Veterans Affairs Canada
Anciens Combattants Canada

REVIEW OF MARIJUANA FOR MEDICAL PURPOSES

November 2016

Audit and Evaluation Division

Canada

Acknowledgements

The Review team would like to gratefully acknowledge Veterans Affairs Canada staff in *area offices and Head Office*, along with Medavie Blue Cross. Their contributions were essential to the success of this review.

Table of Contents

EXECUTIVE SUMMARY

Prior to the introduction of the *Marihuana for Medical Purposes Regulations* (MMPR), the *Medical Marihuana Access Regulations* (MMARs) extremely limited access to cannabis to a small number of conditions and circumstances and only when authorized by a specialist. Since 2008, Veterans Affairs Canada (VAC) has provided coverage for the cost of marijuana for medical purposes (MMP) to Veterans who obtained the product in accordance with Health Canada regulations. Under the MMARs, access was in limited circumstances and the number of Veterans receiving MMP were appropriately low.

On April 1st, 2014, Health Canada released new regulations which eliminated the need to meet certain health criteria before obtaining MMP. The new regulations allow private producers, licensed by Health Canada, to supply MMP to Canadians who have authorization from a physician to access the product. The licensed producers determine the price to charge their recipients. The number of recipients with active authorizations for MMP has been increasing every year. Expenditures for MMP have increased from approximately $416,000 in fiscal year 2013-14 to $20,538,153 in fiscal year 2015-16.

In March 2016, the Minister of Veterans Affairs, the Honourable Kent Hehr, announced a comprehensive review of MMP in response to observations from the Auditor General of Canada.

The scope of the review included background data analysis and information from 2008 until March 31, 2016 and MMP authorization file review population from April 1, 2015 until March 31, 2016. Data and file review populations excluded Royal Canadian Mounted Police (RCMP) members.

Objectives of the review included the development of a recipient profile, assessment of VAC's internal governance and compliance, identification of gaps in Veteran health, safety and well-being; and, a review of other benefits, services and programs that the Department is providing to Veterans in receipt of MMP.

Recommendations

It is recommended that the Assistant Deputy Minister, Strategic Policy and Commemoration and the Assistant Deputy Minister, Service Delivery develop and implement a policy concerning marijuana for medical purposes. The policy to include:

i. Lower gram limits for new authorizations;
ii. Review of current authorized amounts for existing beneficiaries; and
iii. Cannabis oil and fresh marijuana.

It is recommended that the Assistant Deputy Minister, Service Delivery determine training gaps and deliver training to VAC staff in relation to marijuana for medical purposes.

Chief Audit Executive's Signature

(original signed by:) November 15, 2016
Sheri Ostridge Date
Chief Audit Executive

1.0 BACKGROUND

Prior to the introduction of the *Marihuana for Medical Purposes Regulations* (MMPR), the *Medical Marihuana Access Regulations* (MMARs) extremely limited access to cannabis to a small number of conditions and circumstances and only when authorized by a specialist. Since 2008, Veterans Affairs Canada (VAC) has provided coverage for the cost of marijuana for medical purposes (MMP) to Veterans who obtained the product in accordance with Health Canada regulations. Under the MMARs, access was in limited circumstances and the number of Veterans receiving MMP were appropriately low.

On April 1st, 2014, Health Canada released new regulations which eliminated the need to meet certain health criteria before obtaining MMP. The new regulations allow private producers, licensed by Health Canada, to supply MMP to Canadians who have authorization from a physician to access the product. The licensed producers determine the price to charge their recipients.

Health Canada's *Consumer Information – Cannabis (Marihuana, marijuana)* document of December 2015 noted that MMP may be authorized for the relief of symptoms associated with a variety of disorders which have not responded to conventional medical treatments. However, MMP is not an approved therapeutic product in Canada. At present, while pointing to some potential therapeutic benefits, the scientific evidence does not establish the safety and efficacy of marijuana to the extent required by the *Food and Drug Regulations* for marketed drugs in Canada[1]. However, the MMPRs provide a mechanism for patients to access MMP in response to decisions of the Canadian courts requiring reasonable access to a legal source of MMP[2].

Currently, VAC will reimburse up to 10 grams of dried MMP per day for Veterans as identified by the authorizing physician. With no established rates, VAC pays the rate charged by licensed producers.

Timeline

- In 2001, Canada was the first country to adopt a formal system to regulate the medicinal use of marijuana - the MMARs.
- Under the MMARs, Health Canada was responsible for approving all requests for MMP, approval was dependent on certain categories of symptoms and conditions and required a specialist recommendation. The MMP was supplied by Health Canada and the price was set at $5.00 per gram.
- In 2008, VAC approved MMP on an exceptional basis for one Veteran.
- VAC proceeded to develop a position that allowed for VAC to cover costs of MMP for eligible Veterans who were approved by Health Canada. VAC became the only public funder of marijuana in Canada.

---

1 Health Canada: Marihuana for Medical Purposes Regulations Daily Amount Fact Sheet (Dosage) April 2016. http://www.hc-sc.gc.ca/dhp-mps/marihuana/med/daily-quotidienne-eng.php Retrieved (June 2016).

2 Health Canada: Statement on Supreme Court of Canada Decision in *R vs. Smith* July 2015 http://www.hc-sc.gc.ca/dhp-mps/marihuana/info/licencedproducer-producteurautorise/decision-r-v-smith-eng.php Retrieved (June 2016).

- VAC's Medical Marijuana Guidelines for Treatment Benefits became effective as of July 2012. The purpose of these guidelines was to provide direction pertaining to requests for approval of medical marijuana as a VAC Benefit.
- The MMPRs came into force in June 2013. The regulations created conditions for a commercial industry that was responsible for the production and distribution of MMP. They also ensured that Canadians with a medical need could access quality controlled marijuana grown under secure and sanitary conditions, similar to medication.
- The MMARs were revoked on March 31, 2014.
  As of April 1, 2014:
    - Recipients were no longer allowed to grow their own MMP. (A court injunction allowed individuals who had a license to grow cannabis under MMARs to continue to do so until the court case was heard or the injunction was appealed.)
    - MMPRs granted individuals access to MMP on the submission to a licensed producer of a medical declaration from a health care practitioner authorized to prescribe in a given jurisdiction. The MMPRs define health care practitioner as a medical practitioner or nurse practitioner. A medical specialist recommendation was no longer required.
    - MMPRs do not limit access based on medical conditions or symptoms and therefore MMP may be legally authorized and supplied in relation to any health condition or symptom.
    - The price was no longer regulated and was established by the licensed producer and varies from $6 - $14/gram depending on the strain.
    - Regulations were silent on authorization limits and maintain the same rules regarding possession limits.
- April 2015 – Canadian Medical Association Statement Authorizing Marijuana for Medical Purposes (Update)[3]:
    - While acknowledging the unique requirements of patients suffering from a terminal illness or chronic disease for which conventional therapies have not been effective and for whom marijuana may provide relief, physicians remain concerned about the serious lack of clinical research, guidance and regulatory oversight for marijuana as a treatment. Marijuana is a complex substance, and there is not sufficient clinical information on clinical safety and efficacy. Notably, there is little information around indications for its use, therapeutic and toxic dosages and knowledge on interactions with medications.
- In 2015 Health Canada grants access to cannabis oil and fresh marijuana. VAC continues to reimburse for dried MMP only.
- In spring 2016, The Office of the Auditor General of Canada (OAG) released a report on VAC drug benefits. The report included a recommendation for VAC to explore ways that costs associated with marijuana for medical purposes could be contained. VAC fully agreed with this recommendation.
- In March 2016, the Minister of Veterans Affairs, the Honourable Kent Hehr, announced a comprehensive review of MMP. This review was a component of

[3] Canadian Medical Association: CMA Statement Authorizing Marijuana for Medical Purpose (Update 2015) http://policybase.cma.ca/dbtw-wpd/Policypdf/PD15-04.pdf. Retrieved (June 2016).

the comprehensive review and was to provide an assessment of the Department's approach to reimbursing the cost of marijuana with particular focus on the health, safety and well-being of Veterans.

Expenditure History

The number of recipients with active authorizations for MMP have been increasing every year. Expenditures on MMP have increased from approximately $416,000 in fiscal year 2013-14 to $20,538,153 in fiscal year 2015-16 as outlined in Table 1.

Table 1: Expenditures - Marijuana for Medical Purposes

Fiscal Year	# in receipt MMP (March 31)	MMP Cost
2007-08	1	
2008-09	5	$19,088
2009-10	15	$43,365
2010-11	23	$63,057
2011-12	37	$103,424
2012-13	68	$284,632
2013-14	112	$408,809
2014-15	628	$5,160,747
2015-16	1762	$20,538,153

Source: VAC Statistics Directorate

2.0 ABOUT THE REVIEW

2.1 Scope and Objectives

The review encompassed Veterans receiving reimbursements of MMP between 2008 and March 31, 2016. The data provided background information and included 2015-16 population data from which a file review sample was drawn. The MMP data included Canadian Armed Forces (CAF) and war service members only, Royal Canadian Mounted Police (RCMP) members were excluded.

The objectives of this review were as follows:

- To provide a recipient profile (i.e., demographics, costing, usage, etc.);
- To assess VAC's internal governance and compliance with applicable departmental policies and guidelines, as well as administrative processes;
- To identify any gaps particularly in the area of Veteran health, safety and well-being; and
- To review the benefits, services and programs that the Department is providing to Veterans in receipt of marijuana for medical purposes.

2.2 Methodology

Table 2: Methodology

Methodology	Source
Interviews	Conducted interviews with staff at VAC Head Office and area offices, and Medavie Blue Cross (third-party contractor). The purpose of the interviews was to obtain an understanding of the history of senior management decisions, the approval process, the collection and use of data and reports, and to learn about current treatments and alternative treatments.
Documentation Review	Reviewed *Health Canada Regulations*, VAC guidance documents, business processes, reports, briefing notes, and available research in regards to marijuana for medical purposes.
Data Analysis	Analysed Client Service Delivery Network and health claims processing data to create a recipient profile; to review the benefits and services being provided to Veterans in receipt of MMP and to identify any gaps in the area of well-being.
File Review	Assessed compliance with applicable guidelines and business processes. Reviewed a random sample of 50 authorizations of MMP.

Limitation

The lack of a complete Veteran health profile and MMP usage presents a limitation on the review team's data analysis. VAC collects health related information in relation to VAC programs and benefits. However, VAC does not collect data on recipients' health problems, health system utilization and health practices outside its own benefit data. For example, there is no data on family physician and other types of physician visits, emergency department visits, or in-patient hospital service use.

Conclusive evidence for the safe and effective use of MMP is limited. Clinical trials are difficult to conduct as marijuana is an illegal substance in many countries. As new information emerges, VAC continues to monitor and evaluate MMP.

3.0 REVIEW RESULTS

3.1 Veteran Profile

As of March 31, 2016, there were 1,762 CAF and war service Veterans in receipt of MMP. The majority of these Veterans (1,545) range in age from 30 to 59. 969 Veterans were assigned a case manager. Many Veterans were in receipt of a number of VAC programs and details can be found in Appendix A.

Health Canada's *Consumer Information – Cannabis (Marihuana, marijuana)* document of December 2015 notes cannabis may be authorized for the relief of symptoms associated with a variety of disorders which have not responded to conventional medical treatments. These symptoms (or conditions) may include: severe refractory nausea and vomiting associated with cancer chemotherapy; loss of appetite and body

weight in cancer patients and patients with HIV/AIDS; pain and muscle spasms associated with multiple sclerosis; chronic non-cancer pain (mainly neuropathic); severe refractory cancer-associated pain; insomnia and depressed mood associated with chronic diseases (HIV/AIDS, chronic non-cancer pain); and symptoms encountered in the palliative/end-of-life care setting. It is noted that this list is not exhaustive.

VAC provides for the cost of health care for Veterans for the condition(s) for which the Veteran has received a VAC disability pension or disability award. The Department may also provide for the cost of care for some Veterans, such as low-income or seriously disabled war service Veterans, for non-pensioned/awarded conditions to the extent the care is not available from the province/territory in which they reside.

The majority of Veterans (71%) receive MMP as a result of their disability benefit condition. A review of these conditions notes post-traumatic stress disorder, chronic pain, musculoskeletal conditions (i.e., lumbar disc disease, osteoarthritis), and other mental health conditions (i.e., major depressive disorder, generalized anxiety disorder) as the most common disability benefit conditions with an authorization for MMP.

The review team conducted a gender-based analysis and noted no significant differences between the genders. A review of all disability benefit conditions also noted essentially no differences based on gender.

3.2 Internal Governance and Compliance

MMP Approval Process

VAC may provide coverage for MMP for eligible recipients upon receipt of a request accompanied by:

a. A copy of the completed medical document (or similar document) as required under the MMPR; and
b. A copy of the completed and confirmed registration with a Licensed Producer (Licensed Producers must possess a valid license with Health Canada and bill VAC directly via Medavie Blue Cross).

Requests that are in excess of 10 grams are approved at 10 grams and the remaining amount in excess of 10 grams are further considered for approval. Veterans who purchased MMP prior to being approved by VAC may submit receipts for consideration for reimbursement as long as applicable approval documentation is provided. Recipients who request coverage from multiple producers or who request to switch their coverage from one producer to another must provide a copy of a new medical document and confirmation of registration with the new licensed producer. Recipients are notified by letter of the approval of the authorization, including the effective dates.

File Review Results

The review team sampled 50 recipient authorizations to test for compliance with regulations, guidance, and VAC business processes. There was general compliance with the guidelines and business processes. All authorizations had a copy of the

completed medical document as required under the MMPRs included a copy of the completed and confirmed registration with a licensed producer. Effective dates for 5 authorizations in the approval system did not match the dates noted in the letters sent to the recipients. There were also administrative errors including noting the incorrect pension/award condition versus MMP diagnosis (i.e. left knee vs right knee) and notation of the applicable licensed producer.

3.3 Veteran Health, Safety and Well-Being

Authorization Amounts

There is no scientifically defined amount of MMP for any medical condition. Amounts are highly individualized and require finding the right amount that maximizes the desired effect, while causing minimal cognitive impairment. VAC currently reimburses Veterans up to 10 grams/day of MMP. Table 3 below shows 26% of the authorizations are for 3 grams/day or less of marijuana; 23% are for 5 grams/day and 37% are for 8 to 10 grams/day of MMP.

Table 3: Recipient Authorization (Grams/Day) as of March 31, 2016

Grams/Day	Recipients	Percentage
1 gram	81	4.58%
2 grams	169	9.55%
3 grams	210	11.86%
4 grams	121	6.84%
5 grams	413	23.33%
6 grams	64	3.62%
7 grams	59	3.33%
8 grams	110	6.21%
9 grams	7	0.40%
10 grams	529	29.89%
10+ grams	7	0.40%
Total	**1,770***	**100%**

Source: AED Data Analysis.
*The total recipients in Table 3 do not equal the population of 1,762 as the information was acquired from separate sources. One source was based on the adjudication date of the MMP reimbursement and the other source used the effective date of the MMP authorization causing a difference of 8 recipients.

According to The College of Family Physicians, physicians involved with authorizing dried cannabis should "start low and go slow[4]" however for 464 Veterans, their first MMP authorization was between 8 and 10 grams/day. Current information/research suggests authorization amount guidelines between 0.68 and 3 grams per day. See Appendix B for additional information. Interviews with VAC front line staff anecdotally noted that Veterans taking 1-2 grams/day, at appropriate times are managing well.

[4] The College of Family Physicians of Canada: Authorizing Dried Cannabis for Chronic Pain or Anxiety: Preliminary Guidance September 2014 – pg. 16. http://www.cfpc.ca/uploadedFiles/Resources/_PDFs/Authorizing%20Dried%20Cannabis%20for%20Chronic%20Pain%20or%20Anxiety.pdf Retrieved (June 2016).

Cannabis Oil and Fresh Marijuana

The June 11, 2015 Supreme Court of Canada decision *R. v. Smith* provided authority for individuals authorized to possess marijuana under the MMPR and those falling under a court injunction to possess marijuana derivatives for their own use. This led to Health Canada issuing an exemption under the *Controlled Drugs and Substances Act* allowing licensed producers to produce and sell cannabis oil and fresh marijuana buds and leaves in addition to dried marijuana.[5]

Interviews with front line VAC staff indicate both Veterans and VAC staff are concerned about the potential harmful side effects of smoked and vapourized dried marijuana. As Health Canada now approves cannabis oil and fresh marijuana buds, there is confusion as to VAC's refusal to reimburse for these substances.

The effects from oils are known to be slow and erratic and the effects last longer compared to smoked or vapourized products. Health Canada notes that authorized amounts for orally administered products are even less well established than those for smoking or vapourization.[6] Licensed producers must determine the quantity of fresh marijuana or oil that is equivalent to one gram of dried marijuana.

Recommendation:

It is recommended that the Assistant Deputy Minister, Strategic Policy and Commemoration and the Assistant Deputy Minister, Service Delivery develop and implement a policy concerning marijuana for medical purposes. The policy to include:

I. Lower gram limits for new authorizations;
II. Review of current authorized amounts for existing beneficiaries; and
III. Cannabis oil and fresh marijuana.

Management Action Plan

Veterans Affairs Canada will develop a policy on marijuana for medical purposes, putting the health, well-being and safety of our Veterans at the forefront. Processes will be developed in support of the Department's policy approach.

MMP and other Medication Usage

High doses of drugs such as opioids/narcotics, benzodiazepines, anti-depressants, anti-psychotics[7] should be authorized with caution in those individuals who are taking MMP. In fiscal year 2015-16, 1,051 Veterans were receiving reimbursement from VAC for one or more of these types of medication while receiving reimbursement for MMP. When

---

5 Health Canada: Statement on Supreme Court of Canada Decision in *R vs. Smith* July 2015 http://www.hc-sc.gc.ca/dhp-mps/marihuana/info/licencedproducer-producteurautorise/decision-r-v-smith-eng.php. Retrieved (June 2016).

6 Health Canada: Consumer Information – Cannabis (Marihuana, marijuana) December 2015 http://www.hc-sc.gc.ca/dhp-mps/marihuana/info/cons-eng.php. Retrieved (June 2016).

7 Antidepressant drugs (often called "antidepressants") are widely used in Canada to treat depression and other mental health issues. Opioids/ Narcotics are medications that relieve pain. When used properly, they can help. But when abused, they can cause addiction, overdose and death. Benzodiazepines belong to the sedative-hypnotic-anxiolytic class of drugs, which are used to decrease agitation and anxiety, and help with sleep. When used properly, they can help. But when abused, they can cause addiction, overdose and death. http://healthycanadians.gc.ca/. Retrieved (June 2016).

under the care of a physician, the risks associated with taking a number of drugs are mitigated.

Data analysis identified that approximately 255 Veterans received an authorization for MMP from a licensed physician or nurse practitioner outside the Veterans province of residence. This could be interpreted several ways:

- Veteran was working outside their province of residence;
- Veteran's treating physician would not authorize MMP;
- Veteran did not want to request MMP from his treating physician; or
- Veteran may not have a treating physician.

Follow-ups

A number of interviewees indicated concern regarding Veterans who obtain a MMP authorization from an individual other than their treating physician, particularly for Veterans who received authorizations for a higher number of grams. Current Health Canada regulations require an authorization for MMP from a licensed physician or a licensed nurse practitioner but there is no requirement for ongoing follow-up. The College of Family Physicians of Canada in their "Authorizing Dried Cannabis for Chronic Pain or Anxiety, Preliminary Guidance" recommends the authorizing physician regularly monitor the patient's response to treatment[8]. However, physicians comply with the guidelines provided by their provincial regulatory body and these guidelines vary from province to province.

Additional Resources for Staff

Reimbursements for MMP have increased over the past year resulting in more staff involvement. During VAC field staff interviews, there were indications that case managers, in particular, are in need of help and support. Staff mentioned that the following would be beneficial; tools to help case managers work with Veterans, education on the effects of MMP (e.g. when is MMP utilized and for what conditions, pain management etc.), and addictions training. Sharing of best practices would also be beneficial.

Recommendation:

It is recommended that the Assistant Deputy Minister, Service Delivery determine training gaps and deliver training to VAC staff in relation to marijuana for medical purposes.

Management Action Plan

VAC is committed to the health, safety and well-being of all Veterans. VAC will provide all appropriate information and training materials to front line staff to ensure they are

[8] The College of Family Physicians of Canada: Authorizing Dried Cannabis for Chronic Pain or Anxiety: Preliminary Guidance September 2014 – pg. 12. https://www.cfpc.ca/uploadedFiles/Resources/_PDFs/Authorizing%20Dried%20Cannabis%20for%20Chronic%20Pain%20or%20Anxiety.pdf. Retrieved (June 2016).

equipped with the latest information and best practices in relation to marijuana for medical purposes. The need for continuing education, sharing of best practices and development of case studies will be important going forward to ensure that front line staff have the most current information regarding marijuana for medical purposes. The creation of a multidisciplinary team will allow the completion of a needs assessment, content development and delivery of training in relation to marijuana for medical purposes. VAC proposes the following:

- A multidisciplinary team will be established to conduct a needs assessment and develop training content in relation to marijuana for medical purposes. The team will consist of health professionals, front line service delivery staff, and head office service delivery staff as well other appropriate personnel.

- The team will conduct a Needs Assessment to ensure that the training content will meet the needs of front line staff based on the information currently available on this topic.

- The team will develop the training content necessary for front line staff. This includes best practices and other communication pieces as appropriate.

- Health Professionals will determine if and what material can be provided to front line staff before implementation of training.

- The full training package will be rolled out to front line staff. Realizing that the information available on this topic continues to evolve, materials will need to be updated on an ongoing basis.

3.4 Review of VAC Benefits and Services

Based on anecdotal evidence, the review team expected to find that usage of other medication decreased when Veterans began using MMP. The review team compared Veterans receiving MMP 6 months prior to their first reimbursement of MMP with the immediate 6 months following when MMP was used.

Table 4 is a summary of drugs, excluding MMP, approved under VAC's Program of Choice (POC) 10, Prescription Drugs. The data is issued by transaction, where transaction data equates to the filling of a prescription. The table shows that during the 6 months after a Veteran's first MMP reimbursement, the number of prescriptions being filled for Anti-Depressants, Opioids/Narcotics, and Benzodiazepines decreased slightly. Refills for the other drugs category and anti-psychotics increased slightly.

When the comparison of drug reimbursements is expanded to one year before and one year after a Veteran's first MMP reimbursement, the review team noted a slight increase in the number of prescription refilled. Slight increases were noted in all drug categories with the exception of opioids/narcotics. However, the review team was not able to determine if there was a decrease in the dosage of prescribed drugs. The data does not show a statistically significant variance in use of prescription drugs after the utilization of MMP.

Table 4: Prescription Drug Transactions (excluding MMP)

Category	*# prescription drug transactions 6 mo. before first MMP reimbursement	*# prescription drug transactions 6 mo. after first MMP reimbursement	% change (vs. total trans.)	**# prescription drug transactions 1 year before first MMP reimbursement	**# prescription drug transactions 1 year after first MMP reimbursement	% change (vs. total trans.)
Other Drugs	8,544	8,697	1.48%	10,653	11,455	1.32%
Anti-Depressants	3,337	3,313	0.05%	3,866	4,002	-0.30%
Opioids/Narcotics	2,417	2,179	-1.36%	2,588	2,499	-1.11%
Benzodiazepines	1,249	1,188	-0.32%	1,363	1,424	-0.04%
Anti-Psychotics	413	432	0.14%	466	515	0.13%
Total	**15,960**	**15,809**		**18,936**	**19,895**	

Source: AED Data Analysis.

Note: For 6 months, first marijuana reimbursement adjudication date was on or before September 30, 2015. For 1 year, first marijuana reimbursement adjudication date was on or before March 31, 2015.
* All POC 10 Drug transactions (excluding marijuana) for 887 Recipients within the parameters noted above.
** All POC 10 Drug transactions (excluding marijuana) for 562 Recipients within the parameters noted above.

The costs for drugs (excluding MMP) also increased during the periods reviewed. See Table 5. This increase can be attributed to the rising costs of prescription drugs and the increase in prescriptions filled in the one year period.

Table 5: Prescription Drug Costs (excluding MMP)

Category	*# prescription drug costs 6 mo. before first MMP reimbursement	*# prescription drug costs 6 mo. after first MMP reimbursement	% change (vs. total exp.)	**# prescription drug costs 1 year before first MMP reimbursement	**# prescription drug costs 1 year after first MMP reimbursement	% change (vs. total exp.)
Other Drugs	$ 513,441.91	$ 651,170.78	4.88%	$ 686,528.83	$ 818,185.85	2.86%
Anti-Depressants	$ 162,718.45	$ 174,935.64	-1.57%	$ 189,068.84	$ 208,959.74	-0.54%
Opioids/Narcotics	$ 128,368.75	$ 126,987.87	-2.33%	$ 154,833.02	$ 148,757.67	-2.24%
Benzodiazepines	$ 18,052.66	$ 17,967.71	-0.32%	$ 16,541.04	$ 17,532.69	-0.01%
Anti-Psychotics	$ 37,896.77	$ 37,670.57	-0.67%	$ 37,779.25	$ 43,463.90	0.03%
Total Expenditures	**$ 860,478.54**	**$ 1,008,732.57**		**$ 1,084,750.98**	**$ 1,236,899.85**	

Source: AED Data Analysis.

Note: For 6 months, first marijuana reimbursement adjudication date was on or before September 30, 2015. For 1 year, first marijuana reimbursement adjudication date was on or before March 31, 2015.
* All POC 10 Drug transactions (excluding marijuana) for 887 Recipients within the parameters noted above.
** All POC 10 Drug transactions (excluding marijuana) for 562 Recipients within the parameters noted above.

POC 12 – Related Health Services

VAC Related Health Services, otherwise known as POC 12, are services provided by health care professionals other than physicians, dentists and nurses. Commonly used services are massage therapy, chiropractic, and physiotherapy, as noted in Table 6 below. The review team conducted a similar analysis for POC 12 services as was noted above for the Other Drugs (before and after 6 months and one year). The goal of the

analysis was to determine any trends that may be occurring before and after the Veteran receives an MMP authorization.

Although there was an expectation that there would be decreases in all POC 12 services, Table 6 demonstrates an increase in all POC 12 services with the exception of Rehabilitation - Psychology Visit or Operational Stress Injury (OSI) Clinic psychiatrist visit. Definition of the Rehabilitation Program and OSI Clinics can be found in Appendix A. The decrease in Rehabilitation - Psychology Visit or OSI Psychiatrist Visit could be attributed to coding for payment. Many Veterans would be in the Rehabilitation Program or referred to OSI Clinics related to their disability condition. POC 12 services in these cases would be coded to their disability benefit rather than the Rehabilitation Program.

Table 6: Related Health Services Transactions (Excluding MMP)

Treatment Description	*# Related Health Services transactions 6 mo. before first MMP reimbursement	*# Related Health Services transactions 6 mo. after first MMP reimbursement	% change (vs. total trans.)	**# Related Health Services transactions 1 year before first MMP reimbursement	**# Related Health Services transactions 1 year after first MMP reimbursement	% change (vs. total trans.)
Psychologist Visit	807	1,440	6.39%	694	1,257	3.40%
Massage Therapist	827	1,149	0.44%	667	1,256	4.13%
Rehabilitation - Psychology Visit or OSI Psychiatrist Visit	633	547	-5.88%	659	650	-6.57%
Chiropractor Visit	406	511	-0.78%	342	572	0.83%
Physiotherapy Visit	323	495	1.03%	298	531	1.31%
All Other Treatments	935	1,208	-1.21%	946	1,283	-3.11%
Total Transactions	**3,931**	**5,350**		**3,606**	**5,549**	

Source: AED Data Analysis.

Note: For 6 months, first marijuana reimbursement adjudication date was on or before September 30, 2015. For 1 year, first marijuana reimbursement adjudication date was on or before March 31, 2015.
* All POC 12 transactions for the 805 Recipients within the parameters noted above.
** All POC 12 transactions for the 525 Recipients within the parameters noted above.

Benefit Costs

Recipient numbers and corresponding costs of MMP have been increasing exponentially since 2009. For example, there has been an increase of 64% in the number of recipients with a corresponding 75% increase in costs between 2014 and 2015. Actual fiscal year 2015-16 costs for related MMP include $20,538,153 for dry product, $203,574 for shipping, and $154,725 for vaporizers, for a total of $20,896,452.

In fiscal year 2015-16, VAC reimbursed 1,745,644 grams at an average price of $11.77 per gram. As noted earlier, the OAG has recommended for VAC to explore ways that costs associated with MMP could be contained. VAC fully agreed with this recommendation.

3.5 Review Observations

The review team observed the following areas in regards to Veteran's health, safety and well-being and authorizations for MMP:

1. Based on current medical research, VAC authorization limit of 10 gram per day is too high;
2. Veterans and VAC staff have concerns regarding VAC's non approval of oils and fresh marijuana particularly from a health point of view (smoking and cancer);
3. Staff require additional information and understanding of MMP and its use/purpose and,
4. No change was noted in Veterans access to POC 10 benefits (excluding MMP) although an increase was noted in the use of Related Health Services – POC 12.

Appendix A – Marijuana for Medical Purposes Veteran Profile

Marijuana for Medical Purposes Veteran Profile as of March 31, 2016 Total Veterans: 1762	
Indicators	**# of Veterans**
Marital Status	
Married	806
Single	516
Common Law	243
Separated	135
Divorced	38
Widowed	16
Other	8
Age	
20-29	64
30-39	358
40-49	542
50-59	645
60-69	113
70-79	26
80+	14
Case Managed	
Active	969
Totally and Permanently Incapacitated	
Active	469
Referred to Operational Stress Injury Clinic	
In progress	271
Complete	41

Programs Accessed by Veterans Approved for Marijuana for Medical Purposes	
Program	**# of Veterans**
Permanent Impairment Allowance	
In pay	673
Permanent Impairment Allowance Supplement	
In pay	378
Earnings Loss	
In pay	332
Rehabilitation	
Eligible	939
Completed	354
Vocational Rehabilitation	
Active	96
Veterans Independence Program	
In receipt	1177

Program Definitions

Totally and Permanently Incapacitated (TPI) – means that a Veteran is incapacitated by a permanent physical or mental health problem that prevents the Veteran from performing any occupation that would be considered suitable gainful employment.

Operational Stress Injury Clinic (OSI) – outpatient clinics where individuals with operational stress injuries, and their families, can find comprehensive clinical assessment and treatment services under one roof. Treatment options at each OSI clinic are typically on an outpatient basis and include one-on-one therapy sessions and group sessions to address anxiety, insomnia, anger and other issues that are occurring as a result of a mental health disorder.

Permanent Impairment Allowance (PIA) – provides Canadian Armed Forces Veterans (CAF) with compensation for lost employment potential and career advancement opportunities due to a service-related permanent and severe impairment.
Permanent Impairment Allowance Supplement (PIAS) – a taxable, monthly benefit, payable for life to those in receipt of the Permanent Impairment Allowance and, due to

the level of their disability, are not capable of suitable gainful employment (i.e. totally and permanently impaired – see above for definition).

Earnings Loss Benefit – taxable benefit payable in recognition of the economic impact a military career ending or service related disability may have on the Veteran's ability to earn income following release from the CAF. The benefit is intended to provide an income replacement to the Veteran, and in certain circumstances, to the Veteran's survivor or orphan;

a. during a period of participation in a rehabilitation program that has been approved by the Minister, including medical, psycho-social and/or vocational rehabilitation services; and/or
b. until the Veteran reaches age 65, if following approval of a rehabilitation plan, the Veteran is determined to be totally and permanently incapacitated for the purposes of suitable gainful employment as a result of the health problem for which he or she would otherwise have been eligible for a rehabilitation plan.

Rehabilitation Program – provides services and interventions to address re-establishment barriers associated with career-ending health problems, or health problems resulting primarily from military service which are creating a barrier to re-establishment in civilian life.

Vocational Rehabilitation – one component of Veterans Affairs Canada's (VAC's) Rehabilitation Program that provides vocational assistance services and benefits to eligible Veterans who have a health problem, and their families, to assist them in their re-establishment to civilian life.

Veterans Independence Program – a program to assist eligible recipients to remain in their homes and communities as long as possible by providing financial assistance towards services which support and promote independence and health.

Appendix B - Marijuana for Medical Purposes - Information re: Authorization Amounts

1. Various surveys published in the peer-reviewed literature suggest that the majority of people using smoked or orally ingested marijuana for medical purposes reported using between 10-20 grams of marijuana per week or approximately 1-3 grams per day.

   Source: Health Canada (2013) “Information for Health Care Professionals: Cannabis (marihuana, marijuana) and the Cannabinoids.”

2. Average daily dose of dried marijuana of various potencies used by patients in the Netherlands’ Medical Cannabis program was 0.68 grams per day (range 0.65 – 0.82 grams per day).

   Source: Hazekamp, A., and E.R. Heerdink. “The Prelevance and Incidence of Medicinal Cannabis on Prescription in The Netherlands.” Eur.J. Clin. Pharmacology, published online April 16, 2013.

3. An international, web-based, cross-sectional survey reported mean daily doses with smoked or vapourized marijuana were 3.0 grams (median for smoked marijuana was 2 grams per day; for vapourized marijuana was 1.5 grams per day).

   Source: Hazekamp et al. “The Medicinal Use of Cannabis: An International Cross-Sectional Survey on Administrative Forms.” Journal of Psychoactive Drugs, 2013.

4. Information obtained from the Israel medical cannabis program suggests the average daily amount used by patients was approximately 1.5 grams.

   Source: Health Canada personal communication

5. The upper level to the safe use of dried marijuana for medical purposes would be around 3 grams per day, and this level of use should be considered only in very circumscribed conditions. This dosing level would apply to experienced users of marijuana for medical purposes only, not first time marijuana patients.

   Source: The College of Family Physicians of Canada. “Authorizing Dried Cannabis for Chronic Pain or Anxiety, Preliminary Guidance.” Sept. 2014.