February 2014





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This document shall serve as the biennial report to the Governor and Legislature on the New Jersey Department of Health Medicinal Marijuana Program. This report addresses the statutory reporting requirements found at N.J.S.A. 24:6I-12(c). The purpose of this report is to determine:

- whether there are sufficient numbers of alternative treatment centers to meet the needs of registered qualifying patients throughout the State;
- whether the maximum amount of medicinal marijuana allowed pursuant to law is sufficient to meet the medical needs of qualifying patients; and
- whether any alternative treatment center has charged excessive prices for marijuana that the center dispensed.

Summary

On January 18, 2010, the Compassionate Use Medical Marijuana Act (the Act) was signed into law. N.J.S.A. 24:6I-1 et seq. The Act placed the responsibility of implementation with the New Jersey Department of Health (Department). Since the passage of the Act, the Department established a Medicinal Marijuana Program (MMP) with the following goals:

- to implement a program that allows patients with qualifying debilitating medical conditions to obtain medicinal marijuana in a timely, safe and responsible manner;
- to ensure the integrity of the program by conducting appropriate background examinations of those entities and individuals involved with the program, specifically Alternative Treatment Centers;
- to protect the public from the risks associated with the cultivation and distribution of medicinal marijuana, including safety risks posed by product diversion; and
- to create and administer a medicinal marijuana program with the highest standards that will serve as a model for other states that have enacted legislation to legalize marijuana for medicinal purposes.

Evaluation 1

Purpose

Evaluate whether there are sufficient numbers of Alternative Treatment Centers (ATCs) to meet the needs of registered qualifying patients throughout the State.

Background Information

Alternative Treatment Centers Examination

A background examination process for qualifying Alternative Treatment Centers (ATC) was developed by the Department in cooperation with the Department of Law and Public Safety (LPS). The purpose of the examination is to ensure the long-term integrity of the MMP by thoroughly reviewing all aspects of the ATCs' business, financial, and personnel structures. The background examination materials were disseminated to the six selected ATCs on November 18, 2011. ATCs were instructed to complete the background examination materials and submit them to the Department for processing.

Timeline

- December 15, 2011 Preliminary examination materials received from Greenleaf Compassion Center (GCC). The GCC examination was completed on April 16, 2012.
- February 13, 2012 Preliminary examination materials received from Compassionate Care Foundation (CCF). The CCF examination was completed on March 18, 2013.
- August 24, 2012 Preliminary examination materials received from Breakwater ATC (Breakwater). Breakwater examination was completed on December 13, 2013.
- September 4, 2012 Preliminary examination materials received from Compassionate Care Center of America, conducting business as Garden State Dispensary (GSD). GSD examination was completed on April 24, 2013.
- February 12, 2013 Preliminary examination materials received from Compassionate Science ATC (CSATC). CSATC examination is ongoing.

 August 30, 2013 – Preliminary examination materials received from Foundation Harmony (Harmony).

All ATCs continue to augment their initial submissions with additional information as necessary.

Four of the six selected ATCs have completed the background examination process. Depending on the complexity of the ATC business structure, contractual agreements and the timeliness and responsiveness to questions, the timeframe for completing ATC examinations is between 4 months and 15 months. The process is comprehensive and labor intensive for both the ATC and the Department.

Three of the six selected ATCs have been permitted by the Department and are operational. GCC is located in the north, GSD in the central, and CCF in the south. All three ATC locations are easily accessible by major roadways.

Patient Access

Patient and caregiver registration was initiated on August 9, 2012, in anticipation of GCC becoming operational in mid-September. GCC requested MMP inspection of their facility on October 3, 2012. MMP conducted the permitting inspection on October 4, 2012, and GCC was issued a permit to operate on October 15, 2012. GCC became operational on December 6, 2012. On December 5, 2012, there were 338 patients registered with MMP. All registered qualifying patients were, by default, registered with GCC.

CCF was permitted on October 3, 2013, and became operational on October 28, 2013. The registered qualifying patient population at this time was approximately 1,300.

GSD was permitted on November 20, 2013, and became operational on November 22, 2013; the registered qualifying patient population at this time was approximately 1,500.

As of February 18, 2014, the registered qualifying patient population of 1,755 is divided among the three operational ATCs as follows: GCC – 310 patients (17 percent); CCF – 501 patients (29 percent); and GSD – 944 patients (54 percent).

Thus far, GCC has served 137 of the 310 patients registered at its dispensary, or 44 percent of its registry; CCF has served 483 of 501, or 96 percent; and GSD has served 742 of 944, or 79 percent. As of February 18,

2014, 78 percent of registered patients have been served by one of the three permitted ATCs.

ATC Cultivation

GCC was permitted to initiate cultivation on April 16, 2012. To date, GCC has initiated 2,887 marijuana plants and harvested 1,466 plants, for a cultivation rate of 51 percent. GCC currently has 196 plants in active cultivation.

CCF was permitted to initiate cultivation on June 6, 2013. To date, CCF has initiated 2,352 marijuana plants and harvested 2,186 plants, for a cultivation rate of 93 percent. CCF currently has 1,963 plants in active cultivation.

GSD was permitted to cultivate on August 7, 2013. To date, GSD has initiated 388 marijuana plants and has harvested 366 plants, for a cultivation rate of 94 percent. GSD currently has 1,153 plants in active cultivation.

ATC Harvest Yield

GCC has harvested 1,466 marijuana plants and dispensed 393 ounces to patients. GCC produces .48 ounces per plant harvested. It dispensed .27 ounces per plant.

CCF has harvested 2,186 marijuana plants and dispensed 435 ounces to patients. CCF produces .26 ounces per plant harvested. It dispensed .20 ounces per plant.

GSD has harvested 366 marijuana plants and dispensed 773 ounces to patients. GSD produces 3.9 ounces per plant harvested. It dispensed 2.1 ounces per plant.

ATC	Initiated	Harvested	Cultivation	Yield per plant	Yield	Product
			Rate		Dispensed	Dispensed
GCC	2,887	1,466	51%	.48 ounces	.27 ounces	393 ounces
CCF	2,352	2,186	93%	.26 ounces	.20 ounces	435 ounces
GSD	388	366	94%	3.9 ounces	2.1 ounces	773 ounces

MMP Customer Service Outreach

Since the MMP's inception, the MMP Customer Service Unit (CSU) has provided electronic and telephonic guidance to the MMP patient and caregiver population. As each subsequent ATC is permitted to operate, the CSU initiates e-mail and personal contact with the patient base to provide updates on the

MMP's status, including but not limited to new ATC availability. The CSU maintains a website at http://nj.gov/health/medicalmarijuana/. The website routinely provides updates and information for patients, physicians and caregivers. The website also maintains a section on frequently asked questions.

Evaluation Study & Design

MMP compiled internal (MMP Registry) and external (ATC Internal Inventory Management System) statistics from the patient registry; ATC permitting dates; and ATC cultivation, harvest, and dispensing logs to conduct an evaluation of the three permitted ATCs' ability to serve the patient population at specific time periods during the program. Consideration is given to individual ATC's cultivation and harvest success as obtained from the ATC internal inventory management systems.

Results

Three significant factors in measuring an ATC's ability to meet patient needs have emerged in this evaluation. The first is the cultivation success rate of plants initiated to plants surviving to harvest. The second is the yield rate per ounce of useable product per harvested plant. The third is continuity in cultivation schedules. A high rate of success in these three areas equates to a greater number of patients being served.

Greenleaf Compassion Center – Montclair

GCC's success rates in these three areas: 51 percent in cultivation, a yield per plant of .48 oz., and has 197 plants in cultivation. The GCC cultivation facility suffered water damage in the second half of 2013, leaving the facility unable to sustain an adequate environment for cultivation. GCC has completed the construction of their new cultivation facility and has renewed cultivation operations. To date, GCC has served 137 patients since their opening on December 6, 2012.

Compassionate Care Foundation – Egg Harbor

CCF success rates in these three areas: 93 percent in cultivation, a yield per plant of .26 oz., and has 1,963 plants in cultivation.

With the opening of CCF on October 28, 2013, two ATCs were operational in the State. CCF has been able to serve 96 percent of the patients who have

designated them as their ATC of choice. CCF had an initial harvest of 400 ounces of product and a client base of 600 patients.

Garden State Dispensary – Woodbridge

GSD success rates in these three areas: 94 percent in cultivation, a yield per plant of 3.9 oz., and has 1,153 plants in cultivation.

With the opening of GSD on November 22, 2013, there were three ATCs operational in the State. GSD has acquired 54 percent of the total registered patient population and has served 79 percent of that population. GSD began operations with an initial inventory of 400 ounces of product. GSD's experience in cultivation has provided a high product yield and high cultivation continuity.

Conclusions & Recommendations:

The MMP Customer Service Unit contacts, via e-mail and telephone, each patient registered with the program to advise them of the opening of additional ATCs. As of February 18, 2014, GSD supplies 54 percent of the total patients registered with MMP, GCC supplies 17 percent, and CCF supplies 29 percent. The success of GSD in the areas of cultivation, yield per plant, and continuity in cultivation coupled with the improving CCF and GCC will adequately serve their respective patient bases. GSD has the capacity and ability to serve upward of 2,000 patients. CCF has the present capacity to serve 500 patients and is expected to increase that number through improved plant cultivation and increased product yield per plant. GCC has completed the construction of their new cultivation facility and has renewed cultivation operations. Each geographic region of the State is represented by an operational ATC and all ATC locations are easily accessible by major roadways.

Following background examination approval, the average timeframe for an ATC to become operational is 6.5 months. Breakwater Alternative Treatment Center (Breakwater) completed the background examination process on December 13, 2013. Breakwater is expected to be operational in 2014. The addition of Breakwater will provide a broader range of ATC availability and also increase the MMP's capacity to serve registered patients.

The patient registry opened on August 6, 2012. As of February 18, 2014, 1,755 patients are registered with MMP. The registry growth has been

approximately 92 patients per month. The combined capacities of GCC, CCF, and GSD have the ability to serve anticipated growth at this time. The program concludes that the present number of ATCs is capable of meeting the current registered qualifying patient needs. MMP does not, at this time, recommend additional ATCs beyond the six nonprofits identified in the initial selection process. Moving forward, the Department will continue to review and evaluate this information.

Evaluation 2

<u>Purpose</u>

Evaluate whether the maximum amount of medicinal marijuana allowed pursuant to the Act is sufficient to meet the medical needs of registered qualifying patients.

Background Information

The patient registry opened on August 9, 2012. On that date, physicians were able to initiate patient certifications for the use of medicinal marijuana. By statute, a physician is permitted to certify no more than two ounces of medicinal marijuana in a 30-day time-period and may certify up to 90 days before patient reevaluation. Medicinal marijuana is certified and dispensed in increments of one-eighth of an ounce. If a physician does not enumerate a specific 30-day amount, the program defaults the patient to the two-ounce maximum.

Evaluation Study & Design

The MMP derived statistical information from the patient registry to compile trends in physician-certification amounts and patient-purchase amounts.

Results

As of February 18, 2014, 173 of the active physicians registered with MMP have been certifying medicinal marijuana use. Those physicians have provided certifications to 1,755 patients. A review of the physician certifications revealed that 58 percent certified more than one ounce and 42 percent certified one ounce or less.

A review of patient purchases from the three permitted ATCs for the calendar month of December 2013 revealed that out of 1,593 total transactions, 5 percent were for more than an ounce and 95 percent were for one ounce or less.

Conclusions & Recommendations

The MMP is a physician-driven medical model. Physicians are responsible for establishing a bona fide relationship with the patients, conducting a comprehensive evaluation of the patient and, if, in their determination, the patient is eligible for the program, the physician certifies the use of medicinal marijuana and the amount to be obtained in a given certification period. Additionally, purchasing trends reveal that the vast majority of patients purchase one ounce or less regardless of the physician's certified amount. As medicinal marijuana is not covered by insurance, patient purchasing is on a need-only basis and utilization is largely conducted by the patient self-monitoring of medicating need. The program concludes that based on this evidence the patients' medical needs are being met by the two-ounce limit.

Evaluation 3

<u>Purpose</u>

Determine whether any ATC has charged excessive prices for marijuana that the center dispensed.

Background Information

A background examination process for qualifying ATCs was developed by the Department in cooperation with LPS. The purpose of the examination is to ensure the long-term integrity of MMP by thoroughly reviewing all aspects of the ATCs' business, financial and personnel structures. The first six ATCs are required to be nonprofit organizations. By definition, a nonprofit organization uses its surplus revenues to achieve its goals rather than distributing that revenue as profit or dividends. Nonprofit organizations are permitted to generate surplus revenue but it must be retained by the organization for self-preservation, expansion, or plans in furtherance of the nonprofit's stated mission.

One of the more challenging aspects of the ATC examinations has been the review of the ATC business plans and service agreements with contractors. Several ATC examinations resulted in multiple iterations of funding contracts and service agreements before the Department was satisfied with the ATCs' adherence to nonprofit standards.

The Department's vision for ATCs is to benefit the participants of the medicinal marijuana program in a tangible way. One way is providing product at a reasonable price.

The price of one ounce of medicinal marijuana dispensed by New Jersey ATCs ranges from \$400.00 to \$520.00 with an average price of \$469.00. MMP asked programs similar to New Jersey about medicinal marijuana price with the results listed below. The cost of living index was obtained from the United States Census Bureau 2012 statistical abstract.

State	Average price per ounce	Cost of living index
New Jersey	\$469	131.3
Arizona	\$430	100.7
New Mexico	\$375	109.7
Vermont	\$370	120.5
Maine*	unavailable	N/A
Rhode Island*	unavailable	N/A
Average	\$392 (about 17% less)	110.3 (16% less)

^{*}State programs did not have this information available at the time of this report

According to 2010 data from the Drug Enforcement Agency (DEA), the price of hydroponic black market marijuana in the State of New Jersey is \$400 to \$450 per ounce. The average price of ATC marijuana is \$469, or between four and 15 percent above the DEA reported black market price.

The Act requires the first two ATCs issued permits in each region of the State be nonprofit entities. However, federal law does not allow ATCs to register as a nonprofit organization due to the nature of their business in cultivating and distributing marijuana, which is not allowed under federal law.

Patients are permitted to choose any operational ATC from which to purchase medicinal marijuana. A patient may switch their ATC affiliation at any time without incurring additional costs.

Evaluation Study & Design

MMP obtained information from the following sources: three other state medical marijuana programs with similar regulatory requirements to New Jersey; national cost of living variations; DEA reported prices of black market marijuana in New Jersey; and internal program experience while conducting ATC examinations.

Results

Six of the 21 states that have legalized marijuana for medicinal purposes permit cultivation and dispensary operations. The price of medicinal marijuana in Maine and Rhode Island was not available at the time of this report. The three states reported have an average price per ounce of 17 percent less than New Jersey. The average cost of living in the states with similar regulatory requirements is on average 16 percent less than New Jersey.

ATC marijuana is cultivated, packaged and dispensed in secure, sanitary environments. ATCs are not permitted to utilize pesticides and the Department tests for cannabinoid profiles as well as toxic metals and mycotoxins. Patients are provided with a laboratory tested product with known ingredients.

Registration in MMP affords patients protection under the Act in securing medicinal marijuana from an ATC.

ATCs pay a federal corporate tax rate of 34 percent. This equates to \$159.46 for each ounce sold at the average ATC price of \$469.

Conclusions & Recommendations

Based upon cost of living variations, the price of New Jersey medicinal marijuana is within one percent of the price in states with similar regulatory models. The price of New Jersey medicinal marijuana is within five and sixteen percent of New Jersey black market marijuana. New Jersey medicinal marijuana is regulated and tested, patients are afforded protection under the Act both in product labeling and purchasing and patients are able to change ATC affiliation at any time at no cost. ATCs are required to pay federal corporate tax at a rate of 34 percent.

Given those considerations, as well as the regulatory oversight and patient protections built into the program, the Department determines that no ATC is charging excessive prices for medicinal marijuana.