A framework for a regulated market for cannabis in the UK: Recommendations from an expert panel
Panel Members

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- **Mike Barton**, Chief Constable, Durham Constabulary
- **Niamh Eastwood**, Executive Director, Release
- **Tom Lloyd**, Chair of the National Cannabis Coalition and former Chief Constable of Cambridgeshire Police
- **Professor Fiona Measham**, Professor of Criminology, Durham University
- **Professor David Nutt**, Founder of DrugScience and former Chair of the Advisory Committee on the Misuse of Drugs
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Foreword

The UK’s current laws on drugs are both outdated and harmful.

Each year, criminal gangs generate billions of pounds from the illegal drug trade¹ – money which in turn funds organised crime². And each year thousands of people receive convictions for drug possession³ which will harm their education and employment prospects for the rest of their lives.

At the same time, the UK is spending billions fighting a losing battle on drug use, and countless police hours are spent targeting people carrying small amounts for personal use - hours which could be better used going after more serious criminals.

Both the financial and human cost is vast. This desperately needs to change.

It is often suggested that attempts to move away from total prohibition of drugs sends the message that these substances are harmless. To the contrary, I believe we need to regulate drugs precisely because of the harms they pose. Nothing is made safer when it is left in the hands of criminals.

Liberal Democrats argue that we need an evidence based approach to drugs law, one which is based on independent and scientific advice, rather than fear and prejudice. We believe we should end the use of imprisonment for possession of drugs for personal use and that drug use should be primarily a health issue, not a criminal justice one. My Parliamentary colleagues and I have also argued that all recreational drug use should be decriminalised.

I have also argued that we should go one step further and examine what a fully regulated market for cannabis could look like in the UK. We need to stop pretending that a total ban on cannabis can eliminate use. Decades of evidence show that, despite the best efforts of policy makers and law enforcers, this is not the case.

It might be a young person experimenting, an adult relaxing or someone with an illness alleviating pain. In each case, an illicit market means they have no real idea what they are taking. What is more, by only being able to buy on the illegal market,
we leave them exposed to drug dealers who have every incentive to encourage them to try other more risky drugs.

I believe we can better manage the harms associated with cannabis by regulating the quality and strength of products, investing in public health education and taking money away from criminals.

My sincere thanks to all of the panel members for their time and expertise in producing this groundbreaking report. I have no doubt it will be an invaluable contribution to the ongoing debate about drug policy in the UK. I urge policy makers of all parties, and none, to take account of its recommendations and I hope this will be a significant step in moving the debate about our drug laws into the 21st century.

Norman Lamb MP

Liberal Democrat Health Spokesperson
Note from the Chair

The Liberal Democrat party, having decided to further develop their policy on cannabis regulation, convened an independent panel to make recommendations on policy design. The panel, made up of leading experts in drug policy and law with a longstanding interest in issues related to cannabis, was specifically asked to make recommendations for how best to deliver a regulated cannabis market in the UK, taking into account established models in other jurisdictions, as well as wider experience with regulation of alcohol, tobacco and other drugs. The panel met for three half-day workshops in London between November 2015 and January 2016, with additional discussions and work on the draft recommendations taking place by email correspondence.

Editorial control over this report and its recommendations rests solely with the panel members. The panel have expressed a desire to see the report usefully inform policy development more broadly and confirm that they would consider requests for advice on the topic of cannabis policy from any political party.

Participation of members of the panel has been on a purely voluntary basis, except to cover appropriate travel costs in order to attend the meetings. We would like to thank Chatham House for hosting the panel meetings, George Murkin (from Transform) for editorial support, and Rosie Shimell (an employee of the Liberal Democrats) who acted as secretariat and meeting coordinator.

Steve Rolles
Introduction

The case for reform

The growing debate around the legalisation and regulation of cannabis has been driven by an evidence-based critique of the drug’s prohibition. More recent moves from theoretical debate into policy and practice in multiple jurisdictions have given an added impetus to the push for reform. Whilst the arguments for cannabis regulation are well trodden, it is worth summarising them as a backdrop to the recommendations that follow:

The criminalisation of people who use cannabis:
- Has not been an effective deterrent to use
- Is an unjust and disproportionate sanction for a consenting adult behaviour
- Creates substantial hardship where a criminal record interferes with the ability to travel or find employment, housing, personal finance – the burden of which falls most heavily on already marginalised groups (in particular the poor, ethnic minorities and young people)
- Is expensive to enforce, and creates a substantial burden across the criminal justice system
- Alienates key populations, and creates obstacles to effective health education and treatment

The prohibition on cannabis production and supply:
- Creates opportunities for criminal entrepreneurs, fuelling a vast and socially corrosive criminal market, associated with violence, people trafficking and slavery, including of children
- Ensures that people who use cannabis have little or no information about the potency of the product they are consuming
- Ensures people who use cannabis buy from potentially risky illicit markets that put them in contact with dealers of other more harmful drugs
- Has progressively tilted the market towards more risky products (with higher THC and lower CBD) that are more profitable to the criminal entrepreneurs who control the trade
- Has led to the rapid expansion of markets for more risky synthetic cannabis analogues (e.g. ‘spice’)

Ending the criminalisation of people who use cannabis, and responsibly regulating markets would:
- End the unjust and iniquitous burden of mass criminalisation
- Dramatically shrink the illegal cannabis market and related problems
- Allow authorities to regulate cannabis products to make them safer, enable consumers to make more informed choices, create opportunities for targeted education and harm reduction, and other evidence based health interventions
• Incur substantial savings for the police and across the criminal justice system
• Create opportunities for substantial tax revenue generation

We acknowledge that there are well documented health risks associated with cannabis: particularly with heavy regular use, use amongst children, use by people with mental health vulnerabilities, and certain using behaviours including smoking with tobacco, driving under the influence of cannabis, and consumption during pregnancy. The argument for regulation is premised on the concept that such risks are more effectively managed and minimised in the context of a public health led response and responsibly regulated market, than a punitive criminal justice led response and unregulated criminal market.

We also acknowledge the risks of a commercialised legal market leading to increased use and health harms but we argue that these can be reasonably anticipated and that a responsibly regulated market can mitigate against such risks. At the same time, responsible market regulation can reduce the harms caused by current cannabis policy and bring wider social benefits. This claim is increasingly supported by emerging evidence from cannabis regulation models around the world.

**Policy aims**

Before considering what an optimal cannabis regulatory model could look like, it is important to be clear about what the aims of cannabis policy should be. Drug policy to date has (almost) always been driven by political and ideological agendas that have ignored scientific, public health and social policy norms. The panel identified its primary goals as protecting and enhancing public health and community safety – with a particular focus on the health and well being of vulnerable and marginalised populations; most obviously children, young people and people with mental health issues. We are fully aware of the health harms associated with cannabis use, but contend that a rational policy must pragmatically manage the reality of use as it currently exists, rather than attempt to eradicate it using punitive enforcement; an approach that, however well intentioned, has historically proved to be ineffective and counterproductive.

The panel acknowledged the importance of a consideration of human rights and noted that within the context of a legal framework where cannabis possession and use is no longer criminalised, and adults have legal access to the drug, such concerns are largely addressed and are of less critical importance than the precise details of a regulation model.

Similarly, whilst acknowledging the importance of considering the international development and security impacts of illicit drug policy more broadly, the panel noted that most cannabis consumed in the UK is now produced domestically so does
not have the international impacts associated with heroin and cocaine, for example. This would continue to be the case under our recommendations, so the international dimension is less relevant here.

The panel acknowledged the importance of any policy expenditure delivering good value for money in terms of the outcomes it achieves. Part of this economic equation is the possibility of generating meaningful economic activity (including jobs) and tax revenue for the government, as well as saving money currently spent on cannabis enforcement across the criminal justice system. Whilst these outcomes may be a consideration, the panel considered them to be secondary to the primary goals of public health and community safety. The economic benefits of reform should be seen as a bonus rather than the overriding motivation.

**Principles**

All policy should be based on evidence of what works in delivering on our shared goals, within accepted social values. Historically, however, UK drug policy has been characterised by untested policies with inadequate and unstructured evaluation. The panel was therefore keen to stress that a comprehensive and properly resourced monitoring and evaluation framework should be built into any new policy from the outset. Furthermore, the new policy should feature a clearly legislated annual review and reporting mechanism, so that it can be evaluated against key agreed outcome indicators. The panel acknowledge that this is a complex policy area in which there may be shifting or conflicting policy priorities. Decisions will sometimes involve pragmatic balancing acts that need to be periodically revisited. The legislation, and its regulatory framework, must be suitably flexible, and regulatory authorities willing and able to adapt the model in light of emerging evidence of what does and does not work in terms of delivering the public health and community safety goals.

All policy change involves a degree of risk. Whilst there are important lessons to inform this discussion from the regulation of other potentially risky products (most obviously alcohol, tobacco and pharmaceuticals), and a growing body of evidence from jurisdictions experimenting with various cannabis regulation models (in the Netherlands, Uruguay, Spain, the USA and elsewhere), there are also unknowns. Acknowledging this, we recommend a cautious approach that errs on the side of a more restrictive regulatory model in the first instance, with a careful and phased policy development and implementation process. We suggest that it is preferable to relax initial regulations that prove to be overly restrictive rather than attempt to retro-fit stricter regulation into a model that proves inadequately regulated (as has happened with tobacco, for example). A more cautious approach also has the benefit of reassuring sceptical or understandably wary members of the public and policy makers, whose legitimate concerns should not be ignored.
Finally, it is important to stress that any regulatory framework is only as good as its enforcement. A new cannabis regulation model should be appropriately enforced, and in line with the previous principle, we suggest erring on the side of more, rather than less, vigorous enforcement at the outset.

**Medical cannabis**

We have not made a detailed case for reform or offered substantive recommendations regarding the regulation of cannabis or cannabis based products for medical uses. This was beyond the remit of the panel and its terms of reference. We do, however, acknowledge the urgent importance of addressing this issue and encourage government to actively engage with, and move forward with, the relevant questions.

It is clear that there is considerable cross over between the issues of medical and non medical cannabis regulation, both in terms of practicalities of different regulation models and how they would interact, and the intersection of the political debates, specifically how the politics around non-medical cannabis use has created barriers to research and access to medicines.

As a starting point, however, the panel would like to express support for the immediate rescheduling of cannabis in the UK (and at international/UN level) to a schedule 2 substance (to facilitate the cannabis research agenda), and also endorse the [www.endourpain.org](http://www.endourpain.org) campaign to “change the law to allow doctors to prescribe cannabis where they consider it would help their patients; and for patients to have their prescription honoured at the pharmacy.”
Exploring a spectrum of options for regulating cannabis

We recognise the unique risks associated with the use of any drug, including cannabis, and argue that these legitimise a higher level of state intervention in the production and sale of such products than exists for more conventional goods, such as groceries, for example.

Looking at the spectrum of policy options between unregulated criminal markets under prohibition at one extreme and unregulated legal markets under a free market model at the other, alongside earlier and also more recent conceptual analysis (eg. the multi-criteria decision analysis⁴), we argue that it is between these poles that the optimal regulatory model will be found (as illustrated in the graphic above). A regulatory framework naturally means that some activities would remain prohibited, such as sales or supply to under-18s for example, and be subject to proportionate civil or criminal sanctions. Clearly, even in a post-prohibition scenario there are a range of options available. The question at hand, therefore, concerns the precise nature and intensity of regulation applied to each element of the market. We work through these in turn and make recommendations below.

⁴ A recent reworking of the MCDA model, undertaken by the DrugScience group working with four of the panel members, looked at how different drug policy regulatory frameworks impact on cannabis harms (publications forthcoming)
We now have useful lessons to draw on from real world cannabis policy, from the more strictly state-controlled models such as Uruguay’s, through to the more commercial market-oriented models such as Colorado’s in the US. In line with the more cautious approach already outlined we recommend a position closer to the Uruguay model as the sensible starting point for the UK. We acknowledge that, once established, the regulatory framework should be reviewed and potentially be relaxed as new social controls and norms around the emerging legal market evolve.

We are acutely aware of the tension between public health and private profit in drug markets (for medical and non medical uses – although we are focusing here on the latter). Commercial entities will naturally seek to maximise profits by increasing sales. This tends to mean seeking to increase consumption, and the initiation of new users – with potentially negative public health impacts, as evident from the history of under-regulated alcohol and tobacco industries. It is notable that, as with alcohol, a minority of heavy or problematic cannabis users consume the majority of all cannabis produced. This means that commercial retailers and suppliers have an incentive to target the most problematic or potentially problematic users in order to boost profits. Cannabis regulation offers a unique opportunity to build a regulated market model from the start, making decisions in the public interest without the potentially corrupting influence of lobbying from a powerful established industry. We have a responsibility to make sure the mistakes of the past with alcohol and tobacco are not repeated.

One of our key considerations in developing this framework was therefore to avoid or minimise the risks of over-commercialisation. We have considered a number of ways in which this could be achieved, including government monopolies over all or part of the market, restricting the trade to public-interest companies, or not-for-profit entities such as cannabis social clubs. We also considered the ‘Borland regulated market model’ developed for tobacco control. This model seeks to eliminate market incentives to increase use, but maintains elements of commercial competition at the supply and retail ends of the market. It establishes a state agency that acts as licensee and sole buyer from producers (who compete for the contract), and also the sole supplier to licensed retailers (who can compete with each other within market parameters established by the agency). This is essentially the model adopted in Uruguay.

Having explored the pros and cons of these different options we have recommended a strictly regulated model. Whilst not exactly matching, our proposal draws on elements of these different options so as to minimise the risks of over-commercialisation, particularly around industry lobbying and marketing practices. It

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is a model we believe will be practical within the political and cultural environment of the UK.

Key elements of the proposed model (explored in more detail below) include:

- Establishment of a new Cannabis Regulatory Agency (CRA)
- Licensing (via the CRA) of producers, and what products they can produce
- Limiting the size of individual producers, and preventing ‘vertical integration’ of producers and vendors, to prevent the emergence of a powerful industry lobby
- Allowing small scale home cultivation within clearly defined parameters
- Licensing (via the CRA) the operation of non-profit ‘cannabis social clubs’ within clearly defined parameters
- Licensing of sales (via the CRA and local authorities) – with appropriate controls over products (preparation, price, potency, packaging), vendors (mandated responsible vendor training, provision of health advice to consumers at point of sale), outlets (location, hours of opening, signage), and marketing (bans on branding, promotions and advertising)
- Controls over access to retail sales (eg. minimum purchase age controls), and consumption (eg. bans on smoking in public spaces)

Institutional and decision making framework

Different elements of decision making will need to operate at different levels of government. We recommend the establishment of a new, publically run, national Cannabis Regulation Agency (CRA). The body would oversee the licensing of production, products, outlets and vendors, and sales. There are a number of different Government departments that such an agency would cut across (Treasury, Health, Business Innovation and Skills, Home Office, and Justice), but we propose that it sit jointly under the Department of Health and Department for Business Innovation and Skills. One Minister should have overall responsibility for the policy, as it will be necessary for someone to lead on the issue and drive it forward in its early stages.

As is the case with alcohol licensing, local authorities should be responsible for local licensing decisions (within parameters established by the CRA and responsible minister), such as location, density of outlets, and opening hours. There would also be a role for the Home Office and Ministry of Justice to enforce the regulatory infrastructure in conjunction with local police forces.
**Production**

We propose that there would be three ways in which cannabis could be produced for adult use: unlicensed home growing for personal use, small scale licensed production for membership based ‘cannabis social clubs’, and larger scale licensed production for retail sales. As is the case in Uruguay, the three production-supply routes can exist in parallel.

**Home growing**

We recommend home growing by individuals for personal use should be permitted under certain conditions. The key goals of such conditionality would be to prevent larger scale, informal, unlicensed production and sale for profit, and to restrict access to non-adults.

Licensing of home growing would be possible but, we suspect, impractical due to bureaucracy, and likely to be widely ignored. So, based on experiences in multiple jurisdictions, we propose that home growing would be permitted for adults but with a limit on the number of plants per individual or residence with enforceable penalties for breaching.

Home growing is allowed under a number of legislated models around the world, with a different number of plants under each. In Uruguay the limit is nine plants, in Colorado, Washington DC and Alaska it is six plants (of which only three can be mature/flowering), and in Oregon it is four plants. Some European jurisdictions, including Belgium, Spain, and the Netherlands, also informally tolerate limited home growing within their policies of non-criminalisation of possession and use.

Based on these experiences we propose a limit of four plants would be reasonable, but also acknowledge that strict enforcement of such limits in private residences would be problematic, so suggest that such numbers would be used to limit or moderate production, specifically regarding secondary for-profit sales. Some degree of social supply, sharing, or not for profit sales, would be inevitable (as with home brewing) – and would need to be pragmatically tolerated, but with supply to under-18s naturally remaining an enforceable offence, as would be the case under all production/availability models (see below).

It seems likely that if cannabis is available via retail outlets, home growing would become a minority pursuit, as most users will default to the convenience of retail, as has been the case in the Netherlands. This is also evident for alcohol, where home brewing and winemaking are minority pursuits.
Cannabis Social Clubs (CSCs)

Cannabis user-activists in Spain have exploited a legal grey area of the country’s drug laws by establishing so-called ‘cannabis social clubs’ (CSCs). The CSCs take advantage of the Spanish decriminalisation law that nominally tolerates small scale cultivation for personal use. Club members allocate their allowance to the club, which then grows the pooled allocation of plants and supplies club members from a designated venue.

The clubs – now numbering more than 400 – follow a voluntary code of practice, and are relatively self-contained and self-regulating entities, operating on a not-for-profit basis to produce cannabis for registered club members only. This has helped ensure that there is little diversion of cannabis from the club to the illicit market, and that access is subject to checks and age controls. As not for profit entities, the clubs also have no financial incentive to increase consumption or initiate new users.

Where problems have arisen with the CSCs in Spain (some much larger clubs appearing in urban centres, thereby moving away from the original small scale, non-profit ethos), it is primarily due to the lack of formal regulation. Uruguay has established a formal framework for CSCs and the panel see merits in similarly allowing CSCs along the lines of the Spanish model to exist in the UK, so long as they are subject to a formal regulation framework that includes:

- A licensing framework for the club management, venues and grow operations
- Limiting the size of clubs to less than 100 adult members
- Limits on per-member production and supply, and a prohibition on sales to non-members
- Establishing clubs as not-for-profit entities

As with home growing, it seems likely that CSCs would only cater for a minority of cannabis ‘connoisseurs’ once a legal retail supply was established. They would be able to make available a wider range of niche cannabis products (such as a wider variety of strains, resin and concentrates) that would not, initially at least, be available via a retail market (see below).

Licensed production for a retail market

We recommend that supply to a retail market would be via licensed UK-based producers only. The Cannabis Regulatory Authority would license the production of a fixed volume of specified products from each licensee. This volume would be flexible and subject to review in light of changing market demand. We considered the Uruguay model of the CRA being the licensee and sole buyer (like the Borland model described above) but determined that a licensed producer model, combined with a
ban on vertical integration between producer and retailers, could deliver similar outcomes with a less onerous regulatory burden.

The panel discussed the ‘seed to sale’ model adopted in some US states, where individual cannabis plants are tagged and traceable through every stage from growth, manufacture and sale. The systems are designed to minimise the risk of diversion of cannabis into unlicensed sales, unlicensed production entering the market, and tax avoidance. It was noted that despite being a management resource burden, where this system is in place, it is reportedly working effectively. The panel suggest similar ‘seed to sale’ tracking be established for UK retail production. This is one of the aspects of the framework that could be reviewed after a period of time and potentially relaxed.

The panel agreed that the framework would recommend against initially allowing any importation or exportation of cannabis. This is primarily because of the problematic and evolving international legal environment (see below). This situation could change in the future and should be kept under review.
Products

Preparation

There is a broad and growing range of cannabis products available including herbal cannabis, cannabis resin, cannabis concentrates and cannabis infused edibles. Dried herbal cannabis (which dominates the existing UK market) is the least processed of these and correspondingly involves the least complex regulatory challenge. We recommend that, as part of the cautious implementation approach (and again following Uruguay’s lead), in the first instance licensed retail sales should be limited exclusively to herbal cannabis. If there is demand for other preparations/products that is not legally met, this could create opportunities for criminal markets. However, we think that legal supply of herbal cannabis would meet the majority of demand, and the alternative CSC supply route would potentially be able to cater better for those who wish to access more niche cannabis products.

We acknowledge that cannabis infused edibles can reduce certain risks (most obviously those associated with smoking/inhalation), but also that they are associated with their own unique risks (specifically around dosage control). As there is currently no significant illicit market for edibles in the UK, making them available could change using behaviours in unpredictable ways. Experience from the US also suggests that regulation of edibles involves a substantially more complex regulatory engagement and has had to evolve rapidly as new and unanticipated challenges have emerged. We suggest that licensing production and sale of edibles is something that should be actively considered, but we see no need to rush into opening an entirely new cannabis product market. It could sensibly wait until there is better research on the impact of retail edible availability in US markets, for example in a second phase of a UK market development once retail availability of herbal cannabis had been established, bedded in and teething problems had been addressed. Making herbal cannabis into edible products is very simple and therefore an initial restriction on sales of edibles would not prevent those who so desired them from consuming them. If and when cannabis infused edible products are made available for retail, they should be subject to strict controls. Learning from the US experience we would specifically recommend that they are only available in clearly labelled single dose units, and should avoid cannabis infused confectionery likely to appeal to children.

There is a more substantive established illicit UK market for cannabis resin and, if it became clear that demand for resin remained, despite the availability of retail herbal cannabis, then the establishment of a licit production and supply route to retail should be considered.
There is currently no significant established illicit market in the UK for the highly concentrated cannabis extracts (such as Butane Hash Oil, or BHO) that are growing in popularity in some US markets. These high potency products (some containing over 80% THC) are a relative unknown in terms of their risks and health impacts, although it seems reasonable to assume that they are associated with some elevated risks compared to lower potency products. Therefore, given the concerns and unknowns surrounding manufacture and use of these high potency products for recreational purposes, we see no reason to open the market to retail sales of these products when herbal cannabis will be available\(^6\). Resins, concentrates and other more niche products could be made available via CSCs, however, so that there is at least a way of meeting demand where it exists. We note that some concentrate extraction processes are potentially quite dangerous so may require additional tiers of licensing/regulation within a CSC framework.

The panel also noted the emergence and growing popularity in US markets of vaping technology that dispenses cannabis oil vapour (electronic cannabis delivery systems or ECDS) rather than the more familiar nicotine vapour from ‘e-cigarettes’ (electronic nicotine delivery systems or ENDS). We acknowledge that from a public health point of view it is preferable for people to consume cannabis through ECDS (compared with smoking), although we recommend regulation around the safety and quality of any future legal vaping devices and contents, beyond the relatively limited regulation currently deployed for ENDS (we note regulations around ENDS are being substantially reformed at EU level this year). Amongst the variety of non-herbal processed cannabis products there is a good argument for prioritising the availability of ECDS which offer similar harm reduction benefits over smoking of joints that ENDS offer over traditional cigarettes. However, as with cannabis infused edibles, we suggest that such availability be cautiously explored during a second phase of market development when clearer lessons can be drawn from the US experience.

As part of an effort to encourage alternatives to smoking cannabis (which has intrinsic risks to lung health) particularly when mixed with tobacco (which has additional risks associated with dependence and acting as a gateway to tobacco use) we recommend that herbal cannabis be sold only in loose form (i.e. no sales of pre-rolled ‘joints’). Efforts should also be made – through vendors, information available at point of sale, and other education channels - to educate people who use cannabis about relative lower risk associated with devices that heat herbal tobacco to release a vapour that is inhaled, when compared to burning herbal tobacco in a pipe and inhaling the smoke.

\(^6\) We note that these high potency products may have specific uses for medical cannabis patients, and therefore suggest rescheduling of cannabis could help address potential restrictions of availability for medical usage.
We do not recommend including any synthetic cannabinoid products under this regulatory framework or within the purview of the CRA. We do not think there is a market for these products except where people are unable to access other forms of cannabis. As such, a regulated framework for herbal cannabis is likely to reduce some of the current market in synthetics.

**Potency**

We took evidence from Professor Val Curran, the UK’s leading expert on the effects of cannabis on the brain. She explained that cannabis risks (of dependence, psychosis and memory impairment) are increased with cannabis that contained high levels of THC (responsible for the ‘high’ users experience) and low levels of cannabidiol (CBD, which moderates some of the effects of the THC). This is precisely the type of cannabis (often somewhat un-scientifically, labelled as ‘skunk’ in the UK public debate) that has increasingly dominated the UK illicit market in recent years. THC content has risen over recent years from around 5% (on average) in the mid-nineties to 14% and over nowadays. At the same time CBD in cannabis has fallen in many varieties to near zero.

For a regulated market to effectively displace the illicit market it needs to be able to meet existing demand, even if efforts can be made using the opportunities regulation offers to encourage moves towards healthier consumption behaviours over the longer term. On this basis we recommend that the CRA licenses producers to grow, at a minimum, three different strains of herbal cannabis to supply the retail market: one lower potency (5% THC), one medium potency (10% THC), and one of higher potency (15% THC). This is in line with the Uruguayan approach, and should be able to cater for the significant majority of demand. A wider variety of cannabis strains could potentially be licensed in the future, and the model proposed would also be available for the more niche ‘connoisseur’ market in the short term via home growing or CSCs. Making lower potency cannabis available is important because many existing cannabis users can only access high potency varieties via the illicit market - even if, as if often the case, they would opt for something milder if given the choice (just as most people drink beers and wines rather than spirits).

Notably, Professor Curran made clear that the risks associated with THC exposure are significantly moderated by the presence of CBD. For this reason we recommend that all retail herbal cannabis include a minimum CBD content ‘buffer’, which ideally should be set at 4%.

It is important for consumers to be fully aware of what they are buying. We recommend that the there should be routine independent monitoring of strength and potency of THC and CBD content at both production and retail stages of the market, supported by clear labelling of all products (see below). Any mis-labelling or
mis-selling at production or retail point should be considered a serious licensing violation.

**Packaging**

We recommend that plain packaging should be mandatory for all retail cannabis, with standardised non-branded designs along the lines of prescription pharmaceuticals (see below). Licensed medical cannabis products available in Europe, such as ‘Bedrocan’ in the Netherlands, provide a useful model.

![Image of cannabis packaging](image)

We note that packaging can be used in a positive way to educate consumers, influence using behaviours, and thereby improve public health outcomes. We therefore recommend that product labels, as well as providing basic information about the product and potency, should have mandated information and warnings about key health risks and how to minimise or avoid them. More detailed health information should be included on printed inserts with all retail sales, similar to those that accompany all prescription medicines. This packaging information, and its prominence, should be informed by the most recent and most robust evidence base on harm.

All packaging should be in re-sealable childproof containers – again, of the kind used for prescription medicines.

**Price**

Price is a potentially useful regulatory tool at governments’ disposal. We acknowledge, however, that price controls can face conflicting priorities, as has been the case with tobacco, for example. Increasing prices may dissuade use but also encourage a criminal market that undercuts these prices. Conversely, reducing prices to help stamp out the illicit trade may inadvertently encourage increased use. Clearly there is balance to be struck and, as it is hard to predict precisely how the parallel licit and illicit markets will evolve and respond to changing prices, we make the following recommendations.
Firstly, in the initial phase of implementation, a greater degree of state control over pricing would be advisable, involving either direct price fixing, or maximum and minimum price controls for all retail sales. To avoid unpredictable impacts of dramatic price changes, we suggest that market prices are initially set at or near current illicit market prices.

Secondly, an effective monitoring framework, as recommended, should allow impacts of pricing controls to be closely evaluated, and adjustments made relatively quickly. Maintaining the flexibility and responsiveness of price controls will be an important role for the CRA in the early stages of implementation. Stricter price controls during this period could be reviewed and potentially relaxed as and when the framework is established and the anticipated benefits and challenges have been identified. We recommend, however, that a minimum pricing policy be maintained and that deep discounting, giveaways, and ‘2 for 1’ type deals are prohibited (much like the direction of development in controls on alcohol sales).

Pricing controls should relate directly to THC content by weight (e.g. a gram of 15% potency cannabis should cost approximately three times that of a gram of 5% potency). On top of this, we also recommend that the CRA explore the idea of creating an artificial regulatory price gradient, applying additional costs to sales of higher potency products, and fewer costs to lower potency products. There is evidence from similar approaches to alcohol pricing in some jurisdictions that such an approach could moderate total THC consumption.

Cannabis markets and patterns of use do not exist in isolation from other licit and illicit drugs. Changes in pricing that impact on cannabis use may also impact on levels of alcohol use (and to a lesser extent other drugs), although current research on the impacts is inconclusive. We recommend that such interactions and impacts of regulatory interventions are subject to meaningful ongoing research and evaluation as part of wider monitoring commitments, and that relevant findings inform both the development of cannabis and alcohol policy – and drug policy more broadly – going forward.

**Taxation**

Taxation of retail cannabis offers the potential for significant government revenue. Depending on how legal markets develop, and the taxation regimes adopted, credible estimates put this in the region of £500 million to £1 billion annually. Our view is that taxation policy should be subservient to public health and social policy goals, and maximising taxation revenue should not be a primary goal in itself. We
have seen how income streams from alcohol and tobacco taxation revenue can distort Government public health priorities in the UK and around the world.

Taxation rates are closely linked to pricing policy and controls (see above). We note that there will be a significant gap between unit production costs – which are likely to be far lower in a legal market – and retail prices if the latter are initially maintained at or near current illicit-market levels using minimum unit pricing, as proposed. Unless a state monopoly was established, this gap will necessarily be filled by substantial profit margins for commercial producers and retailers or, similarly to legal tobacco sales, a substantial tax haul for government (or some balance of the two). We propose that tax revenue should, as the default position, be preferred over what would be potentially inordinate profit margins for commercial entities and that a reasonable accommodation be found accordingly. Once again, a balance needs to be struck, in this case one that allows a reasonable profit margin for commercial entities, and does not set taxation rates so high that significant incentives are created for tax avoidance or the diversion of legally produced cannabis for sale on the illegal market.

Various tax mechanisms exist: tax by unit weight, by THC content, or a fixed rate value-added tax (VAT). In addition to this tax revenue generated from cannabis production and sales, there will also be tax revenue from industry-related earnings and wages, and potentially from other sources such as licence fees.

We propose that a system based on taxation of both production and sales, with THC content by weight being the taxable unit, is a sensible starting point. The detail of such decisions would need to be incorporated into wider pricing policy considerations, and fit within the needs of existing tax frameworks.

Ring-fencing a portion of cannabis tax revenue for drug treatment, prevention and harm reduction education (or other social programmes) is a proposition that has featured in both US and Uruguayan policy developments. We acknowledge that this is politically attractive proposition, but it is also problematic. In our view, drug services should be properly funded regardless of whether cannabis regulation goes ahead, and how much revenue is raised under the regulated framework. Public health interventions should be funded according to need, not be dependent on sales. There is no reason, however, why it could not be argued that parallel developments that include increased investment in health interventions and drug services as part of a wider policy realignment (something that is certainly needed and that we strongly advocate), will be cost neutral overall. The same argument can also be made regarding the costs of setting up and maintaining the necessary regulatory infrastructure which will easily be covered by the new tax revenue, and savings across the criminal justice system.
Branding and Marketing

We recommend that the World Health Organization (WHO) Framework Convention on Tobacco Control and WHO guidelines for alcohol control provide the framework for marketing and advertising controls. Marketing should be tightly controlled and only allowed for the limited purpose of ensuring awareness of the legal availability of cannabis products, but not to promote the use of cannabis products generally or of any particular product. Particular attention should be paid to preventing exposure of non-adults to any form of marketing or advertising.

As outlined above, retail cannabis products should be non-branded and subject to mandatory plain packaging, with the aim of ensuring functional availability whilst avoiding glamorising or encouraging use, or associating products with aspirational lifestyle choices.
Vendors

Vendors have a crucial role in any cannabis regulation model. Firstly, they act as gatekeepers of the market, entrusted with exercising regulatory access controls, enforcing restrictions on sales relating to age, intoxication or other criteria. Secondly, the vendor-customer interaction provides a vital opportunity for targeted public health interventions, educating cannabis users about the risks of different products, harm minimisation, responsible use and where to get help or further information.

We recommend that all retail managers and vendors who interact with customers should operate within a system of responsible vending guidelines (with the Australian system for alcohol vending providing a useful model). Experience with tobacco, and particularly alcohol, suggests voluntary codes of practice for responsible service training are inadequate and not universally adopted, so we recommend that this condition be legally mandated and enforced as a key part of retail licenses, including for vendors in CSCs.

Mandatory training should ensure vendors understand the health impacts of cannabis and can communicate them to customers (or CSC members) who require the information, as well as being able to recognise the signs of intoxication and excessive use and refer individuals to the relevant services as appropriate. They will be required to refuse service to people who are obviously already intoxicated with alcohol, cannabis or any other drug. Development and delivery of such a responsible vending training/licensing scheme should be managed either by public health professionals or through an academic institution.

Licensing and training conditions for vendors would need to be adapted as appropriate to distinguish between those working in venues which sell cannabis to be consumed off premises, and those where people consume cannabis products on site (this would mean cannabis social clubs under this proposed framework, but possibly Dutch-style cannabis cafes in the future). The latter would necessitate additional training requirements for dealing with customers who require care or monitoring.

Vendors will be required to ask customers during each transaction whether they have used cannabis before and if they would like any information about the health impact of use and to provide follow up information.

Vendor licenses should be assessed and granted through local authorities (within parameters established by the CRA and relevant minister), as is the case with alcohol licensing. A benefit of this is that it allows local authorities to grant or refuse licenses, taking into account the needs of their local area. We would expect a national-level framework to be in place that would make recommendations on how cumulative
impact assessments should be carried out, and on local considerations such as the density of outlets.

Experience with tobacco and alcohol also demonstrates that, where commercial pressures exist, they can lead to vendors failing to meet their responsibilities voluntarily, so adequate enforcement is crucial. Failure to meet requirements should be dealt with in line with the existing penalties for breaching alcohol licenses, using a hierarchy of penalties including fines and withdrawal of license.

Any regulatory framework is only as good as its enforcement, so we strongly encourage regular and meaningful efforts to ensure that all vendors meet licensing requirements.

**Online vendors**

We are conscious that people with health conditions and people who live in more remote rural communities may not be able to visit traditional shops or access CSCs easily, and we would not want these people to be arbitrarily denied access or have to fall back on the illicit market. It also seems inevitable that some sort of online market will need to exist and that it is therefore preferable to bring it under the purview of the regulated framework early on, to prevent informal online markets filling the void. For this reason, we consider some form of regulated online retail and delivery service as a necessity, even if it is part of a ‘phase two’ market development. We suggest that, as far as possible, any such online retailing should seek to maintain the key benefits of face to face vending outlined above. Whilst this option requires more careful development, we recommend that key elements could include:

- Appropriate methods for age verification at the point of purchase
- Requiring online customers to answer a series of standardised short tick-box questions to confirm they understand the health implications of cannabis use. As part of these questions, customers would be asked if they would like to talk to anyone about their cannabis use
- Requiring licensed online outlets to employ trained health advisors who can engage with customers through an online chat facility when customers say that this is something they feel they would benefit from
- Potentially having a licensed/registered buyer scheme to allow access to online sales, or membership of a CSC that included a delivery service
- Online vendors should be subject to the same licensing process as shops and CSCs
- Individual online businesses could also have licensing limits on total volume of sales
Outlets

We have proposed that there would be three options for legal cannabis availability:

- Dedicated cannabis retail outlets (including online retail/delivery in the future – see above)
- Cannabis social clubs
- Home growing

Initially, we do not recommend the introduction of Dutch-style cannabis cafes that permit on-site consumption, but would suggest that this model could be revisited at a later stage. Cannabis social clubs could, to some extent, meet demand for such premises.

Cannabis products should be sold in dedicated single-purpose retail outlets. These would be licensed premises, with licenses granted through application to the local authority within guidelines established by the CRA. We recommend that retail outlets should not be able to sell both alcohol and cannabis. We anticipate that people will consume cannabis in pub gardens, subject to existing laws around smoking in public places (and alongside any rules imposed by individual venues). Imposing conditions on alcohol licensing to try and prevent this would be possible but probably impractical to enforce.

Our view is that cannabis retail outlets should be simple and functional (similar to pharmacies), rather than ‘destination’ or ‘experience’ retailers. We discussed whether there was a case for tighter regulations on outlet interiors, to ensure they are as functional and practical as possible, but agreed that this would be problematic to implement in practice. Decisions on such matters should sensibly sit with local licensing authorities, acting on best practice guidance from the CRA. However, we would recommend that external signage be regulated. As is the case with cannabis cafes in the Netherlands, they should not have highly visible signage that advertises what is sold inside. This would help mitigate against impulse purchases or curiosity-led initiation of people with no previous history of cannabis use.

Within the retail premises, products should be kept out of view, and sold over the counter as is now the case with tobacco sales. By having to interact with the vendor for each sale, there is the opportunity for customers to be offered product information and health advice during every transaction (see above).

Hours of opening for retail outlets should be stipulated by the local authority via the licensing process, so that they can reflect what is appropriate for the local area. However, we think it is reasonable to expect that their opening hours be similar to those of pubs or off-licenses.
In Uruguay, cannabis will only be sold over the counter in specially licensed pharmacies. Given the form of retail outlets we have proposed – which draw heavily on the pharmacy retail model – we naturally considered having existing pharmacies as at least one possible outlet option. We were concerned, however, that pharmacists may feel it is in conflict with their duty of medical care to dispense cannabis for non-medical use. We suggest that the idea is not closed, but is explored with the relevant retailers and professional bodies to see if it is a viable option in the UK.
User controls

Age controls

The sale of cannabis will be subject to age restrictions. We recommend that this should be in line with current age limits for buying alcohol (eighteen years and over), and purchases should similarly require identification for those who look under 25 (a different age verification process will be needed for online sales). Unlike the current situation in the UK with alcohol and tobacco, we recommend that adequate resources are provided to enforce age restrictions from the outset. Under-age sales should be considered a serious offence that could lead to fines or loss of license.

Under-18s caught in possession should be subject to police confiscation powers and be dealt with via case-appropriate referrals, in line with alcohol and tobacco policy.

Volume sales limits

We recommend limits on the amount of cannabis which can be purchased at any one time. This is already the case under the frameworks in Uruguay, the US, the Netherlands, and Spain’s CSCs. We have not recommended a specific amount and suggest that this should be based on international evidence and advice from public health professionals. We would seek advice on whether this should be based on weight, THC level or both (on a sliding scale). Whilst such limits are only likely to have a marginal impact on moderating use, they can help avoid large-scale diversion into secondary informal and illicit markets.7

Consumption

We considered whether additional regulations would be required to try and limit, or discourage, smoking of cannabis in public spaces, as a way of addressing potential issues related to both second-hand smoking and anti-social behaviour. We recommend that cannabis smoking in public places is limited in line with the existing legislation banning tobacco smoking in public places and we would seek advice on whether the legislation needs modification. Similarly, we considered that existing anti-social behaviour legislation would suffice for cannabis-related public disorder issues.

Rules around the vaping of cannabis products in public places should be brought into line with current or future nicotine vaping rules.

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7 There is evidence of displacement from legal to illicit markets in some areas of the UK in relation to synthetic cannabinoids (Linnell, M., Measham, F., & Newcombe, R. (2015). ‘New psychoactive substances: The local picture, a research study and needs assessment for Blackburn with Darwen Council. Manchester’: Linnell Publications).
Sanctions and penalties

People who consume, sell or produce cannabis outside the parameters of a regulatory framework should be subject to appropriate and proportionate sanctions and penalties. These can be civil or administrative in nature, and should only involve criminal sanctions for the most serious offences where harm to others is involved, or potentially for repeat offenders.

We recommend that such penalties should be in line with those around illegal production, sale or consumption of alcohol, tobacco or pharmaceuticals.
Driving under the influence of cannabis

There is compelling evidence that driving under the influence of cannabis can increase the risk of accidents (even though there is some dispute within the academic literature over the scale of such effects). Such behaviour endangers drivers, passengers and other road users. On this basis we recommend that it remains an offense to drive whilst significantly impaired by cannabis, similar to the law relating to impairment from alcohol or other drugs.

There is a simple and clear message: people should not drive while significantly impaired by cannabis and should, as with alcohol or other drugs, expect a proportionate punitive legal sanction if they are caught doing so. In this context clearly highlighting behaviours that are likely to result in penalties for impairment, and how this can be measured, becomes important for both public education and for defining enforcement parameters.

The THC threshold for a driving offence in the UK currently is 2 nanograms per millilitre of blood. Some panel members raised serious doubts about the fairness of the law as the limit is potentially set much too low so that it is likely to capture some individuals who are not significantly impaired (particularly as cannabis can remain in the body long after any impairment effects have dissipated). There are also technical issues around how effectively roadside testing, and blood testing, can directly infer impairment as the basis of a prosecution, particularly in the absence of impairment testing. The panel therefore agreed that the current policy should be subject to early and regular reviews in light of emerging evidence.

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8 For more discussion see the chapter on cannabis and Driving in Rolles S, and Murkin, G. 2013 ’Regulating Cannabis; A Practical Guide’ http://www.tdpf.org.uk/resources/publications/how-regulate-cannabis-practical-guide
Cannabis prevention, harm reduction and risk education

Cannabis prevention, harm reduction and treatment activities should be considered as being part of a continuum of responses, and proceed in line with existing high quality evidence based guidelines and quality standards, including those published by the Advisory Council on the Misuse of Drugs, National Institute for Health and Care Excellence and the United Nations.\(^9\)

Prevention may be orientated towards objectives of cannabis abstention or delayed initiation, but overall, any actions that aim to reduce individual, population, or societal harms from use, and promote wellbeing, are important. For example, delaying age of initiation of cannabis use is an important objective, because cannabis use in adolescence, particularly heavy use, has been associated with poorer long term health, educational and economic outcomes.

In the UK, prevention is typically delivered in the form of school based drugs education. However, whilst there is a developing international evidence base for effective approaches and programmes, school based delivery in the UK has historically been poor and pupils may receive as little as one hour of drugs education a year. Considering the lack of curriculum time and resources available, it is recommended that where evidence based programmes cannot be delivered, general approaches to develop health and social competencies delivered as part of subjects such as Personal Social Health and Economic Education (PSHE) should be prioritised. A focus on general rather than cannabis specific skills development is a pragmatic education response, and has the benefit of not artificially differentiating between the range of health and social challenges that young people face. Where individuals or particular population segments have been evaluated to be at greater risk of potential harms associated with cannabis use, whether as a result of lifestyle, environment or biopsychosocial factors, more intensive cannabis focused support is justified. However, in accordance with emerging scientific evidence, whilst cannabis use might be a focus of support, such actions must address all underlying needs.

Treatment presentations for cannabis related disorders have been increasing in recent years in the UK, particularly in young people. Although it is difficult to predict whether treatment demand will change as a result of new regulatory environments, current challenges to treatment systems, including funding, access to treatment,\(^9\)

\(^9\) Including: Advisory Council on the Misuse of Drugs Recovery Committee’s paper, Prevention of Drug and Alcohol Dependence (February 2015); United Nations Office on Drugs and Crime’s International Standards on Drug Use Prevention (February 2015); and NICE Quality Standard on drug use disorder in adults (QS23) (November 2012)
quality of treatment, staff competencies, and assessment of treatment goals will need to be addressed\(^\text{10}\).

Cannabis harm reduction approaches should focus on persuading users to avoid consuming tobacco, and avoiding smoking in general (i.e. substituting with vaping or other modes of ingestion – see above). There may be a role for vendors in the delivery of harm reduction responses. In addition to simple provision of information about the effects of cannabis, modes of administration, and potential risks and harms associated with use, there may be an opportunity for trained vendors to provide screening and brief advice for consumers who wish to reduce their consumption or have other concerns about their use. Driving within a few hours of cannabis consumption increases the risk of motor vehicle accidents, and cannabis vendors should be required to prominently display messages educating customers about this. Subsequently, location of CSCs or Dutch-style cannabis cafes that, in the future, permit on-site consumption, should be in areas well served by public transport.

Application of the framework – international issues

**Devolved governments**

We acknowledge the complications around the way in which current legislation is devolved and reserved, and the potential challenges if not all elements of the Union wished to pursue similar reforms, but have not explored these issues in any depth. We have made these recommendations on the basis that we think they represent an improvement over the status quo and would encourage all Governments – Westminster and devolved – to consider applying them.

**European Union**

We acknowledge that there may be issues concerning the development of a regulated UK cannabis market in terms of EU trade agreements. These issues concern both imports and exports of goods prohibited in different jurisdictions, and proposed regulations potentially being considered impediments to free trade (noting the ongoing issues around alcohol minimum pricing in Scotland for example). The panel did not have the specific expertise or capacity to explore these issues but flags them for the attention of the competent authorities. We are not proposing import or export at this point and also maintain that our recommendations are made in the best interests of UK citizens and UK policy makers should seek accommodation within, or review of, relevant EU structures as required, to ensure they can be fully implemented.

**UN treaties**

We acknowledge that implementing a regulation model for cannabis in the UK will also require that the substantial institutional and political obstacles presented by the international drug control system are negotiated. Specifically, such a move creates a clear tension with the three UN drug control conventions (1961, 1971, and 1988) that the UK has signed and ratified, that unambiguously do not allow such reforms. Other reforming jurisdictions have approached this problem in different ways.

- The US has argued that state level legalisation may be allowable under a ‘flexible interpretation’ of the treaties
- Uruguay has argued that its requirement to meet wider UN obligations to protect human rights, health, and security take precedence over technical UN drug treaty commitments
- Jamaica has regulated cannabis production and use for ‘religious purposes’
- Regarding its legalisation of coca leaf (not cannabis) Bolivia has renounced the treaties and then re-joined them with a reservation on the specific articles that prohibit coca leaf
The reality is that this area of drug policy reform is moving into unchartered waters in terms of the various, potentially conflicting treaty obligations—and there are multiple outstanding questions of international law that are only now beginning to be explored in the various high level UN forums. Whilst it is still unclear precisely how, or when, these can be addressed satisfactorily, the fact that multiple reforms are already underway clearly highlights the shortcomings of an outdated international framework that is unable to meet the needs of a growing number of member states. It therefore seems inevitable that some form of modernisation process must take place to provide the flexibility for evidence based experimentation and innovation that is being demanded. We concur with the analysis of the Global Commission on Drug Policy, whose members include seven former heads of state, and former UN Secretary-General Kofi Annan:

“The strength of the UN treaty system is based on the consensus of support from member states and the legitimacy of its goals. For the drug control treaties this consensus has fractured, and their legitimacy is weakening owing to their negative consequences. More and more states are viewing the core punitive elements of the drug treaties as not merely inflexible, but outdated, counterproductive and in urgent need of reform. If this growing dissent is not accommodated through a meaningful formal process to explore reform options, the drug treaty system risks becoming even more ineffectual and redundant, as more reform-minded member states unilaterally opt to distance themselves from it.

“A weakened drug control system in turn jeopardizes the important role of a United Nations framework for regulating access to essential medicines, providing guidance, and monitoring compliance with recommended best practice and minimum rights standards. Rather than slipping into irrelevance, the ambitions of the treaties to regulate medical and scientific uses of drugs need to be extended to embrace the regulation of drugs for non-medical uses, in pursuit of the same set of UN goals.

“Unilateral defections from the drug treaties are undesirable from the perspective of international relations and a system built on consensus. Yet the integrity of that very system is not served in the long run by dogmatic adherence to an outdated and dysfunctional normative framework.

“The evolution of legal systems to account for changing circumstances is fundamental to their survival and utility, and the regulatory experiments being pursued by various states are acting as a catalyst for this process. Indeed, respect for the rule of law requires challenging those laws that are generating harm or that are ineffective”.

Given the glacial pace of UN treaty modernisation, we do not think it practical or realistic for the UK to wait for such reforms to occur before proceeding with urgently needed domestic reform, especially given rapidly evolving precedents in multiple jurisdictions across the world. We recommend that the UK follow Uruguay in its
principled non-compliance with certain articles of the treaties. They should avoid the legally strained ‘flexibility’ arguments being made by the US and instead make a clear explanatory statement, acknowledging the non-compliance and offering a clear and principled justification rooted in the protection of the health and welfare of UK citizens. The UK should also make a public commitment to comply by the other articles of the conventions (that the cannabis reforms are not in conflict with), and restate its broader commitments to maintaining and respecting international law. In parallel with these moves, we recommend that the UK should encourage and meaningfully engage in debate in high level regional and UN forums around reform of the global control system to accommodate demands for greater flexibility to experiment with regulation models, as well as exploring formal mechanisms such as amendment and modification, to modernise the UN drug treaty system. The UK should support calls by other member states and civil society groups for the UN to convene an independent expert panel to consider the issues raised by legalisation/regulation, implications for the existing treaty system, and options for its modernisation and reform.