

Learning from mistakes?

Or how to rectify drug policy-induced damage to the health of the homeless

The 5th Aidan Halligan Lecture

Homelessness and Health 5th International Symposium

London 2017

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Aidan Halligan 1957-2015



The premature death of Aidan Halligan at the age of 57 sees the loss of a giant in British medicine. A man of unequaled courage, integrity, colour and passion. A man who spoke truth to power and everyone else. He is, quite simply, irreplaceable.

Aidan was a surgeon who pioneered NHS training to improve patient care through learning from mistakes

- and who set up special healthcare services for the homeless**

Who am I ?

- **A psychiatrist with > 30 years experience**
- **A researcher for about 30 years**
 - Mostly into effects of drugs and the brain
 - > 500 papers and 28 books
- **A parent of 4 (post)teenage children**
- **An (ex) government drugs advisor**
 - Which how most people know of me!
 - Chair scientific committee of ACMD for 9 years
 - Chair Full Council 1 year then sacked

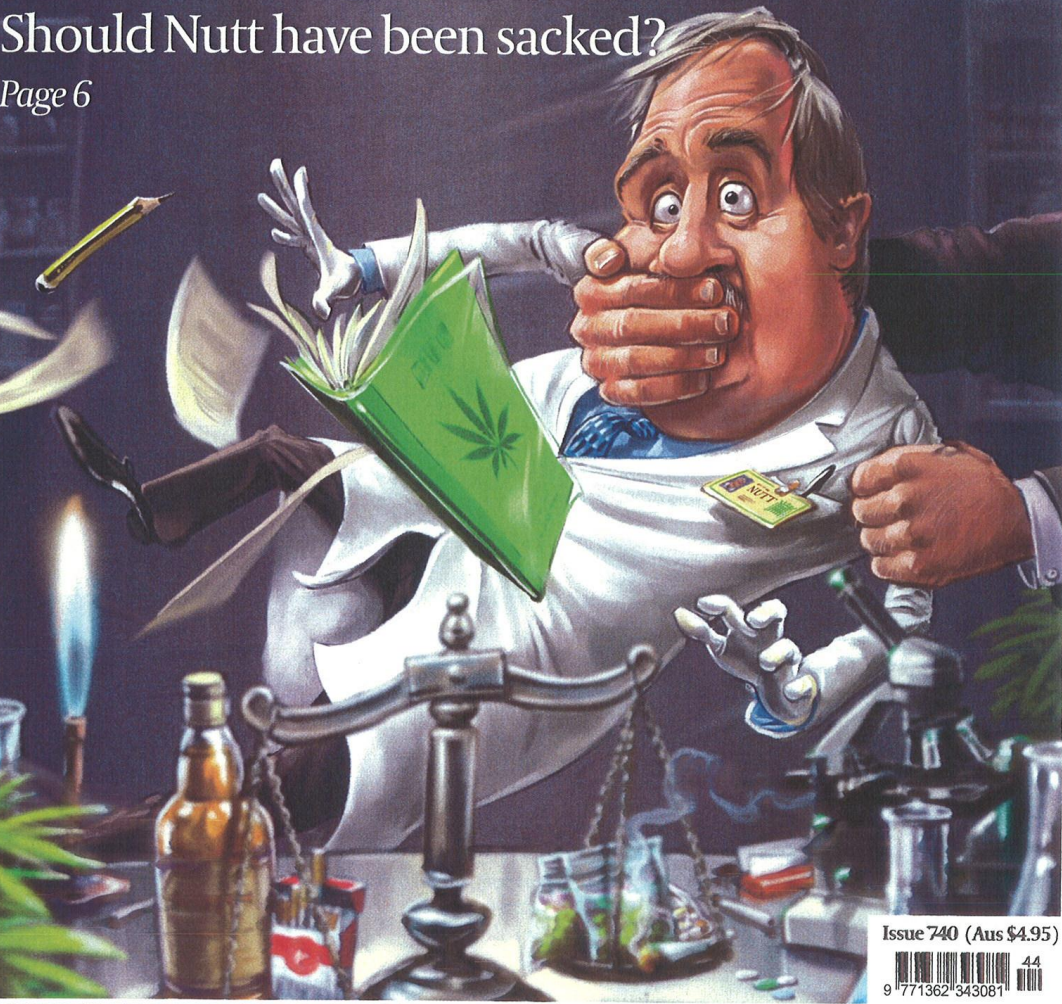
THE WEEK

NOVEMBER 2009 | £2.50 THE BEST OF THE BRITISH AND FOREIGN MEDIA

Silencing the scientists

Should Nutt have been sacked?

Page 6



Issue 740 (Aus \$4.95)



Can I learn?

Oct 30th 2009

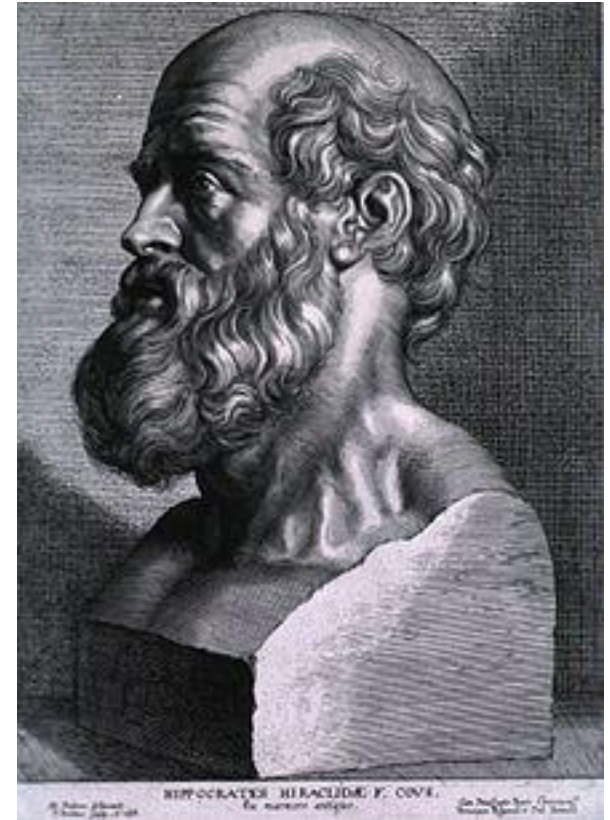
**Sacked for
telling the
truth about
drug harms**

Can policy makers ever learn?

***Primum non nocere* =
First do no harm**

Hippocrates 460-370 BC

**Key principle of medical
ethics**



Should not the same principle apply to the law?

5 ways current drugs policy damages the homeless

- 1. Is biased re drug control**
- 2. Puts punishment above harm reduction**
- 3. Denies evidence of better options**
- 4. Limits treatment**
- 5. Encourages use of more toxic compounds**

1. Drug policy is biased

What is a drug? And who says?

**No definition in the UN conventions
nor in the UK MDA Act 1971**

**So then it's left to politicians, newspapers
and the drinks industry...**

What is a drug? My definition

*“something a politician once used
but now regrets”*

Jaqui Smith (ex Home secretary)

*“I smoked cannabis but didn’t
enjoy”*

David Cameron

*“I did things when young that I
shouldn’t have – we all did”*

etc etc



Release

Newspaper scare stories

Internet Explorer browser window showing the Sun newspaper website.

Address bar: <http://www.thesun.co.uk/sol/homepage/news/>

Search bar: mephedrone ripped off scrotum

Sign in or Register to discuss and share stories

Manchester 11.6°C

THE Sun
Sunday, April 21, 2013

HOME NEWS SPORT SHOWBIZ ALL

Politics Sun City Sun Says Forces Sun Justice Captain Crunch

News GOT A STORY? EMAIL: TALKBACK@THE-SUN.CO.UK

Legal drug teen ripped his scrotum off



Windows taskbar shows open applications: MEASHAM F. - Outl..., FW: Research Fundi..., 'Meow meow' drug ..., Microsoft PowerPoi..., Pictures, Untitled - Paint. System clock: 15:11.

What the drinks industry says



Key questions re drug laws

- **Are they proportionate to relative harms? - Drugs and other activities**
- **Do the “benefits” of the laws i.e. presumed reduction of use/harms outweigh the downsides e.g. reduced research and treatment?**
- **Do they work? i.e. do they reduce drug use and harms?**

Drugs ranked according to total harm

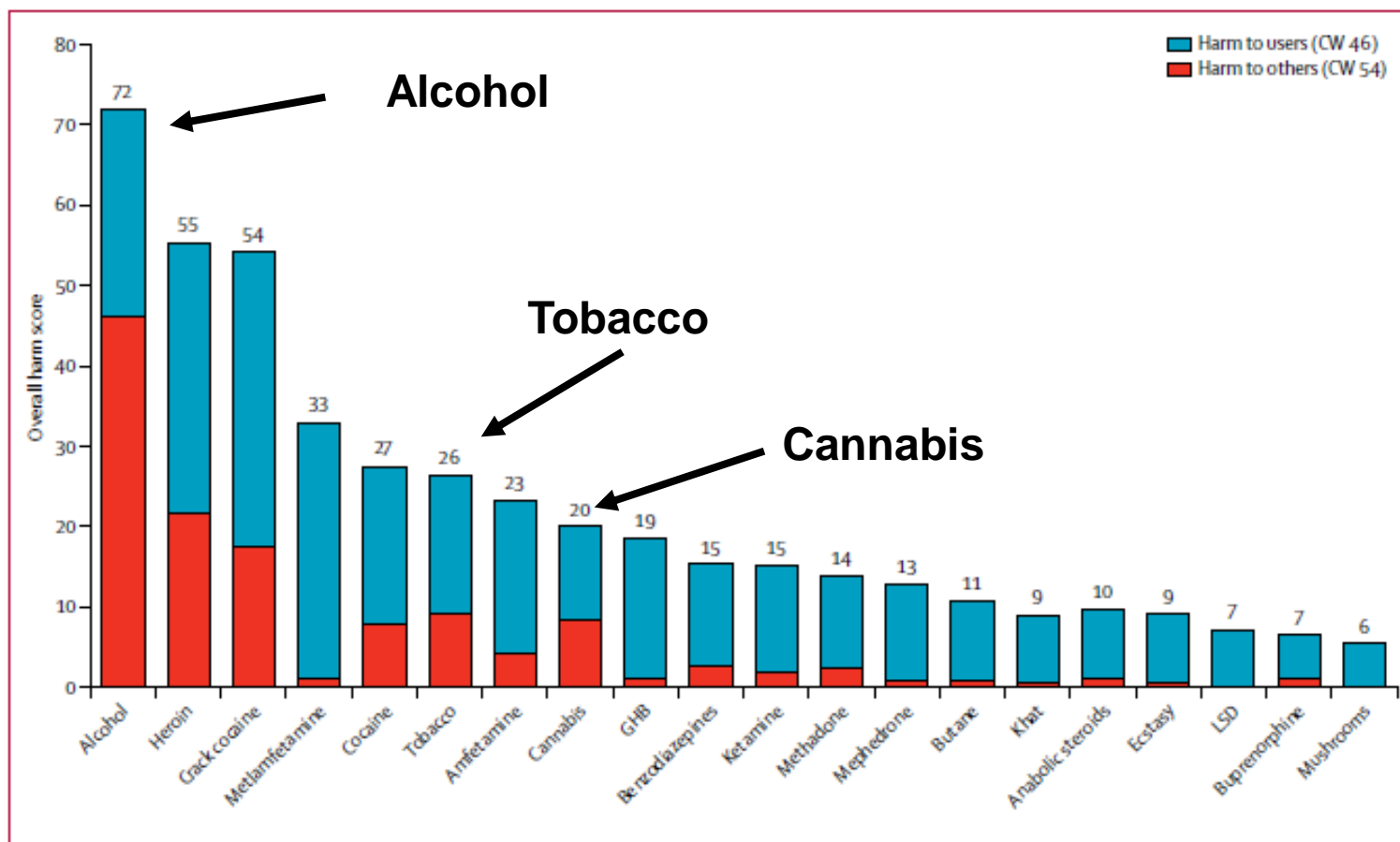
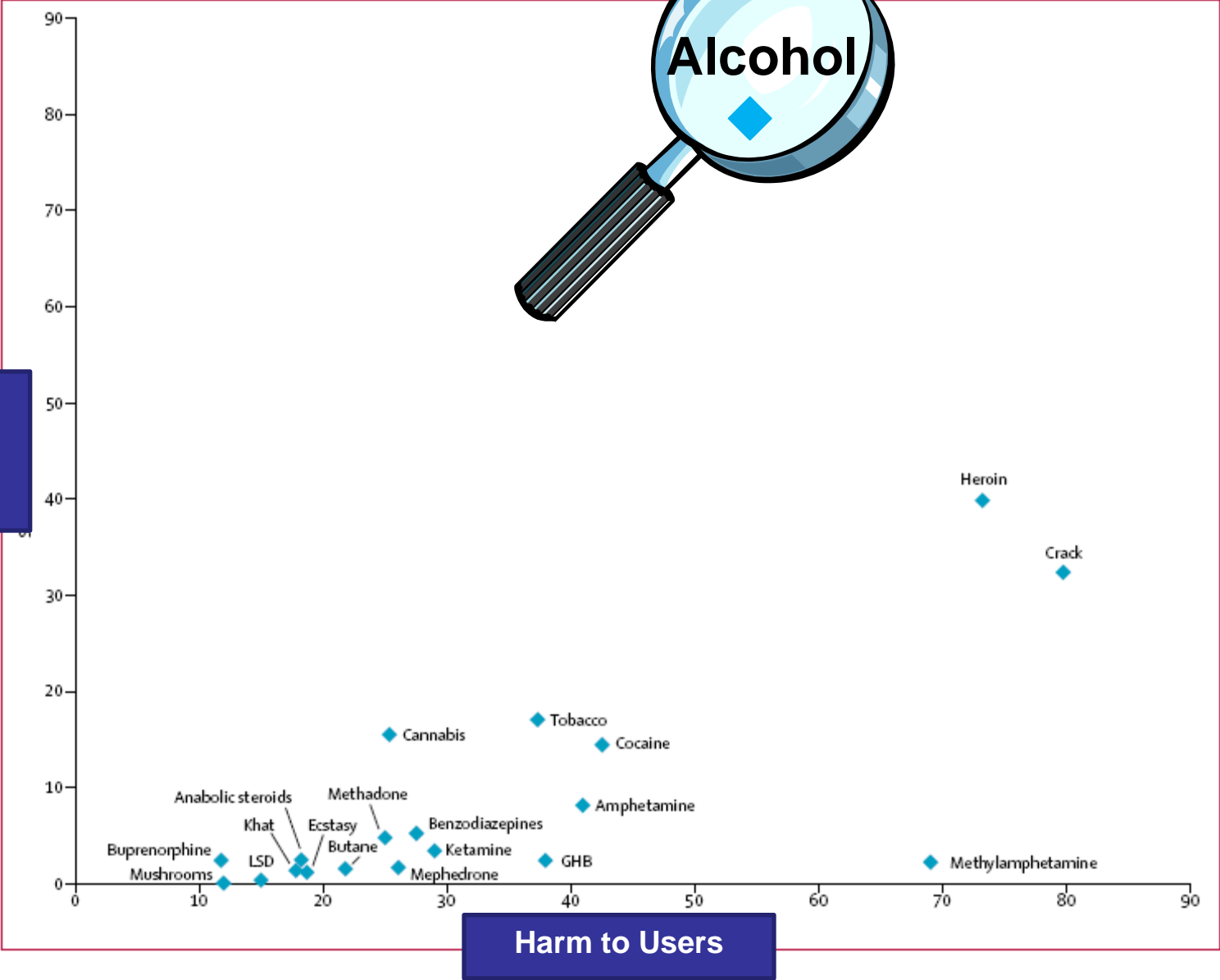
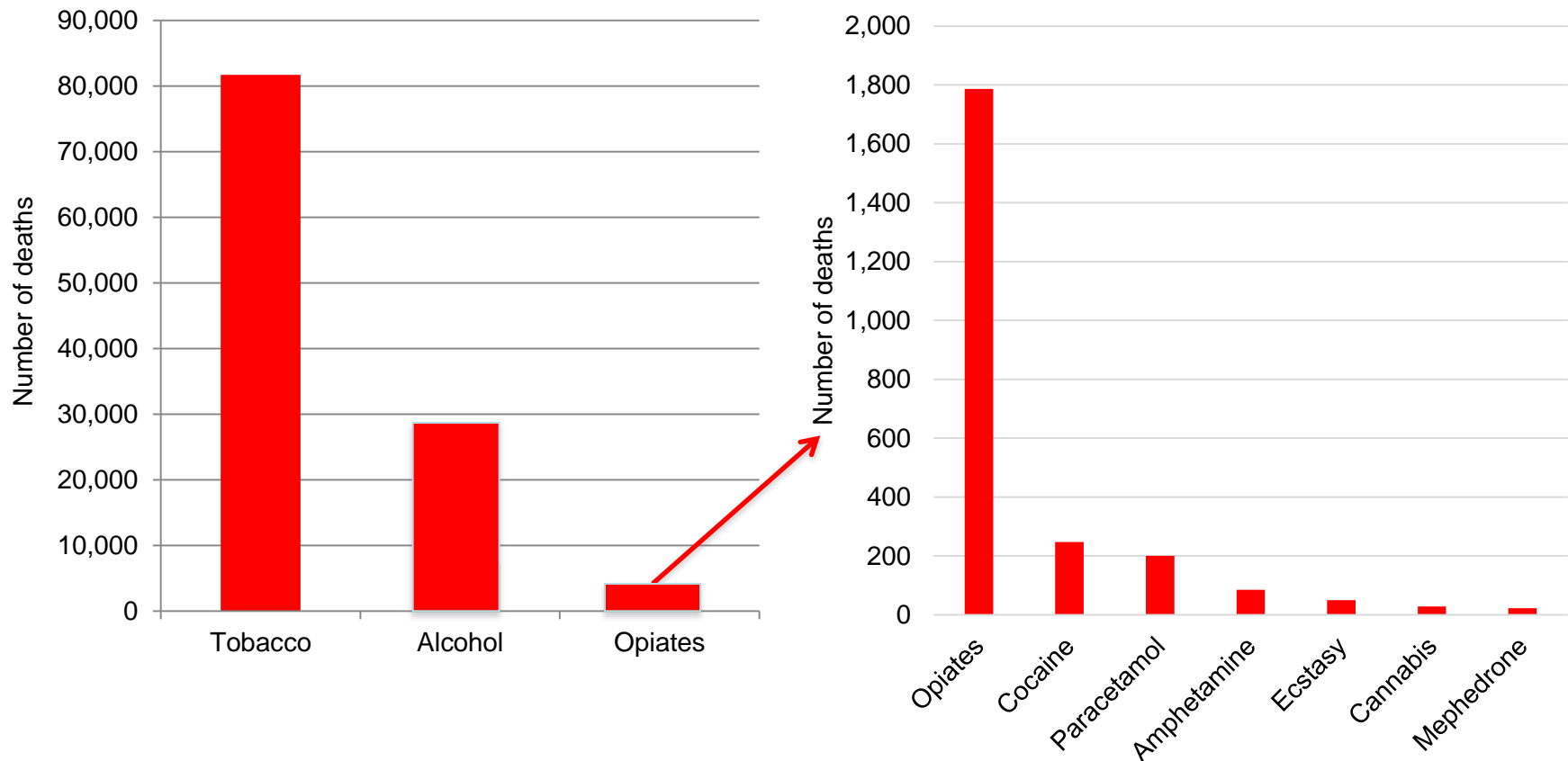


Figure 2: Drugs ordered by their overall harm scores, showing the separate contributions to the overall scores of harms to users and harm to others. The weights after normalisation (0-100) are shown in the key (cumulative in the sense of the sum of all the normalised weights for all the criteria to users, 46; and for all the criteria to others, 54). CW=cumulative weight. GHB= γ hydroxybutyric acid. LSD=lysergic acid diethylamide.

Harm
to
Others



Drug related deaths in UK

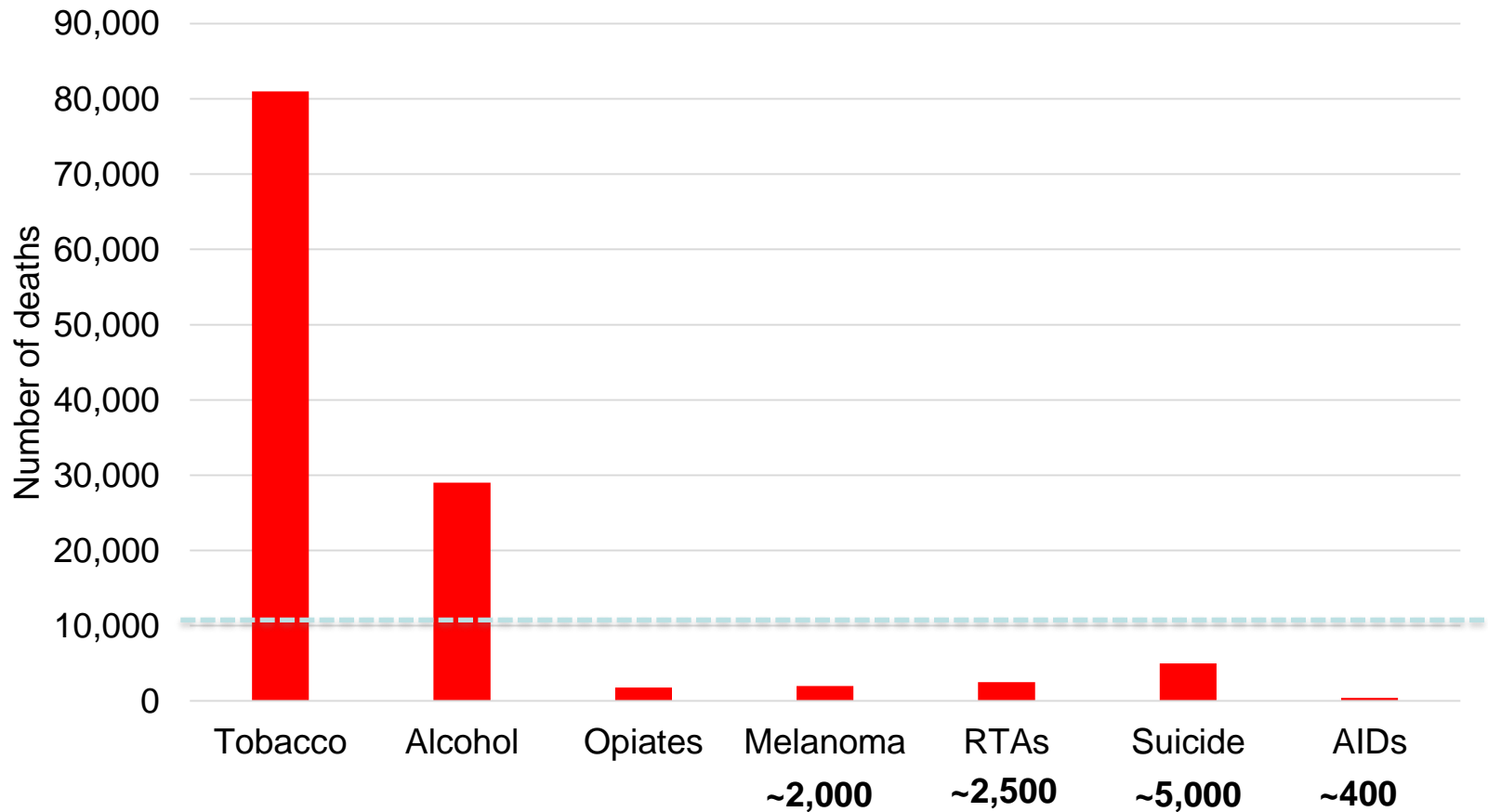


Personal communication based on public health sources from Professor D. Nutt, Psychiatrist and Edmund J. Safrá Professor of Neuropsychopharmacology, Imperial College London

ONS. 2015. Deaths related to drug poisoning in England and Wales: 2015 registrations. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2015registrations#paracetamol-related-deaths-remain-stable-in-2015>. Last accessed: February 2017.

Other preventable deaths



Personal communication based on public health sources from Professor D. Nutt, Psychiatrist and Edmund J. Safrin Professor of Neuropsychopharmacology, Imperial College London

Public health sources:

Smoking and drinking among adults (2009) Office for National Statistics

Drug Misuse Declared: Findings from the 2010/11 British Crime Survey England and Wales. Home Office and Alcohol Fractions report Estimates of the Prevalence of Opiate Use and/or Crack Cocaine Use, 2009/10

Suicide report: The Centre for Drug Misuse Research

UK – latest data

More than 20% of all male deaths 16-44 yrs due to alcohol

Male deaths from alcohol by age band

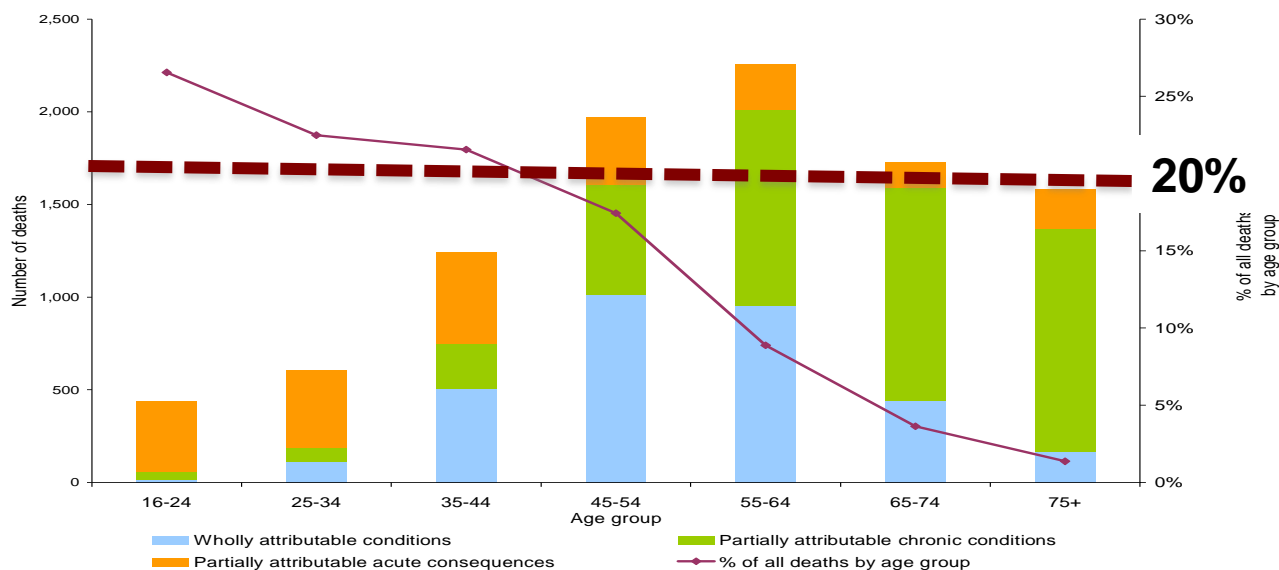


Figure 1. Number (% of all deaths in each age group) of male deaths attributable to alcohol consumption by age and type of condition (2005)

Alcohol the most common reason for death in men under 50

<http://www.nwph.net/nwpho/publications/alcoholattributablefractions.pdf>

Alcohol = a major social cost

**2014 > 1.2 million
cases of alcohol
related hospital
admissions**

**13000 under 18s =
illegal drinking**

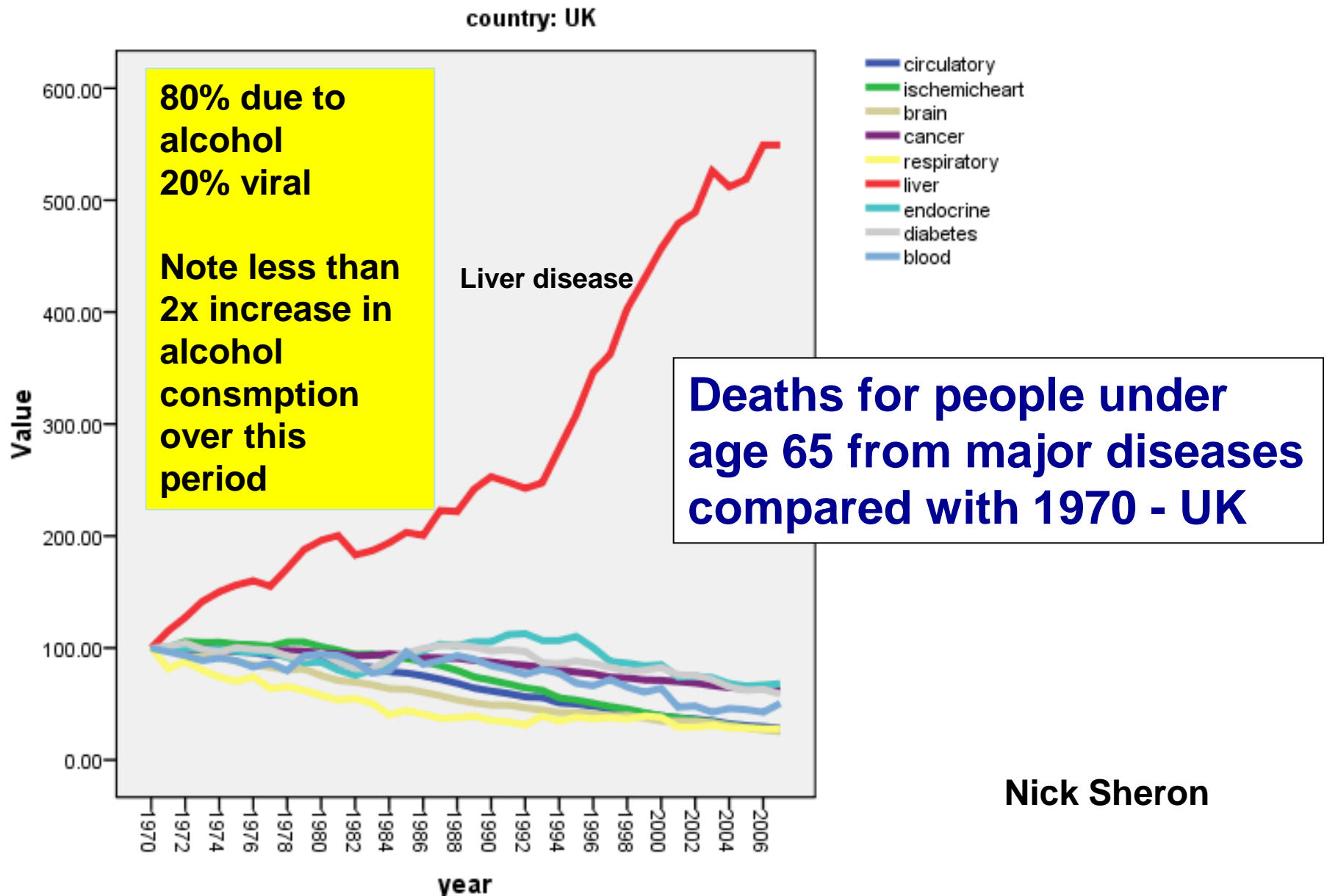
**MDMA – 2000
Cannabis - 700**

NHS Cost = £3.5 bill

**40% Scottish ITU
beds occupied by
alcohol-related
illnesses**



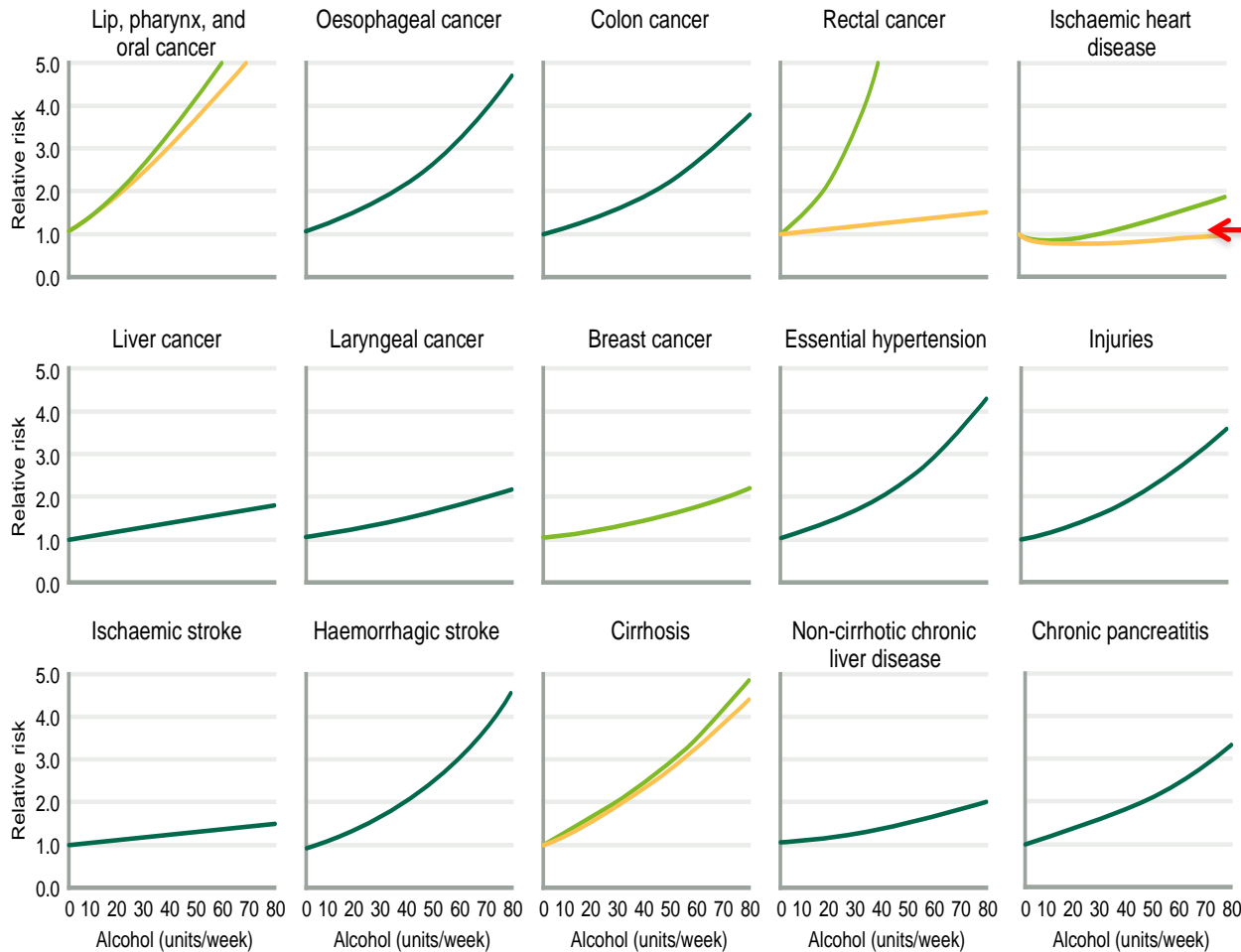
The inexorable rise of liver deaths



Nick Sheron

Wide impact of alcohol on human diseases

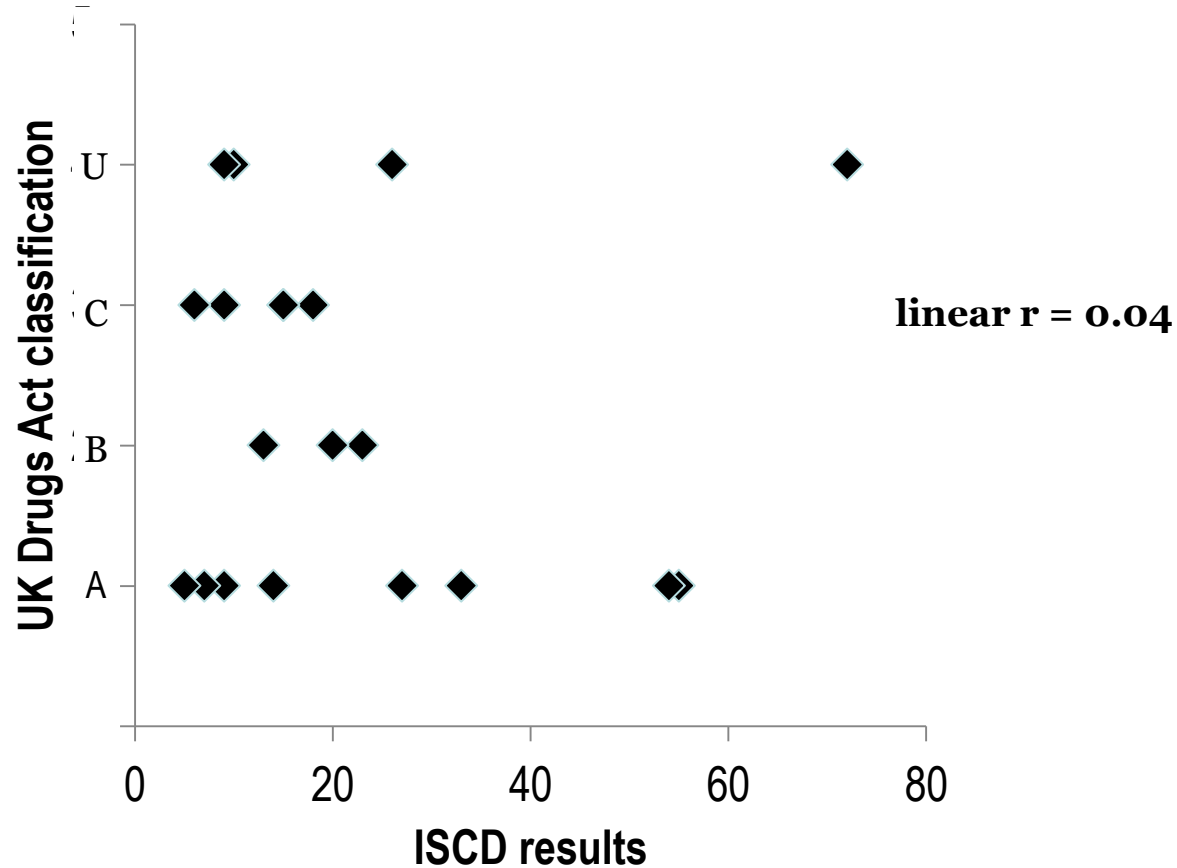
– cause-specific relative risk by alcohol consumption



Blair government refused to act on alcohol because of this minor beneficial effect!

White et al. BMJ 2002;325(7357):191

No correlation of UK Drugs Act or the UN Conventions with ISCD results



Main Implications

- 1. The UK MDA 1971 is fundamentally incorrect in many of its drug rankings
→ the law is unjust**
- 2. The UN Conventions are similarly wrong**
- 3. Alcohol should be the major target for harm reduction in the UK**

2. Drugs policy puts punishment above harm reduction

Punishment

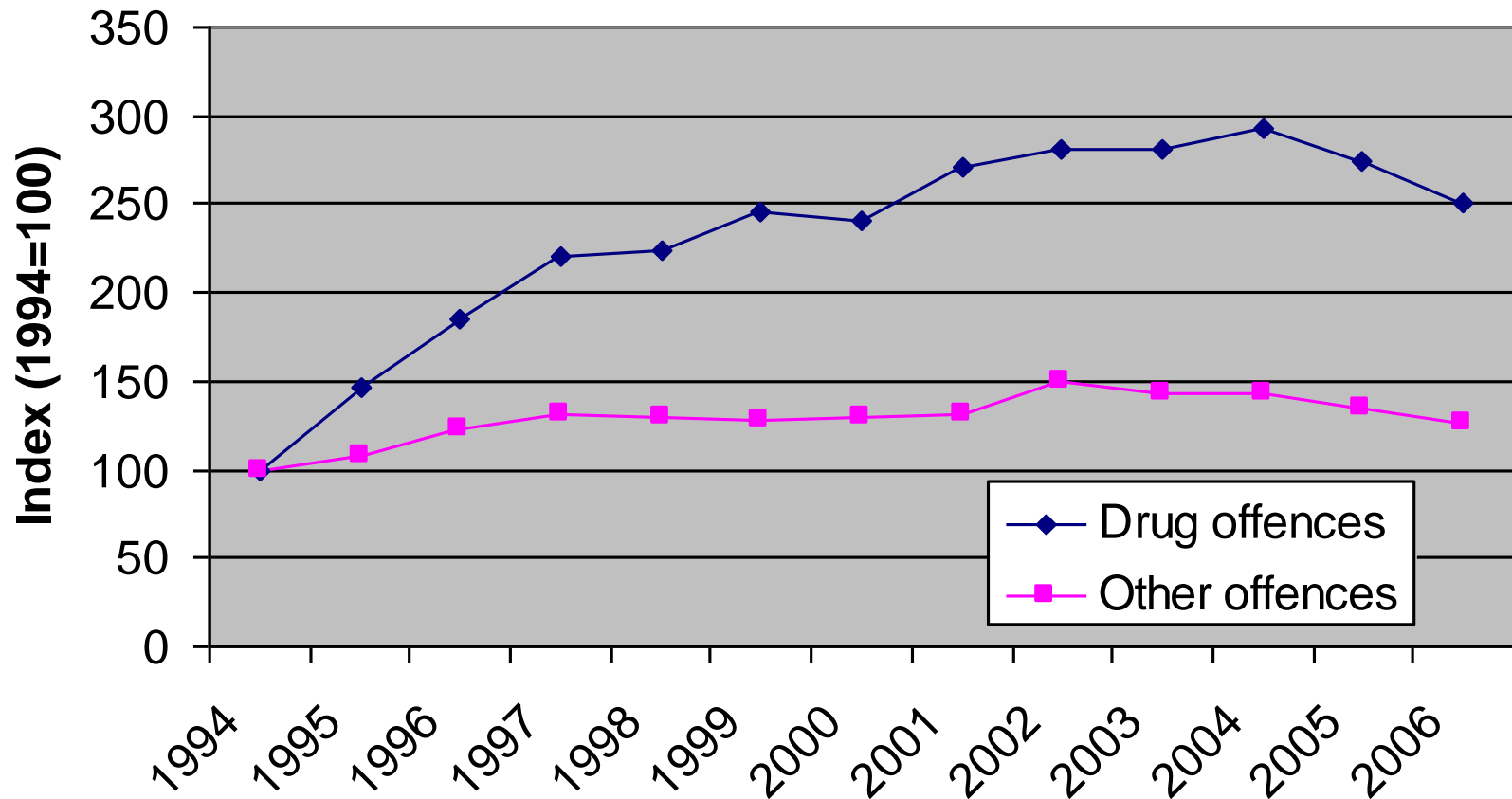
→ deprivation

→ homelessness

See cannabis later

Punitive measures fill our prisons

Trend in number of years of imprisonment handed out by courts, 1994-2006



3. Drug policy denies evidence of better options

E.g. Portugal 15 years of decriminalisation

Treat drug users humanely + therapy

→ 2/3 reduction heroin deaths

UK – constrict treatment availability

→ 2/3 increase in deaths

4. Drug policy limits treatment

- **90% of drug and alcohol addicts are not receiving treatment**
- **Treatments moved in social care**
- **1/2 all addiction psychiatrists have been made redundant in last decade**
- **emphasis on abstinence-based recovery**

Amy Winehouse's death from acute alcohol poisoning



**Blood alcohol 450mg/%
= 5.5 x legal driving
limit**

**Because of
loss of
tolerance in
abstinence**



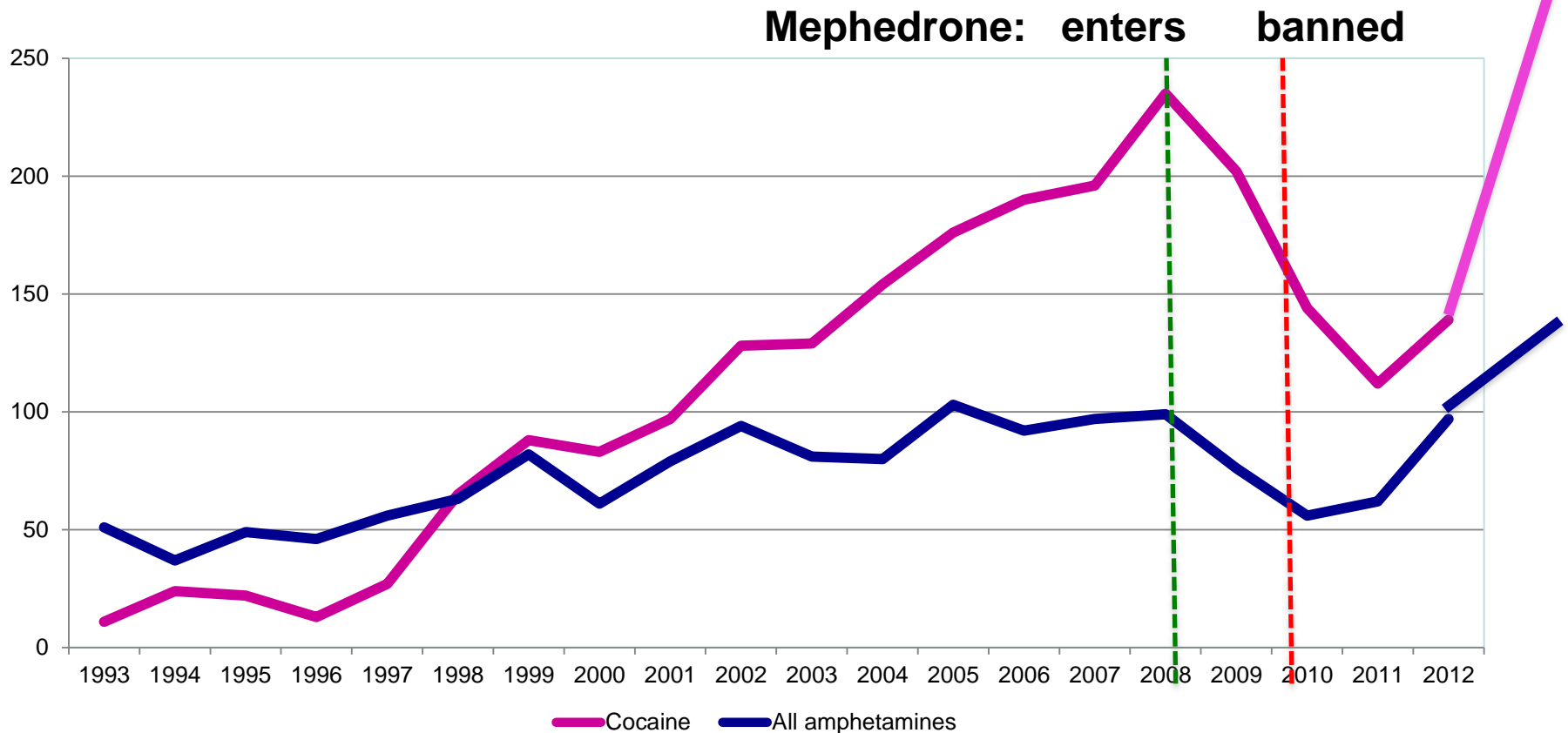
5. Drug policy encourages use of more toxic compounds

The “spice” epidemic . . More later

Cocaine instead of mephedrone

PMA/PMMA instead of MDMA (ecstasy)

The remarkable impact of mephedrone to reduce cocaine deaths



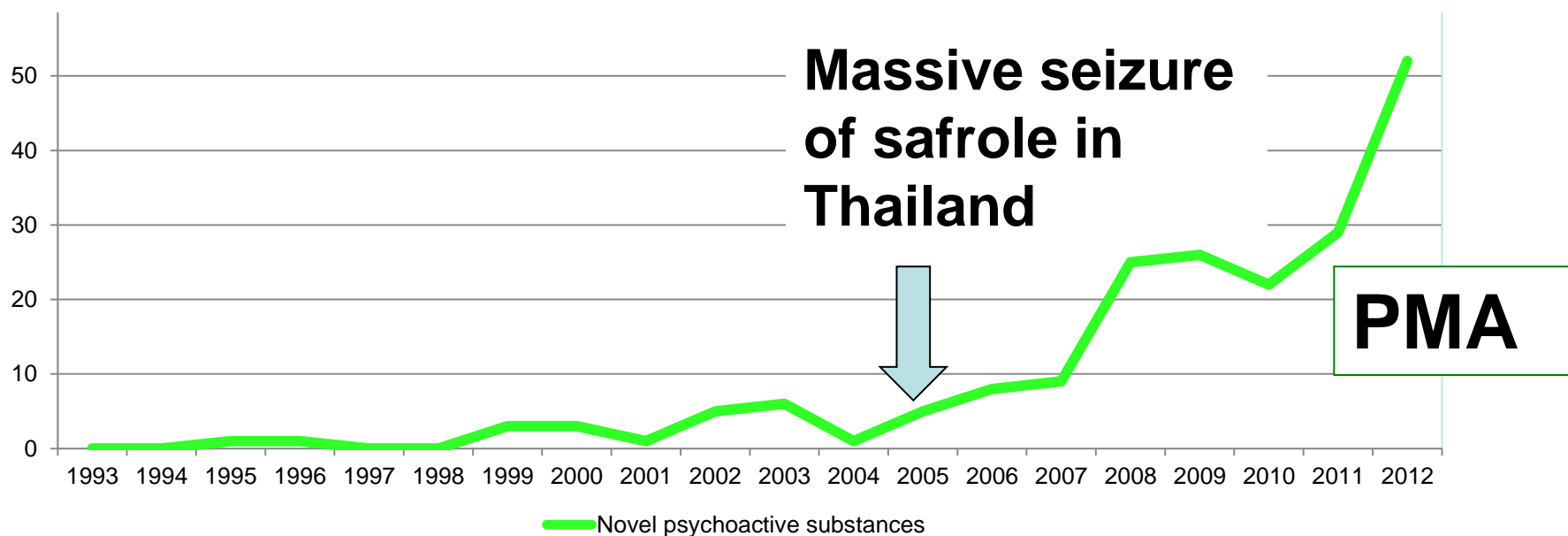
Number of drug-related deaths where selected substances were mentioned on the death certificate, England and Wales

John Corkery Hugh Claridge Barbara Loi Christine Goodair Fabrizio Schifano

National Programme on Substance Abuse Deaths (NPSAD) International Centre for Drug Policy (ICDP) St George's, University of London, UK

Drug-related deaths in the UK: January-December 2012 Annual Report 2013

Rise of PMA/PMMA deaths following MDMA clamp down



Number of drug-related deaths where selected substances were mentioned on the death certificate, England and Wales

A worked example of wrong policies



Cannabis

Medicinal cannabis

- Much valued by Queen Victoria for gynaecological problems
 - J Russell Reynolds was her physician and was a noted advocate of medicinal cannabis see
Therapeutic Uses and Toxic Effects of Cannabis Indica,
Lancet 1 (March 22, 1890) 637-683



Cannabis - a century of dishonest policy when will we learn?

1935 - “no medical use” by League of Nations - never revised by WHO ! – still Schedule 1 in UN

1961 – Egypt and USA → ban under UN conventions

1971 MDA 1971 – “no medical use” → Schedule 1

Cannabis: a convenient political tool



20x increase in cannabis users over last 40 years

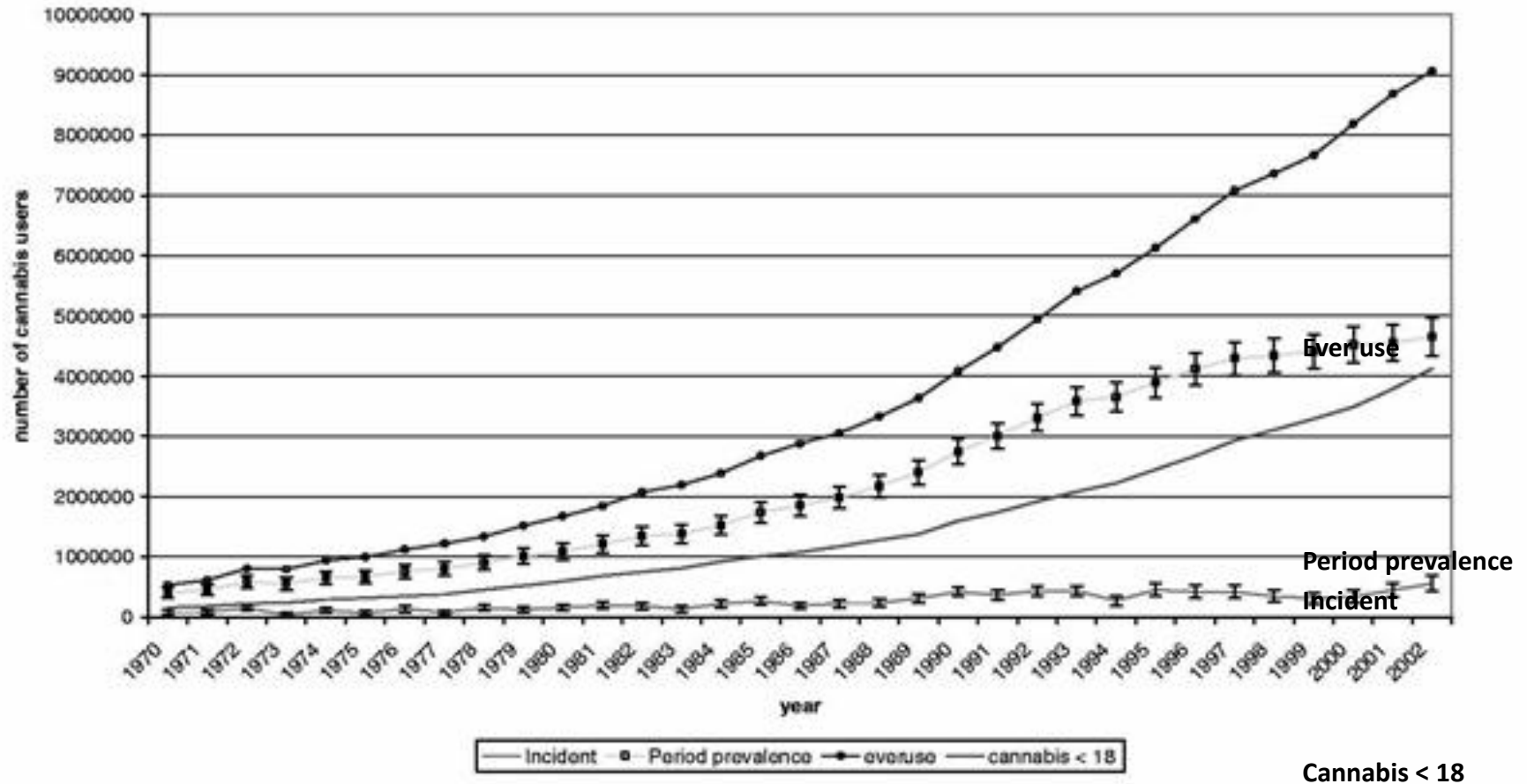


Figure 2 Trends in incidence, period prevalence, ever and under 18 cannabis use in England and Wales 1970–2002; OCSJ survey

Rise in incidence and prevalence of cannabis use since 1970 in England and Wales
(Hickman et al 2007, *Addiction* 102, 597-606)

20x increase in cannabis users over last 40 years

Q. But almost no deaths – so why is it illegal?

A. Politics

How to justify

- Skunk**
- Driving risk**
- Schizophrenia risk**

Rise in incidence and prevalence of cannabis use since 1970 in England and Wales
(Hickman et al 2007, Addiction 102, 597-606)

What about skunk?

**Skunk = product of prohibition
= home grown = more bang for your buck**

Ridiculous claims:

- 100x more potent than hash**
- 1 spliff kills a million cells in hippocampus**
- Leading cause of schizophrenia**
- “Skunk is lethal” PM Gordon Brown**

Skunk – the reality

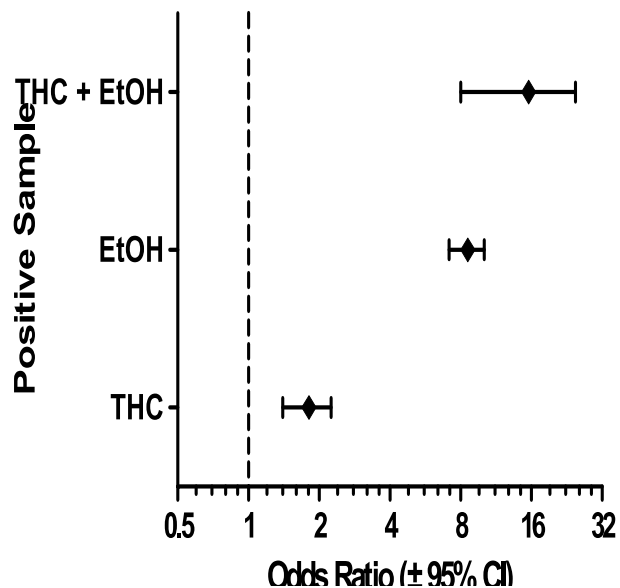
**Up to 15% THC content (hash ~5%)
= so as wine is to beer**

**At price of lower/absent cannabidiol
- may lose protective element**

**Most users self-regulate (though usually
prefer hash)**

Alcohol much worse than cannabis on driving

Figure 4.1: Relationship between the odds ratio (OR) for the risk of a traffic accident when cannabis and alcohol are detected alone and when alcohol and cannabis are detected concurrently (adapted from Laumon, Gadegbeku & Martin, 2005).



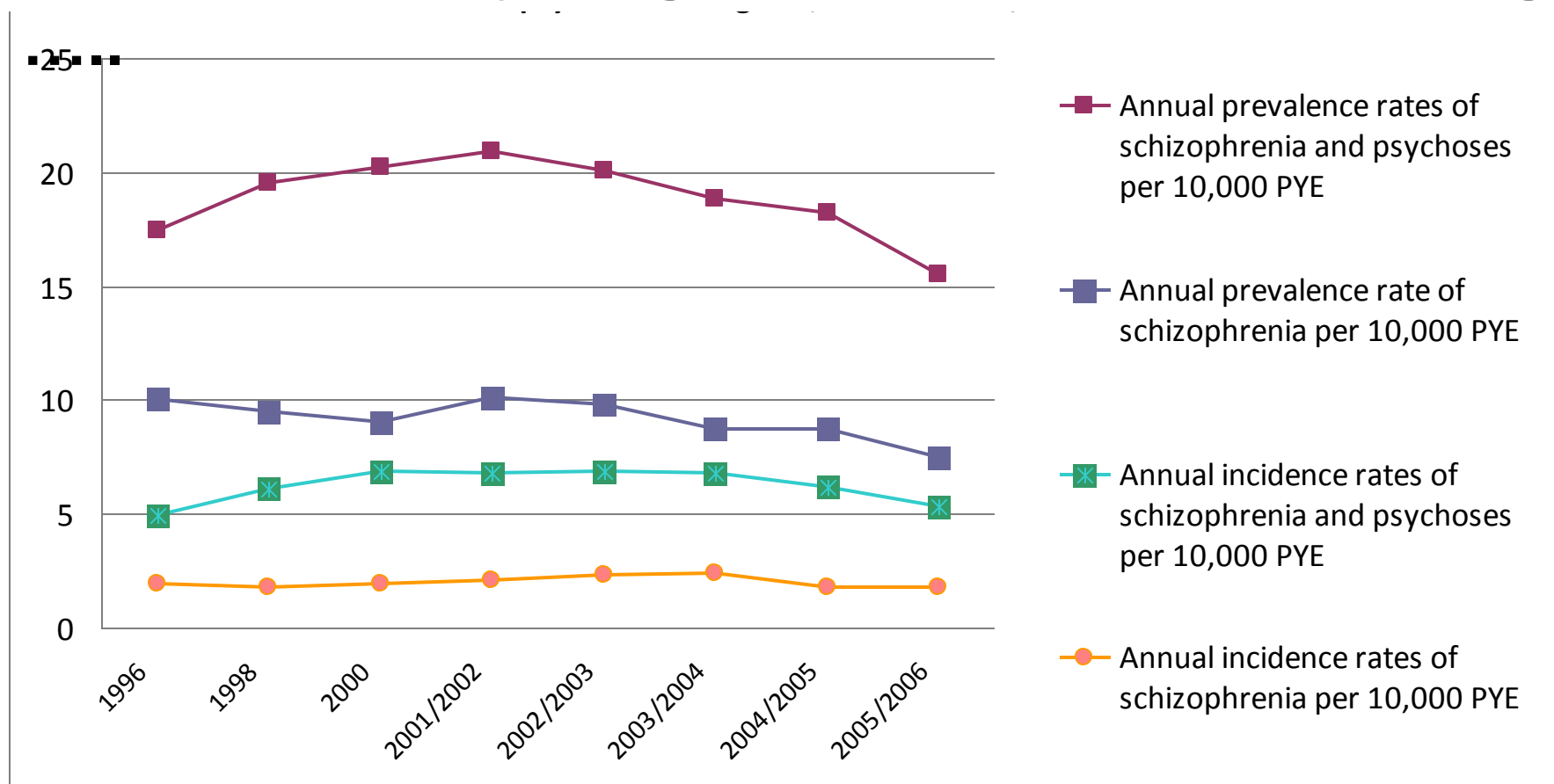
DRIVING
UNDER
THE
INFLUENCE OF
DRUGS

Report from the
Expert Panel on
Drug Driving

K. WOLFF

What about schizophrenia?

**Despite 20x increase in cannabis users,
if anything, schizophrenia is declining**



Frisher et al (2009) Weissenborn and (Nutt 2011)

Targeting cannabis to reduce schizophrenia?

To prevent one case of schizophrenia one would have to prevent 5000 young men from ever smoking cannabis

ACMD 3rd cannabis report 2009

Therefore no justification to reclassify to Class B

Governmental dishonesty?

*‘[Jaqui Smith...] My decision takes into account issues such as **public perception** and the needs and consequences for **policing priorities**. ...*

*....Where there is a clear and serious problem, but **doubt about the potential harm** that will be caused, we must err on the side of caution and **protect the public**. I make no apology for that. I am not prepared to wait and see.’*

**But NOT when there are real facts about harm
e.g. alcohol**

Policing priorities?



***3-4 fold over-
representation of
Black and Asian
young men
arrested despite
same levels of
cannabis use***

**2012 London riots sparked by excessive
police violence around drug enforcement**

What really happened

In a deal with the Daily Mail, in exchange for their promised support for Labour in the upcoming election Prime Minister Gordon Brown agreed cannabis would be upgraded to Class B against ACMD advice

AND now 1 million young people in the UK have criminal convictions for cannabis possession!

→ Severe limitation of opportunities

→ Undermines belief in justice

Still the Mail pushes its prohibitionist political agenda on cannabis

A mother's howl of anguish and why Nick Clegg should hang his head in shame: As the ex-Lib Dem leader says taxing cannabis will raise £1bn, broadcaster Anne Atkins tells how it shattered the life of her Cambridge graduate daughter

By [ANNE ATKINS FOR THE DAILY MAIL](#)

PUBLISHED: 10:27 +11:00, 25 November 2016 | **UPDATED:** 18:19 +11:00, 25 November 2016



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The figure in the hospital bed was someone we barely recognised. Thin, unkempt and whey-faced, hair chopped off with kitchen scissors, I knew it was my daughter Lara, but something had changed her horribly.

We longed to throw our arms around her and cuddle her, but the antagonism in her eyes held me and my husband back.

This was something entirely new. Over the many, troubled years of our second eldest

Waging the war today

Scottish ex teacher in her 50s

Long standing Multiple Sclerosis- wheelchair bound – only cannabis provides relief

Front door smashed down in dawn raids by police on three occasions in past few years

**→ convictions for cannabis possession
may go to prison**



Perverse effects of prohibition of traditional cannabis

Traditional herbal cannabis or resin - equal mixture of d9THC and cannabidiol

THC and CBD =



Perverse effects of prohibition of traditional cannabis

Home grown cannabis → skunk – high
d9THC and NO cannabidiol

THC only =



Worse = Synthetic cannabinoids



More potent – more harmful - much less well understood - so why do we have them?

Synthetic cannabinoids = Opening Pandora's box

Because cannabis is
illegal and users are
prosecuted and
prisoners are tested

➔ (logically) seek
legal alternatives

THE CONVERSATION

Academic rigour, journalistic flair

Arts + Culture Business + Economy Education Environment + Energy **Health + Medicine** Politics + Society Science

Labs make new, dangerous synthetic cannabinoid drugs faster than we can ban them

November 5, 2015 10:11pm AEDT



Packets of synthetic cannabinoids illegally sold in New York City. Sebastian Malo/Reuters

Email

Twitter 28

Facebook 50

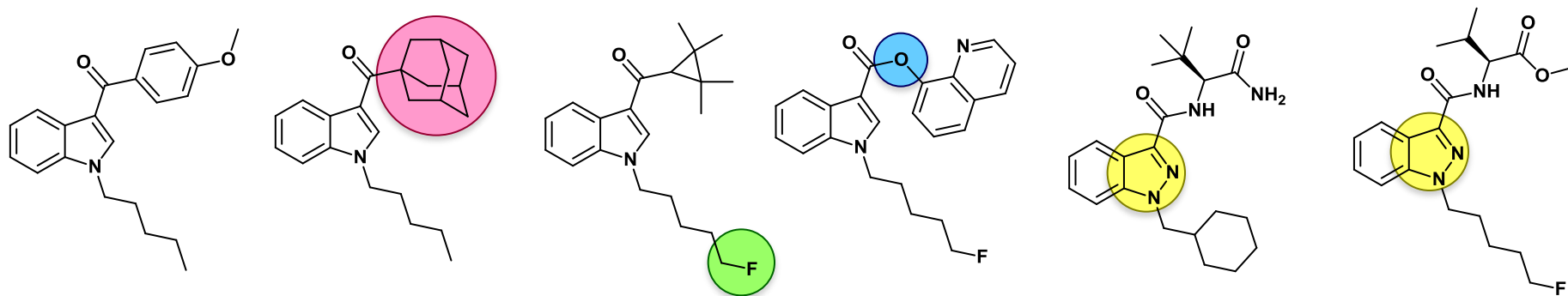
LinkedIn 9

Print

XLR-11, PB-22, AB-FUBINACA, MAB-CHMINACA, 5F-AMB. These are the cryptic and sometimes unpronounceable names of the most dangerous drugs you've never heard of. They are responsible for kidney injury, psychosis, seizures, coma and death.

For instance, AB-FUBINACA was responsible for a spate of recent [poisonings at Wesleyan University](#). And MAB-CHMINACA was associated with more than 100 [hospitalizations in Baton Rouge](#). Neither of these drugs were known to the scientific community until late last year.

And there are very many potential synthetic cannabinoids...



RCS-4

AB-001

XLR-11

5F-PB-22

ADB-CHMINACA

5F-AMB

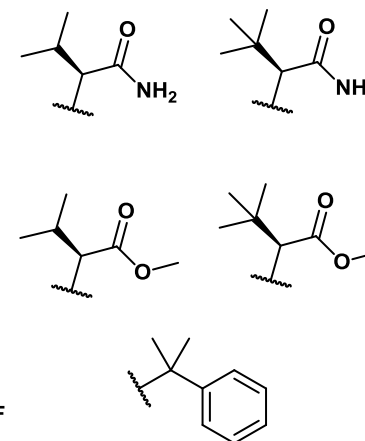
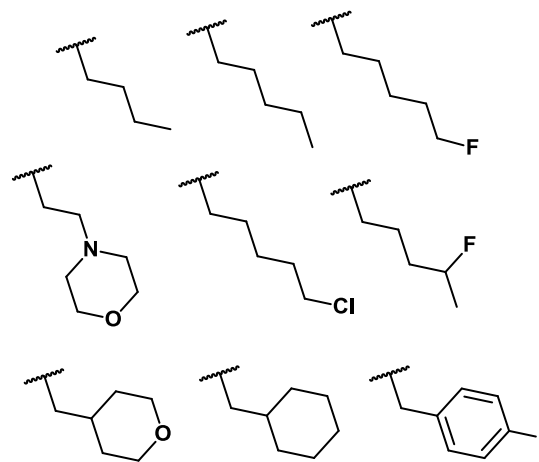
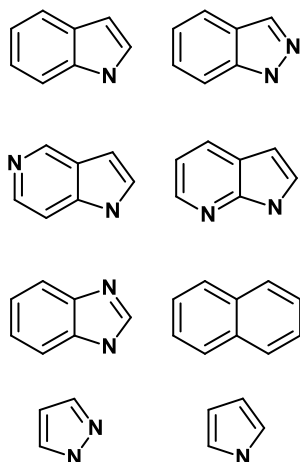
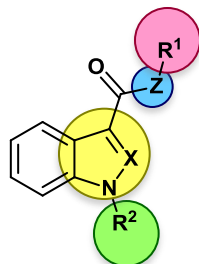
~2010

2015

heteroaromatic
core

alkyl
substituent

pendant
group



ORIGINAL ARTICLE

“Zombie” Outbreak Caused by the Synthetic Cannabinoid AMB-FUBINACA in New York

Axel J. Adams, B.S., Samuel D. Banister, Ph.D., Lisandro Irizarry, M.D.,
Jordan Trecki, Ph.D., Michael Schwartz, M.D., M.P.H., and Roy Gerona, Ph.D.

ABSTRACT

BACKGROUND

New psychoactive substances constitute a growing and dynamic class of abused drugs in the United States. On July 12, 2016, a synthetic cannabinoid caused mass intoxication of 33 persons in one New York City neighborhood, in an event described in the popular press as a “zombie” outbreak because of the appearance of the intoxicated persons.

METHODS

We obtained and tested serum, whole blood, and urine samples from 8 patients among the 18 who were transported to local hospitals; we also tested a sample of the herbal “incense” product “AK-47 24 Karat Gold,” which was implicated in the outbreak. Samples were analyzed by means of liquid chromatography–quadrupole time-of-flight mass spectrometry.

RESULTS

The synthetic cannabinoid methyl 2-(1-(4-fluorobenzyl)-1H-indazole-3-carboxamido)-3-methylbutanoate (AMB-FUBINACA, also known as MMB-FUBINACA or FUB-AMB) was identified in AK-47 24 Karat Gold at a mean (\pm SD) concentration of 16.0 ± 3.9 mg per gram. The de-esterified acid metabolite was found in the serum or whole blood of all eight patients, with concentrations ranging from 77 to 636 ng per milliliter.

From the Clinical Toxicology and Environmental Biomonitoring Laboratory (A.J.A., R.G.) and School of Medicine (A.J.A.), University of California, San Francisco, San Francisco, and the Department of Radiation Oncology, Stanford University School of Medicine, Palo Alto (S.D.B.) — both in California; the Department of Emergency Medicine, Wyckoff Heights Medical Center, New York (L.I.); the Office of Diversion Control, Drug and Chemical Evaluation Section, Drug Enforcement Administration, Springfield, VA (J.T.); and the Chemical Defense Program, Office of Health Affairs, Department of Homeland Security, Washington, DC (M.S.). Address reprint requests to Dr. Gerona at roy.gerona@ucsf.edu.

This article was published on December 14, 2016, at NEJM.org.

DOI: [10.1056/NEJMoa1610300](https://doi.org/10.1056/NEJMoa1610300)

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The 'Spice is Rife': Synthetic cannabinoid use amongst the homeless in the UK

Posted on February 14, 2017 by  [Addiction Editor](#)

A recent study carried out by Dr Paul Gray and Dr Rob Ralphs from Manchester Metropolitan University has found that synthetic cannabinoids – referred to generically as 'Spice' – are rife amongst the homeless community in Manchester, with an estimated 80 to 95 per cent of the homeless in the city using synthetic cannabinoids.

Some prisons estimate up to 75% of inmates now using “spice” regularly despite their now being illegal



The study found that their undetectable nature (both in public spaces and in mandatory drug tests), potency (when compared to skunk cannabis) and low cost make synthetic cannabinoids particularly appealing for an economically disadvantaged group such as the homeless. When combined with the extremely addictive nature of synthetic

So what did the government do?

- Banned all chemical structures that could be used to make synthetic cannabinoids
- Oops Home Office had to exempt over 20 medicines e.g. indomethacin!
- Its been estimated that over 100,000 research chemicals in academic and pharmaceutical centres now illegal!
- Could → end of pharmaceutical research in UK!

<http://www.drugscience.org.uk/blog/2017/1/4/an-unhappy-christmas-for-uk-research-how-the-law-against-synthetic-cannabinoids-might-destroy-pharmaceutical-discovery-in-the-uk>

What should the government do?

- **Aidan Halligan would have been a brilliant chair!**



Thanks and questions

drugscience

INDEPENDENT SCIENTIFIC COMMITTEE ON DRUGS

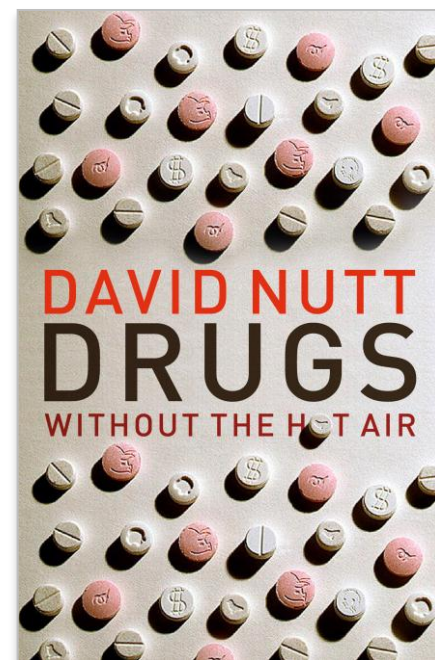
Social media:

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