	Issued	Active
2020-12	309	309	1,192
2021-01	458	427	1,619
2021-02	343	333	1,952
2021-03	470	448	2,400
2021-04	543	532	2,934
2021-05	436	406	3,340
2021-06	415	370	3,708
2021-07	476	456	4,190
2021-08	414	414	4,604
2021-09	474	445	5,046
2021-10	486	453	5,499
2021-11	407	380	5,879

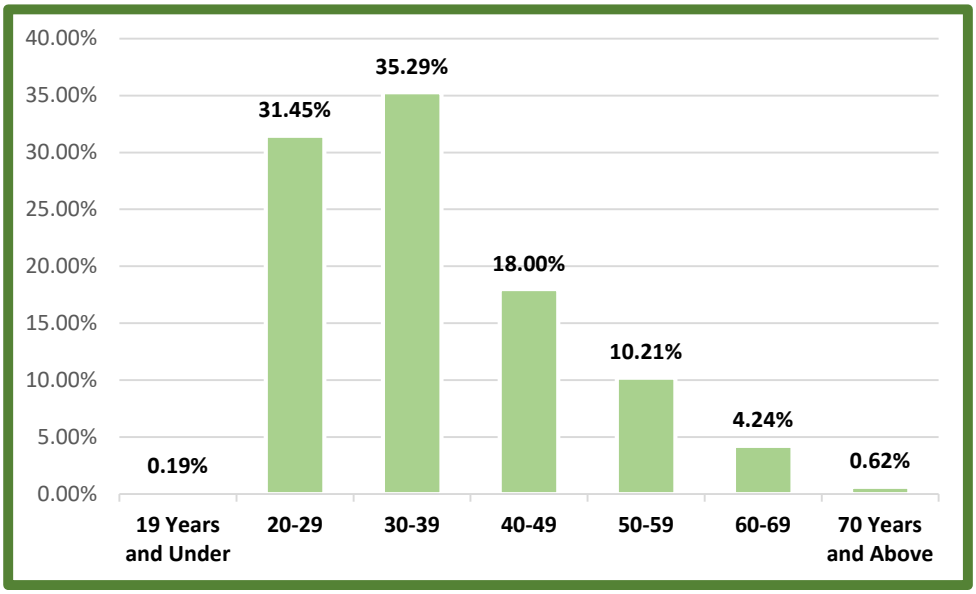
December counts represent the entire month. Active license counts are captured on or near the last day of the month and are current as of the date of capture.

Figure 18: Average Associated Agents Per Facility (Projections)

	2021	2022	2023	2024
Infused-Product Manufacturer	8	13	14	15
Dispensary	12	12	14	14
Cultivation	23	175	180	180
Total	43	200	208	208

To assist DHSS in estimating future application workload, facilities were asked as part of their 2021 DHSS survey, to estimate the number of new agents likely to associate with their facility each year. For example, if a facility planned to have 100 agents by the end of 2024, they would estimate how many of those would likely be in 2021, how many would be added in 2022, and so forth.

Figure 19: Percent of Active Agents By Age



Patient and Caregiver Registry

In PY21, DHSS continued to meet the constitutional requirement of processing patient applications within 30 days from the date of submission, while also receiving nearly 200,000 applications, compared to 103,000 in PY20.

DHSS also integrated an electronic Physician Certification Form System into the MMRP, began development of a cloud based call center management solution for receiving patient and public inquiries, created new patient related website content, and designed enhancements to caregiver digital cards. DHSS received 533 physician applications for the new physician account registration system, and at the close of PY21, there were 457 physicians actively registered and verified to submit electronic Physician Certification Forms (electronic form) within the patient registry system. By the end of PY21, physician participation neared 100% of the participating physicians prior to electronic physician implementation.

Figure 20: Patient and Caregiver Program Year Comparisons

	Applications Received				Cards Issued			
Type	PY19	PY20	PY21	TOTAL	PY19	PY20	PY21	TOTAL
New Patient	24,027	64,485	122,274	**210,786**	22,706	56,448	119,894	**199,048**
Patient Renewal	N/A	14,050	38,757	**52,807**	N/A	12,062	38,347	**50,409**
New Caregiver	673	2,479	3,378	**6,530**	563	2,019	2,634	**5,216**
Caregiver Renewal	N/A	312	736	**1,048**	N/A	255	720	**975**
New Patient Cultivation		14,633	15,848	**30,481**	7,276	8,703	15,398	**31,377**
Patient Cultivation Renewal	N//A	6,157	12,976	**19,133**	N/A	5,486	12,713	**18,199**

DHSS received over 193,000 patient, caregiver, patient cultivator applications, which represents an 89.95% increase in PY21 application submissions versus those received in PY20. For perspective, the department experienced a 313.43% increase in PY20 application submissions versus those received in PY19.

Figure 21: Average Application Submissions Per Month

Type	PY20	PY21
New Patient	5,374	9,991
Patient Renewal	1,982	3,196
New Caregiver	207	220
Caregiver Renewal	52	60
New Patient Cultivation	1,219	1,283
Patient Cultivation Renewal	513	1,059

Retail sales began on October 16, 2020. Retail sales refers to medical marijuana sales at a regulated dispensary facility. There was significant growth in patient application submissions post retail sales compared to pre-retail sales, as seen in the table, compares the average monthly submissions by application type for PY20 and PY21.

Figure 22: Licenses In Active Status

Month	Patient	Caregiver	Patient Cultivation
2020-12	73,181	2,184	20,380
2021-01	76,847	2,226	20,994
2021-02	80,950	2,331	21,621
2021-03	88,050	2,531	22,856
2021-04	97,469	2,627	24,109
2021-05	110,097	2,786	25,529
2021-06	119,032	2,987	26,672
2021-07	128,701	3,136	27,322
2021-08	134,907	3,198	27,526
2021-09	141,237	3,251	27,797
2021-10	149,243	3,291	28,043
2021-11	155,175	3,303	28,123

Note: Active license counts are captured on or near the last day of the month and are current as of the date of capture.

When MMRP was established, DHSS projected there would be at least 120,000 – 160,000 patients by the end of three years (December 2021). At the close of PY21, there were 156,008 active patient identification cards (patient cards) compared to 69,397 active patient cards at the close of PY20. This represents an increase of 124.81% in active patients.

It is important to note that retention of active patient cards is not a program goal as many factors influence surrender or non-renewal of a card such as death, improved condition, or pursuit of a different treatment option. The program tracks retention in order to project future workflow. The program's patient retention rate for PY21 was 49.09%, which is similar to PY20. Some patients had renewed for a third time by the close of PY21. Retention rates for these patients was 73.37%.

Figure 23: Licenses Issued

Month	New Patient	Patient Renewals	New Caregiver	Caregiver Renewals	Patient Cultivation
2020-12	7,510	2,593	241	61	2,467
2021-01	6,079	2,004	221	52	2,107
2021-02	6,597	2,322	245	52	2,080
2021-03	9,832	2,675	334	47	2,827
2021-04	11,490	2,135	213	18	2,614
2021-05	15,127	2,588	296	43	2,813
2021-06	10,948	3,409	302	46	2,719
2021-07	12,200	4,304	289	104	3,270
2021-08	9,722	3,292	251	82	2,621
2021-09	9,352	3,445	208	62	2,141
2021-10	11,144	5,042	223	69	2,447
2021-11	9,602	4,526	169	85	1,955

Figure 24: Patient And Caregiver Active Licenses For PY19 Thru PY21

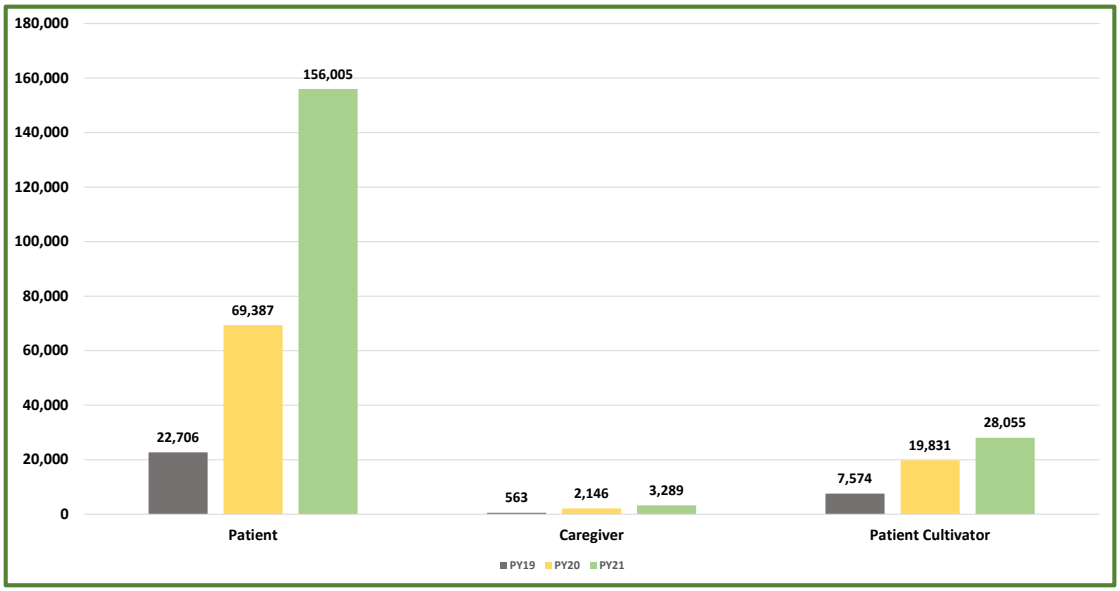


Figure 25: Total Active Patients And Caregivers

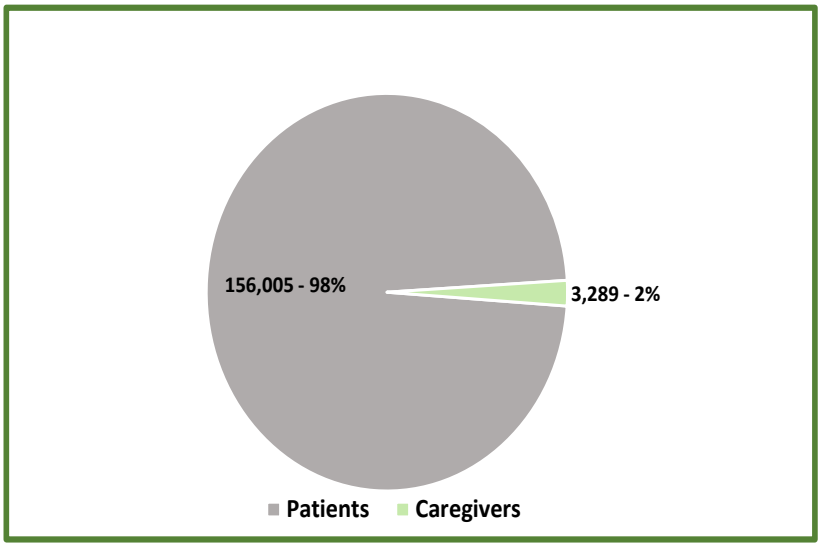


Figure 26: Active Patients And Caregivers Who Cultivate

The percent of patients, who cultivate or accessed cultivation through a caregiver decreased to 18.12% by the end of PY21 compared to 27.85% at the close of PY20.

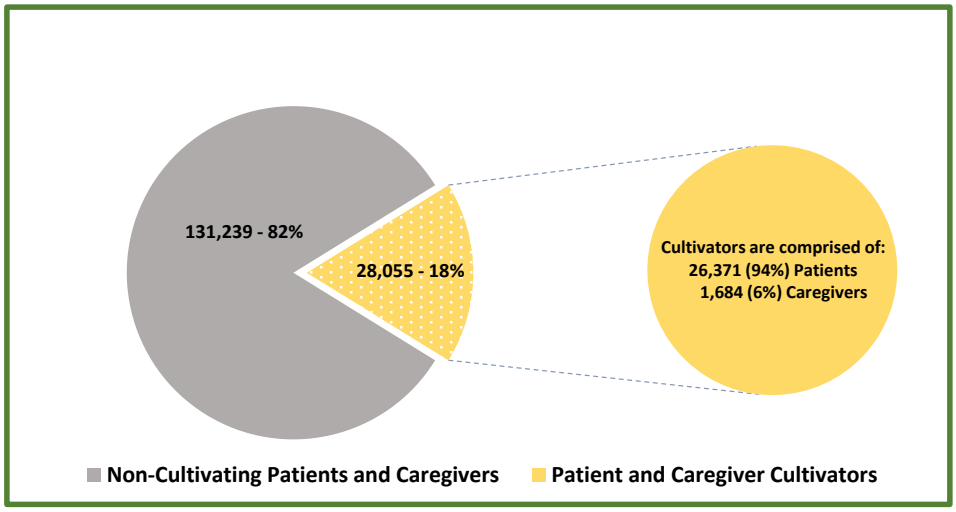
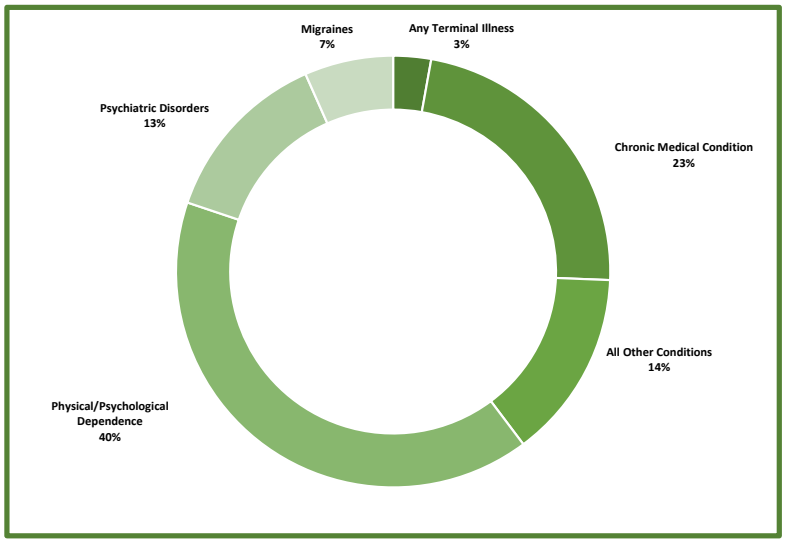


Figure 27: Active Patients By Qualifying Medical Condition



A list of counts by category can be found in Appendix B.

Figure 28: Percent of Active Patients By Age

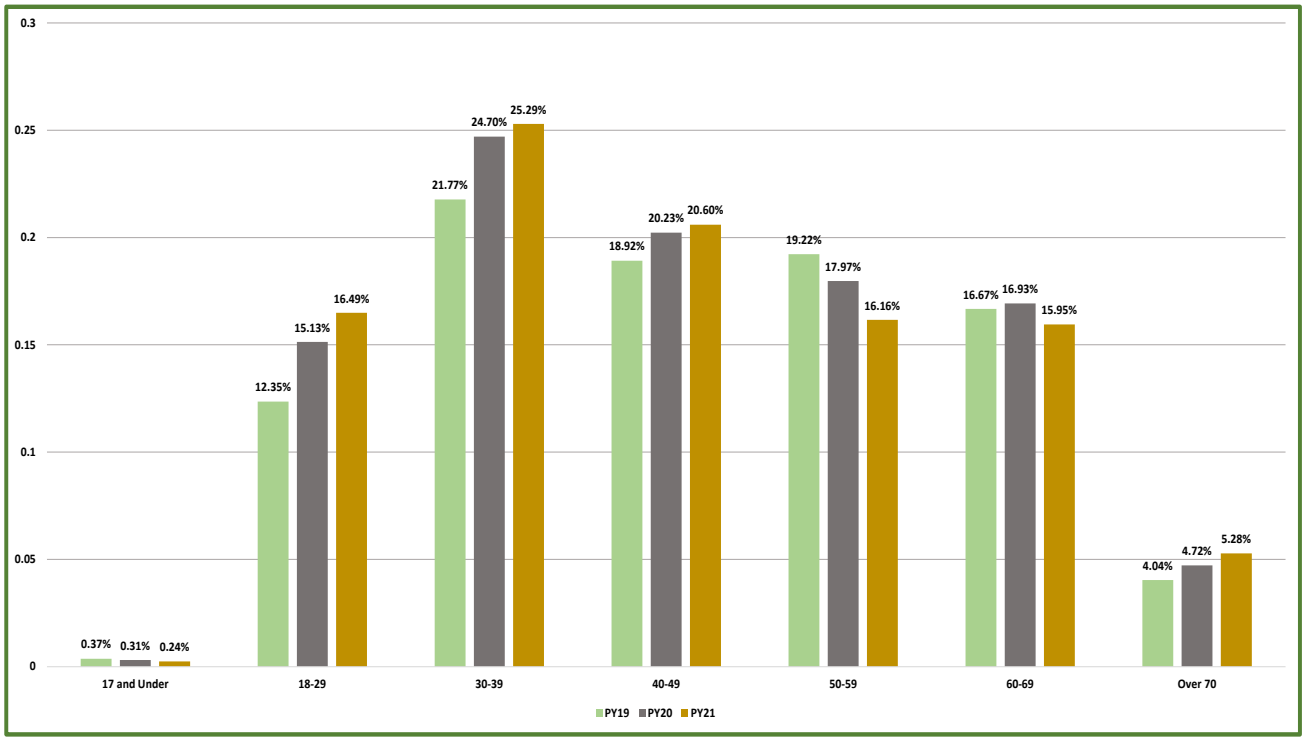
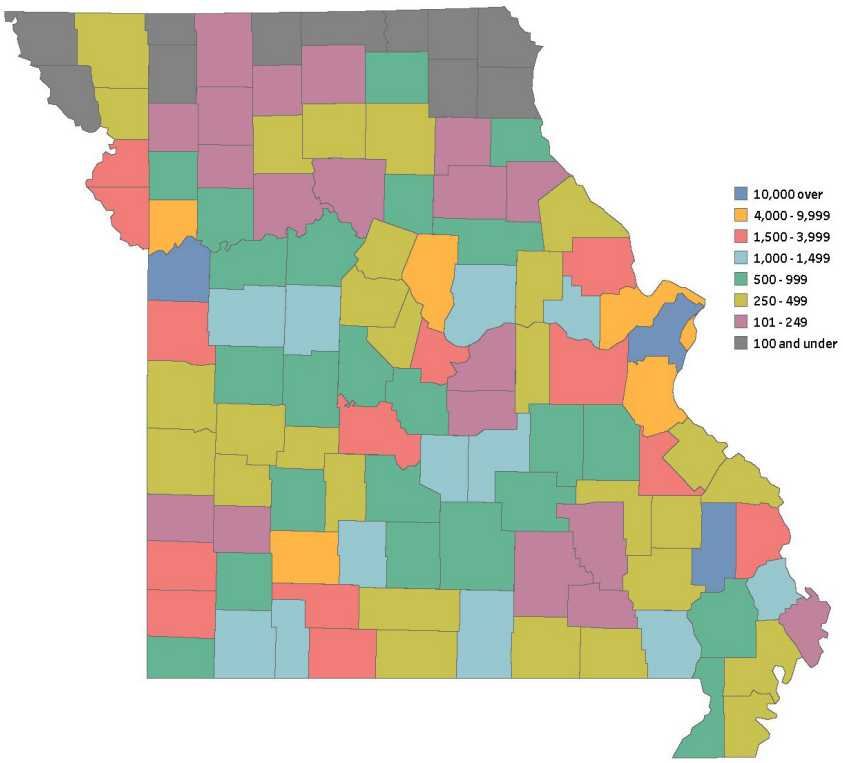


Figure Map 29: Active Patients By County of Residence



Electronic Physician Certification Form System

DHSS completed the electronic form system integration in July 2021. This phased-implementation project, which began in PY19, transitioned the department from accepting Physician Certification Forms uploaded manually in the patient application, to the full integration of accepting only electronic form submissions. Outlined under 19 CSR 30-95.110 as the department's method for receiving Physician Certification Forms, this was the final system deployment for patient application submission in the secure registry.

The electronic form system consists of two system modules - an electronic form and a physician account registration. The physician account registration allows physicians to establish a secure account in the registration system, subject to the department's approval, and allows the physician to complete and submit an electronic form on behalf of their patient within that account. Once received in the regulator portal, the electronic form is then available for the patients to upload directly within their application. This registry enhancement provides several benefits for both patient and physician:

- A more secure method of receiving Physician Certification Forms directly from the certifying physician that reduces the potential of fraud related to submission of paper forms uploaded into the patient application.
- Patient health information listed on Physician Certification Forms has increased protection when entered directly into the secure registry, compared to the information being listed on a paper form which is then uploaded into the patient application.
- A streamlined application process that reduces application requirements provided by the patient, leading to fewer application errors, fewer rejections, and reduced processing times.
- A strengthened partnership between certifying physicians and the department through enhanced direct communication between certifying physicians and the department, strengthening the shared goal of creating a safe and secure program for Missouri medical marijuana patients.

Transition & Implementation Phase

- January 28, 2021 DHSS began accepting physician account registration applications from certifying physicians.
- DHSS hosted two training workshops for certifying physicians that focused on the physician account registration and the electronic form system.
- A landing page on the website for physicians was added on January 28, 2021 with guidance specific to the new systems.
- On May 6, 2021, DHSS began accepting electronic forms submitted in physician accounts, in addition to the manual forms.
- On May 26,2021, DHSS completed full integration to accepting only electronic form submissions.
- Throughout the transition, DHSS communicated changes and key dates impacting certifying physicians and patients by sending notices, updating website content, and including information in standard email responses and call center scripting.
- Application video tutorials were updated to include a process for selecting electronic forms within the patient application.

MMRP Efficiency

DHSS is committed to process improvements through refining internal processes, communication, and website content. To assess efficiency, DHSS analyzed patient application rejections, which are incomplete applications. Rejected applications are returned through the MMRP registry along with an email to the patient with instructions on correcting the application. There are several reasons for a rejection such as problems with or missing required documents pertaining to proof of residency, digital photo, cultivation description (for those applying for additional patient cultivation license), and Physician Certification Form.

In PY19, 26.63% of patient applications were rejected at least once for correction. During PY20, MMRP updated the patient webpages to improve user experience and expanded content including application help guides. By the close of PY21, patient application rejections averaged 13.02%. Of that reduction, four percent occurred in July 2021 following implementation of the electronic form and new call center management system.

Figure 30: Percent Of Patient Applications Rejected By Program Year

In PY21, DHSS call center inquiries, which are handled by the team that is also responsible for the processing of patient and caregiver applications, increased by 10,000 over PY20. To manage the increased volume, an Interactive Voice Response (IVR) feature was deployed in July 2021, which routes calls to five menu option recordings with information about frequently asked questions. In November 2021, a new call center management cloud based solution, with advanced features and capabilities, was implemented. The call center provided a more scalable, flexible and reliable system, resulting in enhanced call quality, level of service, and call center management.

From December 1, 2020, through November 30, 2021, DHSS received and responded to an average of 2,414 emails and 7,000 calls per month. DHSS continues to process applications according to constitutionally prescribed deadlines while simultaneously responding to a high volume of call and email inquiries.

Article XIV and associated rules require that DHSS approve or deny applications for patient and caregiver ID cards within 30 days of receiving a complete application. On average, DHSS processed patient applications within 17 days and caregiver applications within 16 days.

The figure below highlights the volume of applications, calls and emails received by month from December 1, 2020, through November 30, 2021.

Figure 31: Patient And Caregiver Applications, Calls, And Emails Received: December 2020 - November 2021

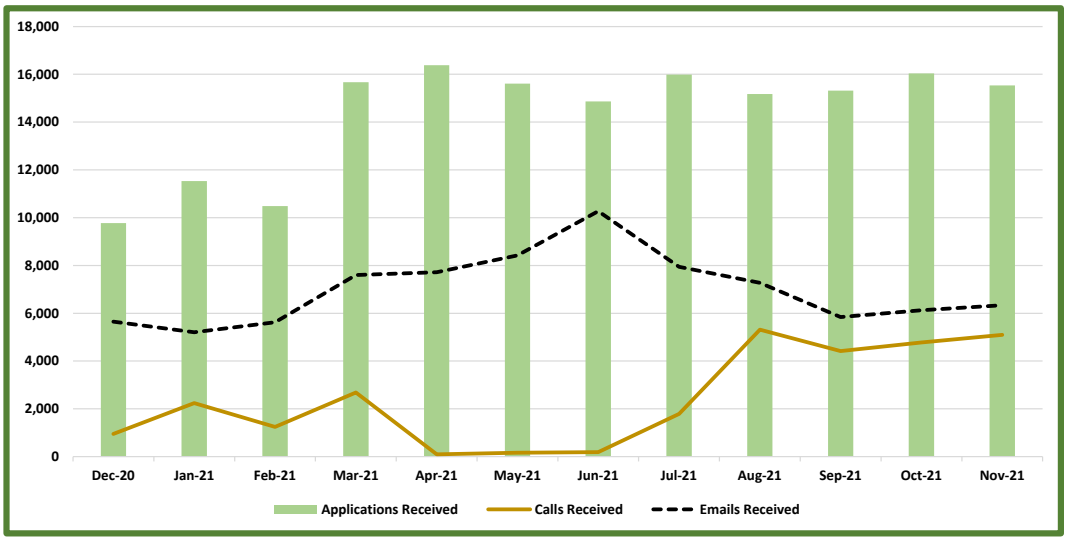
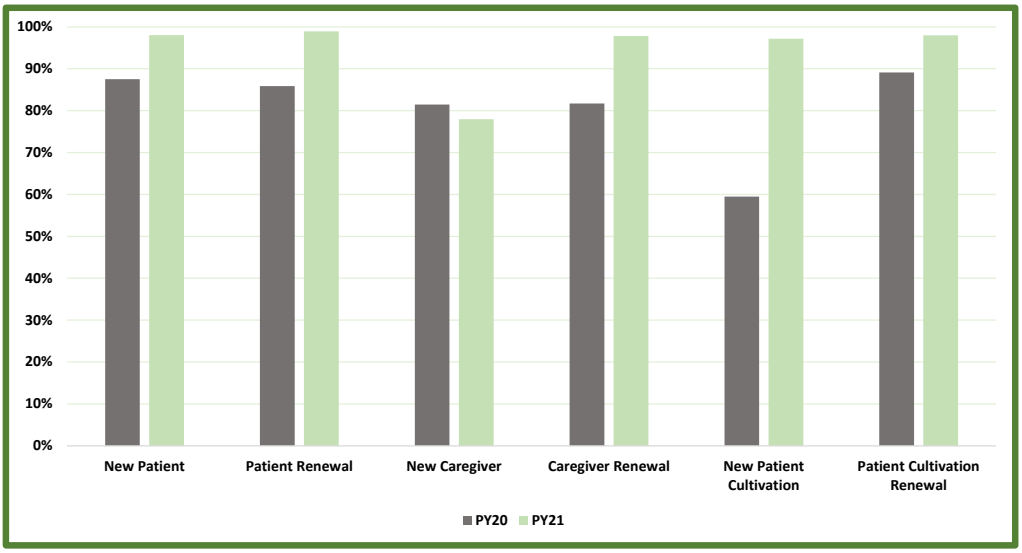


Figure 32: Percent Of Applications Granted A License



Additional Developments

On October 1, 2021, the caregiver digital cards were upgraded to include the associated patient license number and barcode. These additions increase the accuracy in verification of the associated patient during caregiver sales at dispensaries and ensure better protection of personal identifiable information of licensed patients.

Facility Overview

A continuing regulatory priority for DHSS is to verify that each new facility licensee complies with the minimum standards for licensure outlined in Article XIV and 19 CSR 30-95. The majority of licensed facilities completed the minimum standards review in PY20, allowing DHSS to focus efforts during PY21 on guiding facilities toward meeting their operational deadline, which is determined by the date DHSS issued a facility license.

19 CSR 30-95.040(1)(F)4 allows a facility up to one year from receiving a license to pass a CI. As such, approving facilities' change requests, variance requests, and issuing ATO letters were priorities in PY21.

However, DHSS continued to accept applications for transportation and seed-to-sale certifications throughout PY21. Additionally, a number of licenses were deactivated due to license surrender or revocation. When DHSS deactivated a cultivation, infused-product manufacturing, dispensary, or laboratory testing facility's license, a new license of the same type was awarded to replace it. Per rule, replacement licenses were awarded to the applicant with the next highest score on the application contingency list for the first 13 months after licenses were initially issued. Once this method of awarding licenses was no longer available, additional licenses were awarded through the appeals process via settlement agreements. In September 2021, DHSS increased the minimum number of licenses for cultivation facilities to 62 and 89 for infused-product manufacturing facilities in response to US Census Bureau 2020 Census data.

Figure 33: License Deactivations And New Awards

LICENSE TYPE	SURRENDERED	REVOKED	NEWLY AWARDED
Cultivation Facility	3	4	5
Dispensary Facility	0	2	12
Infused Product Manufacturing Facility	4	4	8
Laboratory Testing Facility	0	1	1
Seed to Sale	2	0	8
Transportation Facility	2	2	11
Total	11	13	45

Once a Minimum Standards review is complete, facilities may either submit a business change request or proceed through the CI process to receive an ATO. For business change requests, 19 CSR 30-95.040(4)(C) states all licensed or certified cultivation, dispensary, manufacturing, testing, and transportation facilities must seek and obtain DHSS approval before they may:

- Assign, sell, give, lease, sublicense, or otherwise transfer its license to any other entity;
- Make ownership changes greater than 10%;
- Materially deviate from the proposed physical design, including location;
- Combine licensed facilities at a single location; or
- Construct offsite warehouses.

Figure 34 outlines the quantity, and type, of business change requests received and completed during PY21. On average, the processing time for a business change request was 61 days. This included time needed to receive all required documentation from a licensee in instances where the initial request was incomplete.

Figure 34: Business Change Requests

	Cultivation	Dispensary	Manufacturing	Laboratory	Transportation	Grand Total
Combination	**49**	**7**	**34**		**8**	**98**
Approved	45	7	32		7	91
Denied	2		1			3
Under Review	2		1		1	4
Location	**16**	**31**	**34**	**1**	**5**	**87**
Approved	15	26	30	1	5	77
Denied		2	2			4
Under Review	1	2	2			5
Withdrawn		1				1
Material Deviation	**24**	**11**	**16**		**1**	**52**
Approved	18	8	14			40
Under Review	5	1	2		1	9
Withdrawn	1	2				3
Ownership	**29**	**54**	**31**		**1**	**115**
Approved	25	38	18			81
Under Review	4	16	13		1	34
Grand Total	**118**	**103**	**115**	**1**	**15**	**352**

In addition to business change requests, licensees are able to request a variance from provisions in 19 CSR 30-95 pursuant to 19 CSR 30-95.025(2)(B). As the one year operational deadline approached, many facilities requested a variance from 19 CSR 30-95.040(1)(F)4 in order to extend their deadline for becoming operational. On January 7, 2021, DHSS approved the 100th request for extension to the operational deadline, and the 500th extension was approved on October 27, 2021. Facilities cited the following obstacles as cause for variance: loss of capital, loss of lease, unsuitable location, equipment delay, city permitting delay, construction delay, missing certificates of occupancy, and others. DHSS reviewed each licensee's request on a case-by-case basis with 14 denied requests ending in license revocation. During just PY21, licensees made 622 variance requests to the department, 92% of which were for deadline extensions.

Figure 35: Operational Deadline Variance Requests

	Cultivation	Dispensary	Manufacturing	Laboratory	Transportation	Grand Total
Approved	103	225	136	14	16	494
Denied	7	11	7		3	28
Under Review	3	2	6			11
Withdrawn	4	2	8			14
Grand Total	**117**	**240**	**157**	**14**	**19**	**547**

Furthermore, many facilities required more than one request to extend their operational deadline. Of all the licensed facilities, 259 requested at least one extension of their original operational deadline before being able to request a CI to receive their ATO.

Figure 36: Multiple Operational Deadline Variance Requests

Number of Operational Deadline Variances Requested	Cultivation	Dispensary	Manufacturing	Testing	Transportation	Grand Total
1	15	68	35	1	8	127
2	8	66	48	6	8	136
3	42	60	33	3	3	141
4	52	36	36	4		128
5		10	5			15
Total	117	240	157	14	19	547

On average, the processing time for a deadline variance request in PY21 was 30 days, including time for receiving all documentation from a licensee in instances where the initial request was incomplete. Requested documentation included an explanation for the delay, photos of facility progress, invoices or other vendor communication citing delays with equipment or construction materials, and an updated timeline of milestones showing when the facility will be completed.

With 78% of facilities operational at the close of PY21, DHSS focus shifted from the commencement of facilities to compliance of operational facilities. DHSS began conducting site visits and statewide track and trace system reviews, providing education and guidance, and building a working relationship with facilities. DHSS strives to support the medical marijuana industry in Missouri through proactive regulation and education.

Facility Commencement

Licensees are expected to request a CI when they believe their facility will, within a month, be ready to begin operations and meet all state and local requirements for their facility per 19 CSR 30-95.040(5)(B). Prior to requesting CI, a facility must:

- Complete the Minimum Standards Review;
- Have no open Business Change Requests;
- Review the Missouri Medical Marijuana Facilities Welcome Meeting presentation; and
- If requested, receive approval for an operational deadline variance.

During the CI process, facilities are to provide all documentation necessary to confirm a facility's operational readiness. Documentation required of each facility included documents such as, zoning permits, insurance documents, certificate of occupancy, standard operating procedures, alarm and surveillance inspection reports, waste plans, and any other documentation necessary to determine compliance with Article XIV, 19 CSR 30-95, and local requirements.

Figure 37: Monthly Approvals to Operate by Facility Type

Date	Cultivation	Dispensary	Manufacturing	Laboratory	Transportation	Total
2020-12	2	5		1	2	10
2021-01	1	13	3	1		18
2021-02	1	21	2		3	27
2021-03	1	14	3		3	21
2021-04	4	21	4		1	30
2021-05	2	20	9		1	32
2021-06		15	11	1	2	29
2021-07	2	9	2	1	2	16
2021-08	4	8	5		1	18
2021-09	5	8	2		2	17
2021-10	4	19	9	1		33
2021-11	3	9	4	1		17
2021-12			1			1
Total	**29**	**162**	**55**	**6**	**17**	**269**

DHSS, on average, completed CIs within 35 days from the date when a facility requested a CI. The average from CI date to receiving an ATO was 19 days.

Unpreparedness for a CI resulted in some facilities being "set aside" from the inspection process. A facility was set aside when they failed to demonstrate operational readiness before their operational deadline. After being set aside, a facility had to request an additional CI from DHSS, and some may have needed to request an additional operational deadline variance.

DHSS also completed additional CIs for facilities approved for phased implementation approaches and supplemental commencement inspections (SCI). A SCI might be necessary for things such as additional transportation services, vehicles and drive-thru windows. DHSS anticipates additional SCIs as business change requests are approved for material deviations at operational facilities.

The average time to complete the CI process decreased as the program year continued.

Figure 38: Commencement Inspection Status At The Close of PY21

Commencement Inspection Status	Cultivation	Dispensary	Manufacturing	Laboratory	Transportation	Grand Total
Received an Approval to Operate in PY21	29	162	55	6	17	269
In Commencement Inspection Process End of PY21	5	4	4		1	14
Commencement Expected PY22	13	19	26	2	9	69
Total	**47**	**185**	**85**	**8**	**27**	**352**

Facility Operations

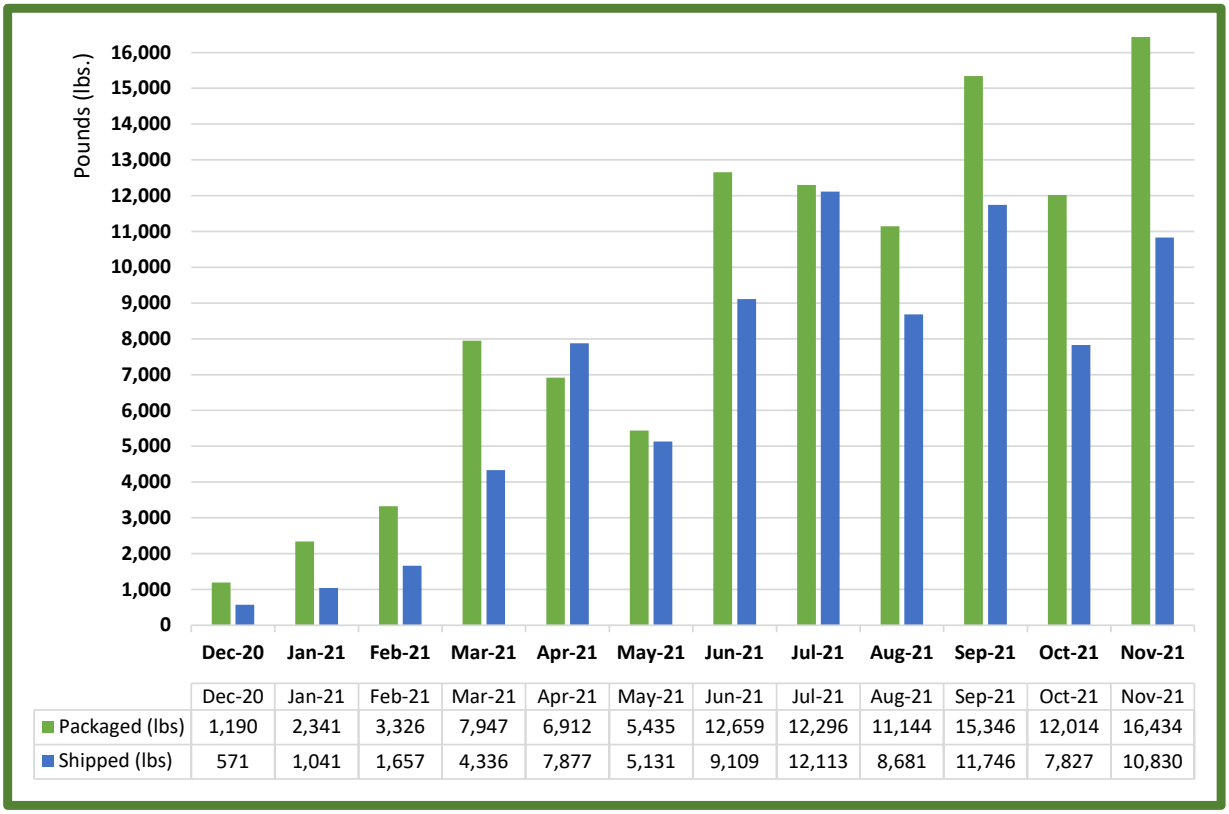
In regards to the data below, it should be noted that facility data from the track and trace system is time specific. Returns or exchanges on retail products update in real-time, so previously reported facility data for the same time period may differ slightly from what is reported here.

Packaged Harvests

Over the program year, 29 cultivation facilities received their ATO. After receiving an ATO, a medical marijuana cultivator will need a few months before their first harvest is packaged and available for sale. Packaging a harvest typically involves removing a mature plant's bud/flower from the stalk/stem and trimming the sugar leaves from the bud/flower. The sugar leaves, also known as shake/trim, are collected and dried with the harvest batch. The majority of harvests will not be packaged until the drying and curing process is complete; however, some manufacturing processes prefer wet or freshly frozen plants. A "packaged harvest" refers to the amount of product a cultivation facility has after removing waste and bringing it to the desired moisture level. In total, Missouri's cultivators packaged 107,043 pounds (lbs.) of unprocessed medical marijuana with an average of 8,330 lbs. packaged each month.

During PY21, 76% of packaged harvests were sold to a dispensary or manufacturing facility. April was the only month where the amount of product shipped exceeded the amount of harvests packaged. Bud/flower and shake/trim products are shelf stable when stored properly.

Figure 39: Monthly Packaged Harvest Weight (lbs) vs. Sold Harvest Weight (lbs)

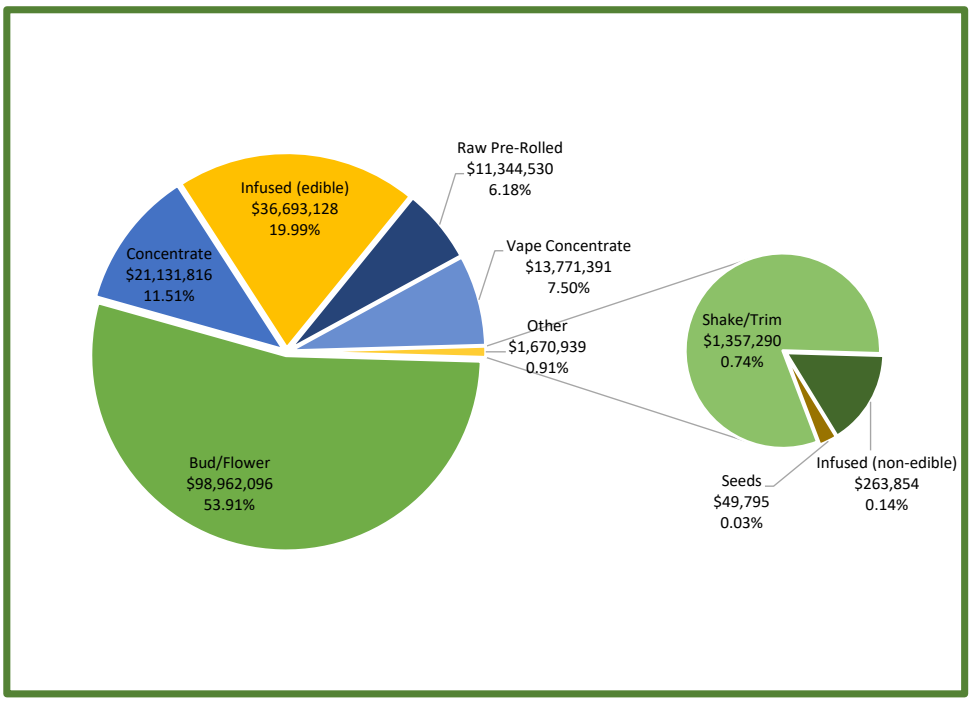


	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21
Packaged (lbs)	1,190	2,341	3,326	7,947	6,912	5,435	12,659	12,296	11,144	15,346	12,014	16,434
Shipped (lbs)	571	1,041	1,657	4,336	7,877	5,131	9,109	12,113	8,681	11,746	7,827	10,830

Retail Product Sales

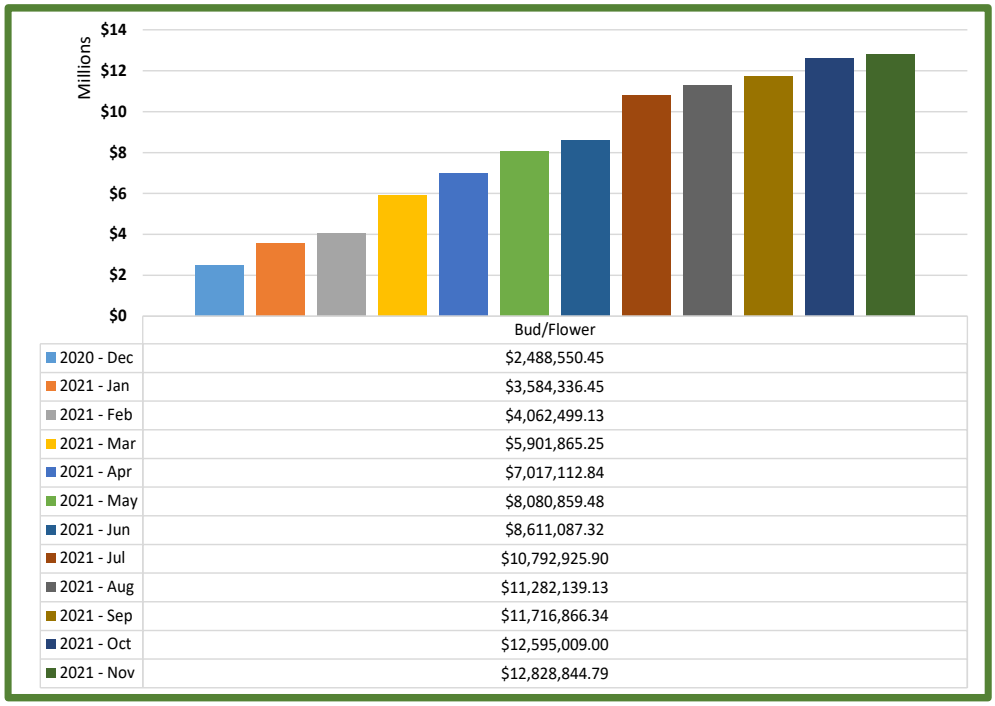
As facilities received their ATO in PY21, new medical marijuana products were brought to market throughout the year. Monthly sales continued to increase, with a total compound monthly growth rate of 20%. In total, dispensaries sold $188,079,053.38 worth of retail products to qualified patients and caregivers. Bud/flower was the most popular medical marijuana product type consumed by Missouri's patients, accounting for 53.57% of all sales in PY21. Patients' second most popular product type was infused edibles followed by concentrates.

Figure 40: Annual Medical Marijuana Sales ($) (%)



Monthly product category sales and quantities are outlined in Figure 41 through Figure 56.

Figure 41: Monthly Medical Marijuana Bud/Flower Sales ($)

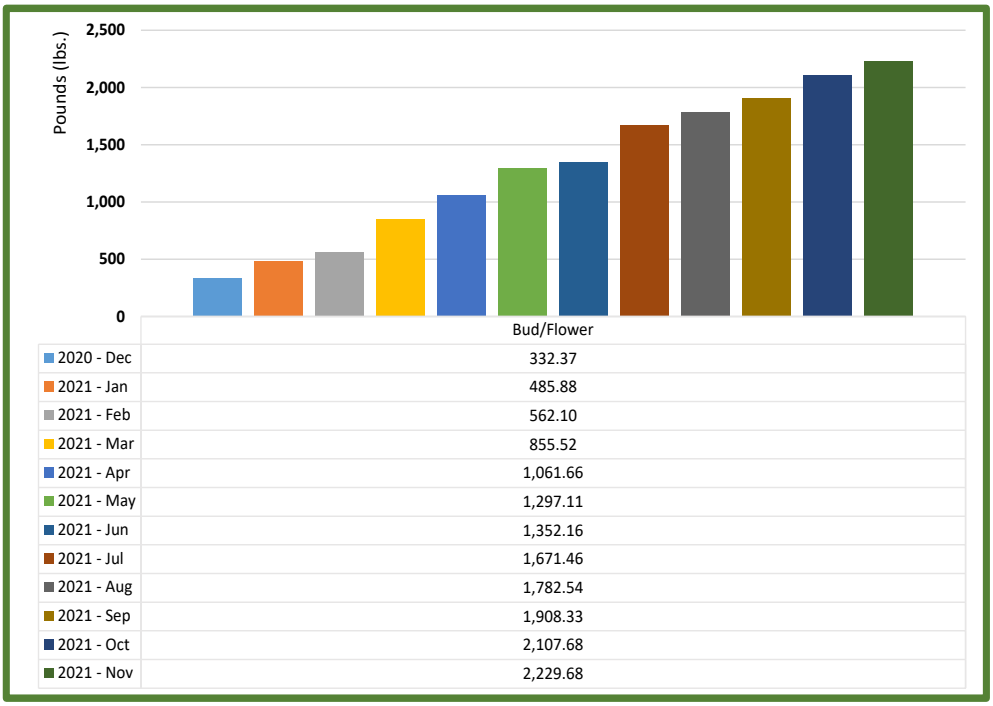


	Bud/Flower
2020 - Dec	$2,488,550.45
2021 - Jan	$3,584,336.45
2021 - Feb	$4,062,499.13
2021 - Mar	$5,901,865.25
2021 - Apr	$7,017,112.84
2021 - May	$8,080,859.48
2021 - Jun	$8,611,087.32
2021 - Jul	$10,792,925.90
2021 - Aug	$11,282,139.13
2021 - Sep	$11,716,866.34
2021 - Oct	$12,595,009.00
2021 - Nov	$12,828,844.79

Bud/flower annual sales were $98,962,096.08 with a compound monthly growth rate of 15%.

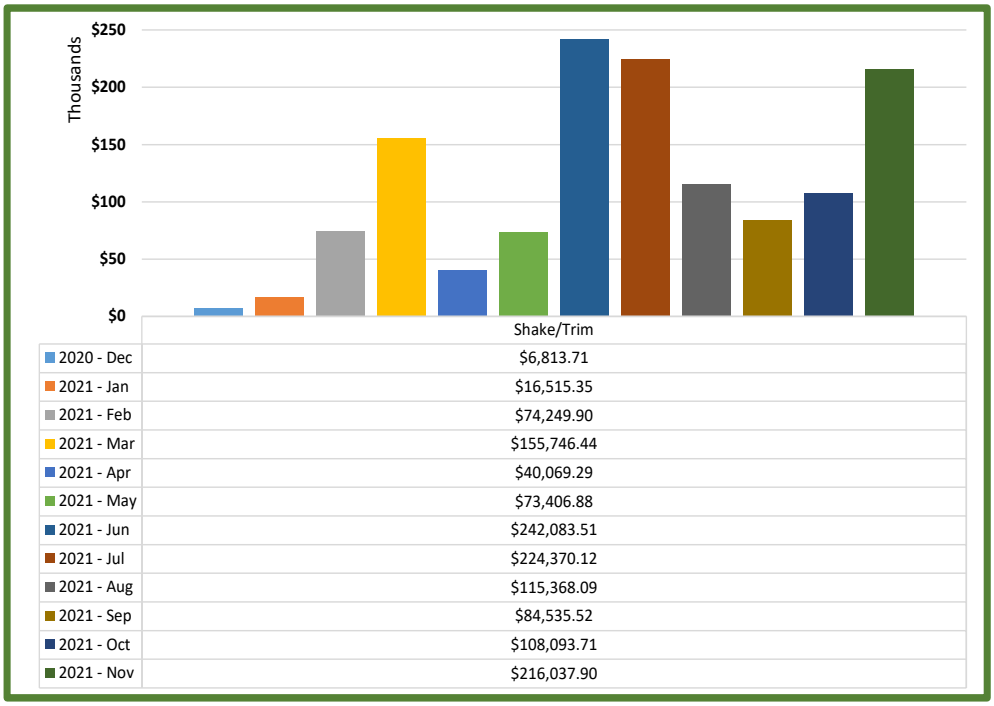
Figure 42: Monthly Medical Marijuana Bud/Flower Sales (lbs.)

Patients purchased 15,646.48 lbs. of bud/flower in PY21.



	Bud/Flower
2020 - Dec	332.37
2021 - Jan	485.88
2021 - Feb	562.10
2021 - Mar	855.52
2021 - Apr	1,061.66
2021 - May	1,297.11
2021 - Jun	1,352.16
2021 - Jul	1,671.46
2021 - Aug	1,782.54
2021 - Sep	1,908.33
2021 - Oct	2,107.68
2021 - Nov	2,229.68

Figure 43: Monthly Medical Marijuana Shake/Trim Sales ($)

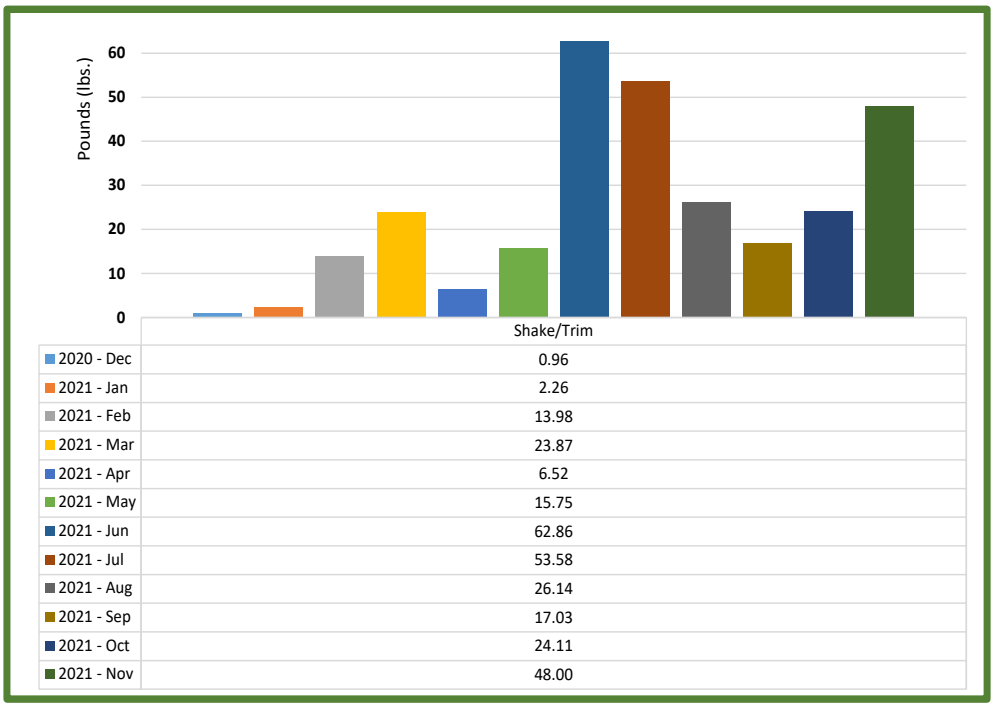


	Shake/Trim
2020 - Dec	$6,813.71
2021 - Jan	$16,515.35
2021 - Feb	$74,249.90
2021 - Mar	$155,746.44
2021 - Apr	$40,069.29
2021 - May	$73,406.88
2021 - Jun	$242,083.51
2021 - Jul	$224,370.12
2021 - Aug	$115,368.09
2021 - Sep	$84,535.52
2021 - Oct	$108,093.71
2021 - Nov	$216,037.90

Shake/trim annual sales were $1,357,290.42 with a compound monthly growth rate of 33%.

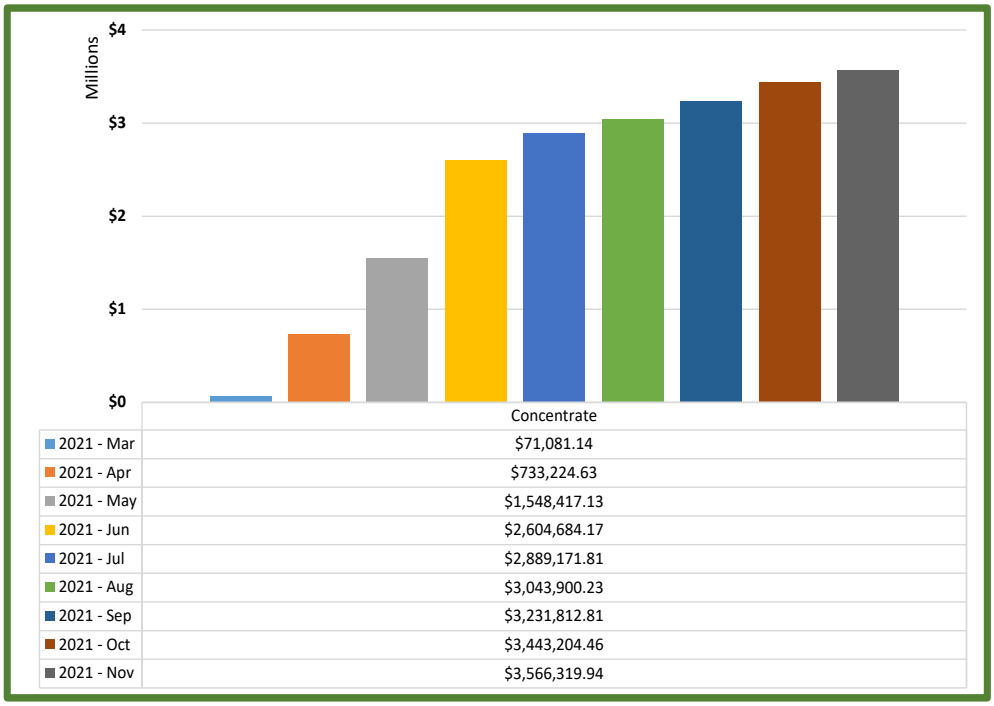
Figure 44: Monthly Medical Marijuana Shake/Trim Sales (lbs.)

Patients purchased 295.06 lbs. of shake/trim in PY21.



	Shake/Trim
2020 - Dec	0.96
2021 - Jan	2.26
2021 - Feb	13.98
2021 - Mar	23.87
2021 - Apr	6.52
2021 - May	15.75
2021 - Jun	62.86
2021 - Jul	53.58
2021 - Aug	26.14
2021 - Sep	17.03
2021 - Oct	24.11
2021 - Nov	48.00

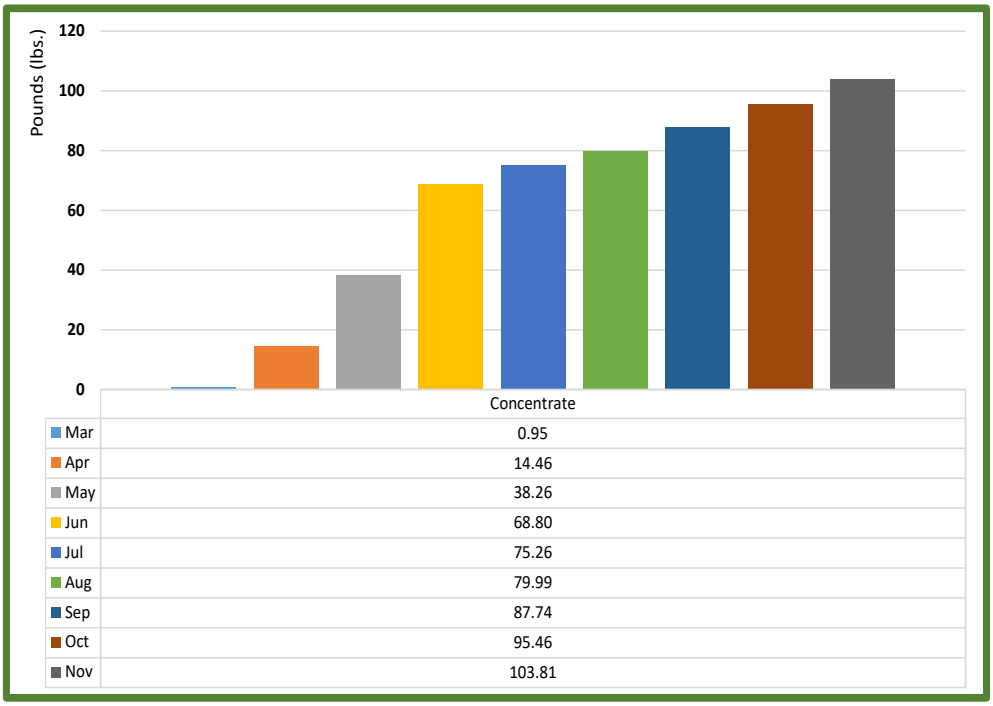
Figure 45: Monthly Medical Marijuana Concentrate Sales ($)



	Concentrate
2021 - Mar	$71,081.14
2021 - Apr	$733,224.63
2021 - May	$1,548,417.13
2021 - Jun	$2,604,684.17
2021 - Jul	$2,889,171.81
2021 - Aug	$3,043,900.23
2021 - Sep	$3,231,812.81
2021 - Oct	$3,443,204.46
2021 - Nov	$3,566,319.94

Concentrate annual sales were $21,131,816.32 with a compound monthly growth rate of 22%.

Figure 46: Monthly Medical Marijuana Concentrate Sales (lbs.)

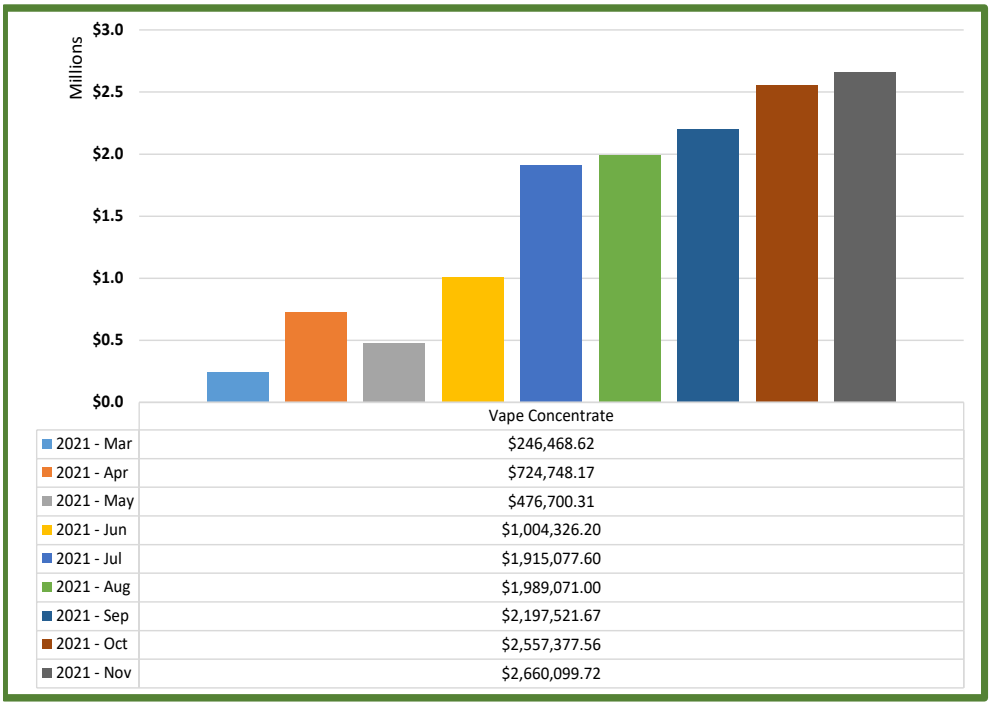


	Concentrate
Mar	0.95
Apr	14.46
May	38.26
Jun	68.80
Jul	75.26
Aug	79.99
Sep	87.74
Oct	95.46
Nov	103.81

Patients purchased 564.72 lbs. of concentrate in PY21.

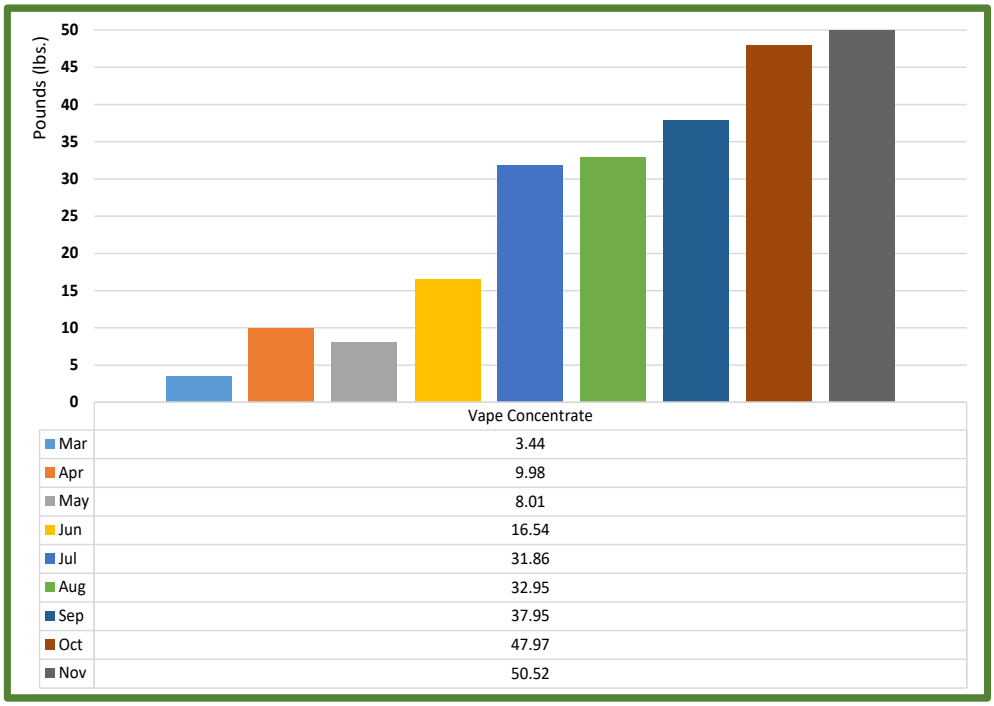
Figure 47: Monthly Medical Marijuana Vape Concentrate Sales ($)

Vape concentrate annual sales were $13,771,390.85 with a compound monthly growth rate of 30%.



	Vape Concentrate
2021 - Mar	$246,468.62
2021 - Apr	$724,748.17
2021 - May	$476,700.31
2021 - Jun	$1,004,326.20
2021 - Jul	$1,915,077.60
2021 - Aug	$1,989,071.00
2021 - Sep	$2,197,521.67
2021 - Oct	$2,557,377.56
2021 - Nov	$2,660,099.72

Figure 48: Monthly Medical Marijuana Vape Concentrate Sales (lbs.)

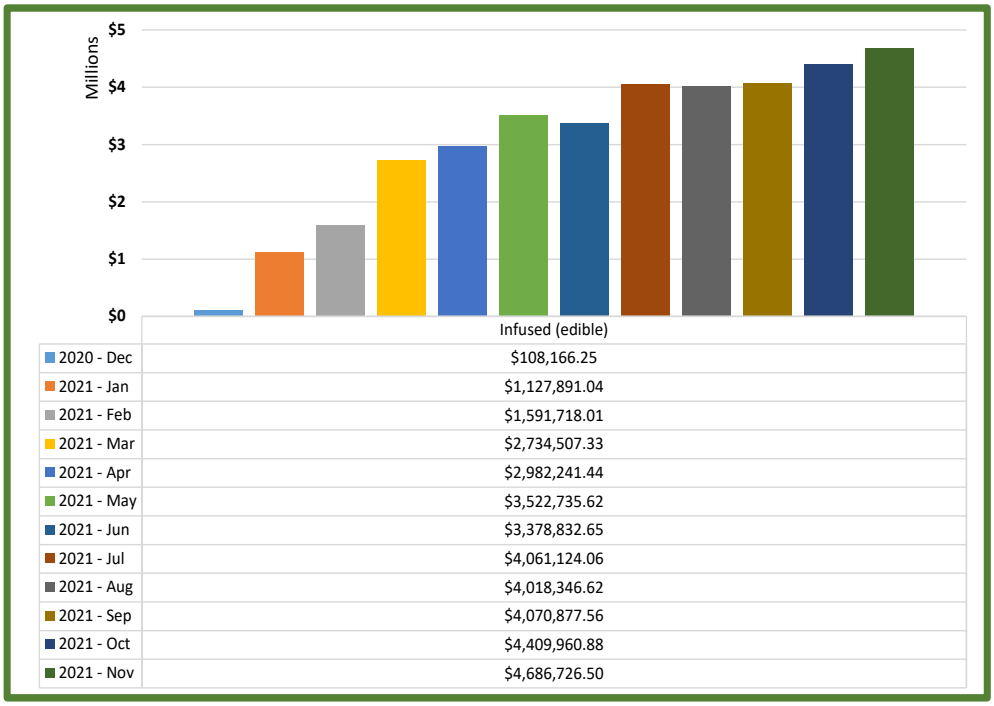


	Vape Concentrate
Mar	3.44
Apr	9.98
May	8.01
Jun	16.54
Jul	31.86
Aug	32.95
Sep	37.95
Oct	47.97
Nov	50.52

Patients purchased 239.21 lbs. of vape concentrate in PY21.

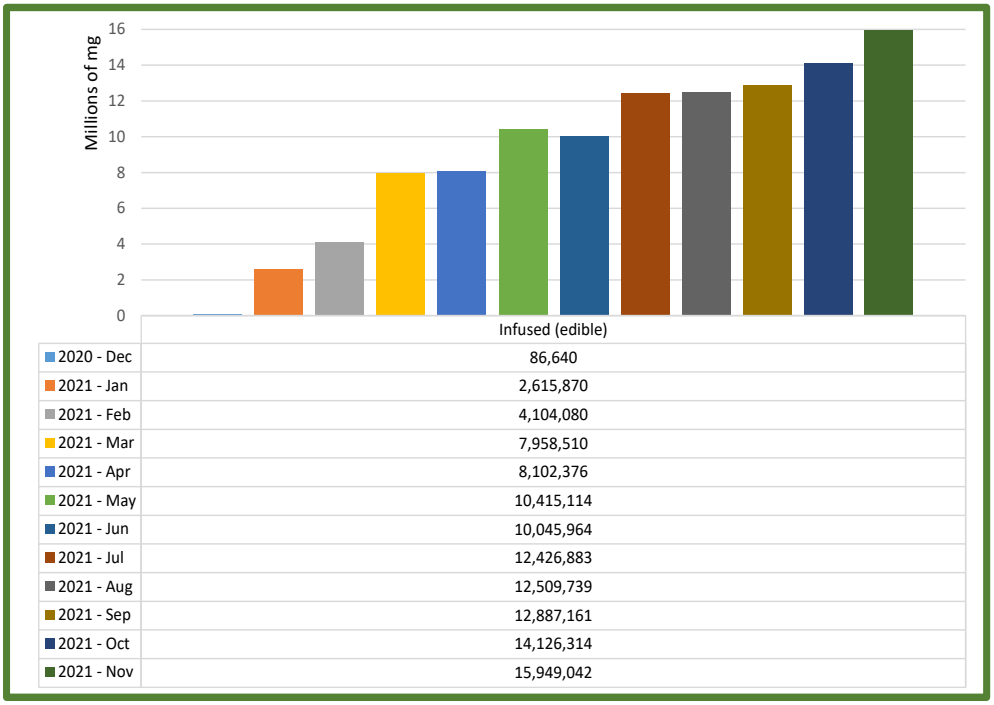
Figure 49: Monthly Medical Marijuana Infused Edible Sales ($)

Infused edibles' annual sales were $36,693,127.96 with a compound monthly growth rate of 14%.



	Infused (edible)
2020 - Dec	$108,166.25
2021 - Jan	$1,127,891.04
2021 - Feb	$1,591,718.01
2021 - Mar	$2,734,507.33
2021 - Apr	$2,982,241.44
2021 - May	$3,522,735.62
2021 - Jun	$3,378,832.65
2021 - Jul	$4,061,124.06
2021 - Aug	$4,018,346.62
2021 - Sep	$4,070,877.56
2021 - Oct	$4,409,960.88
2021 - Nov	$4,686,726.50

Figure 50: Monthly Medical Marijuana Infused Edible Sales (mg)

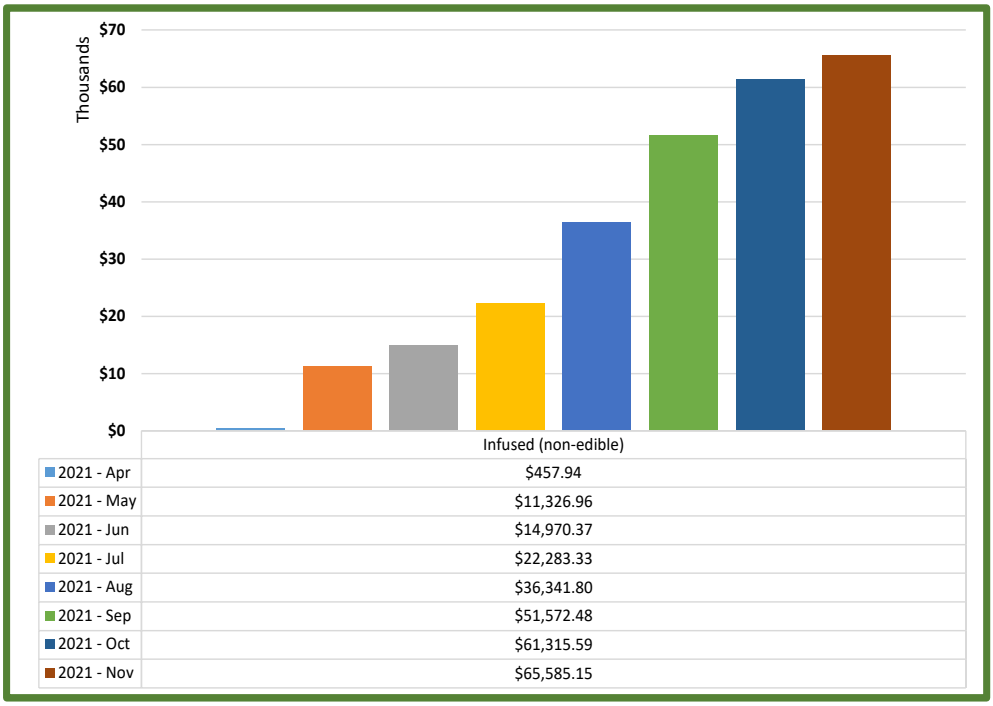


	Infused (edible)
2020 - Dec	86,640
2021 - Jan	2,615,870
2021 - Feb	4,104,080
2021 - Mar	7,958,510
2021 - Apr	8,102,376
2021 - May	10,415,114
2021 - Jun	10,045,964
2021 - Jul	12,426,883
2021 - Aug	12,509,739
2021 - Sep	12,887,161
2021 - Oct	14,126,314
2021 - Nov	15,949,042

Patients purchased 111,227.693 mg of infused edibles in PY21.

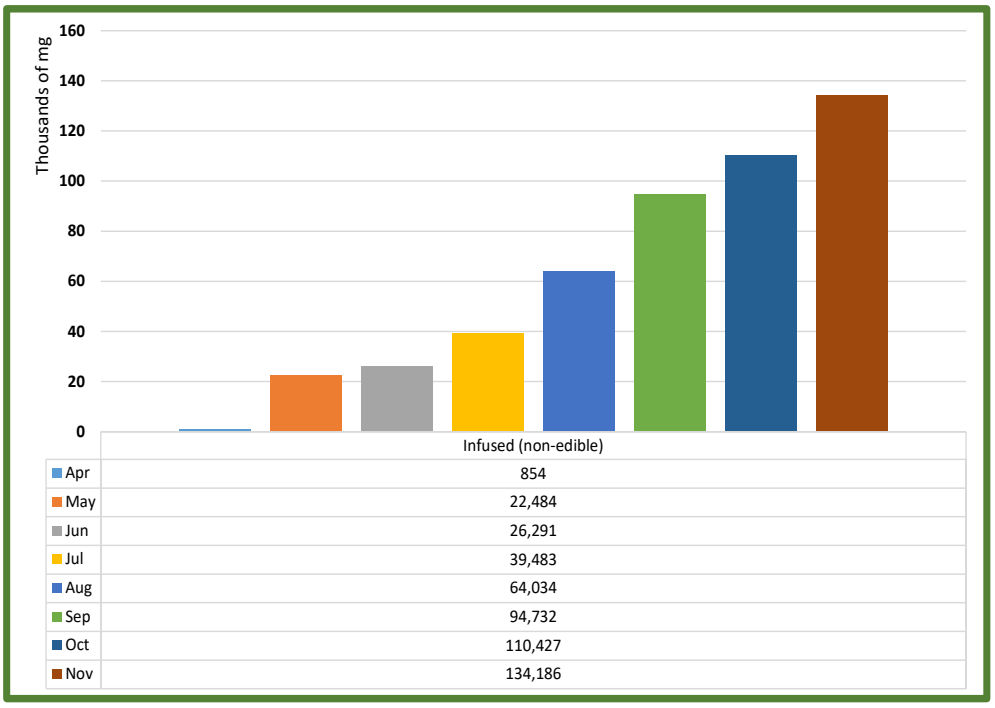
Figure 51: Monthly Medical Marijuana Infused Non-Edible Sales ($)

Infused non-edibles' annual sales $263,853.62 with a compound monthly growth rate of 29%.



	Infused (non-edible)
2021 - Apr	$457.94
2021 - May	$11,326.96
2021 - Jun	$14,970.37
2021 - Jul	$22,283.33
2021 - Aug	$36,341.80
2021 - Sep	$51,572.48
2021 - Oct	$61,315.59
2021 - Nov	$65,585.15

Figure 52: Monthly Medical Marijuana Infused Non-Edible Sales (mg)

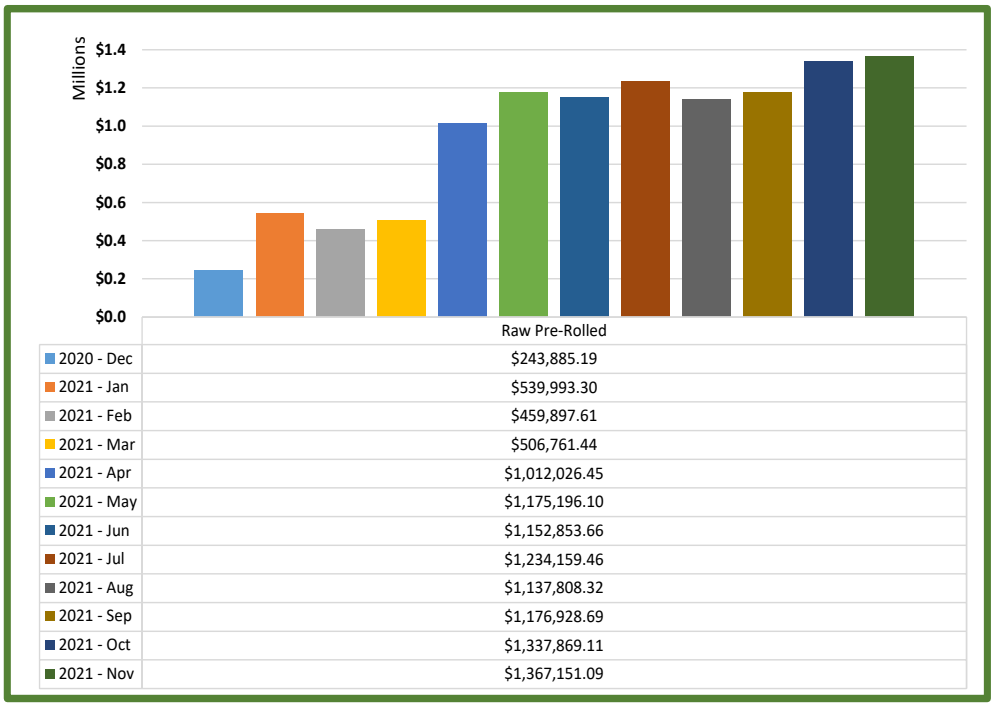


	Infused (non-edible)
Apr	854
May	22,484
Jun	26,291
Jul	39,483
Aug	64,034
Sep	94,732
Oct	110,427
Nov	134,186

Patients purchased 492,491 mg of infused non-edibles in PY21.

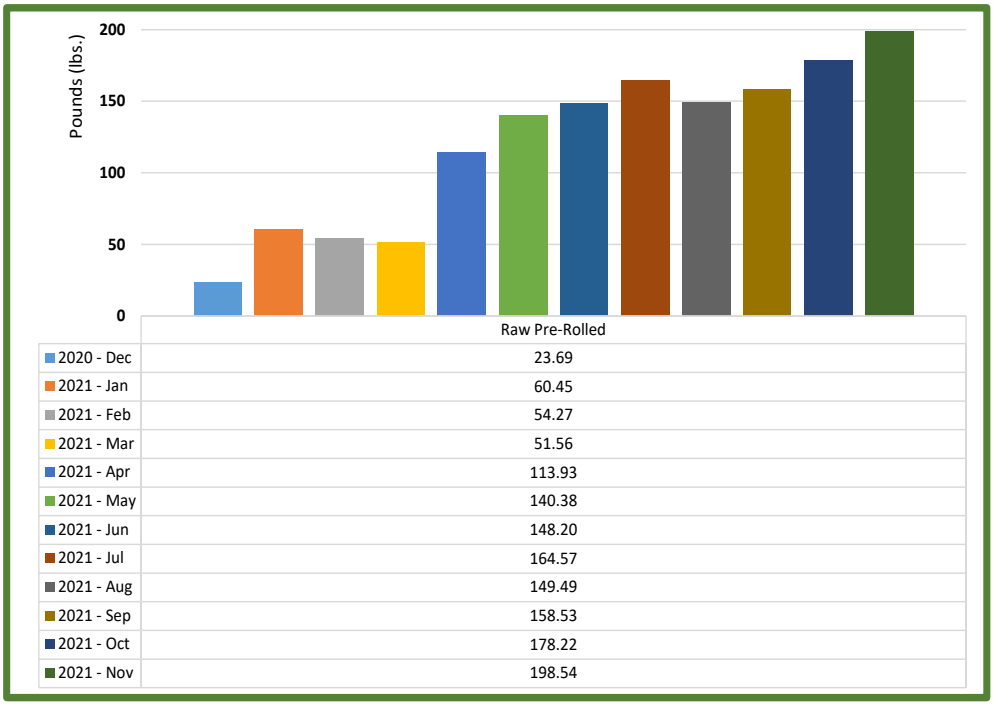
Figure 53: Monthly Medical Marijuana Raw Pre-roll Sales ($)

Raw Pre-Roll's annual sales were $11,344,530.42 with a compound monthly growth rate of 15%.



	Raw Pre-Rolled
2020 - Dec	$243,885.19
2021 - Jan	$539,993.30
2021 - Feb	$459,897.61
2021 - Mar	$506,761.44
2021 - Apr	$1,012,026.45
2021 - May	$1,175,196.10
2021 - Jun	$1,152,853.66
2021 - Jul	$1,234,159.46
2021 - Aug	$1,137,808.32
2021 - Sep	$1,176,928.69
2021 - Oct	$1,337,869.11
2021 - Nov	$1,367,151.09

Figure 54: Monthly Medical Marijuana Raw Pre-roll Sales (lbs.)

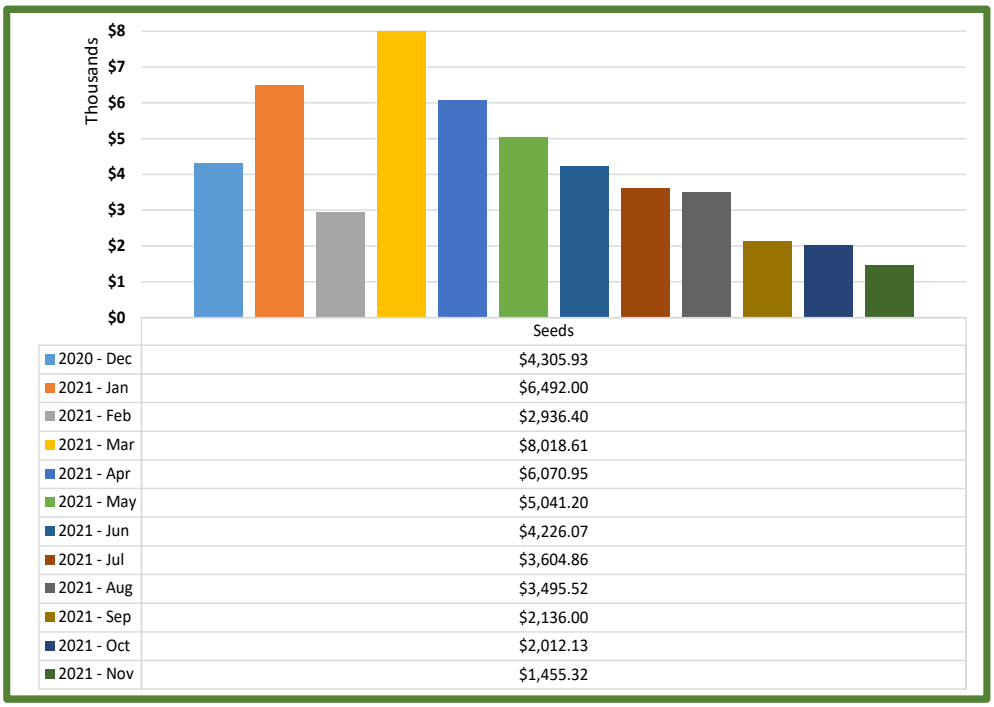


	Raw Pre-Rolled
2020 - Dec	23.69
2021 - Jan	60.45
2021 - Feb	54.27
2021 - Mar	51.56
2021 - Apr	113.93
2021 - May	140.38
2021 - Jun	148.20
2021 - Jul	164.57
2021 - Aug	149.49
2021 - Sep	158.53
2021 - Oct	178.22
2021 - Nov	198.54

Patients purchased 1,441.84 lbs. of raw pre-rolls in PY21.

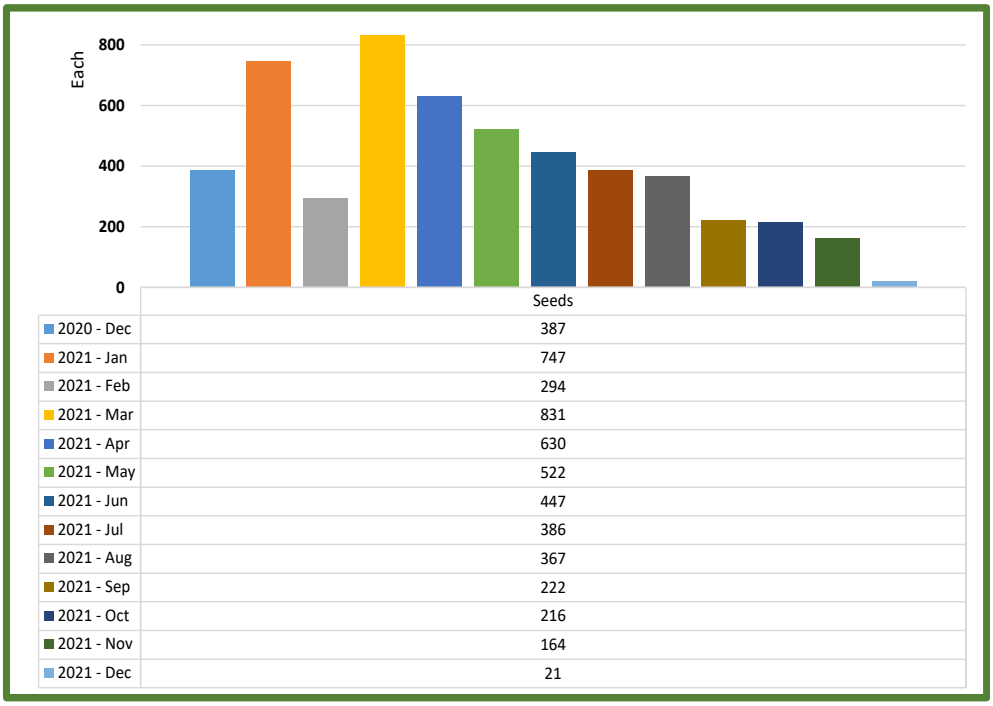
Figure 55: Monthly Medical Marijuana Seed Sales ($)

Seed's annual sales were $51,520 with a compound monthly growth rate of negative nine percent. Patient cultivator renewal rates also decreased in PY21.



	Seeds
2020 - Dec	$4,305.93
2021 - Jan	$6,492.00
2021 - Feb	$2,936.40
2021 - Mar	$8,018.61
2021 - Apr	$6,070.95
2021 - May	$5,041.20
2021 - Jun	$4,226.07
2021 - Jul	$3,604.86
2021 - Aug	$3,495.52
2021 - Sep	$2,136.00
2021 - Oct	$2,012.13
2021 - Nov	$1,455.32

Figure 56: Monthly Medical Marijuana Seed Sales (Each)

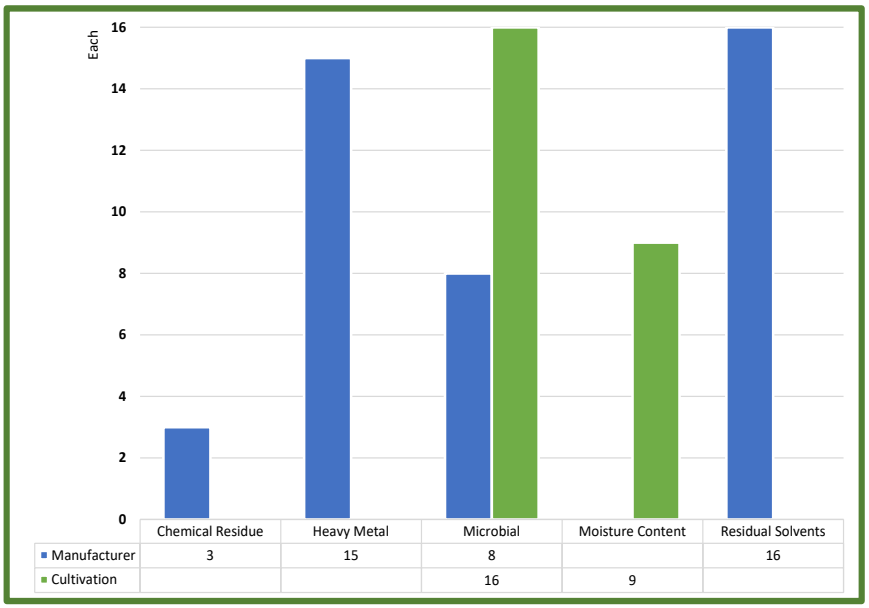


	Seeds
2020 - Dec	387
2021 - Jan	747
2021 - Feb	294
2021 - Mar	831
2021 - Apr	630
2021 - May	522
2021 - Jun	447
2021 - Jul	386
2021 - Aug	367
2021 - Sep	222
2021 - Oct	216
2021 - Nov	164
2021 - Dec	21

Patients purchased 5,234 individual seeds in PY21.

Product Remediation
The MMRP allows facilities to request remediation for products that fail state compliance testing. Each request for remediation is subject to department approval per 19 CSR 30-95.040(4)(J). In PY21, DHSS received 67 requests for remediation.

Figure 57: PY21 Product Remediation By Type



	Chemical Residue	Heavy Metal	Microbial	Moisture Content	Residual Solvents
Manufacturer	3	15	8		16
Cultivation			16	9	

Article XIV outlines that the MMRP shall not require any medical marijuana or medical marijuana-infused products to be tested more than once prior to sale. 19 CSR 30-95.070(4)(A) states that compliance testing shall only be performed on the final Medical Marijuana product equivalent to what will be dispensed to the patient.

Additionally, the MMRP allows product to undergo research and development testing at any point in production, per 19 CSR 30-95.070(4)(C). Research and development testing gives facilities the flexibility to test products before a compliance panel and reduce the need to request remediation.

Suspend, Fine, Restrict or Revoke Licenses and Certifications

DHSS is granted the authority to suspend, restrict, and revoke licenses, as necessary, and impose administrative penalties in certain circumstances. Rules regarding violations and penalties are posted with all other regulations on the DHSS website.

Patient and Caregiver Enforcement

DHSS receives complaints from law enforcement and the public when individuals are suspected of violating Article XIV or 19 CSR-30-95. Each report or complaint is investigated and may result in the revocation of a patient, caregiver or patient cultivator license.

DHSS received 58 patient complaints in PY21 with unauthorized access to marijuana as the top complaint. Unauthorized access means a person was reported to be in possession of medical marijuana but did not have a valid patient card.

Facility Enforcement

The statewide track and trace system is an important regulatory tool for monitoring patient purchase limits and for preventing diversion of regulated products into the black market. All licensed facilities are required to track in this system all medical marijuana from seed, or immature plant stage, until the product is either destroyed or sold to a patient or caregiver.

Investigations related to tracking product or any other regulated activities can be initiated several ways. DHSS may receive a complaint about a licensed facility, or DHSS staff may discover an issue during an inspection or review. In either case, DHSS will determine if an investigation is warranted to substantiate the allegations or potential compliance issue. In the event an investigation is warranted, DHSS will provide the facility with a copy of the complaint, if there is one, and an opportunity to respond at the time of investigation.

If DHSS determines, during an inspection or otherwise, that a facility is not in compliance with Article XIV or applicable rules and regulations, an Initial Notice of Violation will be issued to the facility explaining how the facility has violated the rules and what remedial or corrective actions the facility is expected to take. Once a facility has been notified of the violation(s), the facility is required to correct the violations within 15 days. DHSS will then conduct a follow-up inspection within 15 to 30 days to confirm the facility has corrected the violation(s). The facility must notify DHSS if they believe additional time to correct the violation(s) is needed, which may be granted for good cause.

If a follow-up inspection reveals the violation(s) have not been corrected, a Final Notice of Violation will be issued to the facility explaining how the facility continues to violate the rules and regulations, describing what remedial or corrective actions the facility is expected to take, and notifying the facility that its license or certifications will be suspended if the specified remedial action is not taken and the violation(s) corrected within 30 days. If the facility fails to correct the violation(s) within 30 days after a Final Notice of Violation, and no extension of this deadline was granted, the facility's license or certification will be suspended, the facility will be required to cease operations, and the facility must sign a corrective action plan designed to bring the facility into compliance. If, at any time, DHSS determines a facility presents an immediate and serious threat to the health and safety of the public or the facility's employees, the facility may be ordered to immediately suspend all or a part of its operations until the threat has been eliminated.

DHSS received 32 facility complaints in PY21 with unauthorized access as the top complaint. Unauthorized access means a person was reported to be employed by the facility but did not have a valid Agent ID to work in a medical marijuana facility. In addition, DHSS opened five facility investigations in response to rule violations. The investigations are ongoing.

Appeal Process for License Denials

Administrative Hearings

DHSS focuses a majority of its efforts on ensuring that patients, caregivers, agents, and facilities know and understand what is required for an application to be approved and what is required to retain a license that is granted. However, when it becomes necessary to deny an application or suspend or revoke a card, license, or certification, these actions may be appealed, per Article XIV.

Per Article XIV, a denial of license or identification card may be appealed to the State of Missouri Administrative Hearings Commission ("AHC"). The AHC acts as a neutral and independent tribunal to impartially review agency decisions. The right to an administrative hearing is contingent on the individual or business filing a petition with the AHC within 30 days of DHSS' sending its decision to the individual or business.

During PY21, the AHC received 104 appeals from the denial of a patient, caregiver, or agent card. The AHC granted one agent card, two patient cards, and one caregiver card in PY21. From December 2019 to February 2020, the AHC received 853 appeals from denied facility applicants. At the end of PY21, 542 facility appeals remain active, down from 742 remaining in PY20. The AHC ordered DHSS to issue three facility licenses, one dispensary and two cultivation facilities. The remaining decline in cases is a result of cases being dismissed or otherwise resolved in favor of DHSS.

Cases Filed with the Courts

In addition to appeals of denials before the AHC, state agencies may be sued in circuit court. AHC decisions may also be appealed for review by the circuit court. As with all cases that are filed with Missouri circuit courts, decisions entered by the lower courts can be appealed up to the Court of Appeals or the Supreme Court. Seven court cases were active during PY21 challenging various aspects of the MMRP or actions taken by DHSS.

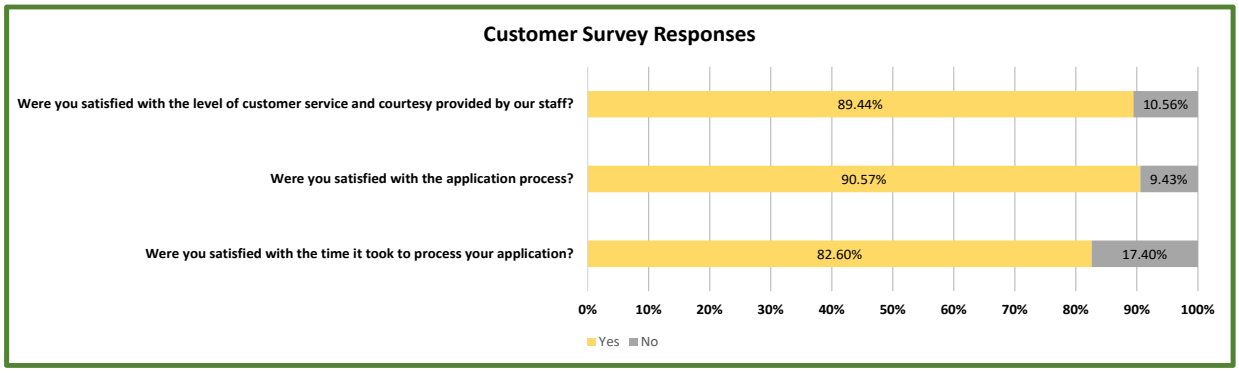
Stakeholder Engagements

DHSS utilizes several modes of communication in its efforts to provide education and transparency to the public, including: subscriber email list for patient services, Patient Services Newsletter, printed educational materials, press releases, community presentations, a robust website and social media platforms.

Customer Satisfaction

Public satisfaction and feedback is a valuable resource in maintaining a successful program. All applicants are given opportunities to provide DHSS with feedback regarding their application experience. A link to the customer satisfaction survey is sent to each applicant, including facilities, as part of their application receipt confirmation email. There were 6,076 surveys received for an average of 506 per month or 117 per week. The majority (97.7%) of submitted surveys were from patients.

Figure 58: Customer Survey Responses



Only 24.19% of survey respondents replied that they reached out to the MMRP call center staff for assistance during the application process. Out of that 24.19%, 89.44% were satisfied with the level of customer service provided by staff. Overall the interactions with staff were positive and respondents felt their reason for contacting the MMRP was resolved.

Communication and Education

Figure 59: Community Outreach

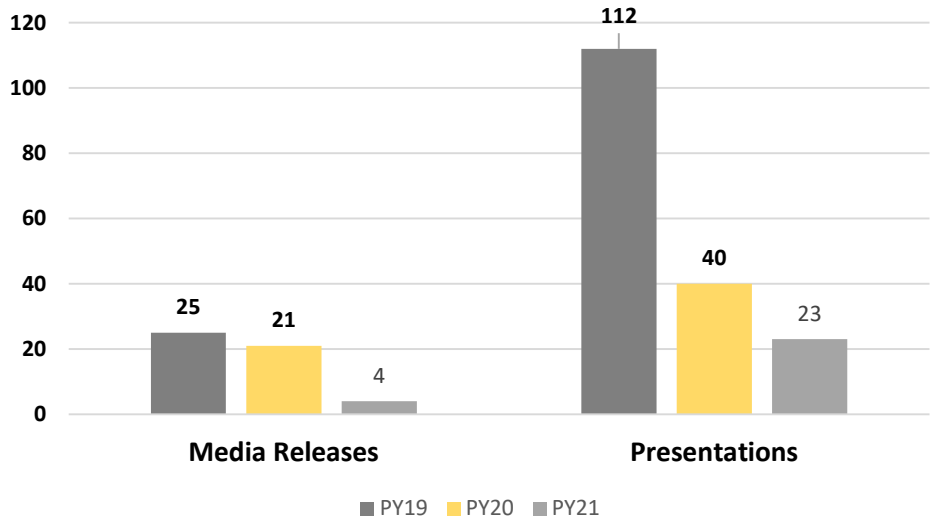
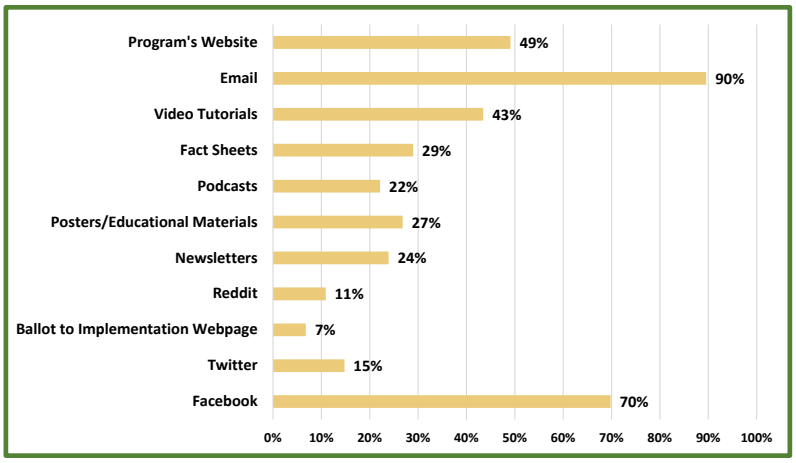


Figure 60: Where Do You Go For Information?

During the summer 2021, a new question, “Where do you go for Information?,” was added to the satisfaction survey to assist DHSS in improving educational outreach.



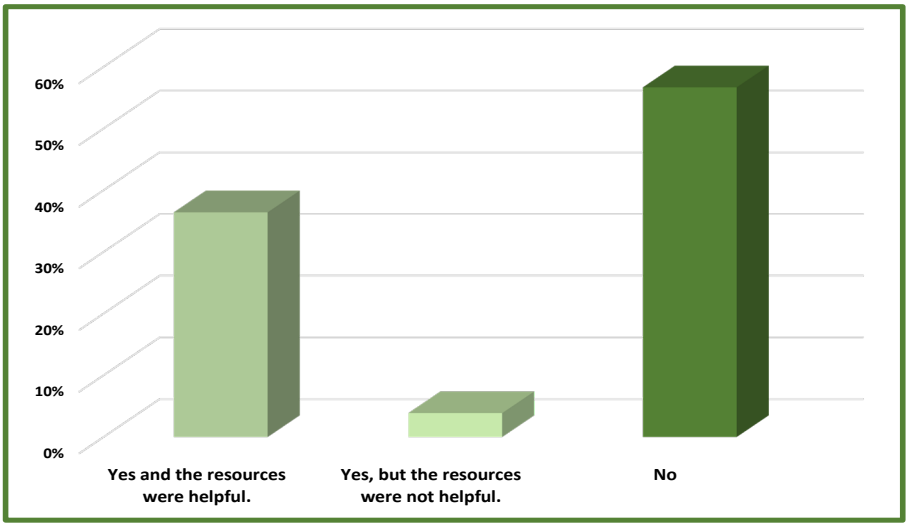
Website

The MMRP website offers current, concise content and easy to navigate links making it an ideal avenue for channeling communication and outreach. Unique page views are a metric that aggregates page views during a user’s session and gives credit only once to each page viewed during a visitor’s session.

Figure 61: Number of Website Views

Webpage	Unique Views	Average Time on Page
Feedback	1,659	0:01:48
Frequently Asked Questions Home Page	18,372	0:00:55
MMRP Home Page	149,962	0:02:08
How to Apply - Facility	22,754	0:09:28
How to Apply - Patient	356,556	0:08:21
Patient Tutorials	27,064	0:04:01

Figure 62: MMRP Tutorials and User Guides: Did You Access These Resources?



In PY21, DHSS added several new patient related education tools to the website. Some of the additions included a page specific to patient caregiver cultivation outlining cultivation requirements, and an application flow chart to help patient, caregiver, and agent ID applicants determine the type of application to complete for the associated license type.

Collaboration

Implementation of Article XIV impacts multiple state and local agencies, and collaborating with these agencies continues to be a priority. In PY21, DHSS led two formal work groups focused on medical marijuana implementation, one of which includes representatives of numerous Missouri state agencies and the other includes representatives of Missouri law enforcement entities.

DHSS also continues to connect with interstate workgroups. During PY21, DHSS joined the National Cannabis Regulators Association (CANNRA). CANNRA is a newly formed formal membership of cannabis regulators and other state partners, who can learn from other states' experiences and assist each other in solutions to shared concerns.

Conclusion

The Medical Marijuana Regulatory Program's (MMRP) primary focus for Program Year (PY) 21 was the commencement of facilities and enforcement of regulations and regulatory expectations as those facilities commenced operations. Department of Health and Senior Services (DHSS) conducted, on-average, five inspections per week to achieve this goal. At the end of PY21, 302 (78%) facilities had passed a Commencement Inspection (CI) and received their Approved to Operate (ATO), and another 19 had requested a CI. Additionally, the department increased the number of licenses issued for cultivation and infused-product manufacturers in response to the 2020 US Census population data.

By the end of PY21, there were over 5,000 agent cards issued, significantly contributing to Missouri's workforce growth. A survey of licensed facilities during the fall of 2021 projected, on-average, 200 agents expected per facility by the end of calendar year 2022.

In the early days of program implementation, DHSS projected there would be at least 120,000 – 180,000 patients by the end of three years based on an adoption rate of 2-3% of the Missouri population. PY21 concluded three years with 155,175 active patients (2.47% adoption rate). DHSS projects there will be over 200,000 active patients at the end of PY22.

Retail sales began in October 2020 and increased month after month throughout PY21 with $4,054,490 in medical marijuana tax deposited into the Veterans' Health and Care Fund by the end of PY21. DHSS projects taxes will trend over $11,000,000 in PY22. There was $6,843,310 transferred to the Veterans Commission in September 2021 bringing the cumulative total transferred to $8,978,820. DHSS anticipates and supports an increase to the Fiscal Year (FY) 22 and future transfer appropriations to provide more funds for Missouri veterans.

In the upcoming PY22, DHSS will finalize any remaining pieces of program implementation regarding those facilities who have not yet passed a CI and begin receiving license renewal applications. Additionally, those facilities approved by the department to fulfill their application commitments in two or more phases will need to complete additional inspections to expand operations with each subsequent phase. Lastly, owners and investors are now allowed to sell licenses. The sale of a facility license must be pre-approved by DHSS, and the department anticipates receiving several requests in PY22.

Appendix A: Implementation Dates

The list below provides specific dates to key implementation activities.

- **01/07/21**: Approved 100th Variance Request for operational deadline.
- **01/09/21**: Held education webinar for physicians.
- **01/20/21**: Press release regarding implementation of electronic physician certification process.
- **01/28/21**: Began accepting applications for physician accounts in the registry as the first phase towards implementation of electronic Physician Certification Forms.
- **02/04/21**: Approved 200th Variance Request for operational deadline.
- **02/18/21**: Approved 200th Business Change Request.
- **03/17/21**: Posted fee tables for 7/1/2021-6/30/2022.
- **03/22/21**: Approved 100th facility to operate.
- **03/31/21**: First monthly revenue report showing tax deposited into Veterans' Health and Care Fund.
- **05/26/21**: Only electronic Physician Certification Forms accepted as part of the patient's application.
- **06/23/21**: Joined the National Cannabis Regulators Association.
- **06/25/21**: Approved 200th facility to operate.
- **Jul 2021**: Dispensaries began offering discounts to low-income, seniors, disabled, and veterans.
- **07/31/21**: Surpassed 120,000 active patients.
- **08/03/21**: Approved 300th Business Change Request.
- **08/19/21**: PY20 Annual Report to the Governor published to website and press release issued.
- **09/16/21**: Press release regarding $6.8M transfer to the Veterans Commission.
- **09/29/21**: Approved 500th Variance Request for operational deadline.
- **10/01/21**: Added patient's license number to caregiver's digital card.
- **10/19/21**: Received 1st Post-Operational Change Request for location.
- **11/22/21**: Approved 300th facility to operate.
- **12/05/21**: End of PY21.

Appendix B: Active Qualifying Patients by Condition

Active Qualifying Patient Count by Condition for Program Year 2021	
Condition	**Number of Active Patients by Condition**
Any Terminal Illness Category	
Cancer	4,273
Other Terminal Illness (not defined)	92
Cachexia	10
Sickle Cell Anemia	5
Amyotrophic Lateral Sclerosis	6
Huntington's Disease	6
Chronic Medical Conditions Category	
Other Chronic Medical Conditions (not defined)	33,983
Neuropathies	632
HIV	376
Crohn's Disease	243
Inflammatory Bowel Disease	225
Hepatitis C	106
Autism	29
Wasting Syndrome	2
Other Conditions Category	
Other Conditions (not defined)	19,427
Epilepsy	1,453
Glaucoma	1,163
Alzheimer's Disease	4
Individually Listed Conditions	
Physical/Psychological Dependence	63,051
Psychiatric Disorders	20,604
Migraines	10,316

Appendix C: Data and Methodology

Average Price for 3.5 grams of Flower
Regulated retail product refers to medical marijuana that has met safety and quality standards set forth in rule. DHSS collected retail prices on flower products from dispensaries' websites. DHSS collected a minimum of five percent of the flower prices from each website. For example, if there were 74 flower products on the website, a minimum of four items were collected. Finally, DHSS calculated the average flower price.

Information collected from each website, if available, included: date, website, dispensary name, product description, brand, product type, price, species, THC and weight.

Defining Licensure Data
Active patient data is a fluid, time-specific number which changes every time the status of a patient record changes. In the PY19 Annual Report, active counts were referred to as "Approved". Retention considers whether a distinct card number issued during the previous year was re-issued during the current program year.

Issued patient card data is a static number and refers to those licenses issued to patients. It includes all card status designations – those that are active, expired, and deactivated.

Demand
DHSS used METRC data to query the number of distinct active patients purchasing per month. This group was then compared to the active patient count data queried from the MMRP Registry for the same time period.

Minimum Standards For Facility Licensure
- The entity is authorized to operate as a business in Missouri;
- The entity is not under substantially common control as another entity or combination of other entities in violation of 19 CSR 30-95.040(3)(C)-(D);
- The entity is not within 1,000 feet of an existing school, daycare, or church, or a local government's less restrictive requirements;
- The entity can comply with any local government zoning laws; and
- The entity will not be owned in whole or in part by, or have as an officer, director, board member, or manager, an individual with a disqualifying felony offense.

State Cohort
DHSS reviewed publicly available data from 21 states, who implemented medical marijuana laws since 2005: Arizona, Arkansas, Connecticut, Delaware, Illinois, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, Utah, and West Virginia.

As medical marijuana laws and regulations vary from state to state, two distinctions were considered when selecting states for the cohort: how medical marijuana is defined and the date of first regulated sale.

Article XIV allows for regulated facilities, regulated sales, and patient cultivation. Prior to 2005, few states contained provisions in their laws for regulated sales of medical marijuana as patients cultivated their own product. Thus, 2005 was the earliest year used to determine which states would be included in the cohort. While several states have amended their pre-2005 medical marijuana laws to include regulated facilities and sales, only Michigan and Rhode Island's post-2005 laws were amended to include regulated facilities and regulated sales.

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