

A Model Multi-Agency, Medicinal Cannabis Policy

Introduction



A Brief History of Cannabis As Medicine

Humans and cannabis have a long history; the Chinese were using hemp seeds as a food source and the plant's stalk for fibre 10,000 years ago. Around 3,000BC Emperor Shen-Nung, wrote a book on the pharmacological treatment of various illnesses and ailments which included many medical benefits of cannabis. Cannabis is one of the 50 fundamental herbs in traditional Chinese medicine.

In Ancient Egypt, India, the Arabic world, and Europe¹ the story is the same, cannabis being used extensively as an anaesthetic prior to surgery or during child birth and as a treatment for digestive disorders, pain (particularly nerve pain), as a diuretic, an antiemetic, an antiseptic and an anti-inflammatory.

In the 1830s Irish physician, William Brooke O'Shaughnessy, re-introduced medicinal cannabis into European medicine. As Assistant-Surgeon and Professor of Chemistry at the Medical College of Calcutta, he conducted a cannabis experiment, first testing his preparations on animals, then administering them to patients to help treat muscle spasms, stomach cramps and general pain. Later, treatment was extended to cover melancholia and migraines, then as a sleeping aid, analgesic and anticonvulsant.

For the next century, large glass jars containing extract of cannabis, both *Cannabis indica* and *Cannabis sativa*, could be found on the shelves of most pharmacies. That was, until the 1925 Opium Convention, following which, the UK and several other countries initiated a complete prohibition (except for medical and scientific purposes) and then in 1937 when cannabis was made illegal in the US and elsewhere thereafter.

Today, in many countries around the world, the more humane and enlightened attitude of our forebears prevails once again in the treatment of very often extremely ill people, with an effective, multipurpose pharmacological intervention.

¹ In 2007 an archaeological dig-site in Holland was found containing an unusually large concentration of pollen. After five years of careful investigation these pollen were concluded to be mostly cannabis along with a smaller amount of meadowsweet.

Medicinal cannabis and the products derived from it are used to treat a wide variety of illnesses and conditions including; post-traumatic stress, multiple sclerosis, glaucoma, epilepsy, chronic pain, fibromyalgia, rheumatoid arthritis, muscle spasms and tics and chemotherapy induced nausea and vomiting.

Anecdotal evidence suggests that many other conditions² may also be treated successfully with medicinal cannabis. However, in large part due to the lengthy prohibition, research into cannabis and its medical efficacy has been somewhat limited.

Other Uses

In addition to medicine, hemp (the soft, durable fibre that is cultivated from plants of the *Cannabis* genus) may be used to produce organic and sustainable rope, cloth, cordage, paper, food products, protein rich food additives, high quality animal feed and bedding (shortage of supply means these products are more expensive than they need to be). It is also used in the manufacture of construction materials like fibre-reinforced plastics and “hempcrete” a bio-composite material, containing a mixture of hemp hurds and other materials to produce a lightweight insulating material, ideal for most climates as it combines insulation and thermal mass.

Additionally, cannabis flower essential oil is used as a scent in perfumes, cosmetics, soaps, and candles. It is also used as a flavouring in foods, primarily sweets and beverages. Hempseed oil can be used in the production of biodiesel, it makes good culinary oils, plasticisers for the construction industry and is an ingredient in high quality wood finishes.

The World Turns (And The Sky Did Not Fall In)

By the early 1940's a virtual worldwide prohibition on the non-scientific/medical production, sale, use and distribution of cannabis was in place. And whilst hemp production continued, many of its products were eventually replaced by; non-organic, non-biodegradable plastics and synthetic materials, fibres from other sources or outsourced to areas of the developing world.

² Stress, anxiety, eating disorders, depression etc.

Decriminalisation in the Netherlands began in 1972 and by 1976 prohibition was lifted for recreational use in “coffee shops”. Very often, the Netherlands is seen as a bit of an outlier. However, in 1973 the US state of Oregon also decriminalised possession and by 1978, Colorado, Alaska, Ohio, California, Mississippi, North Carolina, New York, and Nebraska all had some degree of cannabis decriminalization.

In the 1990s the movement to legalise medicinal cannabis started to gain momentum across America with the San Francisco Cannabis Buyers Club and others. Eventually the movement spawned the Compassionate Use Act and then Proposition 215, which changed California’s law to allow the use of medical cannabis.

Currently, in eight US states, the sale and possession of cannabis is legal for both medical *and* recreational use, twenty-three states have permissive medical cannabis laws and a further fourteen have some degree of decriminalisation. It is only a matter of time before medical cannabis is legal across all 50.

Today, there are 44 countries around the world where cannabis possession is either legal (or has been significantly decriminalised), and where medicinal cannabis products are permitted, including;

- Portugal which, in 2001 became the first country in the world to decriminalize the use of all drugs
- Germany - medicinal cannabis legal, the possession of recreational cannabis is illegal but consumption itself is legal, it being thought of as “self-harm”, which is not considered a crime
- Spain - medicinal cannabis legalised, recreational possession is legal in private
- Austria - medicinal cannabis legalised, personal possession of up to 5 grams decriminalized as of January 2016
- Canada - medicinal cannabis legalised, personal possession is largely decriminalised and soon to be fully legalised
- Czech Republic - possession of up to 15g decriminalized
- Greece - small amounts decriminalised for personal use
- Macedonia - medicinal cannabis legalised in 2016 and,
- Switzerland where, medicinal cannabis products are available, and since 2012, possession of 10 grams or less has been decriminalized to a fine

Proposed Cannabis Policy

Medicinal Cannabis

We believe that the time is right to investigate the use of medicinal cannabis with a view to its legalisation as a treatment for certain conditions.

For far too long the debate around this issue has been ill served by poorly informed detractors wielding long held prejudices and all the while people suffering needlessly, are placed on expensive and dangerous drug regimens or face the very real risk of being sent to jail for having the temerity to *not* want to die of an opiate overdose or run the risk of becoming dependent upon prescription opioids.

Opioids claim 91 lives a day across the U.S., (768 in the UK in 2014 from prescription Opioid overdose³) but new research shows medical cannabis programs are drastically cutting down on rates of painkiller abuse. Research from the Journal of the American Medical Association is adding to a growing body of evidence showing states with medicinal cannabis programs have lower rates of opioid related overdoses. Patients who are offered this as an alternative treatment for chronic conditions are increasingly shifting off their prescription opioids entirely.

The researchers found states with medical cannabis programs in 2014 had an opioid overdose rate roughly 25 percent lower than the national average.

Of all the negative consequences of cannabis prohibition, none is as tragic as the denial of medicinal cannabis to the hundreds of Jersey patients who could benefit significantly from its therapeutic use.

As noted above, modern research suggests that cannabis is a valuable aid in the treatment of a wide range of clinical conditions. These include pain relief - particularly of neuropathic pain (pain from nerve damage) - nausea, spasticity, glaucoma, and movement disorders. Medicinal cannabis is also a powerful appetite stimulant, specifically useful for patients suffering from HIV, the AIDS wasting syndrome, or

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<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015-09-03#tab-Other-opiates--including-tramadol-and-methadone>

dementia. Emerging research suggests that medicinal cannabis's therapeutic properties may protect the body against some types of malignant tumours and are neuroprotective.

One example of a group of patients desperately in need of cannabis-based medicines are Multiple Sclerosis patients. For many, there is no effective treatment to control their pain, spasms, incontinence and other symptoms. These patients suffer from the reduction in both mobility and independence which usually accompanies the progression of this and other severe diseases. Cannabis-based medicines could bring significant relief to people who have MS and bring a huge improvement to their quality of life.

Other groups include people who have AIDS, patients with arthritis, spinal cord injury, epilepsy and other seizure disorders, glaucoma, as well as those with cancer and other terminal or debilitating medical conditions characterized by intractable pain. Indeed, in 2011, the American Journal of Hospice & Palliative care (Review) suggested that in the case of "palliative care the use [of cannabis] appears safer than that of opioids".

Highly effective treatments such as SATIVEX, (derived from cannabis) which work as an anti-spasmodic, muscle relaxant and pain killer (with very few side effects) are only available in Jersey by special permission *and* if you are prepared to stump up the £450-500 per month such treatment costs via **private** prescription. As most people who would need (and would qualify for) SATIVEX are severely disabled (and therefore, likely to be on benefits), it currently amounts to a *de facto* ban.

Will the same fate befall drugs like Epidiolex, a new and highly effective treatment for epilepsy, (particularly rare forms of childhood epilepsy) which contains cannabidiol, one of the chemical compounds found in cannabis? Unless we change our policy to one informed by evidence and compassion, then the answer to that seems like it will be a resounding, "yes".

How then should medicinal cannabis be provided to those who need it?

There are ways of doing this which would benefit the largest number of eligible people and ways of doing this which would benefit the big pharmaceutical companies and, almost by coincidence, a far smaller group of people.

Our preferred way would be to open Jersey up as a centre of excellence in the production of high quality organic cannabis (sativa, indica, ruderalis and their hybrids), their extracts, derivatives and products, to supply the growing world market for cannabis based medicines and their active ingredients including; THC and CBD.

This would reinvigorate the agricultural greenhouse sector and create an entirely new, well paid and sustainable bio-tech industry with the potential for providing hundreds of jobs, an increase in income tax receipts and increased revenue to the States of Jersey from things like sales and licences.

Since the early 1990s, cannabis for medical use has been permitted in Israel for cancer patients and those with pain-related illnesses such as Parkinson's, multiple sclerosis, Crohn's Disease, chronic pain and post-traumatic stress disorder. Patients can smoke the drug, ingest it in liquid form, or apply it to the skin as a balm. Israel currently has around 25-30,000 people treated with medicinal marijuana, not to cure but to alleviate symptoms.

Recently Israel took the decision to set itself up as a world hub in the production of cannabis for the international medical market. Their proposed model may well serve as a blueprint for Jersey.

- Cannabis medications will be sold in and distributed by pharmacies
- Physicians can prescribe medicinal cannabis on a standard form prescription
- The Israeli Health Ministry outlines standard safety and quality parameters

The Israeli Ministry of Finance has suggested that medicinal cannabis grown and produced in Israel could be exported globally, with a potential market value of more than NIS 1 billion (£200m).

Colorado's recent experience, whilst not a precise match for what we would like to see here in Jersey, shows just how lucrative a market this is. In the first six months after the lifting of prohibition the industry generated \$12.6 million in tax revenue and licence fees. Governor Hickenlooper suggested in 2014 that sales revenue would reach an annual \$1 billion, with an estimated \$40 - \$50 million generated in taxes and licence fees⁴.

⁴ <http://www.denverpost.com/2016/05/26/marijuana-sales-tax-revenue-huge-boon-for-colorado-cities/>

With all of Jersey's advantages, there is no reason why we cannot also benefit significantly from this industry.

The money generated by tax revenue and licence fees here in Jersey could be held in a special fund and used to pay for our children's higher education, redevelop the Fort Regent site or help pay for the new hospital.

We agree with the Israelis, Swiss and Germans in that the availability of medicinal cannabis should, in the first instance, be restricted to seriously ill patients who have consulted with a doctor, and have little or no therapeutic alternatives.

We suggest doing things in this way due to one overriding consideration i.e. there is no single, one-size-fits-all solution.

For an example, we must go back to Israel. BOL (Breath Of Life) Pharma⁵ grows upwards of 55,000 plants at any one time from 230 different varieties. Each one specifically bred to treat a different set of symptoms.

There are three strains of cannabis – indica, sativa and ruderalis.

Indicas tend to be high in cannabidiol (CBD) and are most effective in treating muscle spasms and tremors (including those caused by multiple sclerosis and Parkinson's disease), chronic pain, arthritic and rheumatic stiffness and inflammation, insomnia, anxiety and related conditions.

Sativa varieties tend to have a lower level of CBD but higher levels of tetrahydrocannabinol (THC) and are most effective for the treatment of nausea (resulting from chemotherapy or HIV/AIDS medications, for example), appetite stimulation, migraine headaches, depression, chronic pain and similar symptoms.

Some hybrids which mix Indica with wild Ruderalis strains have high proportions of CBD with relatively low proportions of THC. These strains are useful for patients who prefer the medicinal benefits and analgesic effect offered by CBD with less of the (sometimes unwelcome) properties of THC.

It is likely for example that some people may require an Indica x Ruderalis hybrid with high CBD and low THC for day time use, but a different type of Indica to aid sleep. The

⁵ <http://www.timesofisrael.com/in-israel-seeds-of-a-heady-future-for-medical-marijuana/>

chance that any of the big pharma companies would bring such a specialist hybrid product to market any time soon is remote, at best.

Allowing patients (with their Doctors and Pharmacists) to choose their own medications, per their own needs, is an essential part of getting this done right. Waiting for large pharmaceutical companies to bring these kinds of product on line is a lottery at best and an unnecessary one at that as the products already exist.

We need to remember that by the time a patient becomes eligible for treatment with cannabis, they have normally experienced a wide variety of other pharmacological interventions which may have had terrible side effects, not worked properly or for some other reason been less than successful. We are talking then about palliative care, in other words we are not looking to medicinal cannabis to provide a cure *per se*, merely to alleviate symptoms and hopefully provide the patient with a better quality of life.

If the idea of providing smokeable materials is an issue... one may currently walk in to any cannabis retailer in Colorado and come face to face with a wide variety of products such as; ice-cream, chocolate bars, cookies, chewing gum, protein powders and drinks. All of which are infused with the extracts of a range of different medical types and varieties and combinations.

Other Considerations

Public attitudes are changing. When a4j began discussing this issue we did so through a series of closed discussion groups which doubled in size every four weeks. Our largest group contained upward of 30 people, the youngest was nineteen, the oldest sixty-eight. They were all broadly united in their support for this type of medicinal cannabis system.

During the very bitter recent US election, it was said that cannabis deregulation was the only thing most American voters could agree on, regardless of their political affiliations. 57% of Americans now believe that at the very least, medicinal cannabis should be legalised in every state *and* at the Federal level.

In 2013 IPSOS Mori published the results of a significant survey into the attitudes of British people to drugs policy which showed 53% of respondents favoured legalisation or decriminalisation.

Seriously ill people, often otherwise entirely law-abiding citizens, have enough on their plates without having to deal with the very real possibility of a criminal prosecution and

a jail sentence, simply for wanting to alleviate the symptoms of those illnesses when standard pharmacology has failed them.

Buying cannabis on the black market is a very hit and miss affair and fuels further criminality. There are no guarantees that what is being sold is the correct type to adequately deal with the patient's symptoms. There is no quality control of supply, and there is no continuity in the frequency of that supply.

There is also a potential for legal conflict. EU residents prescribed medical products containing cannabis, are permitted to be in possession of that cannabis whilst freely travelling throughout the United Kingdom. Presumably here "the United Kingdom" also includes Jersey.

Therefore, we may have the situation where a disabled person from e.g Spain or Switzerland arrived in Jersey in possession of medically prescribed cannabis and would not face prosecution, whereas a disabled Jersey person would, and that is at least *prima facie* discrimination.

Conclusion

Done right this could provide long term security to the agriculture industry in the Island and provide it with a very healthy boost well in excess of that which followed the arrival of Albert Bartlett Ltd. in 2009. It would create jobs, create an entirely new clean-tech "green-tech" industry and provide substantial revenues for highly visible, socially beneficial capital projects which may well generate a healthy political dividend.

To do this right we need politicians with courage, compassion and vision, who can look around the world, see the direction of travel and recognise the size of the opportunity and what it could mean for Jersey.

This could also be done relatively quickly. We already have the growing facilities though they would need to be adapted for the product, made secure, and hardened against e.g. attempted burglary and other forms of criminality.

Cannabis is a fast-growing plant; many varieties can go from seed to commercially viable harvest in 12 – 14 weeks. Others take longer. Many varieties are hardy plants and will even grow well in Jersey's milder winters. Therefore, achieving three or four harvests a year of around 60,000 plants per harvest would not be unreasonable to expect from a single, large growing facility in "the sunniest part of the British Isles".