Cannabis and Driving – The Facts

A Call to Remove Cannabis from Section 5A, and Revert to Section 4 of the Road Traffic Act 1988

A Seed our Future Report

October 2021

Researched and written by Guy Coxall

Contents:

Introduction:

Criminal convictions and punishment in relation to cannabis are far more prevalent and likely in the case of driving offences opposed to personal possession and cultivation due to the ease at which the police can secure a conviction without the need to build a case upon evidence. Any driver stopped by the police can expect to be swabbed and if THC is identified, a blood test is enough to secure a conviction. The driver may not have consumed cannabis for several days or may have been subject to passive smoke at a recent party and still be over the zero tolerance limit, albeit perfectly fit to drive.

Since the amendment to the Road Traffic Act 1988 in March 2015 where the need for evidence of driving impairment (Section 4) was no longer needed for a conviction and evidence of a specific controlled drug above the specified limits (limit to establish driving impairment) was sufficient for a conviction, new scientific evidence has emerged which show that Tetrahydrocannabinol (THC) levels in blood have no correlation to driving impairment, that no such test exists and that forensic analysis showing above the 2µg/Litre limit has no evidential basis in relation to driving impairment or recent use and is thus inadmissible.

It is clear that Cannabis (THC) was added to the list of 7 'commonly abused' schedule 1 drugs without any foundation evidence of cannabis meeting the criteria of a schedule 1 substance (now proven to be based on ideology, racism and political motivations opposed to science), no scientific evidence to justify the 2µg/L upper limit equating to impairment and full transparency that the amendment to the act was based on political and financial basis (a deterrent effect and to increase conviction rate) rather than on road safety. To date, there is no statistically significant or conclusive scientific evidence to confirm that cannabis use leads directly to road incidents.

Finally, since the legalisation of cannabis for medicinal use in November 2018 and the change in International law (removal from Schedule IV) which now recognises cannabis as a medicine and less dangerous than other schedule 1 drugs listed within Section 5 (A) of the Act, private prescriptions are being written at an exponential rate (approx. 10,000 to date) for a range of conditions, but NHS prescriptions are virtually impossible to attain (approx. 3 since Nov 2018). There are over 1.4 million UK citizens who regularly use cannabis responsibly as a medicine but cannot afford to purchase privately. Many of those will be drivers who are responsible enough to know when they are fit to drive, just as those on other medications such as morphine, benzodiazepines etc drive only when fit to do so.

To convict someone with a criminal offence based on unreliable, unfounded and inadmissible forensic evidence and on the basis of inequality of access to medicine due entirely to financial constraints, is tantamount to medical and financial discrimination, injustice and certainly not a fair and impartial trial. To criminalise and punish persons both financially and by removing their driving licence would be a breach of their Human Rights under International Human Rights - Article 12, International Covenant on Economic, Social and Cultural Rights, a right to health and essential medicine, as affirmed by the United Nations Office drugs and Crime (2009) (12) and the United Nations General Assembly (2010). (13)

Many police officers are unaware of the legislative change and as swabs (which identify THC and cocaine) are being increasingly used on the roadside, tens of thousands of drivers, including some with medical prescriptions, are being processed through the judicial system, criminalised and punished even though there is no evidence of impairment, and it is likely that the majority are using cannabis medicinally but are unable to afford private prescription. Furthermore, the discovery and

scientific understanding of the endo-cannabinoid system (present in all mammals) identifies that cannabis (phyto-cannabinoids) is integral to attaining overall health and wellbeing, alongside the prevention and treatment of many conditions/diseases and so cannot be considered anything but essential medicine.

This report examines the rationale for the amendment to the Road Traffic Act (RTA), the evidence (or lack thereof to support it), the implications in regard to civil and human rights, recommendations for change and recent case studies.

Rationale for Section 5 (A) of the RTA:

Extract from*: 'Evaluation of the new drug driving legislation, one year after its introduction - A report for Department for Transport*' (April 2017):

*Section 4 of the Road Traffic Act 1988 is concerned with **'Driving, or being in charge, when under the influence of drink or drugs'**. It addresses the offence of **driving a vehicle while impaired through consumption of drugs or alcohol**. For drink driving, Section 5 of the Act allows for specified limits for how much alcohol can be present in a driver's breath, blood or urine. Until recently, there was no equivalent for drug levels in drivers, with any charges brought for drug driving under Section 4 relying on evidence of impairment while driving and evidence that drugs were present in blood or urine. This changed on 2 March 2015 through implementation of new legislation (Section 5A of the Road Traffic Act 1988) which prescribed upper limits for the level of specific controlled drugs in a driver's blood.*

The overall objective of the new offence is to improve road safety by reducing the risk that drug drivers pose to themselves as well as other road users, by reducing its prevalence in the driving population. To achieve this the Department for Transport (DfT) aims to:

*1. **Deter people** from taking illegal drugs in the first place and those who abuse* their medication.*

*2. **Enable more effective enforcement** against those who persist in taking illegal drugs and those who abuse their medication and continue to drive.*

*3. **Increase the efficiency of enforcement** activity against drug drivers.*

Note – 'abuse' here should be interpreted as taking prescribed medication other than in accordance with the directions of a healthcare professional, or taking over-the-counter medication other than in accordance with the manufacturer's instructions. (2)

Within the CPS guidance, it states: *'It brings enforcement of drug driving **into line with that of drink driving**, by introducing a strict liability offence to **avoid the need to prove impairment**. It seeks to enable **more effective law enforcement** to take place, with the aim of **improving road safety** by **deterring potential drug drivers** and **bringing more drug drivers to justice**.'* (3)

Deterrent effect:

Common causal theories in relation to cannabis use have been discredited such as 'the gateway theory' which assumed that cannabis use leads to the use of harder drugs, 'the schizophrenia theory' which assumed that cannabis causes schizophrenia and the 'drug related crime theory' which

assumed that cannabis use may lead to crime as seen with harder drugs. The causal link between those involved in road traffic incidents and a positive test for cannabis does not provide any evidence that the cannabis use caused impairment and thus was the main factor leading to the incident.

The above statements infer that the 17 drugs listed within Section 5(A) are as intoxicating and dangerous (above the specified limits for each drug) as drink driving at the current level of 36µg/100ml (BAC of 0.08%). It also infers that the need to prove impairment is no longer necessary and that road safety will be improved simply by increasing conviction rates as a 'deterrent effect', a well-known failed strategy within MoDA 1971's 'war on drugs' which even with longer custodial sentences for cannabis offences, cannabis use has increased. As availability of medical cannabis increases in the UK, scientific research is urgently required to establish the true risks to road safety, based on science, not political or financial whims.

A national education campaign to inform cannabis users of the potential risks and guidance on how to avoid potential driving impairment (such as safe period of time following use and self-assessment) would in our opinion be more effective in attaining safety on our roads.

The official guidance for medical cannabis use and driving:

The Government guidance below for health care professionals shows that drivers can exceed the specified upper limit of THC in blood and still raise the statutory 'medical defence' as long as they follow the guidance from a health care practitioner and drive only if they feel fit to do so.

Drug driving: guidance for healthcare professionals (2014):

The first group consists of commonly abused drugs for which low limits have been set. This group includes certain medicines that will be taken by only a small proportion of drivers. Given the low limits set, a patient prescribed one of these medicines who chooses to drive could test above the specified limit but would still be entitled to raise the statutory "medical defence". This 'zero tolerance' group currently includes:

- ***Cannabis (THC)***[footnote 3]
- *Cocaine (and a cocaine metabolite, BZE)*
- *MDMA (Ecstasy)*
- *Lysergic Acid Diethylamide (LSD)*
- *Ketamine*
- *Heroin/diamorphine metabolite (6-MAM)*
- *Methylamphetamine*

It remains the responsibility of all drivers, including patients, to consider whether they believe their driving is, or might be, impaired on any given occasion, for example if they feel sleepy. ***It will remain an offence, as now, to drive whilst their driving is impaired by drugs; and, if in doubt, drivers should not drive.*** *The statutory "medical defence" will not be extended to be available for the existing 'impairment' offence because even if legitimately taking a medicine, the patient should not be driving if actually impaired.* (4)

This leads us to the correct guidance given to potential drivers who use cannabis as a medicine. The MCCS are the leading authority on prescribing cannabis products for medical conditions in the UK. Below is an extract from their 2019 document which provides the official guidance for medical practitioners who look to prescribe cannabis as a medicine. It describes practitioner guidance for patients in relation to driving or operating heavy machinery and it also explains the current difficulties and barriers practitioners face in prescribing cannabis as a medicine.

Medical Cannabis Clinicians Society – All Party Parliamentary Group for Medical Cannabis Under Prescription (2019).

5. Side effects:

'Prescribers need to be aware of the short-term side effects of cannabis. The MCCS note that it is mainly the THC products that produce more troublesome short-term effects such as drowsiness, dry mouth, disorientation, euphoria and confusion. These problems are more prevalent in high THC street cannabis and generally are less of an issue in lower THC medicinal cannabis, especially when counteracted by CBD. ***Patients, on higher THC products especially, should be warned not to drive or operate heavy machinery whilst under the influence of side effects of a cannabis product****.'* (5)

The above advice is confirmed via the Medical Cannabis Clinics (the primary group of private clinicians who prescribe medical cannabis within the UK) Aftercare Document in which it states:

DRIVING:

'Like any other medications that may cause impairment, do not drive or operate a vehicle if feel impaired or are unsure if you feel impaired and follow your physician's advice.'

In retrospect, it is perfectly acceptable and legal to be a regular user of cannabis and drive just as long as they are responsible enough to drive when fit to, their condition meets the criteria from the growing albeit small list of medical conditions for which a prescription is available (from 1851, Cannabis was in the US Pharmacopeia for over 100 illnesses and diseases but was deleted in 1942) and they can afford a private prescription. Those who can't afford a prescription are deemed a danger to other road users (without any evidence) even if they follow the same common-sense guidance. Of course following conviction and the accompanying endorsement, they will be far less likely to afford a prescription in the near future, be less likely to hold down a job amongst the many other factors which will inhibit standard of living and health.

Does the blood test indicate impairment?

The next contentious issue is that of the blood test and level of THC to determine driving impairment. The deleterious progressive intensification-by-quantity, as tested in the blood stream, does occur with alcohol, tranquillisers and other toxic drugs however, this is not true with herbal cannabis when consumed or smoked albeit there is no test which can confirm intensification, effect or functional impairments nor is there any evidence to establish a level of THC concentration to

which would verify a level of impairment as there is with alcohol. This was confirmed by the UN last year following an extensive US report published in 2017:

The recent report by the United Nations Office on Drugs and Crime: Cross Cutting Issues: Evolving Trends and New Challenges (2020) stated:

"*A contentious issue between people who are for and against the legalization of cannabis remains whether it has had an impact on driving under the influence of cannabis and caused fatal car crashes. The evidence remains inconclusive, as within the United States there have been no differences in cannabis- or alcohol-related traffic fatalities between states that have and have not legalized the non-medical use of cannabis. As different research contributions have also shown* ***, it is difficult to quantify the effects of cannabis on road accidents, as cannabis is often used in combination with alcohol, which increases the challenge of determining the influence of cannabis itself on road traffic accidents****. Moreover,* ***studies on THC levels and degrees of impairment have found that the level of THC in the blood and the degree of impairment do not appear to be closely related****; peak impairment does not occur when THC concentration in the blood is at or near peak levels. In addition, when a blood sample is collected from a driver suspected of cannabis-impaired driving, the collection may not occur until hours after the ingestion of cannabis, whereas THC levels in the blood decline exponentially. As* ***there are currently no evidence-based methods to detect cannabis-impaired driving****, those factors and other issues related to the roadside testing of people under the influence of cannabis, as compared with testing for alcohol, make it challenging to determine the extent and trends of driving under the influence of cannabis and its involvement in fatal traffic crashes." (*pg.97) (6)

The above statement was in part based on the *'Marijuana-Impaired Driving A Report to Congress – NHTSA (2017)'.* Below are some extracts which I believe relevant:

'THC level in blood (or oral fluid) does not appear to be an accurate and reliable predictor of impairment from THC. Also, when low levels of THC are found in the blood, the presence of THC is not a reliable indicator of recent marijuana use.'

'The same study looked at the speed at which the driver drove relative to the speed limit as a result of marijuana and alcohol use by the drivers. Subjects dosed on marijuana showed reduced mean speeds, increased time driving below the speed limit and increased following distance during a car following task. Alcohol, in contrast was associated with higher mean speeds (over the speed limit), greater variability in speed, and spent a greater percent of time driving above the speed limit. Marijuana had no effect on variability of speed. In the combined alcohol and marijuana condition it appeared that marijuana mitigated some of the effects found with alcohol by reducing the time spent above the speed limit (Hartman, et al., 2016).'

'An interesting finding from this research is that after smoking marijuana, subjects in most of the simulator and instrumented vehicle studies on marijuana and driving typically drive slower, follow other cars at greater distances, and take fewer risks than when sober (Stein, et al., 1983; Smiley, et al., 1981; Smiley, et al., 1986; Casswell, 1977; Robbe and O'Hanlon, 1993). These effects appear to suggest that the drivers are attempting to compensate for the subjective effects of using marijuana. In contrast, subjects dosed with alcohol typically drive faster, follow at closer distances, and take greater risks.'

'Thus, there are currently no evidence-based methods to detect marijuana-impaired driving. Marijuana has some regularly reported effects on driving related skills that might lend themselves to the development of marijuana-impaired driving detection techniques, similar to those that have been developed for alcohol-impaired driving (Harris, 1980 and Stuster, 1997). However, many of these effects can also be caused by alcohol, other drugs and driver conditions and activities like distraction, drowsiness, and illness. It is not possible to predict whether there might be a unique combination of cues that could be used by law enforcement to detect marijuana-impaired driving with a high degree of accuracy. Such a method would need to have an extremely low false positive rate (incorrectly identifying a driver as marijuana-impaired when they are not) to be useable by law enforcement. Feasibility of Developing an Impairment Standard for Drivers under the Influence of Marijuana Currently, there is no impairment standard for drivers under the influence of marijuana. Many of the reasons for this are discussed elsewhere in this report. They include the fact that there is no chemical test for marijuana impairment, like a BAC or BrAC test for alcohol that quantifies the amount of alcohol in their body, indicates the degree of impairment, and the risk of crash involvement that results from the use of alcohol. The psychoactive ingredient in marijuana, delta-9-tetrahydrocannabinal (THC), does not correlate well with impairment. While very high levels of THC do indicate recent consumption (by smoking marijuana) it is very unlikely a police officer would encounter a suspect and obtain a sample of blood or oral fluid within a short enough time for high THC levels to be detected. As was mentioned earlier, ***impairment is observed for two to three hours after smoking****; whereas by* ***an hour after smoking peak THC levels have declined 80% - 90%****.'*

Toxicologists are not able to provide expert testimony that a specific amount of THC present in a suspect's blood (or other specimen) is definitively associated with being impaired by marijuana and render the driver unable to drive safely.

A number of States have set a THC limit in their laws indicating that if a suspect's THC concentration is above that level (typically 5 ng/ml of blood), then the suspect is to be considered impaired. ***This per se limit appears to have been based on something other than scientific evidence.*** *Some recent studies demonstrate that such per se limits are not evidence-based.* (7)

Researchers affiliated with Yale University assessed multiple papers specific to the issue of marijuana and driving performance. Consistent with prior reviews, authors reported that the presence of THC in bodily fluids is not a consistent predictor of impairment and that state-imposed per se limits for THC are not evidence-based. The report, published in 'Frontiers in Psychiatry' on 24th September 2021 reported the following facts:

Authors reported, "While legislators may wish for data showing straightforward relationships between blood THC levels and driving impairment that parallel those of alcohol, the widely different pharmacokinetic properties of the two substances … make this goal unrealistic."

They added: "[S]tudies suggest that efforts to establish per se limits for cannabis-impaired drivers based on blood THC values are still premature at this time. Considerably more evidence is needed before we can have an equivalent 'BAC for THC.' The particular pharmacokinetics of cannabis and its variable impairing effects on driving ability currently seem to argue that defining a standardized per se limit for THC will be a very difficult goal to achieve."

Researchers concluded: "Until there is more evidence-based consensus of opinion on meaningful thresholds for per se laws, we would recommend against reliance on such legislation. This is particularly the case given the significant inconsistencies in threshold values currently determined by

different states in the US, and the rather weak scientific basis for such decisions. Any such laws cannot claim to be strongly based on current scientific evidence, which suggest collectively that standard based on detectable blood THC levels are not useful."

Their findings are consistent with those of numerous other studies and expert review panels concluding that the presence of THC is an unreliable indicator of either recent cannabis exposure or impairment of performance. A 2019 report issued by the Congressional Research Service similarly determined: "Research studies have been unable to consistently correlate levels of marijuana consumption, or THC in a person's body, and levels of impairment. Thus, some researchers, and the National Highway Traffic Safety Administration, have observed that using a measure of THC as evidence of a driver's impairment is not supported by scientific evidence to date." (15)

As we have identified during our case studies outlined at the end of this report, blood tests showing near to or in excess of 20µg THC / Litre can be common in medical users who are found to drive perfectly well without any sign of impairment whereas someone found to be only 1µg THC / Litre could be impaired but would have charges dropped against them because of an arbitrary limit.

Alcohol Vs Cannabis:

The impaired driving effects of alcohol consumption are well understood, including the level of alcohol in blood relating directly to impairment and the huge number of road traffic injuries and fatalities directly related to drink driving. The evidence of road safety risk is overwhelming.

"Alcohol-impaired driving has been a subject of intense interest and research for well over 60 years. There have been many studies conducted on the role of alcohol in contributing to traffic crashes starting in the 1950's. This research involved studies of alcohol-impaired driving related skills, primarily through laboratory studies involving subjects dosed on alcohol, using psychomotor tasks (reaction time, tracking, target detection), driving simulators and drivers on closed courses in instrumented vehicles, epidemiological studies including roadside surveys of alcohol use by drivers, and studies of alcohol use by crash-involved drivers. This research built a persuasive case that alcohol was a significant contributor to traffic crashes. For example, in the 1950's it was estimated that alcohol-positive drivers were involved in approximately 50 percent of fatal crashes (involving over 25,000 fatalities per year), while the latest data available shows that alcohol-related fatal crashes have declined to around 30 percent (involving over 10,000 fatalities per year). In the 1960's research was able to estimate the crash risk of drivers at different alcohol concentration levels."

"Regulatory authorities need to consider their objectives in setting drug driving laws: Is the objective to target general drug use or to target those drivers who are impaired by drugs? Take alcohol, for example: it is not an offence to drink alcohol and drive, but it is an offence to drive while impaired by alcohol. The argument that the same drug concentration can have varying levels of psychoactive effects depending on the individual (tolerance, gender, body size and composition etc) is also true of alcohol, and yet per se non-zero limits have been established, following comprehensive research over several years, in an attempt to ***balance public safety with civil rights****."*

The current per se non-zero limit for alcohol within Section 5 of the RTA is 36 micrograms per 100ml, the approx. equivalent to 2 pints of average beer. This is to afford the public with the option to enjoy some alcohol responsibly (say with their lunch) and not be penalised (civil rights), however if they

are irresponsible and decide to drive over the limit, thus impaired, then they are endangering public safety and so lose their civil rights.

Alcohol is a powerful drug of inescapable physical dependence, inducing degeneration of the physical and mental condition. In addition to damaging health, extreme use of alcohol is so frequent it is commonplace, causing widespread social problems and grievous behaviour. Tobacco mortalities apart, of all drug habits alcohol is the worst. Its use being a special generator of many forms of socially destructive behaviour.

Alcohol is the most common dangerous recreational drug consumed globally and perfectly fits the criteria for a Schedule 1 substance with a Class A penalty if it were included in the Misuse of Drugs Act 1971 to which it would undoubtedly be a *per se* zero tolerance substance within Section 5 (A) of the RTA.

Comparison between the odds ratio of crash risk between alcohol and cannabis:

"Odds ratios were used to estimate the risk of crash involvement after marijuana use in the fatally and seriously injured drivers. The results for the ***seriously injured drivers*** *showed considerable national variability, ranging from 0.29 times (reduced crash involvement) to 25.38 times (increased crash involvement). The* ***combined risk was 1.39 times that of drug-free drivers, but this was not statistically significant. For fatally injured drivers*** *the estimated risk ranged from 3.91 to 28.88, while the* ***combined risk was 1.33 times (also not statistically significant)****."*

"In a pooled analysis of the DRUID data, the highest risk of crash involvement was for drivers with high alcohol concentrations (above .12 BAC)—they had a crash risk 20–200 times that of sober drivers. Drivers with BACs between .08 **(UK limit)** *and .12 were estimated to be 5–30 times more likely to crash than sober drivers. Drivers positive for THC were estimated to be at elevated risk (1–3 times that of drivers not positive for THC),* ***similar to drivers with BAC levels between .01 to < 0.05****. The DRUID report noted that some of the risk estimates were based on few positive cases and/or controls which resulted in wide confidence intervals."*

This research would suggest that **all drivers testing positive for THC** would be in the same category of those drivers who drink responsibly (below the 0.08% BAC limit) but are not afforded their civil rights due to the *per se* zero tolerance approach and no evidence of impairment or a road safety risk **(to our knowledge, there is not one case of clear evidence of cannabis use being the primary factor in a fatal incident)**.

By moral obligation and under existing constitutional, civil and Human Rights laws, both national and international, the legislation must be fair and just. De jure, to pick out one activity or group in an unfair way is illegal. In a democratic society, governments and judiciaries have the moral human obligation and the paramount lawful duty of preventing enforcement of any measure taken by parliamentary legislation which is unjust and inequitable.

Is Cannabis use a direct cause of road incidents?

According to the Reported Road Casualties GB: 2008 Annual Report (DfT, 2009**) impairment due to drugs was recorded as a contributory factor** by police in 687 **(1%) of all reported road accidents in which injury was sustained**. In contrast, impairment due to alcohol was cited as a contributory factor in 6,758 (5%) of all accidents. No data is available to identify what percentage of these road accidents were relating to the presence of THC.

This leaves 94% of all road accidents in which injury was sustained being due to other factors which are bound to include tiredness, mobile phone or other device use, weather conditions etc…

Following the implementation of the Section 5 (A) Offence, a report entitled: *'Evaluation of the new drug driving legislation, one year after its introduction*': A report for Department for Transport (April 2017) confirmed that out of 10,041 DVLA Endorsements relating to the Section 5A offence, there was only 1 case of **'**Causing death by dangerous driving with drug level above the specified limit' (DG60) and this related to a young driver, 16 times over the limit for cocaine and also over the limit for alcohol.

Comparison of convictions involving THC in blood to drug driving offences leading to a fatality:

Number of convictions/endorsements for THC present in blood by year since the introduction of Section 5 (A) of the RTA:

	2015	**2016**	**2017**	**2018**	**2019**
THC	**2,345**	**6,045**	**7,189**	**8,239**	**10,206**

DVLA number of endorsements for drug driving by year:

Offence Code	2015	2016	2017	2018	2019
CD50	7	11	c	6	c
DG10	3,567	10,732	14,133	16,298	19,852
DG40		21	250	308	394
DG60	**1**	**10**	**15**	**14**	**c**
DR80	909	861	718	720	688
DR90	c	11	77	86	62
MR29	c	10	54	55	19

*c = less than 5 (14)

The above data shows that since the implementation of Section 5 (A) of the RTA, driving convictions/endorsements for THC in blood have increased year on year. It is likely that this increase is due to the ease of attaining a conviction due to no evidence of impairment being required and also the increase in use of the swabs which only show cannabis and cocaine.

Furthermore, the comparison between convictions relating to THC in blood and DG60 endorsements (causing a fatality due to drug driving) would also indicate that these drivers were highly unlikely to have been involved in serious incidents. At present we are unable to identify how many, if any of these DG60 offences were related to the presence of THC only in blood.

Justification for the *per se non-zero* tolerance approach to cannabis:

Looking at the table below, it is clear that all 17 drugs (including the schedule 1 substances which are '*per se* zero tolerance') have differing threshold upper limits and it would be reasonable to assume that these limits would have been based on scientific research to establish the threshold which would lead to driving impairment. The primary research used to establish a *per se* zero tolerance limit for THC was as follows and has since been proven incorrect:

Perhaps the most comprehensive attempt to establish a legal (driving) limit for a particular substance is Grotenhermen et al.'s (2007) review of cannabis. Conducted by a team of experts from around the world, the review considered the epidemiological and experimental evidence for per se driving limits for cannabis. The team found that existing epidemiological studies were plagued by low sample numbers and often lacked statistical power to provide a scientifically robust guide to per se limits. The authors did find, however, that meta-analyses of experimental studies involving cannabis and alcohol provided empirical evidence for initial per se limits, in preference to a zero tolerance approach. The authors concluded that 7–10 ng/ml of THC in serum (3.5–5 ng/ml in whole blood) is a reasonable limit. ***This limit correlates with a BAC of 0.05% in terms of measures of impairment****. This laboratory-based limit was suggested while acknowledging the need for a review of real-life driving impairment once adequate epidemiological data are available.*

One such study comes from France (Laumon et al., 2005), which involved analysis of 10,748 drivers, with known drug and alcohol concentrations, who were involved in fatal crashes in France from October 2001 to September 2003. Out of this group, 6,766 drivers were considered to have been responsible for the accident in which they were involved. This group was compared with 3,006 drivers from the same sample who were not deemed responsible for the collision. This enabled the team to consider whether those who were positive for drugs or alcohol were more likely to have been responsible for the collision, and – for those who tested positive for cannabis – to calculate what level of cannabis was associated with a significant increase in risk. The study demonstrated a significant dose effect, whereby higher levels of cannabis were associated with an increased risk of being involved in an at fault accident. ***Importantly, the study suggested that, even at cannabis concentrations of 1 ng/ml, there was evidence of increased risk (an average odds ratio of 2.18 for Delta 9 THC levels between 0 and 1 ng/ml; at levels above 5 ng/ml the average odds ratio increased to 4.72).***

Note that these levels are again below the threshold of allowable BAC levels for driving. Furthermore, the 'Driving under the influence of drugs: Report from the expert panel on drug driving (March 2013) recommended to the Government a limit of 5µg/l of THC in whole blood but this was disregarded.

As recent scientific research, approved by the United Nations Office on Drugs and Crime, has clearly demonstrated (as mentioned above) that '***studies on THC levels and degrees of impairment have found that the level of THC in the blood and the degree of impairment do not appear to be closely related'*** and that ***'toxicologists are not able to provide expert testimony that a specific amount of THC present in a suspect's blood (or other specimen) is definitively associated with being impaired by marijuana and render the driver unable to drive safely',*** it would be safe to assume that blood tests carried out to identify THC can only be used as evidence to conclude that cannabis has been consumed in the recent past and cannot be used to determine driving impairment or a road safety concern.

The only way to provide any evidence of a cannabis user driving whilst impaired, thus being a potential risk to themselves and other road users is via a Field Impairment Test (FIT) as was required within Section 4 of the RTA.

Generally illicit drugs	**Threshold upper limit in blood**
benzoylecgonine	50µg/L
cocaine	10µg/L
delta-9-tetrahydrocannibinol (cannabis and cannabinol)	2µg/L
ketamine	20µg/L
lysergic acid diethylamide (LSD)	1µg/L
methylamphetamine	10µg/L
methylenedioxymethaphetamine (MDMA, ecstasy)	10µg/L
6-monoacetylmorphine (6-MAM, heroin, diamorphine)	5µg/L
Generally medicinal drugs	
amphetamine	250µg/L
clonazepam	50µg/L
diazepam	550µg/L
flunitrazepam	300µg/L
lorazepam	100µg/L
methadone	500µg/L
morphine	80µg/L
oxazepam	300µg/L
temazepam	1,000µg/L

(2)

The lack of conclusive evidence of cannabis directly leading to road accidents is not new. The Runciman report 2000 stated: *"There is considerable concern that cannabis use may contribute to transport accidents since laboratory tests show it can impair performance including driving. However, a review of the scientific literature on drugs and driving commissioned by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) found that evidence as to whether cannabis impairs driving and increases the risks of road accidents was not entirely consistent. Some studies found no significant effects on perception, and others pointed to some impairment of attention and short-term memory, although these effects are typically observed at higher doses. Still*

others suggest that drivers under the influence of cannabis actually drive more carefully. Interpretation of the causal contribution of cannabis to road accidents is further complicated by the concurrent presence of other drugs, especially alcohol." (8)

When discussing the effects of THC on psychomotor performance, the above sentiment was confirmed by the Advisory Council on the Misuse of Drugs (ACMD), the leading authority on drug science, when they stated in their 2008 report, Cannabis Classification and Public Health:

'The interpretation of these findings is complicated by the frequent concomitant presence of alcohol and by the long persistence of THC metabolites (three to four weeks) in body fluids after cannabis use (and well after its psychomotor-impairing effects would have dissipated).' (9)

The inclusion of cannabis within Section 5(A) of the Road Traffic Act 1988 is not the only UK cannabis law without scientific foundation but based instead on political and financial reasoning as identified in the damning report 'Drug Classification: Making a hash of it?' Published 2006 by the House of Commons Science and Technology Committee' makes it clear that the Misuse of Drugs Act 1971 classification system and scale of harm are based on political objectives with no scientific evidence on which to draw in making policy decisions.

Colin Blakemore, Chief Executive of the Medical Research Council described the MDA's classification saying *"It is antiquated and reflects the prejudice and misconceptions of an era in which drugs were placed in arbitrary categories with notable, often illogical, consequences".*

Below are some findings from the report:

With respect to the ABC classification system, we have identified significant anomalies in the classification of individual drugs and a regrettable lack of consistency in the rationale used to make classification decisions. In addition, we have expressed concern at the Government's proclivity for using the classification system as a means of 'sending out signals' to potential users and society at large—it is at odds with the stated objective of classifying drugs on the basis of harm and the Government has not made any attempt to develop an evidence base on which to draw in determining the 'signal' being sent out.

We have found no convincing evidence for the deterrent effect, which is widely seen as underpinning the Government's classification policy and have criticised the Government for failing to meet its commitments to evidence-based policy making in this area. More generally, the weakness of the evidence base on addiction and drug abuse is a severe hindrance to effective policy making and we have therefore urged the Government to increase significantly its investment in research.

Finally, we have concluded that the current classification system is not fit for purpose and should be replaced with a more scientifically based scale of harm, decoupled from penalties for possession and trafficking. In light of the serious failings of the ABC classification system that we have identified, we urge the Home Secretary to honour his predecessor's commitment to review the current system, and to do so without further delay.

The Government's desire to use the Class of a particular drug to send out a signal to potential users or dealers does not sit comfortably with the claim that the primary objective of the classification system is to categorise drugs according to the comparative harm associated with their misuse. It is also incompatible with the Government's stated commitment to evidence based policy making since

it has never undertaken research to establish the relationship between the Class of a drug and the signal sent out and there is, therefore, no evidence base on which to draw in making these policy

If, as the ACMD Chairman indicated to us, the Council's work has been seriously hindered by the lack of evidence, the ACMD should have been far more vocal in pressing Ministers to ensure that more research was commissioned to fill the key gaps in the evidence base.

We understand that the ACMD operates within the framework set by the Misuse of Drugs Act 1971 but, bearing in mind that the Council is the sole scientific advisory body on drugs policy, we consider the Council's failure to alert the Home Secretary to the serious doubts about the basis and effectiveness of the classification system at an earlier stage a dereliction of its duty.

We urge the new Home Secretary to honour his predecessor's promise to conduct the review—our findings suggest that it is much needed. Although we are, of course, pleased that the Home Office is placing such store by our recommendations, the long delay in publishing the consultation paper on the review of the classification system has been unfortunate and should be rectified immediately.

It is vital that the Government's approach to drugs education is evidence based. A more scientifically based scale of harm would have greater credibility than the current system where the placing of drugs in particular categories is ultimately a political decision.

On 19 January 2006, following his statement on the classification of cannabis, the then Home Secretary Charles Clarke announced that he was initiating a review of the ABC classification system: ***"The more that I have considered these matters, the more concerned I have become about the limitations of our current system. […] I will in the next few weeks publish a consultation paper with suggestions for a review of the drug classification system, on the basis of which I will make proposals in due course."*** (10)

This review did not happen, and the classification system remains the same 15 years later. It is clear that in relation to cannabis, the inclusion within the 1971 MoDA was based on the non-evidenced scheduling from the 1961 UN Drug Convention and both the Home Office and the ACMD have not only failed in carrying out their duties, failed to respond to the evidence or lack thereof but have also failed the credibility of the entire judicial system when it comes to drug laws for half a century; more importantly, they have failed the community they have sworn to serve.

Section 5 (A) of the RTA is in direct conflict with Human Rights Law:

In 2009, the UNOCD confirmed that offences involving the possession, purchase or cultivation of illicit drugs for personal use should not be criminalised as this would be a contradiction of their human rights:

UNITED NATIONS OFFICE ON DRUGS AND CRIME: Vienna: From coercion to cohesion: Treating drug dependence through health care, not punishment.

Discussion paper based on a scientific workshop: UNODC, Vienna, October 28-30, 2009.

"The report of the International Narcotics Control Board for 2007 (EN/INCB/2007/1), when discussing the principle of proportionality, highlighted that "with offences involving the possession, purchase or cultivation of illicit drugs for the offender's personal use, the measures can be applied as complete alternatives to conviction and punishment"

In conclusion, they stated:

“In responding to the problem of drug use, "many countries have introduced severe penalties for drug use and related crime, which have resulted in large numbers of people in prisons, compulsory treatment centres, or labour camps without significant long-term impact on drug use, drug dependence or drug-related crime in the community and are in contradiction with human rights." (12)

This was reaffirmed in 2010 with the addition that limiting access to what may be considered essential medicine is a breach of the human right to health, and that the UN recommend that the personal use of drugs should be decriminalised or depenalised:

United Nations General Assembly 6th August, 2010: 65th session item 69 (b) of the provisional agenda: Promotion and protection of Human Rights:

“The right of everyone attainable standard of physical and mental health.”

“General Assembly and the above session concluded that "Certain countries incarcerate people who use drugs, impose compulsory treatment upon them, or both. The current international drug control regime also limits access to essential medicines, which violates the enjoyment to the right to health."

“The Special Rapporteur also recommend that "human rights be integrated into the international response to drug control, through use of guidelines and indicators relating to drug use and possession, and that the creation of an alternative drug regulatory framework should be considered. Member states should ensure that harm reduction measures and drug dependence treatment services are available to those who use drugs, especially focused on incarcerated populations. They also should reform domestic laws to decriminalize or depenalize the use or possession of drugs, and increase access to controlled essential medicines." (13)

To criminalise and punish a person for using essential medicines for their health, to which they have a human right, and/or to treat conditions (considering every human has an endo-cannabinoid system and that this system is indisputably connected to maintaining overall health and wellbeing (homeostasis) and preventing and treating many diseases, cannabis cannot be considered anything else than essential medicine), especially when cannabis is legally available as a medical prescription but for many unattainable due to financial restraints is clearly a breach of human rights, especially when there is no conclusive evidence of harms to themselves or others.

Field Impairment Tests are essential evidence to detect driving impairment:

Considering the blood tests are unable to identify impairment and the fact that THC can remain in the system for some time, evidence must be sought to assess whether the driver is in fact driving whilst impaired by cannabis use. The FIT assessment can be used as reliable evidence, especially now that officers are equipped with bodycams and so can record the assessment on site to be used as evidence in court.

Potential of FIT to detect impairment due to specific drugs:

Research has also considered whether the FIT (or more typically the US version – the SFST) is effective at detecting impairment due to specific drugs. This research suggests that FIT is not a sensitive

measure for detecting amphetamine, at least in low doses. However, positive results were found for cannabis (alone and in combination with alcohol) and also for ketamine. These findings highlight an important benefit of FIT that should not be overlooked.

Prior to the implementation of Section 5 (A), a medical practitioner was required to affirm the FIT assessment and this often caused time delays and frustration to officers.

In an interview that appeared in Policing Review in August 2009, ACPO Lead for Roads Policing, Chief Constable Giannasi, commented:

*''**...there will always be a need to prove impairment**. While the scientists seek a technological solution, we are in discussions with government to seek changes in legislation to make the existing process more effective. So we are asking for the law to be changed to remove the medical practitioner from the evidential chain because that builds in delay.''*

Police Federation Roads Policing Review, Volume 4, August 2009, p.3

Case Studies:

During 2021, Seed our Future Ltd have supported 4 people with their legal cases in relation to Section 5 (A) of the RTA (cannabis only). All 4 subjects suffer from long term debilitating conditions and have tried 2 or more prescription medications which have either not worked or had unacceptable side effects. In all cases, cannabis has been the only effective treatment and all subjects fit the criteria for obtaining medical cannabis prescriptions (one subject had a cannabis prescription at the time of arrest, two obtained cannabis prescriptions shortly after arrest and the other could not afford a prescription even following the reduction in costs, however he was assessed and found to be eligible for a prescription).

In all cases, the subjects had taken cannabis several hours before driving, there was insufficient reason for the police to stop the subjects (breaching PACE code A), the police claimed they could smell cannabis coming from the vehicle (in all cases this was virtually impossible) and in all cases there was no evidence or claim from the arresting officer of any sign of driving impairment (in fact all subjects had reasonably clean driving licences). In 75% of the cases, the police had no idea that the law changed for medical cannabis in 2018 and that legal cannabis prescriptions existed.

Subject A:

Self-employed with a young family. Suffered severe pain due to Sinding-Larsen-Johansson (SLJ) Syndrome since teen years. Self-medicated with cannabis for several years. Also used CBD oil for anxiety disorder.

Blood analysis: 7.5µg THC/Litre

Representation: Litigant in person (unable to afford legal representation)

Plea hearing: Not guilty on grounds of medical necessity and breach of human rights.

Court Trial: Initial date for trial with expert witnesses was cancelled last minute by the court. Date changed to one week later (unreasonable time to re-arrange witnesses). Subject A was coerced by the court to plead guilty under threat of larger fines and extended driving ban.

Outcome: Defendant pleads guilty under duress and anxiety panic attack. 12 month ban and £120 fine.

Additional notes: Van driving crucial to self-employment leading to unemployment.

Subject B:

Lifelong disabilities including Diastrophic Dysplasia, fused ankles, bilateral hip replacement and depression. Wheelchair user. Self-medicated with cannabis for 12 years. Obtains medical cannabis prescription weeks after arrest.

Blood analysis: 7.2µg THC/Litre

Representation: Duty solicitor via legal aid.

Plea hearing: Not guilty on grounds of medical necessity and special reasonings.

Outcome: 3 penalty points and £80

Additional notes: Due to obtaining a medical prescription and with regard to the obvious impacts a driving ban would have on the defendant's life, the judge was lenient. As this is a 'strict liability offence,' the minimum sentence is a fine and 12 month ban. The fact that this was overridden and the minimum penalty points were endorsed instead shows a potential change in attitude.

Subject C:

Suffers from Hypermobility Spectrum Disorder, Fibromyalgia, Irritable Bowel Disease and Asthma. In receipt of a medical cannabis prescription since 2019.

Details of arrest: Pulled over by police van due to smell of cannabis (impossible to detect), defendant provides medical prescription and details of disabilities. Arresting officer ignores evidence and claims "there's no such thing as legal cannabis in the UK" Following a body/vehicle search, unlawful arrest, false imprisonment alongside DNA, finger prints etc.. Continual refusal to carry out due diligence into changes of legislation. Possible discrimination due to hair (dreadlocks).

Blood analysis: 17.5µg THC/Litre

Representation: Litigant in person (unable to afford legal representation and not eligible for legal aid).

Plea Hearing: Not guilty on grounds of meeting medical defence criteria.

Outcome: Not guilty

Additional notes: Availability of possible civil action to be taken against police force/arresting officers for gross misconduct, aggravated damages, unlawful arrest and false imprisonment.

Subject D:

Long time sufferer from fibromyalgia, pain from arthritis, irritable bowel disease and other mental health issues. Self-medicated with cannabis for several years. Unable to afford private prescription

at time of arrest (approx. £1000 p month). Obtains prescription when cost reduces by 70% to £300 p month.

Blood analysis: >20µg THC/Litre

Representation: Litigant in person

Plea Hearing: Not guilty on grounds of medical necessity and breach of human rights.

Court trial: Judge sympathises and suggests progression to crown court of appeal to challenge the law and human rights. Judge reluctantly sentenced the defendant with the minimum under a strict liability offence, a 12 month ban and £420 fine.

Additional notes: Awaiting progression to Appeal with possible intent to progress to higher court to seek a precedent in law.

Conclusion:

Cannabis is unquestionably a psychoactive substance and the side effects which could impair driving ability are dependent on a range of factors. Regular users develop a tolerance, other cannabinoids, especially CBD counteract the psychoactive effects of THC, the side effects dissipate over time and have generally gone after 2 – 4 hours when smoked, longer when orally ingested.

International research trials and surveys conducted over the past century into the effects of cannabis on driving remain inconclusive. It is interesting to note that out of all of the research we have conducted, we have not found one case of a serious vehicle accident which conclusively shows just cannabis as being the primary factor/cause. There is therefore no foundation evidence available to warrant the inclusion of cannabis within Section 5 (A) of the Act.

An estimated 10% of the UK population consume cannabis (arguably all use is medicinal and essential to health) and as swab test kits are increasingly used by police officers, there is a concern that most of those convicted were in fact sober when driving and this creates unnecessary harms to individuals, families, society and the economy.

We know of no evidence to support the justification for the 2µg/L level for THC and believe the inclusion of cannabis within Section 5 (A) of the RTA was based entirely on political and financial motivations, not conclusive road safety data. Forensic blood tests identifying levels of THC are inadmissible as evidence to show driving impairment or a road safety concern. **We therefore call for the removal of cannabis (THC) from Section 5 (A) and instead revert to Section 4 of the RTA.**

In the pursuit of justice, road safety, a fair and impartial trial and to ease the burden on police officers, we suggest that a roll out of FIT training across all police forces is implemented and that FIT should be used prior to swabs or arrest, that body cams should be utilised during FIT assessment to provide sufficient evidence for a Section 4 conviction and in the event that the FIT assessment is challenged in court, only then should a medical practitioner be used as a witness to assess the video footage, thus streamlining the evidential process.

The concept that a laws exists which leads to a criminal record, fines and a driving disqualification without any evidence of the defendant being a risk to road safety (impaired whilst driving), whom with all likelihood is practicing their inalienable human right to health by utilising globally recognised essential medicine risks jeopardising the fabric and integrity of the judicial system and exposes the

incompetence of the police force in being able to gather evidence sufficient to constitute criminal intent (*Mens Rea)*.

References:

1. **Seed our Future Report: Cannabis and the Law – No Evidence, No Crime? (2020):** https://www.seedourfuture.co.uk/wp-content/uploads/sites/11/2020/10/Cannabis-and-the-Law-No-Evidence-No-Crime-MASTER-v1.3.pdf
2. ***'Evaluation of the new drug driving legislation, one year after its introduction - A report for Department for Transport'* (April 2017):** **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/609852/drug-driving-evaluation-report.pdf**
3. **CPS Road Traffic - Drink and Drug Driving (2019): https://www.cps.gov.uk/legal-guidance/road-traffic-drink-and-drug-driving**
4. ***Drug driving: guidance for healthcare professionals (2014) - Access: https://www.gov.uk/government/publications/drug-driving-and-medicine-advice-for-healthcare-professionals/drug-driving-guidance-for-healthcare-professionals?fbclid=IwAR0HQE5L3cB7gMZJL-wZkEtBtKgwmPgtWo2LvrGex8-Zi67wp5uJN8QXFB0#fnref:3***
5. ***Medical Cannabis Clinicians Society – All Party Parliamentary Group for Medical Cannabis Under Prescription (2019): https://www.ukmccs.org/wp-content/uploads/2019/10/MCCS_BROCHURE_ONLINE_AW.pdf***
6. **United Nations Office on Drugs and Crime: Cross Cutting Issues: Evolving Trends and New Challenges (2020): https://wdr.unodc.org/wdr2020/field/WDR20_BOOKLET_4.pdf**
7. ***Marijuana-Impaired Driving A Report to Congress – NHTSA (2017): https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812440-marijuana-impaired-driving-report-to-congress.pdf***
8. **Runciman Report 2000, Chapter 7 'Cannabis': http://www.druglibrary.org/schaffer/Library/studies/runciman/pf7.htm**
9. **Cannabis: Classification and Public Health: ACMD Report (2008): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/119174/acmd-cannabis-report-2008.pdf**
10. **House of Commons, 2006. *Drug Classification: Making A Hash Of It?*. London: Science and Technology Committee: https://publications.parliament.uk/pa/cm200506/cmselect/cmsctech/1031/1031.pdf**
11. **Seed our Future and We the Undersigned Report: *Counter Evidence Report for the Claims used by the UK Government to Justify the Continued Inclusion of Cannabis Within MoDA 1971 and MDR 2001* (March 2021)**
12. **UNODC - From coercion to cohesion: Treating drug dependence through health care, not punishment: DISCUSSION PAPER (2009) – Accessed: https://www.unodc.org/docs/treatment/Coercion_Ebook.pdf**
13. **United Nations General Assembly: Sixty-fifth session Item 69 (b) of the provisional agenda* Promotion and protection of human rights: human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms (6th August 2010) – Accessed: https://www2.ohchr.org/english/issues/terrorism/rapporteur/docs/A.65.258_en_UNcompliance.pdf**
14. **FOI request in regards to numbers of driving convictions/endorsements in relation to drug driving: https://www.whatdotheyknow.com/request/716941/response/1719101/attach/4/FOIR8842%20Paul%20Bennett.pdf?cookie_passthrough=1**

15. **Cannabis and Driving: Frontiers in Psychiatry (24th September 2021) – Accessed: https://www.frontiersin.org/articles/10.3389/fpsyt.2021.689444/full**