

Potential savings from the legalisation of cannabis

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Key findings

- The police spend on average 1,044,180 hours on enforcing the ban on cannabis each year.
- Between 2013 and 2016, the Metropolitan Police spent £3.1 million holding people in custody for cannabis related offences.
- In 2016 there were 6,924 people held for up to 12 hours in police custody for cannabis related offences.
- Over the past five years, at least £13.5 million has been spent holding people in police custody for 12 hours or more for cannabis related offences.
- It costs on average £449 to keep a person in police custody for 12 hours.
- There are currently 1,363 people languishing in prison in England and Wales for cannabis related offences at the cost of £50 million a year.
- Cannabis legalisation would result in savings from police budgets of approximately £200 million each year.
- Legalising cannabis would reduce expenditure on forensics by £12.2 million each year.
- The legalisation of cannabis would save up to £60 million every year in legal aid costs.
- Legalising cannabis would result in savings of approximately £21 million each year for the Crown Prosecution Service.
- The legalisation of cannabis would generate savings of £6.24 million for the magistrates' courts and £19.8 million for the Crown courts, giving a total saving of £26 million each year.
- Ending the prohibition on cannabis would save the prison system £50 million each year.
- Legalising cannabis would bring savings of approximately £141 million each year for the probation service.
- The legalisation of cannabis would bring extra savings of tens of millions of pounds each year as it would result in a reduction in the number of rapes and property offences.
- The prohibition of cannabis leads to higher potency cannabis and results in more serious crimes being committed.
- People convicted of cannabis related crimes will find themselves with a criminal record making it difficult for them to find work. This places pressure on public finances through the lack of revenue generated through income tax and national insurance contributions and through claiming benefits.

- This failure to find employment leads to an increase in the likelihood of recidivism, therefore placing even further pressure on the criminal justice system.
- Approximately £28.7 million each year could be saved as legalising cannabis could lead to fewer people being treated for cannabis dependency.
- The legalisation of cannabis could bring in savings of £132.6 million each year for the NHS as there would be a decrease in the number of people being prescribed pain medication.
- Legalising cannabis would result in fewer people being prescribed anti-depressants, therefore saving the NHS £79.98 million each year.
- Cannabis legalisation would lead to a decrease in the number of people taking sleeping tablets, therefore saving the NHS £43.2 million a year.
- The legalisation of cannabis would also lead to a decrease in the number of people taking anti-anxiety medication, saving the NHS in England £21 million each year.
- Legalisation of cannabis would deliver additional annual savings of tens of millions of pounds as there would be a decrease in the number of people receiving treatment for alcohol abuse.
- This amounts to total annual savings of at least £891.72 million.

Introduction

The debate surrounding the legalisation of cannabis is by its very nature controversial, and there are political and moral reasons why those on either side of the debate hold their respective positions. This paper will not engage with these moral or political arguments. Rather, it will limit itself to addressing the fiscal implications of legalising cannabis in the UK.

The paper will first consider the costs to the criminal justice system associated with the criminalisation of cannabis. In this first section it will analyse the costs of criminalisation and any potential savings which would result from legalisation.

The second section will consider the costs to the healthcare system associated with the criminalisation of cannabis. It will achieve this through examining the link between prohibition, cannabis potency, and the burden which this places on the healthcare system. It will also consider the additional savings to the healthcare system which legalisation could bring.

The criminal justice system

The criminalisation of cannabis places a significant burden on the criminal justice system in the UK. For example, the police spend on average over one million hours on enforcing the ban on cannabis each year.¹ As the police faces pressure on its time, the criminalisation of cannabis places additional pressure on police forces and hinders their attempts to investigate other crimes.

However, it is not just time consuming for the police to enforce the prohibition on cannabis, it also places a significant financial burden on police forces. For example, when a person is arrested on suspicion of cannabis related offences, they can be placed in police custody.² It costs on average £449 to keep a person in police custody for 12 hours.³ In 2016 alone there were 6,924 people held for up to 12 hours in police custody for cannabis related offences.⁴ Between 2013 and 2016, the Metropolitan Police spent £3.1 million holding people in custody for cannabis related offences.⁵ Furthermore, over the past five years, at least £13.5 million has been spent holding people in police custody for 12 hours or more for cannabis related offences.⁶ Cannabis legalisation would result in savings from police budgets of approximately £200 million each year.⁷

There are further costs associated with the investigation of criminal offences. For example, forensic analysis is frequently used. Cannabis legalisation would therefore bring savings of approximately £12.2 million each year.⁸

Those who find themselves being questioned by the police or being prosecuted for cannabis related offences are entitled to legal aid. In 2016, legal aid spending came to £1.5 billion.⁹ Given that approximately four per cent of this budget was spent on offences related to cannabis, the legalisation of cannabis would save £60 million every year in legal aid costs.¹⁰

There are additional costs associated with the prosecution of cannabis related offences. For example, the Crown Prosecution Service spends approximately four per cent of its £525 million budget prosecuting cannabis related offences.¹¹ ¹² Therefore, legalising cannabis would result in savings of approximately £21million each year for the Crown Prosecution Service.

Furthermore, when cases are brought before the law courts by the Crown Prosecution Service, this also costs money. The legalisation of cannabis would generate savings of £6.24 million for the magistrates courts and £19.8 million for the Crown courts, giving a total saving of £26 million¹³

Moreover, those who are convicted of cannabis related offences can find themselves incarcerated in prison. For example, those convicted of cannabis possession face a maximum of five years in prison.¹⁴ The penalties are even more severe for those found guilty of crimes relating to the supply or production of cannabis face a maximum sentence of 14 years in prison.¹⁵

¹ Stone, J., 'One million hours of police time a year "wasted enforcing cannabis prohibition"', *The Independent*, 14 May 2017.

² Avon & Somerset Police, *Procedural Guidance: Possession of Cannabis*, 2009.

³ Fisher, S., 'Cost of detaining cannabis users if £13.5m', *The Times*, 27 December 2017.

⁴ *Ibid.*

⁵ Proctor, K., 'Scotland Yard spends more than £1m every year locking up cannabis users, former Cabinet minister claims', *Evening Standard*, 6 November 2017.

⁶ Fisher, S., 'Cost of detaining cannabis users is £13.5m', *The Times*, 27 December 2017.

⁷ Atha, M., & Davis, S., *Taxing the UK Cannabis Market*, August 2011.

⁸ *Ibid.*

⁹ Legal Services Commission, *Annual Report*.

¹⁰ Atha, M., & Davis, S., *Taxing the UK Cannabis Market*, August 2011.

¹¹ *Ibid.*

¹² Crown Prosecution Service, *Annual Report*.

¹³ UK Parliament, *Justice Committee Budget Estimates*, 2017.

¹⁴ HM Government, *Drug penalties*, 2018.

¹⁵ *Ibid.*

There are currently 1,363 people languishing in prison in England and Wales for cannabis related offences.¹⁶ Again this places pressure on the public finances, costing £50 million each year.¹⁷ Therefore, ending the prohibition on cannabis would save £50 million each year.

The criminalisation of cannabis also places pressure on the probation service. Legalising cannabis would bring savings of approximately £141 million each year for the probation service.¹⁸

Moreover, there is evidence which would suggest that the criminalisation of cannabis leads to an increase in other crimes. This is because the prohibition of cannabis leads to the most potent forms of cannabis being most readily available.¹⁹ This leads to people, especially young people, developing dependency issues.²⁰ As a result, there has been an increase in the number and seriousness of crimes such as burglary and robbery committed by young people in order to purchase cannabis.²¹ This results in more work for the criminal justice and places a further strain on the public finances.

This is corroborated by research conducted in the United States. For example, a study found that the legalisation of cannabis in the state of Washington led to a significant decrease in criminal activity.²² The study found that legalisation had 'caused a significant reduction in rapes and property crimes'.²³ It found that legalisation reduced rapes by between 15 and 30 per cent, and thefts by between 10 and 20 per cent.²⁴ Furthermore, another study found a decrease in the rate of violent crime in counties close to the United States' border with Mexico border after cannabis was legalised.²⁵

There is evidence that the legalisation of cannabis could reduce further pressure on the criminal justice by reducing the consumption of other drugs. For example, a study by Dragone *et al* found that the legalisation of Cannabis in Washington State led to a decrease in the consumption of other drugs and also reduced binge drinking.²⁶

If similar trends were seen in the UK, then the legalisation of cannabis could result in a reduction in serious crimes being committed and a decrease in the consumption other drugs. This would not only be welcome in and of itself, but would also bring savings to the criminal justice system of tens of millions of pounds.

Furthermore, those convicted of cannabis related offences receive a criminal record.²⁷ This can cause significant difficulty in regards finding paid employment.²⁸ Moreover, a criminal record is a barrier to entry to many professions. As such, many people convicted of cannabis related offences find themselves either unemployed or at least underemployed.²⁹

This places additional pressures on the public finances. The unemployed and those on very low incomes claim welfare benefits, therefore increasing the UK's burgeoning welfare budget.³⁰ Furthermore, as these people are either unemployed or underemployed, then this represents a loss of revenue for HM Treasury in the form of income tax and national insurance contributions.

Unemployment among those convicted of cannabis related offences can place additional pressure on the criminal justice budget. This is because unemployment increases the probability of

¹⁶ Ministry of Justice, *Prison Sentences: Cannabis: Written question – 37878*, 23 May 2016.

¹⁷ Atha, M., & Davis, S., *Taxing the UK Cannabis Market*, August 2011.

¹⁸ *Ibid.*

¹⁹ Room, R., 'Prohibition of cannabis', *British Medical Journal*, October 2010.

²⁰ North, P., *Street Lottery: Cannabis Potency and Mental Health*, October 2017.

²¹ *Ibid.*

²² Dragone, D., Prarole, G., Vanin, P., & Zanella, G., 'Crime and the legalization of recreational marijuana', *Journal of Economic Behaviour & Organization*, February 2018.

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ Gavrilova, E., Kamada, T., & Zoutman, F., 'Is Legal Pot Crippling Mexican Drug Trafficking Organisations? The Effect of Medical Marijuana Laws on US Crime', *The Economic Journal*, November 2017.

²⁶ Dragone, D., Prarole, G., Vanin, P., & Zanella, G., 'Crime and the legalization of recreational marijuana', *Journal of Economic Behaviour & Organization*, February 2018.

²⁷ HM Government, *Drug penalties*, 2018.

²⁸ UK Parliament, *Support for ex-offenders*, December 2016.

²⁹ Barrett, D., 'Fifth of unemployment benefit claimants have criminal record, say new figures', *The Telegraph*, 30 January 2014.

³⁰ *Ibid.*

recidivism.³¹ This creates extra work for the police who have to investigate these crimes, and on the Crown Prosecution System, the Legal Aid budget, and also on the courts, prisons, and probation system.

As such, we can see that the prohibition results in heavy work load for the criminal justice system. This results in increased pressure being placed on the budget of the police, the courts, and the prison and parole systems. Moreover, those convicted of cannabis related offences are far more likely to be unemployed or underemployed, therefore placing an added burden on the public finances as they are therefore more likely to claim benefits and not pay tax.

³¹ Ministry of Justice, *Analysis of the impact of employment on re-offending following release from custody, using Propensity Score Matching*, March 2013.

The healthcare system

The legalisation of cannabis could also bring about savings in healthcare. This is because, as discussed in the previous section, the prohibition of cannabis leads to an increase in the potency of cannabis available on the street.³² The exact link between high potency cannabis and serious mental health conditions is controversial. However, the evidence does strongly suggest that there is a link between the use of high potency cannabis and serious mental health conditions such as psychosis.^{33 34}

The UK cannabis market is now dominated by high-potency cannabis known as ‘skunk’. For example, researchers at King’s College London analysed approximately one thousand police seizures from London, Kent, Derbyshire, Merseyside, and Sussex. The same areas were last sampled in 2008 and 2005. In 2016, 94 per cent of police seizures were high-potency skunk compared to 85 per cent in 2008 and 51 per cent in 2005.³⁵ The study found the dominance of skunk was mainly to due to a sharp reduction in availability of weaker cannabis resin; from 43 per cent in 2005 and 14 per cent in 2008, to just 6 per cent in 2016 but as low as one per cent in the London area.³⁶

Table 1: type of cannabis in each constabulary region studied (%), 2005, 2008, and 2016

Year	Type	London	Kent	Sussex	Merseyside	Derbyshire
2016	Skunk	95.9	94.5	85.7	87.1	96.2
	Traditional	1.4	0.0	0.0	0.0	1.0
	Resin	2.7	5.5	14.3	12.9	2.9
2008	Skunk	93.1	82.8	80.7	82.0	83.8
	Traditional	4.0	1.7	0.7	0.0	0.0
	Resin	2.9	15.5	18.6	18.0	16.2
2005	Skunk	61.0	41.8	65.4	-	34.1
	Traditional	18.9	0.0	5.6	-	2.3
	Resin	20.1	59.4	28.8	-	63.6

Source: King’s College London

³² Room, R., ‘Prohibition of cannabis’, *British Medical Journal*, October 2010.

³³ Di Forti, M., *et al*, ‘Proportion of patients in south London with first-episode psychosis attributable to use of high potency cannabis: a case-control study’, *Lancet Psychiatry*, 2015.

³⁴ Freeman, T., *et al*, ‘Changes in cannabis potency and first-time admissions to drug treatment: a 16-year study in the Netherlands’, *Cambridge University Psychological Medicine*, December 2017.

³⁵ Hammond, K., Tuffnell, S., Walker, C., & Di Forti, M., ‘ Δ^9 -tetrahydrocannabinol and other cannabinoids in cannabis in England in 2016: Implications for public health and pharmacology’, *Drug Testing and Analysis*, Vol. 10, Issue 4, April 2018.

³⁶ *Ibid.*

Despite a declining population of cannabis consumers in the UK, cannabis now accounts for 26 per cent of all drug treatment presentations, and is the fastest growing drug-consuming cohort in treatment.³⁷ Furthermore, in young people's drug treatment services, 87 per cent of service users reported consuming cannabis.³⁸ There may be mental health conditions and issues surrounding dependency due to cannabis consumption even in a regulated market.

However, it is clear that a reduction in the potency of cannabis would lead to a decrease in the number of people seeking treatment, and so this would deliver significant savings for the NHS. For example, in England and Wales, £44.7 million is spent treating cannabis dependency every year.³⁹ Over the past 10 years there has been a 64 per cent increase in the number of people who have accessed drug treatment services due to cannabis consumption in the UK, with 31,129 adults seeking support in 2016.^{40 41}

This increase in the number of people receiving treatment over the past ten years correlates with the increase in cannabis potency. Therefore, legalising cannabis and introducing a regulated market could bring the NHS savings of approximately £28.7 million each year on cannabis treatment.

The legalisation of cannabis could also bring additional savings to the healthcare budget. This is because in States where cannabis has been legalised there has been a decrease in the number of prescriptions for pain killers.⁴² This has been corroborated by further studies.⁴³ One such study found that it resulted in 34 per cent of patients ceasing to require a prescription for painkillers containing opioids and an additional 36 per cent reducing the number of prescriptions.⁴⁴ A further study found that opioid medications were reduced for 38 per cent of patients, benzodiazepines were reduced for three per cent of patients, and other pain medications were reduced for 22 per cent of patients.⁴⁵

This is significant as in the UK, the NHS spends approximately £442 million each year on painkillers.⁴⁶ Taking a conservative approach by assuming that similar benefits as to those in the US resulting from legalising cannabis would lead to a 30 per cent decrease in the number of people receiving prescriptions for pain medication, this would lead to savings for the NHS of £132.6 million each year.

Moreover, legalisation could also result in a decrease in the number of people admitted to hospital for pain medication related incidents. For example, research conducted by Columbia University reached a similar conclusion that: "We would expect the adverse consequence of opioid use to decrease over time in States where medical marijuana use is legal, as individuals substitute marijuana for opioids in the treatment of severe or chronic pain".⁴⁷ Again, this would reduce the burden on healthcare budgets.

Legalising cannabis could also bring about further savings as the evidence suggests that in States where cannabis is legalised, there is a decrease in the number of people being prescribed anti-depressants.⁴⁸ A further study revealed that the use of medical cannabis led to a 37.6 per cent

³⁷ North, P., *Street Lottery: Cannabis Potency and Mental Health*, October 2017.

³⁸ *Ibid.*

³⁹ Bryan, M., Del Bono, E., & Pudney, S., 'Licensing and regulation of the cannabis market in England and Wales: Towards a cost benefit analysis', *Institute for Social & Economic Research*, September 2013.

⁴⁰ European Drug Monitoring Centre for Drugs and Addiction, *United Kingdom Drug Report*, 2017.

⁴¹ Monaghan, M., Lloyd, I., & Paton, C., 'Cannabis matters? Treatment responses to increasing cannabis presentations in addiction services in England', *Drugs: Education, Prevention, and Policy*, 23(1), 2015.

⁴² Bradford, A., & Bradford, D., 'Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D', *Health Affairs*, Vol. 35, No. 7, July 2016.

⁴³ Corroon, J., Mischley, L., & Sexton, M., 'Cannabis as a substitute for prescription drugs – a cross-sectional study', *Journal of Pain Research*, May 2017.

⁴⁴ Stith, S., et al, 'Effects of Legal Access to Cannabis on Scheduled II-V Drug Prescriptions', *Journal of Post-Acute and Long-Term Care Medicine*, Volume 19, January 2018.

⁴⁵ Minnesota Department of Health, *Intractable Pain Patients in the Minnesota Medical Cannabis Program: Experience of Enrolees During the First Five Months*, 2018.

⁴⁶ *Pharmaceutical Journal*, *Painkillers cost NHS £442 million, with north of England spend greatest, analysis reveals*, November 2011.

⁴⁷ Kim, J., et al, 'State Medical Marijuana Laws and the Prevalence of Opioids Detected Among Fatally Injured Drivers', *American Journal of Public Health*, 2016.

⁴⁸ Bradford, A., & Bradford, D., 'Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D', *Health Affairs*, Vol. 35, No. 7, July 2016.

decrease in anti-depressant use.⁴⁹ This is significant as the NHS prescribed 64.7 million items for anti-depressants in England alone in 2016 at a cost of £266.6 million.⁵⁰

Furthermore, the evidence suggests that the use of medical cannabis results in chronic pain patients being less likely to become depressed.⁵¹ Again, using a conservative estimate of a 30 per cent decrease in anti-depressant prescriptions, legalising cannabis could bring savings of £79.98 million each year.

Legalising cannabis could bring even more savings to the healthcare budget. For example, there is evidence to suggest that the use of cannabis has resulted in 71.8 per cent of patients using less anti-anxiety medication, 66.7 per cent of patients using less migraine medication, and 65.2 per cent of patients using less sleep medication.⁵²

In 2017, over 12 million prescriptions for insomnia were written in the UK, at a cost to the NHS of £72 million.⁵³ Therefore, if the results of the US study were replicated in the UK, and taking a conservative figure of a 60 per cent reduction, cannabis legalisation could bring annual savings to the NHS of £43.2 million.

The NHS spends approximately £30 million each year on anti-anxiety medication.⁵⁴ Assuming a conservative 70 per cent reduction in anti-anxiety medication usage, cannabis legalisation could save the NHS £21 million each year in England alone.

There is also evidence to suggest that the legalisation of cannabis could reduce the burden placed on healthcare budgets by excessive alcohol consumption. This is because research suggests that there is a 42 per cent decrease in alcohol use among patients suffering from chronic pain.⁵⁵ Further research revealed that counties in the US which had legalised cannabis for medicinal purposes reduced alcohol sales by 13 per cent.⁵⁶

Again this is significant as there are approximately 595,131 dependent drinkers in England alone, 108,696 of whom are currently accessing treatment.⁵⁷ Alcohol harms are estimated to cost the NHS approximately £3.5 billion each year, with prescriptions for drugs to treat alcohol misuse costing approximately £3.9 million each year.⁵⁸ Therefore, if cannabis was legalised, then the NHS would stand to save tens of millions of pounds each year due a reduction in the number of people abusing alcohol.

It is therefore clear that the prohibition on cannabis has led to an increase in the potency of cannabis, which therefore increases the number of people experiencing mental health problems and dependency issues. This places a significant burden on the NHS. Furthermore, the evidence suggests that legalising cannabis would result in substantial savings for the NHS as there would be a decrease in the number of people receiving prescriptions for pain medication anti-depressants, and other medications.

⁴⁹ Piper, B., 'Substitution of medical cannabis for pharmaceutical agents for pain, anxiety, and sleep', *Journal of Pharmacology*, Volume 31, Issue 5, 2017.

⁵⁰ NHS Digital, *Antidepressants were the area with largest increase in prescription items in 2016*, June 2017.

⁵¹ Feingold, D., *et al*, 'Depression and anxiety among chronic pain patients receiving prescription opioids and medical marijuana', *Journal of Affective Disorders*, August 2017.

⁵² Piper, B., 'Substitution of medical cannabis for pharmaceutical agents for pain, anxiety, and sleep', *Journal of Pharmacology*, Volume 31, Issue 5, 2017.

⁵³ NHS Innovation Accelerator, *NHS in Thames Valley to tackle sleeping pills epidemic with digital medicine*, March 2018.

⁵⁴ McCrone, P., Dhanasiri, S., Patel, A., Knapp, M., & Lawton-Smith, S., 'Paying the Price: The cost of mental health care in England to 2026', *King's Fund*, 2008.

⁵⁵ Piper, B., 'Substitution of medical cannabis for pharmaceutical agents for pain, anxiety, and sleep', *Journal of Pharmacology*, Volume 31, Issue 5, 2017.

⁵⁶ Baggio, M., Chong, A., & Kwon, S., 'Helping Settle the Marijuana and Alcohol Debate: Evidence from Scanner Data', *SSRN*, December 2017.

⁵⁷ Alcohol Concern, *Alcohol Statistics*, 2016.

⁵⁸ *Ibid.*

Conclusion

The prohibition of cannabis places a significant burden on public finances. For example, the costs associated with enforcing the prohibition place added pressure on the criminal justice system. Furthermore, due to the prohibition resulting in the increased prevalence of higher potency cannabis, many young people have developed a dependency to cannabis and so are committing serious crimes in order to fund their addiction. This places added pressure on the criminal justice system. Therefore, legalising cannabis would result in significant savings for the criminal justice system.

The legalisation of cannabis would also bring significant savings to the NHS. The prohibition has resulted in an increase in the consumption of higher potency cannabis. This has been linked to an increase in the number of people receiving help from the NHS for addiction and for mental health conditions. This places a burden on the budgets of NHS trusts. Moreover, there is evidence to suggest that the legalisation of cannabis would lead to a decrease in the number of people receiving prescriptions for anti-depressants and pain medication. Therefore, the legalisation of cannabis would result in significant savings for the NHS.

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