Editorial

# "Groundhog decade not brave new world"

David J Nutt

I was removed from my position as Chief Advisor of the Advisory Council on the Misuse of Drugs (ACMD) in October 2009. A decade later, UK drug policy has done nothing but go backwards. We are currently in a worse position now than we were 10 years ago. However, there is a path to a *brave new world*. Back in 2009, I was making it clear to the UK Government that the evidence that we had back then was that cannabis was less harmful than both alcohol or tobacco. The hysteria at that time, (which has continued to persist until present day) relating to mephedrone and other *new psychoactive substances* was fabricated by governments to create a smokescreen that masked their omissions to react to ongoing failures within our national drug policy. As a member of the ACMD in 2009, I was unwilling to continue to perpetuate the same ideological approach to the government of the time and consequently, I was sacked.

Psychiatrists tell their patients that the best way to deal with stress is through active resistance. So, this is what I did, by creating the charity Drug Science. Drug Science has gone from strength to strength since then, including formulating Multi-Criteria Decision Analyses (MCDAs), producing policy documents which forced the World Health Organisation to review their decision on whether cannabis was a medicine and changed sentencing guidelines for methamphetamine supply in New Zealand. We have also been arming people with information about drugs by producing educational resources, blogs, podcasts and even produced our very own journal.

MCDA

In 2008, Larry Phillips from the London School of Economics (LSE) approached me whilst I was working at the ACMD to let me know that he appreciated what I was doing in terms of relative drug harm assessment but told me that I could be doing it better by using this new technique of MCDA[multi criteria decision analysis]. Working collaboratively, we created the most detailed, transparent and objective measure of drug harms that has ever existed. We convened a group of 30 experts to look at all the harms that drugs produce. This group returned with 1000s of harms that could be condensed into 16 different variables, 9 of which harmed the user, the remaining 7 harmed society. We ranked 20 drugs (legal and illegal) against these 16 variables and weighted them accordingly. The results of this MCDA is displayed in this graph:
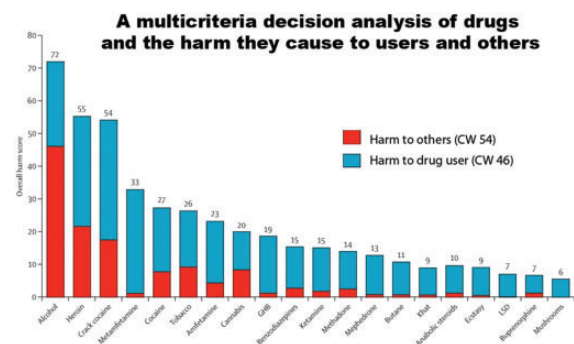
Somewhat to my surprise alcohol was shown to be the most harmful drug to the UK at the time of this analysis, predominantly due to its harms to society [the red bar]. Although heroin, crack cocaine and methamphetamine all harm the user more than alcohol, however, by assessing both the harms to society and the user, we can see that the collective harm of alcohol is far worse than any other substance. What this graph demonstrates is that, if we, as a society, want to reduce the overall harms of drugs we must prioritise the harms of alcohol, heroin and crack cocaine. Furthermore, this graph demonstrates that the legal status of a substance is not based on its relative harms thus calling into

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question the scientific basis of both the UK MDAct1971 and the UN Conventions on Drugs.

Why should anyone trust the results of our MCDA? Firstly, it is very difficult for any, one, individual to influence the outcome of an MCDA. More importantly, using a grant from the European Commission, we replicated the study using 30 European experts from 20 different countries and once again alcohol was still the most harmful drug. The correlation between the European results and the UK results was about 0.95, which is remarkable for any replicative research. If that was not adequate in persuading you that the MCDA is accurate, we have recently reproduced this study using Australian experts and once again...alcohol was still the most harmful drug!

We have also used this model to decipher the harms of nicotine-containing products. In doing so, we concluded that nicotine-containing products, such as vaporisers, have a harm rating that is 95% lower than traditional cigarettes. This finding was applauded by Public Health England, a body that is well known around the world for sensible decision making, as a harm reduction measure.

Norway has an opioid epidemic on their hands. They have an astonishingly high rate of opiate-related deaths. They are a country whose people can afford high quality heroin but their drugs laws are very *puritanical with an emphasis on prohibition* rather than on harm reduction. Drug Science recently received a grant from the Norwegian Research Council to carry out an MCDA evaluating the effectiveness of different drug policy approaches. Our analysis determined that there were 27 variables that had to be taken into account which made the research challenging, but we managed to do this a few drugs. What we discovered is that for both alcohol and cannabis a state-controlled model was routinely superior to absolute prohibition, decriminalisation or a free market. A legal but strictly regulated market is judged to yield the best reduction in harm and highest benefit to society.

Evidence-based drug laws

The fact of the matter is that there is no relationship between the harms of drugs and their classifications under the Misuse of Drugs Act 1971, or the various United Nations conventions on drugs. What this tells us, is that these laws and conventions are not-evidence based, they are based on morality and politics and are therefore failing at their legal duties. Firstly, a few facts from the UK

- Alcohol is now the leading cause of death in men under the age of 50 and is soon to be the leading cause of death amongst women under 50.

- Opiate and cocaine deaths have reached an all-time high and continue to climb year on year.
- Hundreds have died by inadvertently taking substances such as PMA that they believed to be MDMA. A problem that would not exist without the prohibition of MDMA.
- The rise of synthetic cannabinoids and their associated deaths have plagued prison populations and the most vulnerable of our society.

These are all results of failing UK drug policy, and to say otherwise is a wilful denial of the available evidence.
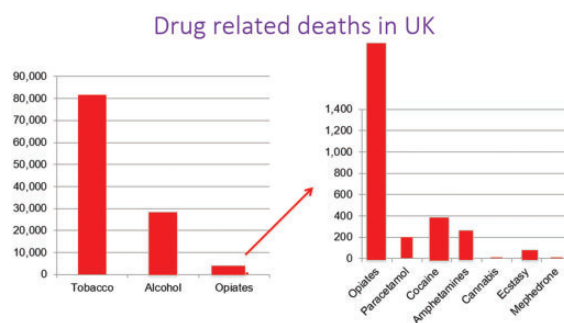

To put one of the most extreme drug-related harms into perspective, annually in the UK, 80,000 people die of a tobacco-related death, 28,000 die of alcohol-related death and opiates kill about 2,000 people. On an international level, this does not paint the UK in a particularly good light. Scotland was recently crowned as the '*drug-related death*' capital of Europe for its exceedingly high number of drug-related fatalities. England and Wales are not trailing far behind. As a reaction to these exceedingly high levels of fatalities, Scotland introduced minimum unit pricing for the sale of alcohol reducing the use of alcohol in Scotland by 10%. Meanwhile, England and Wales did nothing and continue to allow the advertisement of alcohol. The mainstay of UK alcohol policy is to tell people to '*drink responsibly*'...which is far less effective, for obvious reasons. The lobbying power of the UK alcohol industry should not be underestimated.

Prohibition and Portugal

The problem with the Misuse of Drugs Act 1971 is that it focuses on prohibition, yet we have known for over a century prohibition only exacerbates the harms that drugs cause. When we banned the Chinese from smoking opium in London they turned to heroin, ethanol prohibition in the US was an unmitigated disaster and was revoked after 11 years of failure and the increased

drug testing of prisoners has led to them using synthetic cannabis instead of regular cannabis so that it does not show up on a urine sample.

Deaths from opiates have continued to rise in the UK for over 30 years. A country that was experiencing similar growth in opiate-related deaths was Portugal. In 2001, Portugal chose to decriminalise all drugs (largely due to the lack of prison capacity for people using drugs) and started treating drug users as sick rather than evil. In the past 15 years, the UK has seen a doubling of opiate-related deaths, meanwhile, Portugal has seen a 66% reduction of opiate-related deaths within the same period.
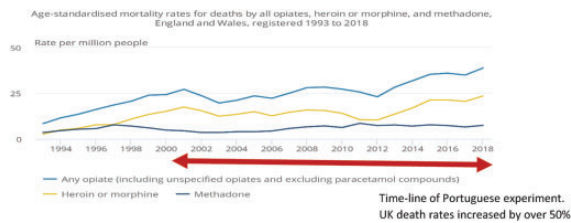

Before 1971 and the introduction of the Misuse of Drugs Act, the UK treatment of heroin addicts was known for the '*British System*'. We stood up against building international pressure to ban heroin prescriptions (to people who were dependent on heroin) and continued to allow our doctors to prescribe it, resulting in very few heroin-related deaths here in the UK. However, we disbanded this individualistic approach after the Misuse of Drugs Act was brought in in 1971 because of continued US pressure to comply with their absolute prohibitionist rather than our harm reduction approach.

More often than not, Government drug policies intended to make people safer, actually result in an adverse outcome. MDMA, commonly known as ecstasy is made from safrole which is made from sassafras oil. In 1998, the UN decided that the way to stop MDMA use was to block production by banning the precursor (Safrole). In 2008, the UN Seized almost half the world's supply of safrole. However, the problem was, was that chemists got innovative. Underground chemists started using aniseed oil instead of safrole. When aniseed oil is subjected to the same processes as safrole was, it doesn't make MDMA. Instead, it makes PMA or PMMA which are far more toxic and led to many unnecessary deaths in the UK – see fig

Furthermore, since then Chinese chemists worked out a way of making safrole synthetically and to a higher purity. This has led to MDMA becoming much cheaper to produce and so the emergence of much higher strength ecstasy pills, which we see on the market today.
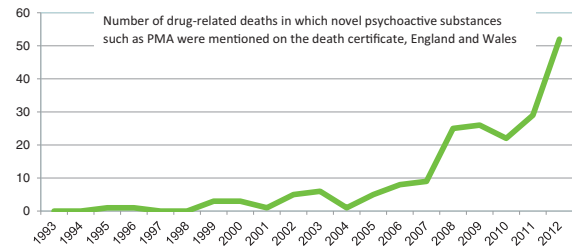

To examine this a little bit more closely we can compare the toxicity of certain substances using the graph below. Lesley King is a member of drug science and he helped produce this dataset. This graph uses a log 2 scale (log2 n). As we can see, heroin is the most toxic and PMA is more toxic than MDMA.
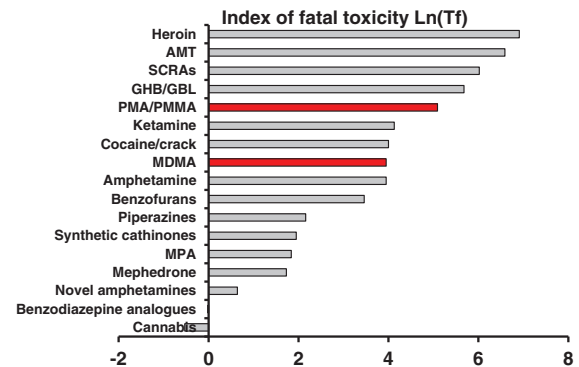
Mephedrone

What you will also see, is that mephedrone [aka M-cat, meow meow, drone] is about 4 times less toxic than MDMA. Mephedrone became widely available in the UK in the latter part of the last century and in 2010 I was contacted by CNN asking to comment on the deaths of two young men that had taken mephedrone. My initial thought was that this was highly unlikely, mephedrone was developed in Israel for insect control on plants and since its deviation into the recreational market over 400,000 Israelis had used mephedrone yet there had not been a single death. So, to have two deaths in one night seemed implausible. I later transpired that the two had also consumed methadone (an opiate) after drinking heavily. This concoction killed these two young men. They had consumed so much alcoholthat when they took the methadone, it stopped their breathing. From a journalist's perspective, this is far less appealing a story than, 'new scary drug named after a cat sound (meow meow) kills two young men'. As a result, there was a huge media clamour to get mephedrone banned despite a lack of

evidence of its harms. This media push came right before the 2010 election and with little to no evidence, the government made mephedrone and all cathinones (except Bupropion) class B drugs due to their chemical similarity to amphetamine. This stunted future research into cathinones and continues to do so to this day. Furthermore, underground chemists merely adapted the chemistry, synthesising 'monkey dust', a far more potent drug than mephedrone. Worst of all, the graph below demonstrates the profile of deaths from cocaine and amphetamine during the period in which mephedrone was legally available. You can see during this period cocaine and amphetamine deaths declined as people made the switch to mephedrone and as soon as it was prohibited, people switched back. Mephedrone saved several hundred people from dying, then once it gets banned (for political reasons) its use falls and people revert to more desirable and more harmful drugs such as cocaine and amfetamine leading to these drug deaths reaching record highs. The message from this remarkable natural experiment is that the availability of a less harmful drugs saves peoples' lives from the toxicity of more harmful drugs.
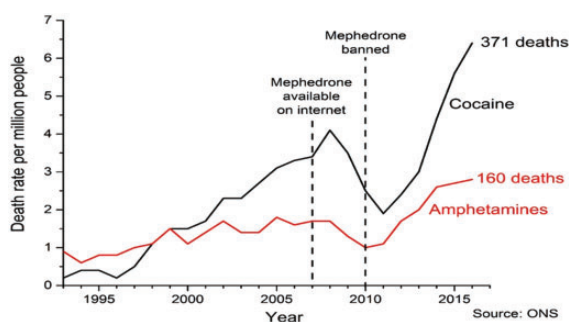

Synthetic Cannabinoids

Cannabis is illegal, it can result in a prison sentence for mere possession. However, the real *catch 22* with criminalising drug users is that prisoners are tested to see whether they have drugs in their system. Cannabis lingers in humans for months, therefore this drug was the most likely to be found on testing and a positive test would lead to losing their probation i.e. prison time extensions Prisoners wised up to this and started using synthetic cannabinoids as these weren't detected on drug tests. In some prisons in the UK, 90% of prisoners are routinely using synthetic cannabinoids, many of which had never been clinically tested on humans. Furthermore, synthetic cannabinoids are far more potent and easier to smuggle into prisons.

In 2018, there were 60 deaths from synthetic cannabinoids in prison. These drugs are significantly more dangerous than cannabis from which there has never been a death in prisons. If prisoners were allowed to smoke cannabis in the first place, it is highly unlikely that they would have transitioned to synthetic cannabinoids. In their attempt to ban synthetic cannabinoids the government implement stringent regulations on chemicals that then made tens of thousands of non-cannabinoid research compounds illegal threatening to destroy UK pharmaceutical research. To top it all off, a chemical included in this ban was tetrahydrocannabivarin (THCV) which is the only known naturally occurring antidote to synthetic cannabinoids and so might have been a useful treatment for synthetic cannabinoid toxicity.

Over the years the Government's policy has been to ban substances that individuals are using recreationally. There is a litany of drugs that have been banned despite having therapeutic potential and what makes things worse is that the current regulations make it almost impossible to research these substances to define their place within medicine. Schedule 1 of the Misuse of Drugs Regulations deems substances to be very dangerous and have no special medical value and the regulations controlling these makes research with Schedule 1 drugs is virtually impossible. The graph below shows the impact that the UN Psychotropics Convention (which put these drugs into Schedule 1) had on psychedelic research.
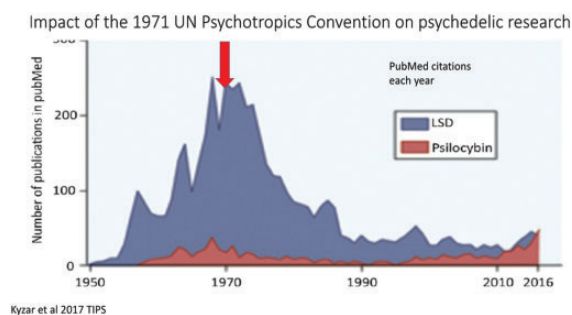
Although research of these substances is technically possible, research is debilitated two-fold as it is extremely laborious to navigate through the government regulations and furthermore, governments will not fund this type of research. A recent proposal from the National Institute for Health and Care Excellence (NICE) recommend that there is not enough evidence for the medicinal use of cannabis (until recently a schedule 1 drug), the reason for this lack of evidence is the restrictions placed on researching these substances in the first place!

Psychoactive Substances Act 2016

Truly the most ridiculous law ever enacted, was the Psychoactive Substances Act 2016, which banned any substance that is psychoactive (activates or depresses the brain) with just three exceptions (caffeine, nicotine and alcohol). The grounds for excluding these three substances were 'precedent' not that they were less harmful, merely used for a long time. If a drug was discovered today that made you smarter or happier with no adverse side effects it would automatically become illegal. All this act achieved was to push the sale of new psychoactive drugs away from headshops and into the black market. Headshops were generally concerned about the health of their customers as they (a legitimate business), could face real legal repercussions if one of their customers had an adverse reaction. This type of consumer care is not mirrored in the black market.

A reason for the legislation was mounting hysteria surrounding nitrous oxide [laughing gas]. In the 200 years since its discovery, there have been very few deaths related to nitrous oxide used by scientists, by Royals such as Prince Harry and millions of women during childbirth. This drug was regarded as relatively benign, until in the 2000s, more and more people started using nitrous oxide. The reason this popularity is that there was no hangover, the 'high' was immediate and the user could drive a car within minutes of the drug wearing off. Footballers in the UK began using nitrous oxide. They could go to a party, use this drug and then play football the next day with the knowledge that the drug wasn't going to affect their performance unlike alcohol. The Sun newspaper knew these facts, but they knew that there was no way that the public would support a ban on laughing gas so they changed its name to '*hippy crack*'. An extremely effective scare tactic by this tabloid with no scientific grounding. It was not used by typically '*hippy*' communities and it has no chemical similarities to crack cocaine.

Politics

We have seen the right-wing media, think tanks and politicians tout the same old "tough on drugs" rhetoric for years now. Appallingly, the most recent Drugs Minister Victoria Atkins was unable to engage in any conversations surrounding cannabis legislation because her husband made money selling it legally through GW pharmaceuticals.

There have been some outliers, the ACMD have made sensible suggestions but they have not been listened to, Ed Davey of the Liberal Democrats fought for a change in drug laws and Norman Baker the LibDem Drugs Minister in the 2010 Coalition government resigned as he could not engage in a sensible conversation surrounding drug use with the Home Office. More recently, Conservative MP Crispin Blunt successfully argued that poppers (alkyl nitrites) should be excluded from the Psychoactive Substance Act 2016, as they have harm reduction value.

In the face of this catalogue of disastrous policy making what should we do to rectify the current dire situation? Here are my recommendations for the next government:

- Move drug policy from Home Office to Dept of Health and Social Services as the Home Office's approach has been about banning and prosecuting rather than public health outcomes. This is not a new approach; many countries vest their drug policy within the hands of their healthcare departments.
- Testing – and not just at festivals. The *Dutch Model* is a national scheme whereby those that want to take drugs can get them tested beforehand so informing users and healthcare providers of the risks out there.
- Safe injection rooms and massive role out of naloxone to thwart the expansion of potent opioids especially the fentanyls.
- Regulated access to drugs less harmful to users than alcohol as per the Drug Science MCDA
- Rectify the scandal of medicinal cannabis. In over a year, the UK government only handed out 50 prescriptions for this drug, AND NONE ON THE NHS, which is nowhere near the amount of prescriptions needed to give patients the medicines that are most effective for them.

Alex Stevens Professor of Criminal Justice at the University of Kent

Last month, I resigned from the ACMD, almost 10 years after Professor Nutt's sacking. Alongside sacking those that disagree with their position, has other ways to avoid implementing 'evidence-based' policies. The Home Office can, for example, pretend to accept recommendations whilst not actually implementing them. For instance, in 2016 the ACMD released a report that was issued to reduce opiate related deaths, the main recommendation was to maintain investment in opioid substitution treatment of optimal dosage and duration. The government accepted this recommendation, however, almost four years later we find that funding for drug treatment services in England was cut by 27%.

Another way in which the Home Office can avoid ACMD recommendations is to assure the ACMD that it is already implementing what they have asked,

therefore no further action is needed on their part. Last year, I was working on a report on custody community transitions and the associated drug-related harms. Often, one of these harms will result in death because the period after release from custody is one of the most dangerous times in the life of an opioid user. The ACMD recommended that the dangers of this period are worsened when an opioid user is released on a Friday because they are unable to attend certain appointments such as their drug treatment services or the job centre. The Government in its response stated that there was no need to change the law as their policies were already in place to improve the quality of services that people get on Friday afternoons. Anyone working in drug treatment services can see that cuts have made this and the Governments response was dishonest.

A third way in which a government can avoid implementing evidence-based recommendations is to avoid having contrary recommendations in the first place by carefully selecting who is on the ACMD. The ACMD protocol highlights the need for it to operate as an independent body without interference from Government. The process of appointments should support this independence. Applicants to join the ACMD are reviewed by a panel. However, it recently came to public attention that the government has been vetting the social media accounts of recommended applicants and has deemed some applicants inappropriate. Not only did they scrutinise applicants' views on drug policy, but also their tweets on Brexit and Windrush. One of these applicants was Niamh Eastwood, Director of the charity 'Release' and a very well experienced and renowned lawyer in this field. When this came to light, I asked that the government be more transparent about their role in the appointments process. Ministers were not willing to be transparent about these matters and therefore I resigned from the ACMD.

Finally, if all three previous routes to avoid evidence-based policy have proven unsuccessful, the Government has one last trick up its sleeve. That is the '*moral sidestep*'. Theresa May provided some great examples of this manoeuvre, especially concerning Drug Consumption Rooms (DCRs). When challenged in Parliament to implement DCRs to improve public health, she did not disagree that DCR's saved lives. Instead, she argued that she is '*not a liberal*'. In an effort to seem '*tough on drugs*' using typical conservative morality, she was able to avoid implementing an evidence-based policy. I am very afraid that politicians will continue to back policies which make them look '*tough on law and order*' rather than relying on experts and evidence. It is a shame that 10 years after Professor Nutt's sacking we cannot say that there's been progress towards greater use of evidence in informing British drug policy.