Chronic Pain Toronto Initiative:

The Epidemic of Chronic Pain in Canada
&
Where Medical Cannabis Fits Into the Overall Medical Treatment Plan

Submission to City of Toronto
December 2015

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Executive Summary

The Pain Epidemic in Canada

Chronic pain is a pervasive problem in Canada, with one in five Canadian adults suffering from chronic pain. This is pain that lasts longer than 3 months, and can either manifest as nociceptive pain (like arthritis or inflammation), or neuropathic pain (affecting nerves, and causing burning or numbness). It affects people from all stages in life, including children and older adults. In fact, chronic pain increases with age and can affect up to 80% of adults living in long-term care.

This has serious effects on the social and economic health of society. Chronic pain is associated with worse quality of life compared to other chronic diseases involving the lung or heart. This results in significant costs – up to $53 billion per year. The loss in productivity is huge –the working population is affected most with up to 25% of people 18-34 having taken time off work in the last three months because of pain. Chronic pain doubles the risk of suicide.

Healthcare costs are also incurred as people seek treatment for pain – it is the most common reason for seeking care, accounting for 78% of reasons for visiting the emergency department. Drug costs for pain medications are a further drain on incomes, as patients must pay for medication costs out of pocket, if not covered by extended health insurance.

Treatment of Chronic Pain

Treatment for pain in Canada often involves opioid medications. However this has increasingly become a concern as opioid related deaths have been identified as a growing problem. In Ontario, most people who died have seen a physician recently, in many cases for pain related concerns.

Alternatives to opioid-based treatment for pain exist, but are hampered by lack of education among healthcare providers. Treatment of chronic pain is a complex issue, and ideally involves four pillars – physical, psychological, pharmacologic, and interventional therapies. Chronic pain patients are currently inadequately served by healthcare providers, and are frequently prescribed opioids only.

Indeed, many chronic pain patients seek alternative therapies from these four pillars, including medicinal cannabis as an adjunct or alternative to opioid prescriptions, but are

confounded by systemic barriers to access due to poor public education and awareness and inadequate number of prescribing physicians available at any given time.

Medical Cannabis

Cannabis is made from the *Cannabis sativa* plant and has been used for various reasons throughout history. The active ingredient is delta-9-tetrahydrocannabinol (THC), and acts on the human body's own endocannabinoid system. Both plant cannabinoids and endocannabinoids bind to the body's cannabinoid receptors. When this binding occurs, effects such as pain relief and suppression of stress result.

It is important to distinguish between cannabis use as a source of medicine and cannabis use as a recreational drug. Recreational cannabis users seek the psychoactive changes of euphoria and altered consciousness and dose themselves accordingly in social settings. Medical cannabis users, on the other hand, are very personal and private about use and seek symptomatic pain relief in order to be functional. Medical cannabis is not an opioid medication, and does not cause the potentially lethal side effects associated with opioid drugs (such as respiratory depression, slow heart rate, and coma). It is available in a number of chemical preparations, and has been found effective in the treatment of chronic pain.

Despite this, dried cannabis is not approved for sale as a therapeutic drug. In Canada, it remains a controlled substance, and thus does not benefit from the benefits of Health Canada approval, including clinical testing, quality control, dosage guidelines, and monitoring adverse reactions. Health Canada has operates under the Marijuana for Medical Purposes Regulation (MMPR) as of 2013, which allows for licensed producers to distribute marijuana for Canadians who have been authorized its use by a healthcare practitioner.

Professional medical associations have developed guidelines on the prescribing of medical cannabis. For instance, the College of Physicians & Surgeons of Ontario states that it should be considered only for patients with neuropathic pain not responding to standard treatments. The trend in healthcare provision is supporting the use of medical cannabis as a last option.

Yet chronic pain sufferers are continually marginalized by the legal status of medical cannabis. Many chronic pain patients are being tied up in the courts and going to jail just to access the medicine they so badly need without harming anyone. This is due to ill-defined policies and procedures and lack education and awareness around dealing with medical cannabis users.

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Toronto has endorsed the Vienna Declaration, a scientific statement seeking to improve community health and safety by calling for the incorporation of scientific evidence into illicit drug policies. The Toronto Drug Strategy (TDS) is a comprehensive drug strategy for the City of Toronto based on four integrated parts – prevention, harms reduction, treatment and enforcement. All four parts are needed to effectively reduce the harms of alcohol and other drug use. Vancouver has successfully used this model in tackling the problem with injection drug use, with general scientific acceptance of the results.

Medical Cannabis Policy Implementation

The MMPR offers no dignity to a patient who struggles to manage their illness while blindly trying to negotiate a disjointed program that they must lead their own doctor through. There must be an integrated system that is managed through the province, and that offers patients dignified and equal access to the health care treatments that suits their needs and lifestyle. Many myths pervade cannabis use and impair evidence-based policy implementation.

"Cannabis [is] as addictive as heroin."	A lifetime of cannabis use carries a low risk of dependence (9%), while the risk of cannabis dependence is very low among those who report using it for one year (2%) or even 10 years (5.9%). This is much lower than the estimated lifetime risk of dependence to heroin (23.1%).
"[D]id you know that marijuana is on average 300 to 400 percent stronger than it was thirty years ago?"	Although this claim overstates the existing evidence, studies do suggest that there have been increases in THC potency over time in some jurisdictions.
"I'm opposed to legalizing marijuana because it acts as a gateway drug."	Evidence to date does not support the claim that cannabis use causes subsequent use of "harder" drugs. On the contrary, Alcohol has shown to be the gate way drug, and in fact is much more lethal than Medicinal Cannabis
Cannabis use "can cause potentially lethal damage to the heart and arteries."	There is little evidence to suggest that cannabis use can cause lethal damage to the heart, nor is there clear evidence of an association between cannabis use and cancer.
Cannabis use lowers IQ by up to 8 points.	There is little scientific evidence suggesting that cannabis use is associated with declines in IQ
Cannabis use impairs cognitive function	A thorough search in 2004 of published literature on the relationship between cannabis use and various psychosocial harms did not support a cause and effect claim. However, while the evidence suggests that cannabis use (particularly among youth) likely impacts cognitive function, the evidence to date remains inconsistent regarding the severity, persistence, and reversibility of these cognitive effects
[Cannabis] is a drug that can result [in] serious, long-term consequences, like schizophrenia."	While scientific evidence supports an association between cannabis use and schizophrenia, a causal relationship has not been established

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Legalization / regulation increases the availability of cannabis	Evidence suggests that the supply of illegal cannabis has increased under a prohibition model, and that availability has remained high among youth. Evidence does not suggest that cannabis availability among youth has increased under regulatory systems
"[I]f marijuana was legalized, the increase in users would be both large and rapid…"	Evidence suggests that the policy environment (specifically legal status and enforcement policy) has at most a marginal impact on the prevalence of drug use.
Regulation will not reduce drug crime.	Given that the prohibition of cannabis has not been shown to reduce illegal supply, it is likely that cannabis regulation is more effective at minimizing criminal markets for cannabis, despite the fact that criminal markets will continue to represent a proportion of the total market
"We are going to have a lot more people stoned on the highway and there will be consequences."	While experimental studies suggest that cannabis intoxication reduces motor skills and likely increases the risk of motor vehicle collisions, there is not sufficient data to suggest that cannabis regulation would increase impaired driving, and thereby traffic fatalities
Regulation promotes drug tourism	While evidence suggests that, depending on the use of regulatory controls and geographic setting, regulation may in some cases lead to an increase in drug tourism, the data do not suggest that this is an inevitable consequence of regulation
Regulation leads to a "Big Marijuana" scenario	Available evidence regarding "Big Marijuana" is currently lacking, although government regulatory controls can be introduced within regulatory systems to reduce the potential of profit maximization by cannabis retailers.

Chronic Pain Toronto Initiative Proposal

Chronic Pain Toronto has extensive experience as a voice for patient advocacy. Drawing on this experience, we have developed several recommendations to improve the experience of chronic pain patients wishing to access medical cannabis, and its perception in society.

Issues that Chronic Pain Toronto has identified through experience, consultations and polling current chronic pain sufferers across Canada and particularly from the GTA are the lack of the following:

1. Prescribing doctors, nurses or allied health practioners that are well-educated on medical cannabis regarding how to prescribe THC/CBD doses specific for chronic illnesses
2. Licensed dispensary personnel that are well-educated on medical cannabis via a 3rd party independent education system
3. Secure and easily accessible Licensed dispensaries that are patient centred for easy and timely access to medical cannabis in a consistent manner

4. Third party independently tested Quality-controlled medical cannabis products to ensure patient centered care
5. Municipal & Provincial Law enforcement officers that are well educated on medical cannabis regulations and well educated on policy and procedure on dealing with chronic pain sufferers.

The board members of Chronic Pain Toronto have invested time and effort on coming up with suggestions for improvement to these issues of "Dignified Access" and attempt to explain chronic pain patient centered recommendations to address the issues identified above.

In particular, we have reviewed the most recent regulations and by-laws proposed by both Vancouver and Victoria BC municipalities for medical cannabis "dispensaries" from June 2015 as well as the College of Physicians and Surgeons of Ontario Medical Cannabis guidelines published November 2015.

Conclusion

Chronic pain is a pervasive problem that affects many Ontarians, significantly reducing their quality of life, and increasing healthcare costs. Medical cannabis is an effective treatment for chronic pain, but exists in a legal gray zone which unfairly penalizes chronic pain suffers for accessing a drug they desperately need.

The City of Toronto can (and has a responsibility to) improve this situation. By supporting Adult Wellness Centres, educating the public and law enforcement on medical cannabis, and improving accessibility for medical cannabis users, the City can positively impact the lives of chronic pain sufferers in a meaningful way.

SPECIAL THANKS TO CHRONIC PAIN TORONTO BOARD & ASSOCIATES

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A. Chronic Pain Toronto Initiative

A.1. Summary

Chronic Pain Toronto represents a voice for patients and physicians in Canada on the barriers to chronic pain treatment and the navigation of the health care system.

A.2. Patient Advocacy

Chronic Pain Toronto is seeking to collaborate with both Municipal, Provincial and Federal governments, Law Enforcement, Drug Strategy, Public Health and the Public on policy proposals to help the epidemic of Chronic Pain in today's society and "dignified access" to medical cannabis that satisfies both government and patient needs.

A.3. Objective

Through education and awareness show viable options for progressive growth in initiatives to aid the chronically ill & disabled to have the right to proper support and care from ALL levels of government for better health care and quality of life for Chronic Pain and given the opportunity for dignity and improved quality of life for those who suffer.

B. The Pain Epidemic in Canada

B.1. Understanding Pain

Definition of Pain

Pain is defined by the International Association for the Study of Pain (IASP) as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" and is broadly categorized into acute and chronic pain.

When thinking about chronic pain, it is important to realize the difference between chronic pain and acute pain. Acute pain is a normal reaction to an injury that provides an early warning system that an injury has occurred. Acute pain does not last very long as the majority of injuries will normally heal within three months.

Chronic pain is pain that doesn't go away after three months and can be intermittent. It may vary with intensity during the day or it can be persistent. Chronic pain can result

from a known cause, such as surgery or inflamed joints, or as a consequence of disease like Type II Diabetes.

Chronic pain can also be an abnormal processing of pain where the original injury or cause of acute pain has resolved, but the warning system has failed to shut off. When this occurs the warning bells are still going off, however it is no longer signalling "danger" or "harm" but rather indicating a problem of pain processing.

Chronic pain can be further characterized into **nociceptive** or noxious signal pain caused by inflammation or tissue injury that is caused by occupational injuries, motor vehicle collisions, osteoarthritis and repetitive strain injuries and **neuropathic** pain which is a complex multi-faceted state of chronic pain that may have no obvious cause. It can involve damaged tissue, injury or malfunctioning nerve fibres or changes in brain processing. Types of neuropathic pain include numbness, burning, "pins and needles" sensations and shooting pain commonly seen in Type II Diabetes Mellitus, Sciatic nerve entrapment, lumbar disc herniation, shingles, nerve entrapment, or surgical damage to nerves.

Reference: Canadian Pain Society. (2014). *Pain in canada fact sheet.* Unpublished manuscript. International Association for the Study of Pain. (2015). International association for the study of pain. Retrieved from http://www.iasp-pain.org/

B.2. Chronic Pain Hurts Canadians

Prevalence of Chronic Pain

Although we have sophisticated knowledge and technology, Canadians are often left in pain after surgery, even in our top hospitals.

Only 30% of ordered pain medication is given, and 50% of patients are left in moderate to severe pain after surgery and the situation is not improving. (Watt-Watson, Stevens et al. 2004; Watt-Watson, Choiniere et al. 2010).

Persistent postsurgical pain represents a major and largely unrecognized problem. The severity of initial postoperative pain correlates with the development of persistent postoperative pain (Kehlet, Jensen et al. 2006). Acute postoperative pain is followed by persistent pain in 10-50% of individuals after common surgical procedures (groin hernia repair, breast and thoracic surgery, knee and hip replacements etc.).

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9.2% of patients on waitlists for treatment at Canadian pain clinics identify surgery as the cause of their chronic pain (Choiniere, Dion et al. 2010)

One in five Canadian adults suffer from chronic pain (Moulin, Clark et al. 2002; Schopflocher, Jovey et al. 2011)

Pain in Pediatric Populations

Children are not spared. One in five Canadian children have weekly or more frequent chronic pain (most commonly headaches, stomach aches, and muscle/joint/back pain), with an estimated 5-8% of children or teenagers suffering from chronic pain severe enough that it interferes with schoolwork, social development and physical activity. (Huguet and Miro 2008; Stanford, Chambers et al. 2008; Ramage-Morin and Gilmore 2010; King, Chambers et al. 2011; von Baeyer 2011)

Pain in Geriatric Populations

A focus on pain management in older adults is timely as the large baby-boomer population reaches older adulthood in Canada. This shift will place an unprecedented strain on healthcare providers and resources to prepare for the health welfare, including pain management, of this population.

The prevalence of chronic pain increases with age and can be as high as 65% in community dwelling seniors and 80% of older adults living in long term care facilities and this pain is typically both under recognized and undertreated (Hadjistavropoulos , Marchildon et al. 2009; Hadjistavropoulos, Gibson et al.2010).

Despite these high rates of pain in the older adult population, pain continues to be under-assessed and under-treated, particularly in long-term care (LTC). Given that over 60% of residents who live in LTC in Canada have moderate to severe cognitive impairments; the identification of effective pain management strategies is a high priority.

Cognitively impaired residents are at risk for experiencing needless pain and suffering that can compromise their remaining abilities and declining quality of life. As the number of people aged 65 and over increases and as we continue to face shortages in health human resources, pain management in LTC will become even more of a priority.

Moreover, the growing population of older adults suffering from multiple co-morbidities puts them at high risk for both experiencing pain as well as increasing the complexity of managing their pain therapeutically.

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Unresolved pain can lead to problems related to patient safety and quality of care such as decreased functional abilities, depression, falls, loneliness, impaired mobility, sleep disturbances, anxiety, and dissatisfaction with life.

Attitudes and beliefs about pain in older adults among health care providers, older adults themselves as well as their family members continue to influence the way pain is managed.

A major barrier to optimal pain management is the lack of knowledge amongst health care providers. Hence, more education is needed to debunk common myths about pain and aging and provide support and direction for implementing best practice changes in clinical settings.

Reference: Greg Hemus, Carole Stonebridge, Klaus Edenhoffer. Future Care for Canadian Seniors: A Status Quo Forecast. Ottawa: The Conference Board of Canada, 2015.

Provincial Government of Ontario Reduction in Auto Accident Benefits

In 2010 in addition to reducing mandatory coverage for medical, rehab and attendant care coverage - the Ontario government also reduced mandatory income replacement coverage and introduced a $3,500 cap for injuries that fall under the minor injury guideline. The Insurance Bureau of Canada reported earlier the industry lost $1.7 billion on Ontario auto in 2010.

"In 2010 the government made changes to the policies around insurance and all that did, instead of creating an opportunity for reductions, is it created an opportunity for insurance companies to pocket more money," Horwath told reporters Thursday. "The government talks about anti-fraud measures, they talk about winter tires and they talk about all of these other initiatives and the issue that we have is that no matter what initiative the Liberals tend to put in place, the first people to get their fingers into that savings opportunity is the insurance industry. It never trickles down to the drivers, yet that's the theory as to why these changes are being made."

http://www.siskinds.com/how-will-the-recent-changes-to-ontario-accident-benefits-affect-your-rehabilitation/

http://www.canadianunderwriter.ca/news/ontario-to-reduce-mandatory-auto-accident-benefits-update-catastrophic-impairment-definition/1003587521/?&er=NA

https://www.fsco.gov.on.ca/en/auto/autobulletins/2015a/Pages/a-06-15.aspx

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Morbidity of Chronic Pain

Many cancer and HIV survivors have been left with a poor quality of life due to chronic pain conditions caused by the disease itself or by treatments that can cause irreversible damage to nerves (Levy, Chwistek et al. 2008; Phillips, Cherry et al. 2010).

Chronic pain is associated with the worst quality of life as compared with other chronic diseases such as chronic lung or heart disease (Choiniere, Dion et al. 2010).

More than 50% of people waiting for care at Canadian pain clinics have severe levels of depression and 34.6% report thinking about suicide, 72.9% report the pain interferes with their normal work. (Choiniere, Dion et al.2010)

Uncontrolled pain compromises immune function, promotes tumor growth and compromises healing with increased morbidity and mortality following surgery (Liebeskind 1991).

People living with pain have double the risk of suicide as compared with people without chronic pain (Tang and Crane 2006).

In almost 25% of these cases the coroner had determined that the manner of death was suicide (Dhalla, Mamdani et al. 2009).

Veterinarians receive 5 times more training in pain management than people doctors (Watt-Watson, McGillion et al. 2009).

Pain research is grossly under-funded in Canada with less than 1% of total funding from Canadian Institutes of Health Research and only 0.25% of total funding for health research going to pain related studies, this is concerning especially when one considers the burden of pain on Canadians and our economy (Lynch, Schopflocher et al. 2009).

Reference: Canadian Pain Society: Pain in Canada Fact Sheet, October 2010

Economic Burden of Chronic Pain

Chronic Pain is estimated to cost $53 Billion per year. Annual Work losses are estimated to be $42 Billion with a resulting $11 Billion cost to Health Care. (Schopflocher, 2011)

A national online survey for the Canadian Pain Society found that young people are among those hardest hit by chronic pain. Almost 25% of those surveyed between the ages of 18 and 34 said they've had to take time off work in the last three months

because of pain — more than any other age group. In addition, 15% of this same group said they had lost income because of it.

The Canadian Pain Society indicates direct health-care costs associated with pain have reached $6 billion per year and will exceed $10 billion per year by 2025.

According to the CPS Nanos Surveys in 2007-2008; 19% of Canadians complain of moderate to severe pain daily or most days of the week; and 1 in 6 have constant pain. Of these pain sufferers, 40% suffered from concurrent anxiety or depression. Among those Canadians with moderate or severe pain; 33% lost a job because of their pain & 47% reduced their job responsibilities because of pain. On average chronic pain sufferers lost $12,558 dollars in income over a one-year period because of their pain.

Disability in the Workforce

Workers health, safety and well-being are vital to the productivity, competitiveness and sustainability of businesses, communities and families and to national and regional economies. Addressing and treating chronic pain effectively will directly impact disability rates as most short and long-term disabilities are related to chronic pain.

The challenges facing the implementation of best practices in disability prevention, management and work productivity are multi-faceted. There are many different stakeholders who play a role in creating and sustaining a healthy workplace. Although there is a great deal of information available from a wide range of sources about how to decrease workplace injuries and disability, there has not been any effective and efficient mechanisms for identifying, evaluating, translating and disseminating credible knowledge, tools and resources that will meet the needs of the various stakeholders. Currently, an initiative from British Columbia, the CIRPD is the only online resource hub for information to help patients and chronic pain sufferers with disability.

In a series of focus groups and surveys across Canada we have found that many stakeholders are seeking relevant, credible knowledge, tools and resources to prevent or reduce disability, albeit for different reasons and priorities.

Employers would like to prevent or mitigate costs associated with absenteeism, lack of worker productivity and workers' compensation insurance premiums.

Insurers would like to reduce their risk and payouts for direct and indirect medical and personal liability.

Healthcare professionals work towards quality assurance and greater accountability for services rendered.

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Academic researchers from business and health faculties are seeking opportunities to work together with community stakeholders to support the development and implementation of best practices in disability prevention and management.

Healthy Workplaces, Healthy Workers and Healthy Communities
There is a growing body of research which reveals that companies that promote and protect workers' health are among the most successful and competitive around the world. Workplaces that actively engage employees in all aspects of health, safety and environmental issues and positively respond to their opinions, views and concerns create a strong foundational base for success.

Reference: http://www.s2egroup.com/wp-content/uploads/2014/10/121-Chronic-Pain-and-RTW.pdf

Health Care System Costs of Chronic Pain

Canadians make close to 16 million visits to emergency departments (EDs) each year, and more than 1 million result in inpatient hospital admission. Potential waits for care can begin before people arrive in the ED, can persist when they are ready to leave and can exist at several points in between. These long waits can be more than an inconvenience to patients— they can have adverse effects on patient outcomes. Patients waiting longer in the ED are more likely to experience delays in the treatment of pain or suffering, to express higher dissatisfaction and to leave without receiving treatment.

Pain is the most common reason for seeking health care and as a presenting complaint and accounts for up to 78% of visits to the emergency department, recent research continues to document high pain intensity and suboptimal pain management in a large multicenter emergency department network in Canada and the United States (Todd, Ducharme et al. 2007).

Chronic pain management health care physicians operate their offices privately and collect revenues either from the Ministry of Health and Long Term Care (MOHLTC), for services listed on the Ontario Health Insurance Plan (OHIP) Schedule of Benefits for Physician Services, or directly from patients for services not covered by OHIP, such as doctor's notes and insurance examinations.

Drug costs and pharmacy fees are paid for publicly for patients who are eligible for coverage by the Ontario Drug Benefits Plan (ODB) and privately (as an out of pocket expense or by a private third-party insurer) for patients who are not covered by ODB.

Canadian Institute for Health Information. Highlights of 2010-2011 Inpatient Hopitalizations and Emergency Department Visits. Canada: June 21, 2012. https://secure.cihi.ca/free_products/DAD-NACRS_Highlights_2010-2011_EN.pdf.

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Canadian Association of Emergency Physicians and National Emergency Nurses Affiliation. Joint position statement on emergency department overcrowding. Canadian Journal of Emergency Medicine. 2001;3(2):82-84. http://www.cjem-online.ca/v3/n2/p82.

Treatment of Chronic Pain

Prescription Opioid Drug Abuse & Deaths

In Ontario, there is a growing concern about the misuse of prescription painkillers especially opioids. We can use the best of what we know to develop a harm reduction strategy, through the use of cannabinoid medicines in the treatment of pain and physiological disease.

A recent review of opioid (narcotic) related deaths in Ontario, identified the tragic fact that pain medication related deaths in Ontario are increasing and that most of the people who died had been seen by a physician within 9-11 days prior to death (emergency room visits and office visits respectively) and the final encounter with the physician involved a mental health or pain related diagnosis.

The lack of education for pain management in treating physicians is quite alarming. What is most alarming is that the regulatory bodies for physicians in general, have not adapted with the growing needs of Canadians and have neglected to enforce a minimum on chronic pain education either through a continuing medical education credit program or via imposing contingent medical practice licensing for physicians who do not complete x number of hours spent on chronic pain education.

Furthermore, chronic pain patients suffering poor quality of life due to the lack of access to proper medical care in the form of educated health professionals, over-priced pharmaceuticals and the associated medical expenses of workforce disability are left to their own devices in managing their pain. Many chronic pain patients seek alternative therapies including medicinal cannabis as an adjunct or alternative to opioid prescriptions but are confounded by systemic barriers to access due to poor public education and awareness and inadequate number of prescribing physicians available at any given time.

Methadone Clinics

In Canada, methadone is a controlled substance. Physicians who prescribe methadone require specialized training and an exemption from Health Canada. In addition, each province has its own licensing body, which regulates methadone prescription writing. In Ontario, all methadone maintenance treatment is outpatient-based and follows the College of Physicians and Surgeons of Ontario Methadone Maintenance guidelines. The guidelines contain details on appropriate prescribing, dispensing, lab testing, use of

"carries" (formulations of methadone that patients can take home and consume in an unsupervised setting), and other facets of treatment.

Methadone treatment is intended to be a transitional tool, to assist an individual with "recovering" from an addiction to a substance. It in itself, Methadone is an addictive substance that creates more addiction and is very hard on the body. Methadone should never be considered for extended periods of time. It is an option that might help and unfortunately, the only covered option a patient has.

By including it in the options for the first line of treatment, cannabis use for the chronically ill as a complementary therapy tool could help prevent addiction to opiate pain killers or methadone and we would see a significant decrease in addiction rates overall. There is also strong evidence that patients addicted to harder drugs, including methadone, can be weaned and transitioned to medical cannabis.

Reference: CPSO Methadone Maintenance Guidelines (2013)
Reference: Methadone Fact Sheet – City of Toronto Public Health

B.3. Call to Action: Patient Centered Chronic Pain Management

Four Pillars of a Pain Treatment Plan

As Chronic Pain is a complex issue it must be addressed on multiple levels and those suffering need a comprehensive treatment plan with options considering the following pillars. Medical cannabis has been proven to be successful treating various forms of pain and related illnesses and complementary across these pillars.

To fully understand the benefits of medicinal cannabis we cannot disregard the obvious naturopathic and organic benefits of medicinal cannabis. The organic compounds within *Cannabis sativa* such as terpenes do not have psychoactive activity but are humorally beneficial to the physiologic state of a chronic pain patient. This topic of discussion is often left out of academic literature and neglected by allopathic health professionals due to poor education and awareness. Moreover, the easily and readily accessible synthetic pharmaceuticals are first line treatments despite the long list of negative side effects and associated high costs.

As it is, medicinal cannabis is considered as a last line for chronic pain treatment, despite a growing body of evidence that many chronic pain sufferers benefit from cannabis as a first line treatment remedy.

An integrated approach of health disciplines to achieve a cohesive, comprehensive and compassionate delivery of care is much needed in today's landscape of chronic pain management. At the very least, a combined effort to achieve physical and psychological

PHYSICAL	PSYCHOLOGICAL	PHARMACOLOGIC	INTERVENTIONAL
Normal activities	Hypnosis	OTC medication	I.A. steroids
Splinting / Taping	Stress Management	Alternative therapies	I.A. hyaluronanic acid
Aquafitness	CBT	Topical medications	Trigger pt. therapy
Physio	Family therapy	NSAIDs / COXIBs	IntraMuscular stim.
Stretching	Psychotherapy	DMARDs	Prolotherapy
Conditioning	Mindfulness- Based Stress - Reduction	Immune modulators	Nerve blocks
Weight training	Mirror Visual Reprogramming	Tricyclics	Botox®
Massage		Anti-epileptic drugs	Epidurals
TENS		Opioids	Orthopedic surgery
rTMS		Cannabinoids	Radio frequency Rhizotomy
tDCS		Local anesthetic congeners	Implantable stimulators
Chiropractic		Muscle relaxants	Implantable pain pumps
Acupuncture		Sympathetic agents	
Tai Chi / Yoga		NMDA blockers	

Table !. Physical, psychological, pharmacologic and interventional. (Dr. Roman Jovey, 2015)

well being for patients should be based upon a combination of pharmacologic, interventional allopathic pain treatments, cognitive and emotional support therapies and physical rehabilitation. Please refer to the table below for an example of multidisciplinary chronic pain management.

C. Medical Cannabis

C.1. What is Cannabis

Cannabis more commonly called marijuana is a tobacco like greenish material consisting of the dried flowers, fruiting tops and leaves of the cannabis plant, *Cannabis sativa.*

Cannabis has been utilized for various reasons throughout history. The *Cannabis sativa* plant originated in the temperate climates of Asia, and has been spread around the world and cultivated for use in making rope. Between 1937 and 1971 a series of laws and conventions led to the ban of cannabis in North America and much of Europe.

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Cannabinoids are compounds derived from or based on chemicals found in the *Cannabis sativa* plant. Research into the psychoactive ingredients in cannabis led to the isolation of delta-9-tetrahydrocannabinol (THC), the main psychoactive ingredient, followed by continuing research into the properties of cannabinoids. The cannabidiol (CBD) chemical found also in marijuana is a growing research interest area for scientists. These compounds have considerable potential for the treatment of a wide variety of symptoms and diseases.

Endocannabinoid System

The human body produces endocannabinoids, its own natural version of cannabinoids. Cannabinoid receptors are found throughout the body, especially in the nervous and immune systems. The endocannabinoid system is involved in a variety of physiological processes including appetite, pain-sensation, sleep, mood and memory. Endocannabinoids and cannabinoid receptors respond to biological events—for example, endocannabinoid levels will rise in response to brain injury, strokes, nerve injuries and associated pain. Both plant cannabinoids and endocannabinoids bind to the body's cannabinoid receptors. When this binding occurs, effects such as pain relief and suppression of stress result. (CPT Video)

C.2. Cannabis Use in Chronic Pain

It is important to distinguish between cannabis use as a source of medicine and cannabis use as a recreational drug. Recreational cannabis users seek the psychoactive changes of euphoria and altered consciousness and dose themselves accordingly in social settings. Whereas medical cannabis users are very personal and private about use and seek symptomatic pain relief in order to be functional.

Cannabis is not an Opiate

Cannabinoids and opioids both produce analgesia through a G-protein-coupled mechanism that blocks the release of pain-propagating neurotransmitters in the brain and spinal cord. However, unlike opiate drugs, treating chronic, severe pain with cannabis is not accompanied by the lethal side effects of respiratory depression, bradycardia and coma.

Current FDA Approved Cannabinoid Drugs

There are three forms of marijuana-based pharmaceutical drugs approved by Health Canada for use in Canada: dronabinol (Marinol®), nabilone (Cesamet®) and nabiximols (Sativex®). Dronabinol and nabilone are both synthetic drugs that contain THC in pill form, while nabiximols is sold as an oral spray derived from plant extracts that contains THC and CBD.

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Table 2. Synthetic Medicinal Marijuana Drugs

Synthetic Drug Name	Trademark name	Dose range	Medical Indication	Side Effects
Nabilone	Cesamet®	Prescribed in 0.25, 0.5 and 1mg capsules for oral administration	Oral Anti-emetic; adjunct pain medicine for fibromyalgia	Dizziness/vertigo, euphoria, drowsiness, dry mouth, ataxia, sleep disturbance, headache, disorientation
Dronabinol	Marinol®	Prescribed in 2.5, 5 and 10 mg capsules for oral administration	AIDS-related anorexia associated with weight loss	Dizziness, drowsiness, confusion, euphoria, light-headedness, nausea, vomiting or abdominal pain
Nabiximols	Sativex®	Oral mucosal spray of fixed dose of 2.7 mg THC and 2.5 mg CBD	Symptomatic relief in adult MS patients for spasticity & neuropathic pain	Dizziness, drowsiness and disorientation

References: htttp://www.hc-sc.gc.ca/dhp-mps/prodpharma/notices-avis/conditions/sativex_fs_fd_091289-eng.php, Guy, Geoffrey (2004). "From Plant to Prescription Medicine". 2004 Cannabis Therapeutics Conference. Sponsored by Patients out of Time. Watch the Video.

Clinical Evidence: Efficacy

Cannabinoids have a wide range of potential medical uses in conditions ranging from glaucoma, chronic musculoskeletal and neuropathic pain; nausea and vomiting due to chemotherapy; appetite stimulation for AIDS-related wasting; and muscular spasticity. The area of most scientific research is the use of cannabinoids as analgesics. (Ware, M. A. (2009).

Synthetic cannabinoid Nabilone has been studied in Fibromyalgia patients at the University of Manitoba in Winnipeg with promising results, but due to a small sample size of 40 patients the clinical trial did not produce statistically significant results. (Ware, M. A. (2009).

Similarly, Nabilone has been studied in cancer and chronic non-cancer pain research here in Toronto, ON at William Osler Health Center and Toronto Western Hospital respectively. Nabilone usage was associated with lower utilization of opioids and reduced overall polypharmacy, improved sleep and quality of life. (Ware, M. A. (2009).)

Ware, M. Cannabinoids in Pain Management: An Update from the 2009 Canadian Pain Society Meeting. Viewpoints in Pain Management.

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Clinical Evidence: Side Effects

The Cannabis for the Management of Pain: Assessment of Safety Study (COMPASS) trial, a one-year, prospective cohort study was designed to collect standardized safety data on the medical use of herbal cannabis for chronic pain. There was no difference in risk of serious adverse events between the control and placebo groups. Serious adverse events were defined by the International Conference on Harmonization, and included surgical and medical procedures, gastrointestinal disorders and injury, poisoning and procedural complications.

Furthermore, this 6-week cross-sectional study assessed the effectiveness of cannabis on the management of chronic pain amongst 32 patients, 78% stated that they experienced at least a moderate level of pain relief (Ware, Doyle, Woods, Lynch & Clark, 2003). Patients also reported improvements in mood and sleep quality.

Ware, M. A., Doyle, C. R., Woods R., Lynch, M. E., Clark, A. J. (2003). Cannabis use for chronic non-cancer pain: results of a prospective survey. Pain, 102(1-2), 211-216.

A prospective longitudinal study assessed the effects of cannabis use on neuropsychological decline among 1037 participants followed from birth (Meier et al., 2012). Results suggested greater neuropsychological decline with more consistent use of cannabis over time, particularly among those for whom chronic cannabis use began in adolescence. For adolescent-onset chronic cannabis users, cessation did not improve levels of impairment after one year. The authors suggest that cannabis use in adolescence may have particularly harmful effects, since this is a critical time for brain development. However, this has not been reproduced or further researched.

Meier, M. H. et al. (2012). Persistent cannabis users show neuropsychological decline from childhood to midlife. PNAS, 109(40), E2657-E2664.

Ware, M. Cannabinoids in Pain Management: An Update from the 2009 Canadian Pain Society Meeting. Viewpoints in Pain Management.

Benefits to Health Care & Patient Quality of Life

A collective from the Medicinal Cannabis Patient's Alliance of Canada (MCPAC) has recently conducted two surveys of Canadians who use cannabis to treat themselves. The first was conducted in 2013, and all respondents had been successful in getting MMAR Authorization to use cannabis legally.

The second survey was done in 2015, and data from over 300 patients was received. The results in summary state that those patients with chronic pain that have been able to access medicinal cannabis report the following:

- ✓ Less pharmaceutical use, if not complete cessation & Less visits to the Doctor
- ✓ A Reduced burden on their provincial health care system
- ✓ A reduction in dependence on social systems
- ✓ Improved health and wellness; Some have even regained their ability to attain gainful employment

When asked if health and quality of life improved since starting use of medicinal cannabis, 91% reported it was greatly improved or believe they are only alive because of it. Zero respondents said their health had worsened with cannabis use.

C.3. Current Medical Cannabis Regulatory Approach

Current Legal Status

In Canada, marijuana is regulated under the Controlled Drugs and Substances Act (CDSA). The CDSA prohibits and identifies criminal sanctions for the production, possession and trafficking of marijuana as a Schedule II substance. Sanctions range from fines to prison, depending on the nature of the offense. Marijuana is also regulated through international treaties to which Canada is a signatory. The Single Convention on Narcotic Drugs requires that scheduled substances, including marijuana, be limited to medical and scientific research purposes. The Convention states that use and related activities (production, distribution, etc.) should be punishable offenses; however it also offers the option of diversion to treatment where appropriate. To date there has been no application to Health Canada for the approval of dried cannabis for a medical purpose under the Food and Drugs Act (FDA), which is the standard process for approval of a therapeutic drug. Therefore dried cannabis is technically not approved for sale as a therapeutic drug and has not been subject to the review, regulations and standards associated with Health Canada's approval process, including clinical testing, quality control, guidelines for dosage, route of administration, contraindications, and reporting and monitoring of adverse reactions.

Health Canada Regulatory Policy Statements

Health Canada released a research plan for the medical use of marijuana in 1999. In 2001, The Marijuana Medical Access Regulations (MMAR) enabled Canadians with serious diseases access to medicinal marijuana. In 2013 the MMAR was replaced with the Marihuana for Medical Purposes Regulations (MMPR).

The MMPR came into effect June 2013, with the intent to address public health and public safety concerns with the production of marijuana under the former MMAR.

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The MMPR allows for the licensing of qualified licensed producers to produce and distribute marijuana for Canadians who have been authorized by a healthcare practitioner.

Reference: MMPR Regulatory Policy Statement – Health Canada. (2013). *Information for health care professionals: Cannabis (marihuana, marijuana) an the cannabinoids.* ().Health Canada.

Le Dain Report 1976

The Le Dain Commission was a Commission of Inquiry concerning the non-medical use of drugs that resulted in a turning point for thinking around marijuana use in North America. The commissioners found no scientific evidence to support the criminalization of marijuana (Nolin & Kenny, 2002).

Nolin, P. C., & Kenny, C. (2002). Cannabis: Our Position for a Canadian Public Policy. Retrieved from: http://publications.gc.ca/collections/collection_2011/sen/yc2-1-0/YC2-1-0-371-5-0-eng.pdf

Final Report of the Commission of Inquiry into the Non-medical Use of Drugs: http://publications.gc.ca/collections/collection_2014/sc-hc/H21-5370-2-1-eng.pdf

Ontario Court of Justice: Crown vs Parker 1997

In December 1997, Judge Patrick Sheppard of the Ontario Court of Justice found Toronto resident Terry Parker not guilty of possession and cultivation of marijuana, by reason of medical necessity. Judge Patrick Sheppard ruled that certain sections of the Controlled Drug and Substances Act are unconstitutional in cases where marijuana is used for medically approved purposes. This decision that medical cannabis prohibition is constitutionally against our rights and freedoms fundamentally paved the way for medicinal cannabis use and the MMAR by Health Canada. Furthermore, the Supreme Court declined an appeal by the Crown on the grounds that the OSC decision was sound.

Supreme Court of Canada - Crown vs Smith 2015

The June 2015 Supreme Court of Canada decision in R. v. Smith found that the prohibition on the possession of non-dried forms of medical marijuana limited the right to liberty of the person. The MMPR formally replaced the MMAR on April 1, 2014. However, the new legislation has been challenged in the British Columbia Court of Appeal on the grounds that it requires patients unable to afford commercially grown marijuana to choose between risking their health and breaking the law by continuing to produce their own.

The Supreme Court of Canada heard the case in February 2015. A federal court judge in British Columbia has issued an interim injunction that extends Authorizations to Possess

valid as of March 31, 2014, as well as Personal-Use Production and Designated-Person Production Licenses valid as of September 30, 2013, until a decision in the case is rendered. If the case is successful, possible remedies include the continuation of these licenses, possibly with additional regulations compared to those previously in place, or financial arrangements such as subsidies provided to patients able to demonstrate need to ensure affordable access to commercially grown product.

The Government of Canada also tabled regulatory amendments in June 2014 that will require licensed producers to provide semi-annual reports to healthcare licensing authorities (e.g., provincial medical colleges). These reports will provide information on the healthcare practitioners providing medical documents authorizing medical marijuana use, the quantity of marijuana being authorized and basic patient information. This information is intended to improve the ability to monitor professional practice and to monitor patterns of access.

Canadian Medical Physician & Non-Physician Organizations Statements

Canada's medical bodies, including the College of Family Physicians of Canada, the Canadian Medical Association and the Federation of Medical Regulatory Authorities of Canada, have expressed concern with the process by which dried marijuana has entered medical practice in Canada and especially with the recently introduced Marihuana for Medicinal Purposes Regulations (MMPRs). Under the MMPRs, healthcare practitioners, including medical and nurse practitioners, are responsible for providing a medical document (i.e., a prescription) to authorize patient access to marijuana from a licensed supplier. However, healthcare practitioners do not feel that they have the clinical evidence required to do so in an informed way.

College of Family Physicians of Canada (CFPC)

The College of Family Physicians of Canada (CFPC) released guidelines in September 2014 to assist physicians considering the authorization of marijuana for medical use. **There is agreement across these guidelines that clinical evidence on indications, dosage, interactions, risks and benefits of marijuana for medical purposes is lacking**.

College of Physicians & Surgeons of Ontario (CPS0)

These guidelines are also consistent with international approaches in recommending that physicians first exhaust conventional treatments before issuing medical documents for marijuana. The CFPC guidelines further state that authorizations should be considered only for patients with neuropathic pain that has not responded to standard treatments. These guidelines go beyond clinical considerations to ethical considerations such as prohibiting physicians from charging additional fees for marijuana authorizations and from conducting virtual consultations with patients where no previous patient–doctor relationship exists.

Canadian Association of Naturopathic Doctors (CAND)

Naturopathic doctors are requesting the federal government to remove the barrier that prevents provinces and territories from choosing to allow NDs to prescribe and administer selected drugs containing legal controlled substances, including medical marijuana, to ensure the optimal treatment of patients and to assist patient in reducing or eliminating their drug dependency. NDs are seeking to be added to the list of practioners in the 2012 New Classes of Medical Practioners Regulations under the same regulations.

C.4. Impact of Regulatory Environment on Chronic Pain Sufferers

Impact of Drug Prohibition

In Canada, over 50% of all drug possession charges are for cannabis, according to the Canadian center on substance abuse. Considering the multiple uses of cannabis for health and wellbeing, it is reasonable to believe that many of these charges are related to a "non-registered" medical need. Especially under the current stay with regards to Personal Production and Personal use as well as the latest extracts ruling from the Supreme Court of Canada. Cannabis is used as an effective medicine for pain management by thousands across the country, with a current registered medical use population of no less than 40,000 patients. Over 8000 of these in Ontario were granted exemptions by 2012. These numbers are growing still today.

We continue to see vast inconsistencies on how law enforcement deals with simple cannabis possession (up to 30 grams) across Canada. We can only speculate on reasons why this is but one could argue that trends of less law enforcement are due to social values and the communities' tolerance for cannabis. The once consensus we do have is well over 50% of the population believe it should be fully legalized and the even higher believe Medical Cannabis should be available for those who medically need it.

Many chronic pain patients are being tied up in the courts and going to jail just to access the medicine they so badly need without harming anyone. This is due to ill-defined policies and procedures and lack education and awareness around dealing with medical cannabis users.

The current status quo allowing for each law enforcement officer to use their discretion has proven to be inadequate as law enforcement has very little education on working with the chronic pain patient and absolutely no education on the real benefits of medical cannabis and how 10% of the population with chronic pain and related symptoms require medical cannabis to treat their symptoms.

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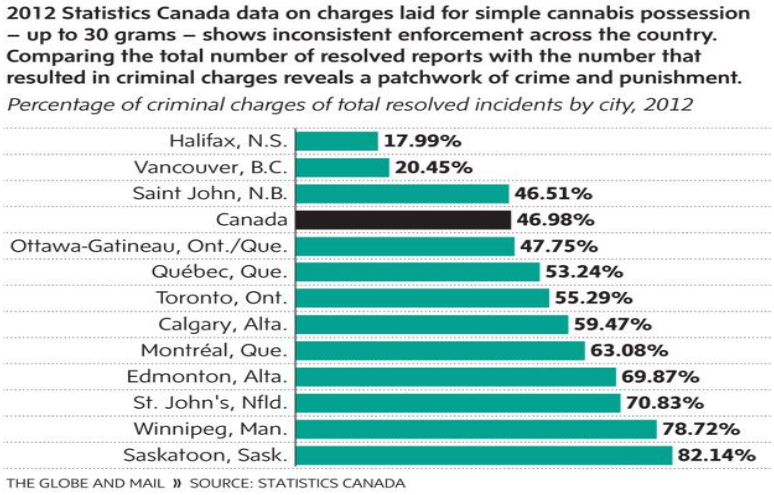

War on Drugs Has Failed: A Shift Towards Evidence Based Drug Policy

The Vienna Declaration is a scientific statement seeking to improve community health and safety by calling for the incorporation of scientific evidence into illicit drug policies. More than 16,500 people have signed the declaration since its launch on June 27, 2010, including six Nobel Laureates, thousands of scientific experts, law enforcement leaders, members of the judiciary and a diversity of academic, faith-based, and civil society organizations around the world.

This declaration has also been endorsed by former heads of state including Fernando Henrique Cardoso, (former President of Brazil), Ernesto Zedillo, (former President of México) and César Gaviria (former President of Colombia). In Canada, the declaration has been signed by Canadian Public Health Association and by five chief provincial medical health officers.

“Toronto City Council’s endorsement of the Vienna Declaration underscores our city’s commitment to evidence-based policy making and our support for improving community health and safety by advocating for drug policies that can meaningfully reduce harm,” said Councillor Kyle Rae, Chair of the City of Toronto’s Board of Health subcommittee on HIV/AIDS and the councillor responsible for bringing the Vienna Declaration forward to council.

In response to the complexity of the drug problem, the Toronto Drug Strategy (TDS) is a comprehensive drug strategy for the City of Toronto based on four integrated parts – prevention, harm reduction, treatment and enforcement. All four parts are needed to effectively reduce the harms of alcohol and other drug use.

http://www.markhaden.com/publications/Haden-EvolutionofFour%20Pillars--IJDP%202006.pdf

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C.5. Vienna Model: City of Vancouver Evidence Based Drug Policy

Harm Reduction

As the public has become engaged in the discussion of the four pillars there is growing acknowledgment that drug prohibition itself creates violence, crime, corruption, disease, and creates a robust black market, which engages youth, and makes drugs widely available.

As a case example, the City of Vancouver, during the process of implementing harm reduction in the Downtown East Side, received significant attention in the public debate. Through dialogue and key stakeholder participation, the outcome resulted in the creation of North America's first supervised injection facility (SIF).

The unprecedented discussion and co-operation between the Vancouver Police Department and key health service providers resulted in the City of Vancouver having to develop strategies for the program to work. Essentially, the users of this facility could not be charged with violating the law as they walked in the door.

Enforcement

The City of Vancouver underwent significant learning with the changes in the enforcement strategy during the implementation of the four pillars process. To ensure public safety, forty police officers were redeployed to the open drug scene in the Downtown Eastside. A study on the effects of this massive police deployment indicated that it did not change the price of illicit drugs being sold or the frequency of use or enrolment in methadone programs (Wood et al., 2004). In fact it was noted that there was displacement of injection drug use to other parts of the city, a phenomena called "bubble under the wall paper" effect. Another observation of drug prohibition in the Downtown East Side was noted to be a continued high rate of property crime, mostly carried out by drug addicts. (Alexander, 2006) However, not recognizing that these crimes are perhaps not a result of drug pharmacology but of drug prohibition. (Haden, 2006).

Prevention

To assert the third pillar of prevention, the City of Vancouver established a need for early education of factual information in schools on the dangers of illegal drug use. As well, public consultations on prevention held by the City boldly concluded that prohibition blocked effective prevention programs and thereby creating a regulated market will enable quality controlled products and services under a set standards act. (MacPherson, 2005)

Treatment

The marginalizing process of targeting and branding drug users with enforcement interventions causes cultural fragmentation in society. (Alexander, 20006). There is a strong need for [chronic pain advocates] to publicly contradict outmoded doctrines and force social cohesion of drug users into mainstream society. The implication of this statement is that client advocacy plays a key role in the treatment process and the patient is the key voice to be heard. The willingness of chronic pain health care professionals to give voice to the pain and suffering that enforcement of prohibition inflicts on their clients creates the opportunity for [medicinal marijuana users] to have a more meaningful life rather than living a life engaged in the development of police avoidance skills. (Haden, 2006)

Vancouver has highlighted concerns over the fundamental issue of the ineffectiveness, and significant unintended consequences, of drug prohibition. The next step is to explore how the concept of a regulated market for all currently illegal drugs can reduce the harm to individuals, families and all of our society.

Utilizing public health tools developed through a four pillars process for the purpose of regulating the current market of illegal drugs, may force open the paradoxical control and management of the robust black market of illegal drug use by organized crime, who are notoriously resistant to law enforcement interventions. (Sher & Marsden, 2003)

Haden, M. (2006). The evolution of the four pillars: Acknowledging the harms of drug prohibition. *International Journal of Drug Policy, 17*(2), 124-126.

Likewise, the recent allegations and drug trafficking charges against the O.P.P identifies another weakness within the enforcement of drug prohibition as cited by the L.E.A.P which discusses how drug prohibition leads to corruption amongst the ranks of law enforcement officers and diminishes public safety standards. Police knowledge network can be an educational platform to utilize education and awareness modules and resources.

D.Medical Cannabis Policy Implementation

D.1. Challenges & Misconceptions

The biggest challenges in implementing a Medical Cannabis program all revolve around current drug and healthcare policies, as they create costly traps that many patients fall into. There is also a significant lack of Cannabis educated physicians or physicians who feel comfortable prescribing medical cannabis at all for patients who choose it. Patients need to be involved in their health recovery. The developing policies that govern

patients must include their ideals and individual health needs, as well as respect their rights.

The MMPR offers no dignity to a patient who struggles to manage their illness while blindly trying to negotiate a disjointed program that they must lead their own doctor through. There must be an integrated system that is managed through the province, and that offers patients dignified and equal access to the health care treatments that suits their needs and lifestyle.

Recent studies and examples from various jurisdictions now exist with accurate cannabis information. Many of the claims published in the media are not substantiated by science or research and sensational claims impede real understanding of the issues. This provides serious challenges to implementing realistic social standards under a legal cannabis market.

D.2. Using Evidence to Talk About Cannabis: 13 Myths De-Mystified

1. "Cannabis [is] as addictive as heroin." – Daily Telegraph (Fox, 2014)

> There is no scientific evidence to suggest that cannabis has the same addictive potential as heroin. Scientific research has found that less than 1 in 10 people who use cannabis across their lifetime will progress to cannabis dependence, meaning that more than 90% do not become addicted (Anthony et al., 1994). The lifetime probability of becoming heroin-dependent, meanwhile, has been estimated at 23.1% (Anthony et al., 1994).
>
> Interestingly, the addictive potential of cannabis is also significantly lower than other legal and illegal drugs, as 20.9% of lifetime cocaine users, 22.7% of lifetime alcohol users, and 67.5% of lifetime nicotine users are estimated to become dependent (Lopez-Quintero et al., 2011).

Conclusions: A lifetime of cannabis use carries a low risk of dependence (9%), while the risk of cannabis dependence is very low among those who report using it for one year (2%) or even 10 years (5.9%). This is much lower than the estimated lifetime risk of dependence to heroin (23.1%).

2. "[D]id you know that marijuana is on average 300 to 400 percent stronger than it was thirty years ago?" – Health Canada advertisement (Daro, 2014)

> Scientific evidence suggests that cannabis potency, as measured by levels of THC, has increased in recent decades in some jurisdictions. In the United States, recent studies have cited average increases of 3% to 12% in THC content over the past three decades (El Sohly, 2014), which is equivalent to a 300% increase. Significant

increases have not been detected for European countries other than the United Kingdom and the Netherlands (McLaren, Swift, Dillon, & Allsop, 2008).

Concerns over increases in cannabis potency are rooted in the assumption that higher levels of THC are harmful to health. However, the harms of increased cannabis potency are not yet fully understood by scientists. Perhaps counterintuitively, some research suggests that higher cannabis potency may actually lead to a reduction in health harms (especially related to smoking), as consumers might reduce the volume they consume (Van der Pol et al., 2014).

Conclusion: Although this claim overstates the existing evidence, studies do suggest that there have been increases in THC potency over time in some jurisdictions.

3. "I'm opposed to legalizing marijuana because it acts as a gateway drug." – Enrique Peña Nieto, President of Mexico (Khazan, 2013) [Mexico just legalized cannabis in November 2015]

Scientists have explored alternative explanations for why cannabis use tends to take place before the use of "harder" substances. For instance, people who use cannabis may be more likely to use other drugs because they have entered an illicit drug market that features cannabis alongside other drugs, or because of personality traits (e.g., sensation seeking, impulsivity) that make them more likely to try drugs in general (W. D. Hall & Lynskey, 2005). Regardless of the reason, studies have not been able to convincingly remove these and other possible major explanations and thereby prove that cannabis acts as a "gateway" drug. Interestingly, in some countries, use of alcohol and tobacco use has been shown to be more strongly linked than cannabis to the later use of other illicit drugs (Degenhardt et al., 2010).

Conclusion: Evidence to date does not support the claim that cannabis use causes subsequent use of "harder" drugs. On the contrary, Alcohol has shown to be the gate way drug, and in fact is much more lethal than Medicinal Cannabis as medical evidence and literature has proven for years [i.e Alcoholic Cirrhosis, Hepatic malignancies, Recurrent internal hemorrhages].

4. Cannabis use "can cause potentially lethal damage to the heart and arteries." – World Federation Against Drugs (World Federation Against Drugs, 2015)

The impact of cannabis use on heart health is currently not well understood (Volkow et al., 2014). Cannabis use has been found to be associated with acute effects that can trigger events like heart attack or stroke (Jouanjus, Lapeyre-Mestre, & Micallef, 2014; Thomas, Kloner, & Rezkalla, 2014), particularly among older adults (W. Hall, 2014). However, clear causal linkages have not been established.

With respect to the broader impact of cannabis use on physical health, studies have found that low, occasional cannabis use does not adversely affect the lungs (Pletcher et al., 2012). However, the impact of long-term cannabis smoking on respiratory function is less clear (W. Hall, 2014).

Some studies have reported that smoking cannabis is associated with various respiratory-related problems (Gordon, Conley, & Gordon, 2013; Tashkin, 2013; Tashkin, Baldwin, Sarafian, Dubinett, & Roth, 2002), whereas others have found no strong association with several lung conditions (Tashkin, 2013). The impact of cannabis smoking on lung cancer, in particular, remains unclear (Hashibe et al., 2006).

It is worth noting that the risks of illness and death associated with the use of tobacco and alcohol are much higher than those associated with cannabis. For example, evidence has found far greater risk of lung problems among tobacco users compared to regular cannabis users (Tashkin, 2013). Hence, the legal status of a drug should not be interpreted as meaning that it poses lower health risks than illegal drugs. This is useful to remember given that calls to sustain the prohibition of illegal drugs, like cannabis, are often accompanied with assertions about their health harms.

Conclusion: There is little evidence to suggest that cannabis use can cause lethal damage to the heart, nor is there clear evidence of an association between cannabis use and cancer.

5. Cannabis use lowers IQ by up to 8 points.

There is little scientific evidence suggesting that cannabis use lowers general intelligence, as measured by IQ. A single study (Meier et al., 2012) is frequently cited to support the claim that cannabis use is associated with declines in IQ of 8 points. Basing any general claim on one study is problematic, especially when the 8-point drop in IQ was found only among a very small subsample of participants (i.e., 38 participants), representing 3.7% of the total sample. Additionally, a more recent review of this same data suggests that the findings linking cannabis use to IQ declines may actually be the result of unmeasured socioeconomic factors (Rogeberg, 2013).

Interestingly, a more recent (and larger) study found that alcohol use was associated with declines in IQ rather than cannabis use (Mokrysz et al., 2014). The scientists also suggested that early-onset substance use more generally, rather than cannabis use specifically, may lead to lower IQ. In short, the evidence that cannabis use is associated with declines in IQ is very weak.

Conclusion: There is little scientific evidence suggesting that cannabis use is associated with declines in IQ.

6. Cannabis use impairs cognitive function.

Unsurprisingly, evidence has shown that during intoxication, cannabis use has acute effects on cognitive functions, such as learning and memory (Crane, Schuster, Fusar-Poli, & Gonzalez, 2013). Some scientific studies have found associations between heavier, long-term cannabis use and impairments in cognitive areas such as memory, attention, and verbal learning; particularly use is initiated during adolescence (W. Hall, 2014; Volkow, Baler, Compton, & Weiss, 2014). However, these studies have reported different outcomes with respect to the permanence of these impairments. Given the current state of the scientific research, the simple assertion that cannabis leads to reduced cognitive function is misleading.

Claims about the impact of cannabis use on cognitive functioning are at times accompanied by assertions that use leads to school failure, later unemployment, problems with life satisfaction, and other poor outcomes or psychosocial harms. However, scientists have not been able to remove all other possible explanations, and as such the evidence is weak in clearly establishing associations between cannabis use and these outcomes (Fergusson & Boden, 2008; Townsend, Flisher, & King, 2007). It's also noteworthy that a systematic review of all longitudinal scientific studies on this topic found that the evidence did not support a causal relationship between cannabis use by young people and various psychosocial harms (Macleod et al., 2004).

Conclusion: A thorough search in 2004 of published literature on the relationship between cannabis use and various psychosocial harms did not support a cause and effect claim. However, while the evidence suggests that cannabis use (particularly among youth) likely impacts cognitive function, the evidence to date remains inconsistent regarding the severity, persistence, and reversibility of these cognitive effects.

7. [Cannabis] is a drug that can result [in] serious, long-term consequences, like schizophrenia." – Kevin Sabet, Smart Approaches to Marijuana (Baca, 2015)

If cannabis use caused schizophrenia, we would expect to see increases in incidence as rates of cannabis use have increased, but this trend has not been observed (Hall, 2014). One UK-based study reported that, given that cannabis use has increased fourfold among the UK population between the early 1970s and 2002, there should be a corresponding 29% increase in cases of schizophrenia among men, and 12% increase among women between 1990 and 2010 (Hickman et al., 2007). Instead, during this time period (1996-2005), it was found that annual cases of schizophrenia

in the UK were either stable or declining (Frisher et al., 2009). These findings strongly suggest that cannabis use does not cause schizophrenia.

Scientific research has suggested that young people who are genetically predisposed to schizophrenia may have their risk of developing this condition increased by using cannabis (Caspi et al., 2005). However, scientific findings are inconsistent on the magnitude of risk posed by cannabis use, as well as the frequency of use that is associated with mental illness (Andréasson, Engström, Allebeck, & Rydberg, 1987; Caspi et al., 2005; Moore et al., 2007).

Conclusion: While scientific evidence supports an association between cannabis use and schizophrenia, a causal relationship has not been established.

8. Legalization / regulation increases the availability of cannabis.

Evidence suggests that prohibition has been generally unsuccessful in reducing the availability of cannabis. In the United States, research indicates that since 1990, the price of cannabis has decreased while potency has increased, despite increasing investments in enforcement-based supply reduction efforts (Werb et al., 2013). Given that we can't measure the underground market directly, these indicators act as proxy markers, suggesting that the supply – and by extension the availability – of cannabis has likely increased.

The perceived availability of cannabis among young people has remained high, notwithstanding increases in drug control budgets. For the past 39 years, between 81% and 90% of twelfth graders in the United States have reported that they could obtain cannabis "fairly easily" or "very easily" (Monitoring the Future, 2014). Similarly, in the European Union, research from 2014 indicates that 58% of young people aged 15 to 24 believe it would be either very easy or fairly easy to obtain cannabis within 24 hours (European Commission, 2014).

Conclusions: Evidence suggests that the supply of illegal cannabis has increased under a prohibition model, and that availability has remained high among youth. Evidence does not suggest that cannabis availability among youth has increased under regulatory systems.

9. "[I]f marijuana was legalized, the increase in users would be both large and rapid…" – (DuPont, 2010)

The assertion has been made that the higher prevalence of alcohol and tobacco use under a regulated market implies that cannabis use would also increase if regulated. However, World Health Organization data suggests that countries with more punitive drug policies do not exhibit lower levels of drug use compared to countries with more liberal policies (i.e., regulation) (Degenhardt et al., 2008). Hence, causal claims between the prevalence of drug use and the policy environment are

misguided. Simply put, the evidence suggests that prohibition has at most a marginal impact on the use of illicit drugs.

At the same time, a large 15-year research study found that the presence of medical marijuana systems has not led to increases in recreational adolescent cannabis use in the United States (Hasin et al., 2015). With respect to new recreational cannabis markets (such as in Colorado, Washington State, and Uruguay), it is likely too soon to adequately evaluate the long-term impact of policy changes on cannabis use trends.

Conclusions: Evidence suggests that the policy environment (specifically legal status and enforcement policy) has at most a marginal impact on the prevalence of drug use, thereby suggesting that regulating cannabis markets will not inevitably cause higher levels of cannabis use.

10. Regulation will not reduce drug crime.

A commonly heard argument is that the regulation of cannabis markets will not reduce drug crime. However, there is a lack of scientific research on how much drug crime supposedly thrives under regulated markets, and it is still too early to adequately assess this effect in Colorado, Washington State, and Uruguay.

It is worth recalling the high levels of drug crime and violence under prohibition. Plenty of scientific evidence has demonstrated the failure of prohibition in reducing the size of underground drug markets and trafficking or the violence associated with illegal drug markets (Werb et al., 2013; Werb et al., 2011). Given the inability of prohibition to reduce drug crime and violence, regulation remains a viable alternative.

Regulated cannabis markets directly reduce some drug crime by removing the illegal nature of some forms of cannabis production, distribution, and consumption. Although illegal drug crime is still likely to continue under a regulated market (i.e., underage purchasing, continued supply from a criminal market, etc.), if regulatory laws are appropriately constructed, cannabis regulation will transfer the vast majority of demand for cannabis from the criminal market to the legal market. Cannabis regulation in Colorado, Washington State, and Uruguay has diverted a substantial proportion (and likely the vast majority) of revenue from cannabis sales from the criminal market to licit sellers, thereby decreasing the total share of the criminal market. Even a modest contraction in criminal opportunities and cartel profits can be viewed as a positive.

Conclusions: Given that the prohibition of cannabis has not been shown to reduce illegal supply, it is likely that cannabis regulation is more effective at minimizing criminal markets for cannabis, despite the fact that criminal markets will continue to represent a proportion of the total market.

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11. "We are going to have a lot more people stoned on the highway and there will be consequences." – Rep. John Mica (R-Fla.) (Balko, 2014)

While evidence shows that the risk of motor vehicle collisions increases for drivers during acute intoxication from cannabis use (Asbridge, Hayden, & Cartwright, 2012; M. C. Li et al., 2012), evidence does not suggest that cannabis regulation leads to increases in the number of impaired drivers on the road. In the case of Colorado, Washington State, and Uruguay, it is too early to determine what long-term impacts might be.

However, raw data from the Colorado Department of Transportation found that total traffic fatalities were down in the state for 2014 compared to 2013 and the average since 2002 (Balko, 2014). Of course, such counts may not tell us about the specific role of cannabis use in car crashes. However, they do provide reason to question any general claims that cannabis regulation will necessarily lead to less safety on the road at the population-level.

This claim seems to be rooted in the assumption that impaired driving will increase because cannabis use will increase under a regulatory scheme. It is therefore worth emphasizing that scientific evidence has not found an association between levels of drug use and national drug policies (Degenhardt et al., 2008).

It is important to note that responsible regulatory schemes would not legalize driving under the influence of cannabis. It remains an offence in Colorado, and indeed the law has arguably been tightened – with new THC blood limits introduced, increased enforcement efforts, and a public education drive funded in part by cannabis tax revenue (Colorado Department of Transportation, 2015). Importantly, compared to prohibition, cannabis regulation allows for detailed public education and awareness campaigns to prevent risky behaviours, such as impaired driving, as has occurred with drunk driving (Hingson & Winter, 2003). Its important to note, the recent suggestions for distribution of "Adult Use" be done through liquor stores despite the MAIN CONCERN of combination of use of A and MC causes and up swing in impaired driving.*need source

Conclusions: While experimental studies suggest that cannabis intoxication reduces motor skills and likely increases the risk of motor vehicle collisions, there is not sufficient data to suggest that cannabis regulation would increase impaired driving, and thereby traffic fatalities.

http://www.theladbible.com/articles/a-new-study-finds-weed-is-114-times-less-deadly-than-alcohol

12. Regulation promotes drug tourism.

There is some evidence to suggest that the regulation of cannabis markets attracts tourists. Although not systematically collected, data from the Netherlands has indicated that 25% of tourists who visit Amsterdam visit a coffee shop, and 10% say that this was their reason for visiting the city (Kilmer, 2010). Early evidence from Colorado indicates that 44% percent of revenue from cannabis sales in metropolitan areas, and 90% of sales in rural communities, occurred from buyers residing out of state (Light et al., 2014).

Importantly, drug tourism is by no means an inevitable consequence of a regulated recreational cannabis market (i.e., evidence does not suggest regulation in and of itself promotes drug tourism). By allowing governments to control the conditions under which cannabis is sold, regulatory models that do not permit drug tourism can be employed. Restricting sales of cannabis to home country residents is one example of a possible regulatory control to reduce drug tourism. Uruguay is an example of this, as the law permits only residents to grow and purchase cannabis (Gutierrez & Pardo, 2015).

Conclusion: While evidence suggests that, depending on the use of regulatory controls and geographic setting, regulation may in some cases lead to an increase in drug tourism, the data do not suggest that this is an inevitable consequence of regulation.

13. Regulation leads to a "Big Marijuana" scenario.

The emergence of regulated recreational cannabis markets has been accompanied with claims that these policy changes will lead to large, for-profit cannabis industries with little oversight and a lack of concern about public health and safety, sometimes referred to as a "Big Marijuana" scenario. In addition to being unsupported by scientific evidence and based on speculation, this claim implies a weaker level of government control than is possible under cannabis regulation.

Concerns that regulation will lead to a massive commercialized industry are rooted in the assumption that cannabis will follow a similar trajectory as tobacco (T. Hughes, 2015). In previous decades in North America, the tobacco industry engaged in heavy advertising (especially to youth) and industry deception about the health risks associated with use. As a result, tobacco use increased and became a major source of preventable health conditions and mortality (Richter & Levy, 2014). Assuming that the cannabis industry will follow in the footsteps of tobacco is, however, mere speculation and is not supported by scientific evidence. It is equally, if not more, likely that given the previous experience with tobacco, governments will take greater steps towards ensuring that regulations foster a responsible cannabis industry.

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A “Big Marijuana” scenario is in no way an inevitable consequence of a regulated recreational cannabis market. By allowing governments to control the conditions under which cannabis is sold, regulatory models that avoid such an outcome can be employed. This could entail limits on the size of individual market players, or the use of a state monopoly. Restrictions on advertising, requirements for product labelling on health harms, and investments in public education are regulatory controls that do not foster a large commercialized industry and can be adopted.

It is still too early to determine whether recently regulated cannabis markets in Colorado, Washington State, and Uruguay will experience a “Big Marijuana” scenario. However, these jurisdictions have employed stricter regulatory controls than those used for tobacco in previous decades, including restrictions on retail quantities and advertising and promotion (Gutierrez & Pardo, 2015; Pardo, 2014). Uruguay, for example, has prohibited cannabis advertising (Gutierrez & Pardo, 2015; Pardo, 2014). The use of strict regulatory controls like these diminishes the likelihood of a “Big Marijuana” scenario.

Conclusion: Available evidence regarding “Big Marijuana” is currently lacking, although government regulatory controls can be introduced within regulatory systems to reduce the potential of profit maximization by cannabis retailers.

The International Centre for Science in Drug Policy has published “USING EVIDENCE TO TALK ABOUT CANNABIS" (2015). Excerpts are quoted from that overview for this report. International Centre for Science in Drug Policy C/O Li Ka Shing Knowledge Institute of St. Michael’s Hospital 30 Bond St. Toronto, ON M5B 1W8 info@icsdp.org www.icsdp.org

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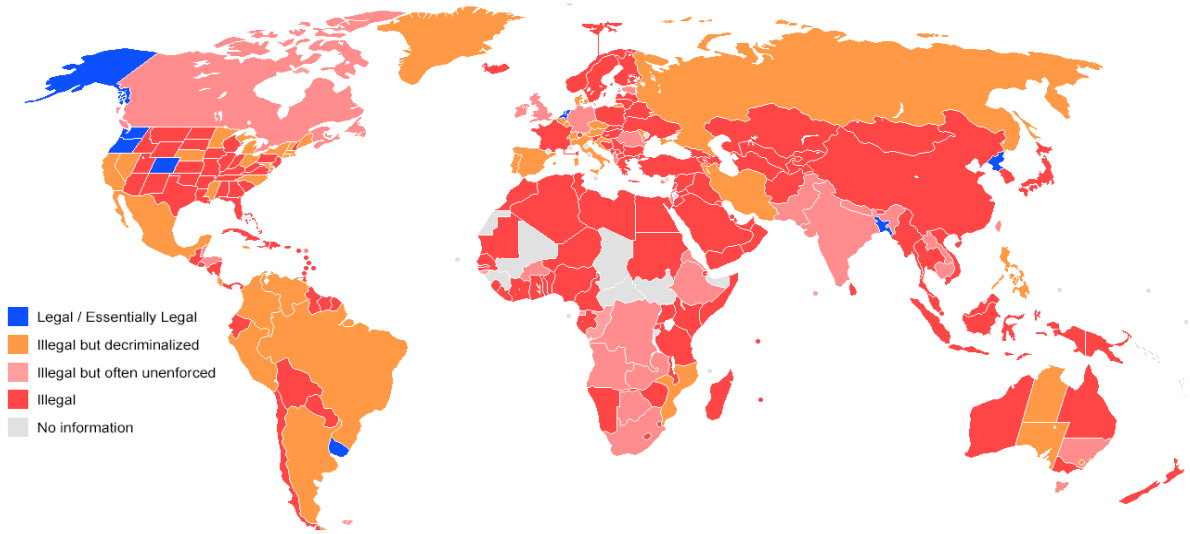
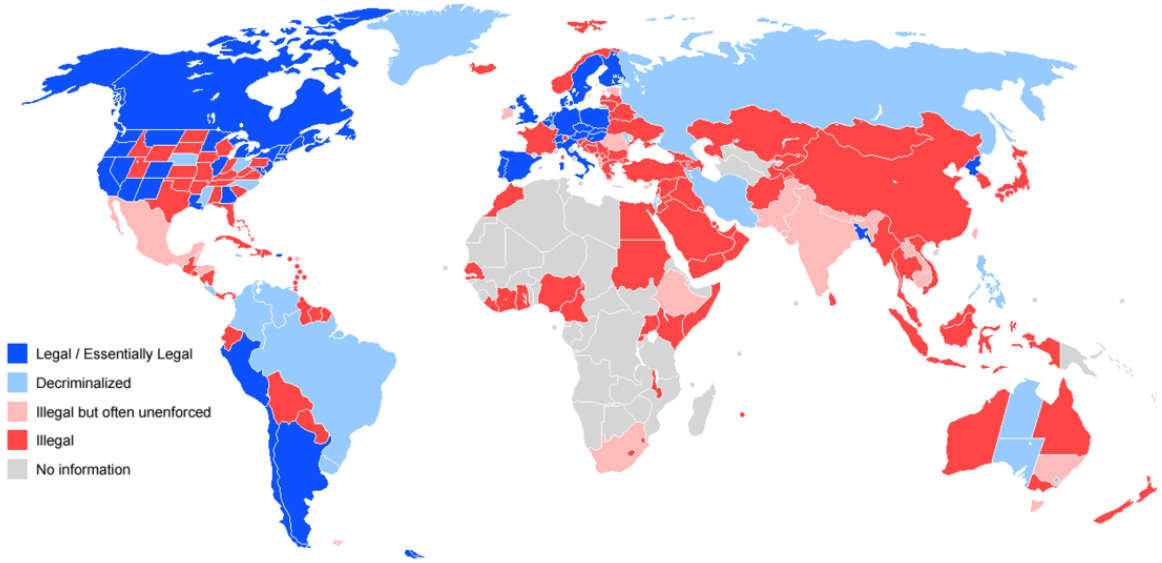
E. Overview of International Cannabis Policies

Legalizing Medical Cannabis is the first step to offering a standardized and controlled product to help non-opiate based pain management. There are many countries around the world embracing the emerging medical cannabis industry and Canada can leverage learnings and trends to further inform its drug policy.

E.1. Global Perspective of Recreational Cannabis Use



Global View of Legal Medical Cannabis Use



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North America

United States

In 1996, California was the first state to legalize medical marijuana, and in the intervening years, 23 states and D.C. have followed suit. Recently California introduced regulations for licensing and operating rules for medical cannabis growers and retailers. Furthermore, a number of groups are trying to qualify voter initiatives for the November 2016 ballot that would legalise recreational marijuana in California.

Likewise, in 2012, Colorado was the first state to legalize the manufacture and sale of retail (recreational) marijuana, and since then three states have followed suit: Alaska, Oregon and Washington. In 2015, sales of medical and recreational marijuana are estimated to be $550M in Colorado and $300+M in Washington.

In the U.S., Federal law prohibits marijuana possession and commerce, leading to barriers of access to banking services by state level market operators. This prohibition flows from the Controlled Substances Act, codified in Title 21 of the U.S. Code, making it illegal to manufacture, distribute or dispense, or possess with intent to manufacture, distribute or dispense a controlled substance, and marijuana is classified as a Schedule I, controlled substance.

Last year, the Financial Crimes Enforcement Network (FinCEN) of the U.S. Department of Treasury released guidance intended to clarify how financial institutions can provide services to marijuana businesses and remain in compliance with the Bank Secrecy Act. The guidance indicates that banks should conduct due diligence to evaluate the risk involved in servicing specific marijuana-related businesses. The suggested due diligence steps are significant and include verifying that the business is licensed and registered in accordance with state law, identifying activity patterns for the business so that they are better able to notice suspicious activity and continuous monitoring.

Most banks have decided that the compliance obligations associated with banking marijuana businesses are too high and that they cannot economically conduct the level of due diligence expected by FinCEN.

Rep. Jared Polis's (D-Colo.) H.R. 1013, introduced Feb. 20, proposes removing marijuana from the Controlled Substance Act (CSA) schedules. The legislation would also require federal permits for importing, manufacturing and selling cannabis for interstate or foreign commerce. Jurisdiction over marijuana enforcement would transfer from the Drug Enforcement Administration to the Bureau of Alcohol, Tobacco, Firearms and Explosives; the Alcohol and Tobacco Tax and Trade Bureau would be renamed the Alcohol, Tobacco and Marijuana Tax and Trade Bureau.

While federal prohibitions concerning marijuana have certainly complicated legalization in the states, it does not appear to be the impediment it once was, as numerous other state Legislatures are actively considering how to effectively legalize and tax the sale of

marijuana. These include: Arizona, California, Florida, Georgia, Michigan, Maine, Missouri, Montana, Nevada, New Mexico, North Dakota, Rhode Island, South Dakota, Vermont and Wyoming.

Meanwhile, there is data showing a promising trend in that states where legalized marijuana is available have seen a significant decrease in black market activities.

Until there is a marked change in federal policy, legal marijuana businesses will continue to combat issues such as limited access to banking and limits on the deductibility of legitimate business expenses, both of which stem from conflicts between state and federal law.

Sources:

www.mjbizdaily.com

http://www.bna.com/marijuana-america-2015-n57982063540/

https://www.washingtonpost.com/news/wonk/wp/2015/11/03/after-ohios-vote-these-states-will-determine-the-future-of-legal-marijuana/

INSERT MEDICAL MARIJUANA PROCON.ORG 32 PG Laws, Fees, and Possessions Limits Appendix

Insert : http://www.oregon.gov/olcc/marijuana/Documents/Measure%2091_sidebysidecomparison.pd

Oregon/Washington/Colorado Comparison

Washington and Colorado Results **MARIJUANA REGULATION IN COLORADO AND WASHINGTON**

Colorado and Washington are already experiencing successful results from their approval of regulated use of marijuana including:

Arrests are down for minor marijuana violations that waste millions of dollars, allowing the state to focus their police and resources on preventing serious, violent crimes.

State regulated, secure dispensaries are putting drug dealers out of business. This has led to a drop in teen use and access, and adult use has not increased.

Traffic fatalities are down in both states; a regulated, legal system of marijuana has not caused more traffic deaths in either state.

By taxing a product people were already using, much like beer and wine, programs like schools, drug prevention and more are receiving much-needed additional funding.

WASHINGTON

Arrests Down: Washington saw a dramatic change immediately upon passage. In 2012, Washington law enforcement made 5,531 arrests of adults 21 and over for simple possession of marijuana. In 2013, that number dropped to 120. Police and court time is freed up to focus on important public safety priorities.

No Increase in Traffic Fatalities or Crashes: Washington State Patrol's 2013 Annual Report Traffic fatality rate is the lowest in history; fatalities dropped 6% from 2012 to 2013. Arrests for impaired driving, or DUI, in Washington decreased 12% from 2012 to 2013. (Collision and fatality data pg. 10; DUI arrest data pg. 8.)

Youth: It's early to estimate the impact of Washington's new, highly regulated adult marijuana market on youth use rates. Washington is dedicating funding from the new marijuana excise tax revenues to prevention, research, education, and biannual surveys of youth trends in use and attitudes to monitor success of protecting kids from engaging in behaviours reserved for adults.

Revenue Up: Since stores first opened July of 2014, customers have made purchases totalling over $19,200,000. Sales have already generated $4.7 million in new marijuana excise tax revenue for the state. WA sales and excise tax revenues.

Washington is estimated to collect $25m in the first year of legal sales and $636 million by mid-2019.

COLORADO

Traffic fatalities at near historic lows: The best measure of impaired driving is traffic fatalities and in Colorado they are at a near historic low for 2013 and 2014 – according to Colorado Department of Transportation.

Teen Use Down, not up: Survey data released in early August 2014, indicate that marijuana use among high school students continues to decline, despite warnings that legalization would make pot more appealing to teenagers. 37% of high school students reported that they had ever tried marijuana, down from 39 percent in 2011. The percentage that reported using marijuana in the previous month (a.k.a. "current" use) also fell, from 22 percent in 2011 to 20 percent in 2013.

Revenue Up: Colorado estimated revenue prior to passage – Year 1: $4.7m to $22.6m Actual revenue from recreational – Year 1 in first 6 months: $17.2 million Colorado Department of Revenue, July 2014

Arrests are Down: According to data from the Colorado Judicial Branch, the number of cases filed in state court alleging at least one marijuana offense plunged 77 percent between 2012 and 2013. The decline is most notable for charges of petty marijuana possession, which dropped from an average of 714 per month to 133 per month during the same period in 2013 — a decline of 81 percent.

Crime Rates Down: Crime rates are down in Denver according to the FBI's Uniform Crime Reporting data. 10.1% decrease in overall crime from 2013 and a 5.2% drop in violent crime. Burglary and robbery rates at marijuana dispensaries have also dropped since legal sales began on January 1, 2014. This early crime data stands in contrast to concerns of a potential increase in crime after legalization.

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Regulations Now in Place:

Background checks for licensing (criminal history, Gov. obligations (i.e. owed taxes, child report) check on where start-up funding comes from;

Undercover police stings on selling to minors -yield 100% compliance;

Comprehensive testing of marijuana (potency, safety) before it is sold;

Extensive edible and marijuana product labeling requirements in place for recognizable, safe containers, dosage limits.

Shrinking Criminal Market

Amount of marijuana in Colorado now in legal market and out of black market: 58% now in regulated market after only 2 years. According to state lawmakers, many of who opposed Amendment 64: Regulation has done a better job of keeping marijuana out of the hands of dealers, cartels and kids. The Colorado legislature is working to follow the will of the voters and implement the law effectively. State regulated, secure dispensaries are putting drug dealers out of business. This has led to a drop in teen use and access, and adult use has not increased.

Money for Medical Research

COLORADO Gov. signed a bill for $10 million for research into the medical efficacy of marijuana which will help determine which medical conditions should be eligible for medical marijuana and help physicians better understand its biochemical effects adding to the growing base of knowledge about proper dosing and potency and allow the state to conduct clinical trials.

Appendix Colorado Full report 42 pages

https://www.colorado.gov/pacific/sites/default/files/2014%20MED%20Annual%20Report_1.pdf

Insert 14 pg. statistics' of drug legalization

http://www.statisticsviews.com/details/feature/5914551/The-statistics-of-drug-legalization.html

**Medical Cannabis & Addiction: comparison between other addictions*

A limited number of preclinical studies suggest that CBD may have therapeutic properties on opioid, cocaine, and psych stimulant addiction, and some preliminary data suggest that it may be beneficial in cannabis and tobacco addiction in humans.

Source:

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444130/

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South & Latin America

Latin America has been the focus on the so-called war on drugs over the past several decades. However as narco-trafficing and the consumption of drugs continue to grow, many government officials in the region admit that the policy of prohibition is not achieving its goals. In this environment there is a current trend towards legation and decriminalisation of cannabis, the common justification for this is to weaken the black-market, and treat drug users as patients not as criminals.

Legality of cannabis for medical purposes

Legality of cannabis for recreational purposes

Uruguay

For example, Uruguay was the first country to legalise recreational use in Latin America as of April 2014, for adults over the age of 18. The former President Jose Mujica argues that greater state control of the drug market would help damage trafficking networks and lower the price of cannabis. The legislation in Uruguay follows 3 pillars: it legalizes home-growing (each adult must sign a registry, allowing up to 6 plants), or grow through a registered club. It makes it legal for purchase of up to 40 grams per month for personal consumption, and it legalizes cannabis production for medical and industrial purposes.

Columbia

The government is preparing a decree which will approve the therapeutic use of marijuana, the president's office said in an information sheet, and President Juan Manuel Santos told BBC that the decree would be signed in the coming days.

Jamaica

Caribbean countries are also joining the medical cannabis industry. Drug law amendments that partially decriminalize small amounts of pot and pave the way for a lawful medical marijuana sector went into effect in Jamaica in April 2015.

Foreigners who are prescribed medical marijuana abroad can get a permit to legally buy up to 2 ounces of local cannabis during their stay.

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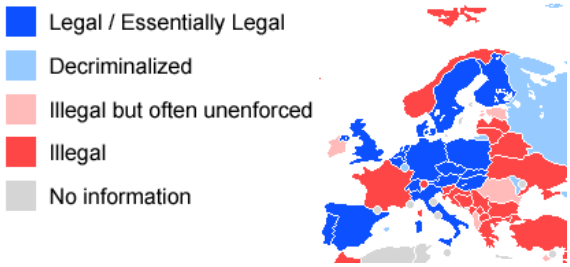
Cultivation of five or fewer plants by any household is allowed. And Rastafari adults are now permitted to use marijuana for sacramental purposes for the first time since the homegrown spiritual movement was founded in the 1930s

The Jamaican Government has provided a licence to the University of Technology for research and development into medical cannabis. A similar licence was granted to the West Indies.

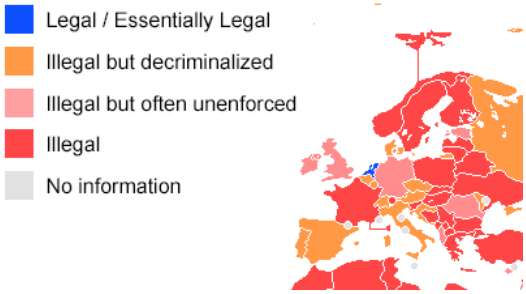
"If Jamaica wants to establish itself as a centre of excellence for research in ganja, this should be the home of research and development in ganja," the minister said. "I am into building value here, and making this a multibillion-dollar industry for us in Jamaica."

Europe

Legality of medical cannabis in Europe



Legality of recreational cannabis in Europe



Holland

Holland legalized medical marijuana for use in pharmacies in 2003. Since 2007 several pharmacies have become specialized in medicinal cannabis. They buy medicinal cannabis in bulk and can therefore deliver the product for a lower price. Three types of medicinal cannabis are available through pharmacies: Bedrocan, Bedrobinol and Bediol.

In September 2003, Holland achieved a Medical-marijuana milestone; pharmacies across the Netherlands began to stock medical cannabis. More than 10,000 patients with illnesses from rheumatoid arthritis to terminal cancer, multiple sclerosis and AIDS were initially estimated to be entitled to medical marijuana at that time.

The Dutch policy continues to evolve in response to internal and external political pressures as well as the nation's inherently pragmatic "learning by doing" orientation to drug problems. In 1995, the 30-gram limit was reduced to 5 grams, and a 500-gram limit was set for coffee shop stocks. In 2008 the Netherlands banned tobacco smoking in the coffee shops (and all other commercial establishments) (Stinson, 2008) and they have been attempting to close shops within 250 meters of schools (Clements, 2008).

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Ireland

Ireland is set to decriminalise small amounts of drugs, including heroin, cocaine and cannabis, for personal use. The minister also announced intent to create injection rooms in Dublin for addicts. This drug policy is part of a radical cultural shift. The minister of Ireland's National Drug strategy Aodhán Ó Ríordáin said that attitudes towards drugs need to move away from shaming addicts to helping the and emphasised the difference between legalization and decriminalization.

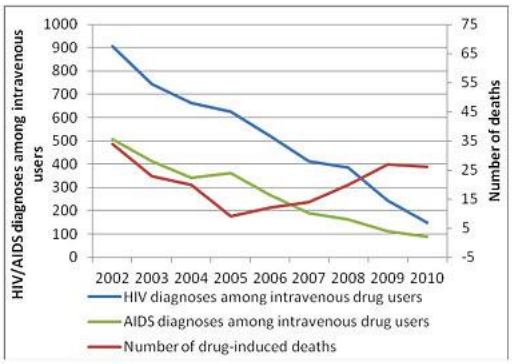
Portugal

Portugal decriminalized all drugs for personal use in 2000 including cannabis and developed new policies for the prevention, treatment and harm reduction of drug use. They have also focused on the social reintegration of drug addicts positioning them as people who need help instead of criminals. This small shift in perspective has significant positive social impact.

While the personal use is decriminalized, drug trafficking is still illegal and it is up to the discretion of the courts to determine what qualifies as possession for personal use or trafficking

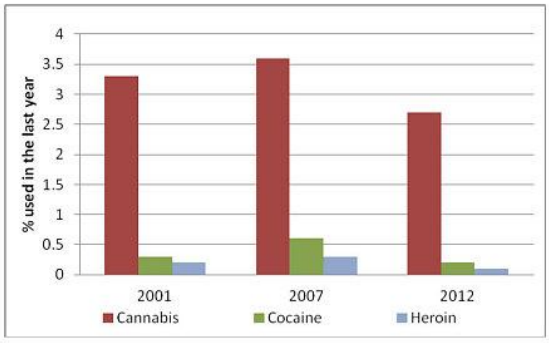
Rates of transmitted drug related diseases, conviction for drug offenses, and even drug use, have declined steadily since 2001.

Instances of HIV/AIDS in Intravenous Users



2002–2011 (Source: Reitox National Reports, EMCDDA)

Trends in Adult drug use 2001 - 2012



2001–2012 (Source: EMCDDA Statistical Bulletin)

Portugal's drug policy was complemented by other federal policy changes such as harm reduction, expanding prevention, and social re-integration programs. These measures coupled with decriminalization and the expansion of Portugal's welfare state to provide a minimum guaranteed income likely played a positive role in achieving the wider health benefits discussed.

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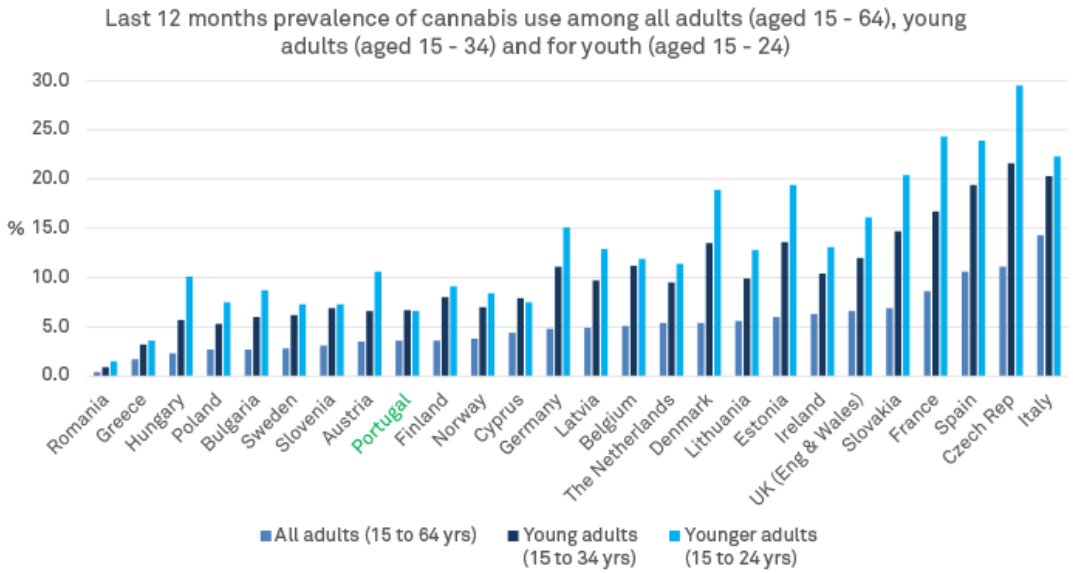
Among Portuguese adults, there are 3 drug overdose deaths for every 1,000,000 citizens. Comparable numbers in other countries range from 10.2 per million in the Netherlands to 44.6 per million in the UK, all the way up to 126.8 per million in Estonia. The EU average is 17.3 per million.

Cannabis use among teens has decreased in Portugal since decriminalization and the rates of consumption of cannabis are now lower than the European average. When compared to other European cities it is evident that their prohibition policies have little impact on recreational cannabis use.



http://www.tdpf.org.uk/blog/drug-decriminalisation-portugal-setting-record-straight

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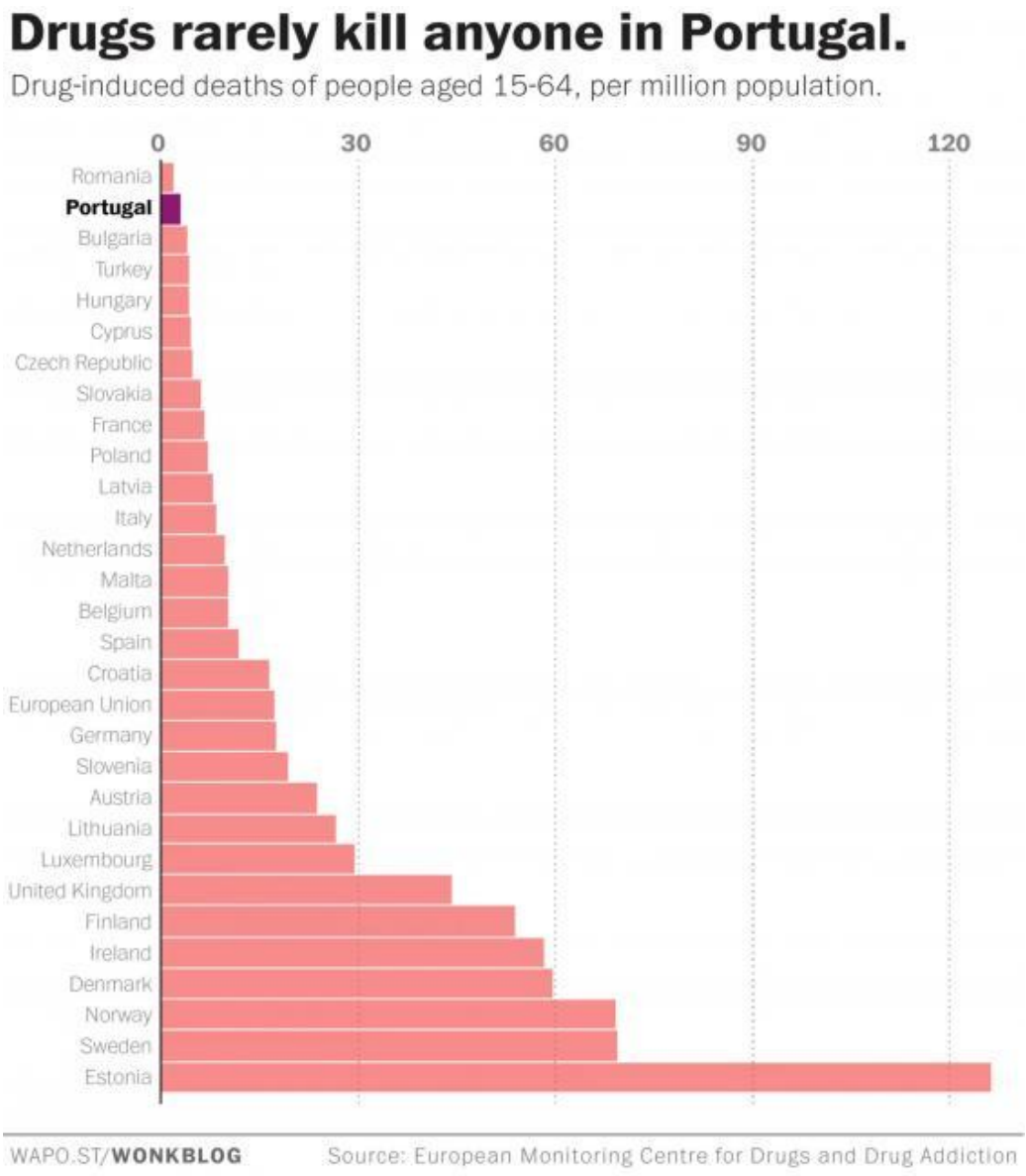

Australia

There is no current law allowing the medical use of cannabis in Australia, and the federal law regarding drug use places marijuana in Schedule 9 (the most restrictive category, which also includes heroin), meaning it has no legal medical use and cannot be prescribed by a doctor. Drugs in the other schedules are considered to have medical uses (for instance cocaine, morphine and amphetamine) and can be prescribed. However, the Australian Federal government has announced it will legalise the growing of cannabis for medicinal purposes.

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Australia is making cautious, albeit substantial moves towards legalizing Medical cannabis; the Victorian government announced earlier this month that it will legalise access to medicinal cannabis products for patients with severe symptoms in 2017. And the Victoria Minister for Health, Jill Hennessy, has made the point: "*Victoria is leading the way on legalising medicinal cannabis because we know the difference it can make to a patient's quality of life, and because we know the evidence is growing in support of it as a treatment option in exceptional circumstances*."

Meanwhile, the New South Wales government has indicated it will provide up to $A9 million to support cannabis clinical trials. It also launched the Terminal Illness Cannabis Scheme to allow people medically certified as terminally ill and their carers to register to use cannabis for therapeutic purposes."

Australia is reviewing the Canadian and American cannabis models in order to help formulate its own. Australia has a very unique opportunity to design a policy regime that can ignore the Canadian mistakes and avoid some of the rhetoric that has plagued the discussion and policy development while addressing the needs of patients and caregivers.

Currently, there are two significant developments in Australia at the Federal and State levels, which will set the framework for the country. In November of last year, the Australian Senate started examining a Private Member's Bill that would create a specific regulator for medical cannabis. The Regulator would be responsible for formulating rules and monitoring compliance with those rules for licensing the production, manufacture, supply, use, experimental use and import and export of medicinal cannabis; and provides for a national system to regulate the cultivation, production and use of medicinal cannabis products, and related activities such as research.

Unlike Canada whereby the federal government has complete jurisdiction over the regulation and use of Cannabis, Australian States (like the US) can create their own systems and contribute to the national dialogue. What is not clear is whether the Federal Government will step in and attempt to force a national policy or prohibition. So far this has not occurred and various States have begun to approach the issue in different ways.

By creating a special regulator to deal with this unique plant, it would appear the Australian government has come up with an elegant policy solution that dedicates specific financial and human resources which does not play to the preconceived notions that cannabis is a plant with no merits whatsoever. As of August, the Bill has since emerged from the Senate Committee process and received all party support. Unfortunately, it is unclear as to when the Australian Parliament and the House of Representatives will actually get to vote on the Bill.

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F. Chronic Pain Toronto Initiative Proposal

The collective concern that unless proactive measures based on adhering to a public health approach are not immediately set into motion, a commercial exploitation model may result despite the lessons learned from the alcohol and tobacco industries on public health and safety. (Spithoff et. al 2015, Haden, Emerson, 2014).

However, these same voices purporting the need to adhere to public health best practices also agree that prohibition of cannabis has failed to achieve the goals of reducing cannabis use and instead has impacted society with high policing, court and prison costs. (Spithoff et. al 2015, Haden, Emerson, 2014).

In fact, Canada has already started down the path to a regulated market of medical cannabis by implementing commercial production of cannabis for therapeutic purposes. Concurrently, there is a significant increase in the number of compassion clubs or unregulated cannabis dispensaries, especially in the cities of Vancouver, Victoria & Toronto. There are approximately fifteen to twenty known dispensaries in the GTA and this number is growing monthly.

Furthermore, in the GTA there are also a half dozen Medical Cannabis “Consulting Clinics” offering yearly fees for medicinal marijuana prescriptions and medical advice that is against the College of Physicians of Ontario (CPSO) Guidelines, as it is illegal to accept money for medical cannabis prescriptions.

Charging both OHIP and charging the patients unnecessary fees is unethical and is not in the patient’s best interest. This leads to the patient being taken advantage of by these medical cannabis clinics instead of these physicians and/or clinics collaborating with chronic pain groups like Chronic Pain Toronto that have the expertise in medical cannabis education and public awareness in a patient-centric manner, in fact CPT offers these services and do not influence financial burden on patients.

This is a perfect opportunity for government funding such initiatives to eliminate the burden on the health care system, and remove the lack of availability and accessibility for Chronic Pain sufferers to integrated access to medical cannabis as all levels of government move towards medical cannabis regulation and policy making.

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F.1. Creation of Adult Wellness Community Centers

Issues that Chronic Pain Toronto has identified through experience, consultations and polling current chronic pain sufferers across Canada and particularly from the GTA are the lack of the following:

- Prescribing doctors, nurses or allied health practioners that are well-educated on medical cannabis regarding how to prescribe THC/CBD doses specific for chronic illnesses
- Licensed dispensary personnel that are well-educated on medical cannabis via a 3rd party independent education system
- Secure and easily accessible Licensed dispensaries that are patient centred for easy and timely access to medical cannabis in a consistent manner
- Third party independently tested Quality-controlled medical cannabis products to ensure patient centered care
- Municipal & Provincial Law enforcement officers that are well educated on medical cannabis regulations and well educated on policy and procedure on dealing with chronic pain sufferers.

The board members of Chronic Pain Toronto have invested time and effort on coming up with suggestions for improvement to these issues of “Dignified Access” and attempt to explain chronic pain patient centered recommendations to address the issues identified above.

In particular, we have reviewed the most recent regulations and by-laws proposed by both Vancouver and Victoria BC municipalities for medical cannabis “dispensaries” from June 2015 as well as the College of Physicians and Surgeons of Ontario Medical Cannabis guidelines published November 2015.

F.2. Regulation of Current Cannabis Clinics

The College considers the medical document authorizing patient access to dried marijuana to be equivalent to a prescription. Prescriptions, together with activities related to prescriptions, are insured services. Accordingly, physicians must not charge patients or licensed producers of dried marijuana for completing the medical document, or for any activities associated with completing the medical document, including, but not limited to: assessing the patient; reviewing his/her chart; educating or informing the patient.
(http://www.cpso.on.ca/CPSO/media/documents/Policies/Policy-Items/Marijuana-for-Medical-Purposes.pdf?ext=.pdf)

Despite dispensaries being technically illegal, prosecutions have failed due to Supreme Court's decisions expressing that current laws on the books are unconstitutional regarding medical cannabis. Dispensaries have fallen into a "grey area" but fill the need for "reasonable access" to patient's medicine. However there is still a lack of existing guidelines and structure on how they operate.

It is our view and the Supreme Courts view that the Federal Government has not met the threshold of "reasonable access" either through the old MMAR or the current MMRP program for many reasons but the most apparent failure of the current system is addressing chronic pain patients' needs in a dignified manner.

F.3. Funding for Public Education & Awareness of Medical Cannabis

As of September 2013, 79% of MMAR Authorizations either produced their own medicine legally or had a Designate doing it for them. Only 21% were purchasing it.

The Medical Cannabis Patients' Alliance Canada (MCPAC) surveyed Canadians and asked about subsidized cost for pharmaceuticals vs. cannabis. Nearly 60% of respondents had over 50% of their pharmaceutical cost subsidized at a rate of 50% or higher, with 22% reporting 100% subsidy for that cost. Alternately, 96% of the respondents reported no subsidy of cannabis cost.

The disparity in annual costs of medical cannabis between the MMAR and the current MMPR has created a problem of accessibility, which did not exist previously. Under the old act, patients were able to have personal gardens and for patients with varying disabilities of modest means there were able to reasonably sustain themselves in their own medical cannabis through a personal garden or a designate garden.
Chronic Pain Toronto has an advocate for chronic patient accessibility to medical cannabis encourages the various government level officials to cover all costs and responsibilities for the provision of medical cannabis to patients, as a medicine under the Federal and Provincial formularies in each Province & Territory in Canada. In this regulation of provision, the government will also enable education about cannabis medicines and the study of strains, dosage and applications of the medicine through patient led research and development and will also answer the requirements of the CPSO and CMA in their request for more direction on prescribing guidelines.

Thus opportunities for investment and funding in education are the following:

- ✓ Investment in chronic pain education awareness and chronic pain medical cannabis for Federal, Provincial and Municipal employees, bureaucrats and public health employees
- ✓ Funding for pain and public organizations to raise awareness and education for chronic pain in the public
- ✓ Funding for research and development by province and municipalities to address the of the public
- ✓ Involve the community and chronic pain patients when a Municipality decides to implement new pain or disability decisions; require a representative to ensure transparency and accessibility for patients
- ✓ Transfer funding from Methadone clinics to Medical Cannabis Education and prescribing programs at Adult Wellness Community Centers

Methadone versus Medical Cannabis

Studies prove that medical cannabis has been able to help addiction in heroine and methadone use.

It cost the city of Toronto $100,000 per year for six methadone users to access safe sites and provides methadone.

Recommendation: Reallocate funds from Methadone programme to Medical Cannabis programme and at same time do research on cost effectiveness and success rates.

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Collaboration with Canadian Consortium of Investigation of Cannabinoids

Patient Coach Educational Curriculum Funding

Chronic Pain Toronto has engaged the Canadian Consortium of Investigation of Cannabinoids to vet our own educational curriculum.

We have had our physicians and nurses take the four on line courses offered to the medical community by McGill University and the CCIC, and we are removing the clinical language. We hope to collaborate with Canadian Naturopaths and create a diverse educational piece that combines all modalities, including clinical knowledge and a natural organic path to healing and preventative health management.

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Using same content but with common layperson terminology for ease of patient understanding and ability to promote public awareness on medical cannabis. The plan is to offer two levels of courses, with the assistance of CCIC.

The first course will be Educating and employment of “Patient Coaches” who can be Allied Health Professionals or Chronic pain patients to help alleviate the burden on physicians wanting to prescribe but do not have adequate resources or guidelines; and it allows chronic patients to have dignified access in a timely fashion.

Naturopaths, Osteopaths, Chiropractors, all fall into applicable allied health professionals of Complementary Alternative Medicine (CAM).

CCIC Certified Physicians and Nurses will teach these courses to “Patient Coaches” and once courses are completed there will be formal testing via an exam vetted by CCIC and potentially be offered as Continuing Medical Credits to those applicable.

To pass one would require a 70% or higher. Upon completion of the courses and passing the test, these “Patient Coaches” will be qualified to teach other patients and allied health professionals on the medical benefits to cannabis. This certification will also allow “Patient Coaches” to be employed by Licenced producers or Dispensaries/Community Centers.

This regulation on education will ensure quality control when advising patients and provide a vetted standardization of education of Medical Cannabis.

Case Study of BC Naturopath Society

British Columbia Naturopaths already prescribe medical cannabis allowing for dignified access to medical care. This naturopathic society letter recommendation for medicinal marijuana allows timely access for patients requiring MC when they cannot see a medical doctor.

Collaboration with Ministry of Health

Nurses Pain Assessment Program Funding

Objective: To train nurses to do in home pain assessments. This would enable those with mobility problems get early diagnosis and comprehensive treatment plan

There is already a model for this program, as it was extremely successful when sponsored by Purdue up to a few years ago. Funding was pulled due to new laws on what Pharma was able to sponsor.

Chronic Pain Toronto has reached out to Dr. Roman Jovey and Sarah Jovey the creators of this program and if funding can be put in place the program can be resurrected easily.

We would like to see the city of Toronto and the Province of Ontario to jump start this program again, then expand across the country with help of federal government and other provinces.

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TeleHealth Ontario

Through our own investigation we are aware that there is no current training or health professionals in any chronic pain management currently available via the TeleHeath Ontario Services.

When polled, nursing staff employed by the Ministry of Health – Telehealth Ontario demonstrated an extreme interest in taking part in chronic pain management education programs and having senior nursing support staff with existing pain management training available when a TeleHealth RN needs triage assistance for chronic pain and pain management in general.

A quick search on pain education available to TeleHealth nursing via the Ministry of Health website is the Ontario Health Narcotics Strategy which in effect creates very stringent guidelines that can potentially cause apprehension for non-prescribers and prevents proper advice, care and direction for patients. (http://health.gov.on.ca/en/pro/programs/drugs/ons/ons_faq.aspx)

Currently employed Nurse practioners by the Ministry of Health could be better resource allocated into chronic pain training and education to better support the current burden on physicians and most importantly patients.

Collaboration with Licensed Producers

Medicinal Cannabis Research – Licensed Producer Study CPT Initiative (2015)

Research Survey: How to choose a licensed producer?

Chronic Pain Toronto, a patient advocacy group out of Toronto, Ontario, is generating a research survey to assist the medical cannabis industry, physicians, patients and the government in determining what makes a quality Licensed Producer (LP) as well as identifying areas requiring improvement.

Background

Medical Cannabis is being more commonly used to treat a variety of symptoms and diseases around the world. Patients and physicians have no way to evaluate what makes a good supplier/producer of medical cannabis.

The number one and two questions Chronic Pain Toronto gets when it comes to medical cannabis are, “how do you know what Licensed Producer to use and what medical cannabis strains are good for my condition(s)?”

As strains will vary depending on a patient's symptoms, age, genetics, and disease this study will only focus on "how do you know what LP to use and how do they rank amongst their peers?"

Data will be gathered through patient surveys based upon the follow criteria:

• Quality • Consistency • Accessibility	• Pricing, Added Value • Customer Service

This research will assist in establishing best practice standards helping the industry as a whole. LPs can leverage this study to lobby the government for changes to enable greater access to market (i.e. retail outlets).

The study will also investigate preferred method of receiving medication and if the current mail order system is in the patient's best interests.

As the medical cannabis industry is relatively new in Canada there is currently no independent third party analysis available at this time recommending best practices. Developing a consistent way to assess LPs will help develop industry standards in this emerging market.

Patients participating in study will sign a release of information, provide a picture of their prescription bottle with their name on it for authenticity purposes and will be asked to attest that the person taking the survey is a patient using an LP. They will receive a questionnaire by email and will be asked to complete and return the survey to Chronic Pain Toronto for data collection.

Participant's privacy will be a top priority and all names of those involved and personal details will be kept strictly confidential. Our Clinical Project Manager Mat Krunik will run the survey.

Licensed Producers who are members of the CMCIA can participate in this study at a discounted $750 fee; non-member fees will be $1,000.

LPs that chose not to participate will be listed in the study with a comment indicating, "declined to participate."

Security Protocols for Adult Wellness Community Centers

While licensed producers must abide by strict security and regulatory measures before obtaining a licence form Health Canada, dispensers operate in commercial spaces, typically producing cannabis from people licensed to grow under the old federal system

(MMAR). The dispensaries work in a legal gray zone and the Government does not properly address security and handling guidelines.

In Colorado, a private security company, mainly consisting of former police officers, working in conjunction with the city, is providing secure, armour, transportation of cannabis to over 30 dispersers across Denver. They transport cannabis to dispensaries, check inventory counts against the order manifest, and they are provided payment for the cannabis and work as a middleman, transporting cannabis in exchange for money on behalf of the licensed producers and Government.

Chronic Pain Toronto has hired The Menary Group, a nationally respected security group that has worked with all levels of government on many projects as well as security for licensed producers.

The goal is to develop a similar Standard Operating System for security as a licenced producer. Video and audio surveillance, retention time on video, Safe Storage, access to the store itself, steel doors at rear, and strict security clearance to get to office and safe area.

Identification of Medical Cannabis Patients

Each Licensed Producer of Medical Cannabis has their own ID card that the police are supposed to determine the reliability of each card.

Recommendation: Same as Handicap passes. If you have a permanent disability a special code could easily be displayed on the provincial health card.

The Provincial Dignified Access Proposal presented by the “Dignified Access” initiative suggests that in partnership with the federal government, the provinces take leadership roles in Canada by administering their own Medical Cannabis program that will put patient needs first, improve the provincial economies and satisfy fire and law enforcement needs.

Partnering with the municipalities of each province can successfully do this.

As an example the Regional Districts/Municipalities may suggest communities in each region to be the “pilot community” and provide temporary grants of regulatory powers over production and distribution of medical cannabis for the purpose of developing data to develop a “provincially designed” medical cannabis access program.

Accessibility for Chronically Ill & Disabled

Handicap parking

The ageing demographic statistics show that the elderly suffer most with high as 80% who’s suffer from disability or chronic pain and will grow higher as baby boomers age

Provide more handicapped parking and stiffer fines that park without proper permits

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Ontario hospitals and city parking- should be free.

We pay taxes for a public service yet handicap people have to deal with payment of parking not knowing how long they will be in hospital

Disability and Public Transit

TTC disability vehicle optimization: Seems suspect to have a panel of 3 making $60,000 a year plus benefits and pension for under qualified public service workers to decide who qualifies for "Wheeltrans" when they are unqualified to make these crucial decisions affecting people's quality of life and ability to make it to doctors' appointments.

Quality Control & Handling for Adult Wellness Community Centers

KEYPOINTS

- Independent third party testing for quality control purposes (showing THC/CBD content)
- Food Handling Act - Re-write exams Licensed - fund the inspection for the audits
- All edible products must comply with the Food and Drug Act for ingredients and daily calorie intake
- Executive Committee for audits of quality control funded by the monies from the fees paid by Adult Wellness Community Centers for Food Handling Act Inspections and Licensing
- All proceeds from educational courses will be directed towards Municipal and Provincial government to fund inspections and licensing.

As is the case in Florida, a private company ran a sold out training session for people seeking payment in handling cannabis. There are several privately run sites claiming to offer certificated in handling medical cannabis in the US- such as:
https://cannabistraininginstitute.com/

Canada does not currently have the same volume of training developed to provide a unified, standardized program for handling medical cannabis. One exception is through the Canadian Association of Medical Cannabis Dispensaries. We hope to collaborate with them to improve upon and get an independent third party vetting protocol for their education on medical cannabis.

http://www.camcd-acdcm.ca/dispensary-certification/.

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A program similar to food handling, or handling controlled substances training program could be created and supported by the Government to ensuring control, standardization and transparency.

The access points in this regulated proposal would utilize the already integrated government structures such as the Natural Health Products Regulations SOR/2003-196

Under this proposal framework it is suggested that members of Regional Agricultural Societies, be contracted to grow several strains of high grade, clean, medical cannabis, under appropriate security, under license by the appropriate office of their respective provincial government, and be subject to inspection by provincial health systems and inspected by their health inspectors".

With those who are able to grow themselves or have someone grow for them the same quality control standards can be met to satisfy public safety concerns.

Natural Health Products Regulations SOR/2003-196 Specifications
1) Every natural health product available for sale shall comply with the specifications submitted in respect of that natural health product under paragraph 5(*i*) and with every change to those specifications made by the product licence holder.
2) The specifications shall contain the following information:
○ (*a*) Detailed information respecting the purity of the natural health product, including statements indicating its purity tolerances;
○ (*b*) For each medicinal ingredient of the natural health product, detailed information respecting its quantity per dosage unit and its identity, including statements indicating its quantity and identity tolerances;
○ (*c*) If a representation relating to the potency of a medicinal ingredient is to be shown on a label of the natural health product, detailed information respecting the potency of the medicinal ingredient, including statements indicating its potency tolerances; and
○ (*d*) A description of the methods used for testing or examining the natural health product.
(3) The specifications and every change to those specifications shall be approved by a quality assurance person.

Natural Health Products Regulations SOR/2003-196: http://laws-lois.justice.gc.ca/eng/regulations/SOR-2003-196/page-1.html

Certified 3rd party testing facility will independently test all medicinal cannabis products. Any extracts, will also have proper labelling of contents and CBD and THC content. Red warning labels "keep out of reach of children".

Patients will have the ability to have their product tested for verification purposes as well as when make their own extracts in the home tested.

http://health.gov.on.ca/en/public/programs/drugs/ons/about.aspx

F.4. Proposal for Municipal & Provincial Law Enforcement Agencies

Police

Many chronically ill are being tied up in the courts and going to jail just to access the medicine they so badly need without harming anyone. This is due to ill-defined policies and procedures and lack education and awareness around dealing with medical cannabis users.

The current status quo allowing for each law enforcement officer to use their discretion has proven to be inadequate and a liability for municipalities as law enforcement have very little education on working with the chronically ill and absolutely no education on the real benefits of medical cannabis and how 10% of the population with chronic pain and related symptoms require medical cannabis to treat their symptoms.

Common Goals The Toronto Drug Strategy (TDS) is a comprehensive drug strategy for the City of Toronto based on four integrated parts – prevention, harms reduction, treatment and enforcement. All four parts are needed to effectively reduce the harms of alcohol and other drug use.

Toronto Drug Strategy Vision To improve the quality of life for individuals, families, neighbourhoods and communities in Toronto by creating a society increasingly free of the harms associated with substance use.

Recommendations

The key relationship between municipal government and law enforcement in establishing a much needed change in the way medicinal marijuana is perceived and stigmatized is fundamental in helping the chronically ill pain patient access their medical needs in a dignified manner.

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Fundamentally, to provide a dignified access to medicinal marijuana certain steps need to take place to ensure public safety and patient safety.

Key areas identified by Chronic Pain Toronto board members are the following 4 cornerstones for any viable and successful plan to be set in place

***Recommendation 1*:** There needs to be clear policies procedure and guidelines, defined with clear implementation and accountability for law enforcement

Recommendation 2: Provide a first class educational symposium for full GTA police services top brass and police services support services. Within the conference/bringing together top pain and other related specialists who are world renowned to speak to the "true evidence based" medical benefits of cannabis.

Recommendation 3: through videographer during conference and editing, we can create an educational on line course for the GTA police services- that will help with education and also help them implement their policies and procedures dealing with chronically ill and medical cannabis benefits.

Recommendation 4 Priority policing: Stop-enforcing cannabis related law disobedience immediately, except where org. crime is involved or those who are not paying their taxes.

Please see Four Pillars approach from Mark Haden, Vancouver Coastal Health- Harm reduction, enforcement, prevention and treatment, Section C. Vienna Study

Crown Attorneys & Provincial Courts

Knowing the pledge of federal Liberals to legalize "Adult Use" of Marijuana and the lack of any success in prosecuting cannabis related offences in the court system

A recent judge in Quebec fine a man $1.00 for having 30 plants growing for his own medicine. The judge slammed the crown wanting to put chronically ill person in jail for 6 months and a $250.00 fine

Provincial responsibility: When it comes to medical care each province is tasked with this responsibility.

Recommendation 1: There is a need for the administration and management of medical cannabis programs in Canada. Cities can determine zoning and licensing and inspection process, while provinces can handle the medical guidelines around quality control guidelines.

Recommendation 2 Treatment: Allocate Correctional Services funding for those imprisoned by prohibition towards treatment off all addictions

Recently the Ontario Provincial Police have publically come out and disclosed they will no longer use their resources for marijuana related crimes.

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F.5. Framework for Municipalities

Canada has already started down the path to a regulated market of medical cannabis by implementing commercial production of cannabis for therapeutic purposes. Concurrently, there is a significant increase in the number of compassion clubs or unregulated cannabis dispensaries, especially in the cities of Vancouver, Victoria & Toronto. There are approximately fifteen to twenty known dispensaries in the GTA and this number is growing monthly.

Furthermore, in the GTA there are also a half dozen "Consultancy Clinics" offering yearly fees for medicinal marijuana prescriptions and medical advice that is against the College of Physicians of Ontario (CPSO) Guidelines, as it is illegal to accept money for medical cannabis prescriptions.

In review of the College of Physicians and Surgeons of Ontario Medical Cannabis guidelines, both Vancouver and Victoria BC municipal, regulations and by-laws for "dispensaries" as well as all material submitted within this report regarding pain management and Medical Cannabis internationally. Chronic Pain Toronto will provide an over view of current barriers to treatment and proposed "fixes" or suggestions for improvement to the current guidelines and explain in detail where and how we came to our conclusions.

Charging Fees

The College considers the medical document authorizing patient access to dried marijuana to be equivalent to a prescription. Prescriptions, together with activities related to prescriptions, are insured services. Accordingly, physicians must not charge patients or licensed producers of dried marijuana for completing the medical document, or for any activities associated with completing the medical document, including, but not limited to: assessing the patient; reviewing his/her chart; educating or informing the patient. (http://www.cpso.on.ca/CPSO/media/documents/Policies/Policy-Items/Marijuana-for-Medical-Purposes.pdf?ext=.pdf)

Despite dispensaries being technically illegal, prosecutions have failed due to Supreme Court's decisions expressing that current laws on the books are unconstitutional regarding medical cannabis. Dispensaries have fallen into a "grey area" but fill the need for "reasonable access" to patient's medicine. However there is still a lack of existing guidelines and structure on how they operate.

It is our view and the Supreme Courts view that the Federal Government has not met the threshold of "reasonable access" either through the old MMAR or the current

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MMAP program for many reasons but most apparent failure of the current system is to address patients' needs in a dignified manner.

Highlights of CPT Concerns & Overview of Victoria/Vancouver Model

Concern	Vancouver	Victoria	Recommendation
No Edible medicinal cannabis products (extracts, tinctures, baked goods)	No Edible medicinal cannabis products (extracts, tinctures, baked goods)	No Edible medicinal cannabis products (extracts, tinctures, baked goods)	Monitor & resource allocate via Food & Handling Act regulated by Municipality Require full ingredient list, caloric intake & THC dose (mg) CBD dose (mg)
Licensing fees	$30,000- $1000	$4,000- $5,000	High costs causing small business burden, limiting access to chronic pain patient Food & Handling fees from regular yearly inspection and licensing similar to current business restaurants
CAMCD Membership	Standard	Standard	No oversight Not independently Vetted, Other ways to maintain quality control and best practices
Hours of Operation	10pm-8am closure	8pm-7am closure	Community assessment in each municipality
Zoning	300 meter rule	200 meter rule	Community assessment in each municipality
Delivery	Not Permitted	Not Permitted	Discriminatory to disabled that cannot make it to Center
Police Record Checks	Yes	Yes	Discrimination to people who have made mistakes in life- please see added note-theft and fraud exceptions Exclude any marijuana offences
No sharing space with any other land use	Prohibited	X	Restrict small business growth and no rational
ATM	Prohibited		Why not?
Business License	Standard	Standard	Should be sufficient
Registered Society	Yes	NA	Why? /NA
Policy Manual Meeting City Standards	Yes	Yes	Of course
Application Fee	Standard	Standard	Set by each municipality

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Conclusion

Chronic pain is a pervasive problem that affects many Ontarians, significantly reducing their quality of life, and increasing healthcare costs. Medical cannabis is an effective treatment for chronic pain, but exists in a legal gray zone which unfairly penalizes chronic pain suffers for accessing a drug they desperately need.

The City of Toronto can (and has a responsibility to) improve this situation. By supporting Adult Wellness Centres, educating the public and law enforcement on medical cannabis, and improving accessibility for medical cannabis users, the City can positively impact the lives of chronic pain sufferers in a meaningful way.

SPECIAL THANKS TO CHRONIC PAIN TORONTO BOARD & ASSOCIATES

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