

Take-Home Naloxone 2017: the Revolution, the Convolutions and the Necessary Evolutions

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Drug-related deaths in the UK



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Drug-related deaths in the UK

- Background, history, current reports
- Definitions
- Epidemiology and patterns of deaths
- Implications and direction of travel

Reducing drug related deaths

A Report by The Advisory Council on the Misuse of Drugs 2000

- In England and Wales something between 1076 and 2997 deaths of drug misusers occurred in 1998 as a result of overdose
- Rates of drug-related deaths appear to be no less in Scotland. In Northern Ireland the numbers remain low.
- These figures take no account of deaths due to virus infections, to motor vehicle accidents, or to incidental violence.
- Under these headings also, the data are far from complete.
- In our view it would be remiss not to acknowledge that smoking kills about 120,000 people each year, and between 28,000 and 33,000 people die annually as a result of alcohol.

Reducing Opioid Related Deaths in the UK

Advisory Council on the Misuse Drugs 2016

“the ACMD can assert with a good degree of confidence that the ageing profile of heroin users with increasingly complex health needs (including long-term conditions and poly-substance use), social care needs and continuing multiple risk behaviours has contributed to recent increases in drug-related deaths.

Other possible causes of recent increases include greater availability of heroin at street level, deepening of socio-economic deprivation since the financial crisis of 2008, changes to drug treatment and commissioning practices, and lack of access to mainstream mental and physical health services for this ageing cohort.

there are weaknesses in current data collection methods that mean the trends over time can be difficult to interpret....improving the processes of collecting information on opioid-related deaths...also recommends that governments fund independent research in order to provide a better understanding of the causes and drivers of trends in opioid-related deaths, as well as all other drug-related deaths

the most important recommendation in this report is that government ensures that investment in OST of optimal dosage and duration is, at least, maintained.”.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/576560/ACMD-Opioid-Related-Deaths-Report-161212.pdf



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Definitions of drug related death – main features

- ACMD report Reducing Drug Related Deaths 2000 recommended a definition
- Office of National Statistics “wide definition” includes specific substances (F codes) and accidental poisoning (X40 - x44). Codes not limited to Misuse of Drugs Act 1971 inclusion
- Scotland include specific drugs category and drugs listed in Misuse of Drugs Act 1971
- EMCDDA definition includes a different list of ICD 10 codes and a combination of drugs category
- **All these definitions result in some overlapping inclusions and some omissions but broadly trends are similar**

Not included in these definitions

- Deaths coded to mental and behavioral disorders due to use of volatile substances, alcohol or tobacco
- Deaths from blood borne viruses where the risk factor was believed to be sharing of injecting equipment
- Deaths from drowning, falls, road traffic accidents, which occurred under the influence of drugs
- Deaths due to assault by a person who was under the influence of drugs or as a result of being involved in drug related crime
- Deaths due to secondary infection or related complications (clostridium novyii, botulism, anthrax, pneumonia etc)

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Drug deaths in England and Wales 2015

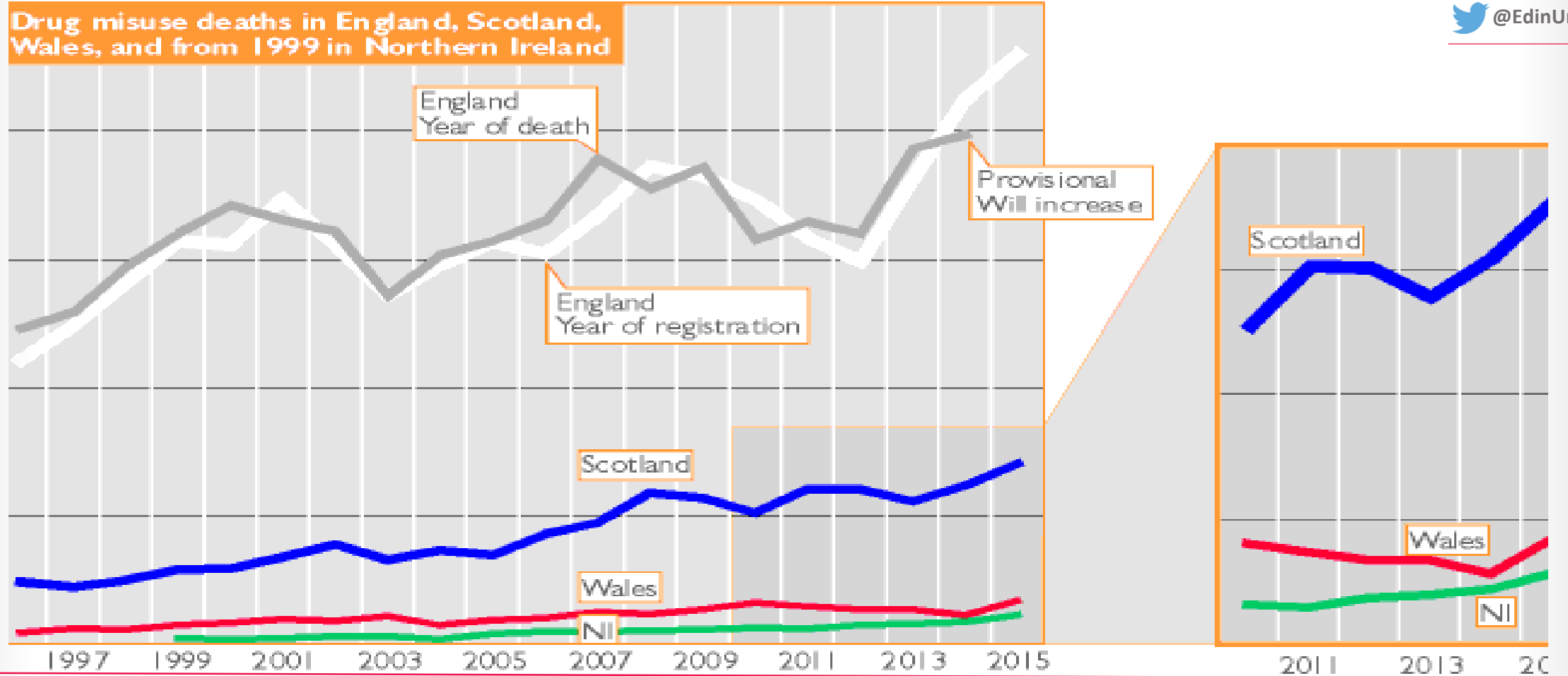
- There were 2,300 drug misuse deaths registered in England in 2015, an increase of 8.5% on the year, and the highest figure on record.
- Heroin and morphine account for the majority of the deaths and the increase. Heroin related deaths have doubled since 2012 in England and Wales. There were 1,989 deaths from opiates (heroin and methadone) in England and Wales in 2015.
- Other substances frequently mentioned in drug misuse deaths registered in England and Wales in 2015 include: amphetamines (157) cocaine (320) benzodiazepines (366) anti-depressants (in combination) (447)

Source: Healthmatters Preventing drug misuse deaths. PHE March 2015



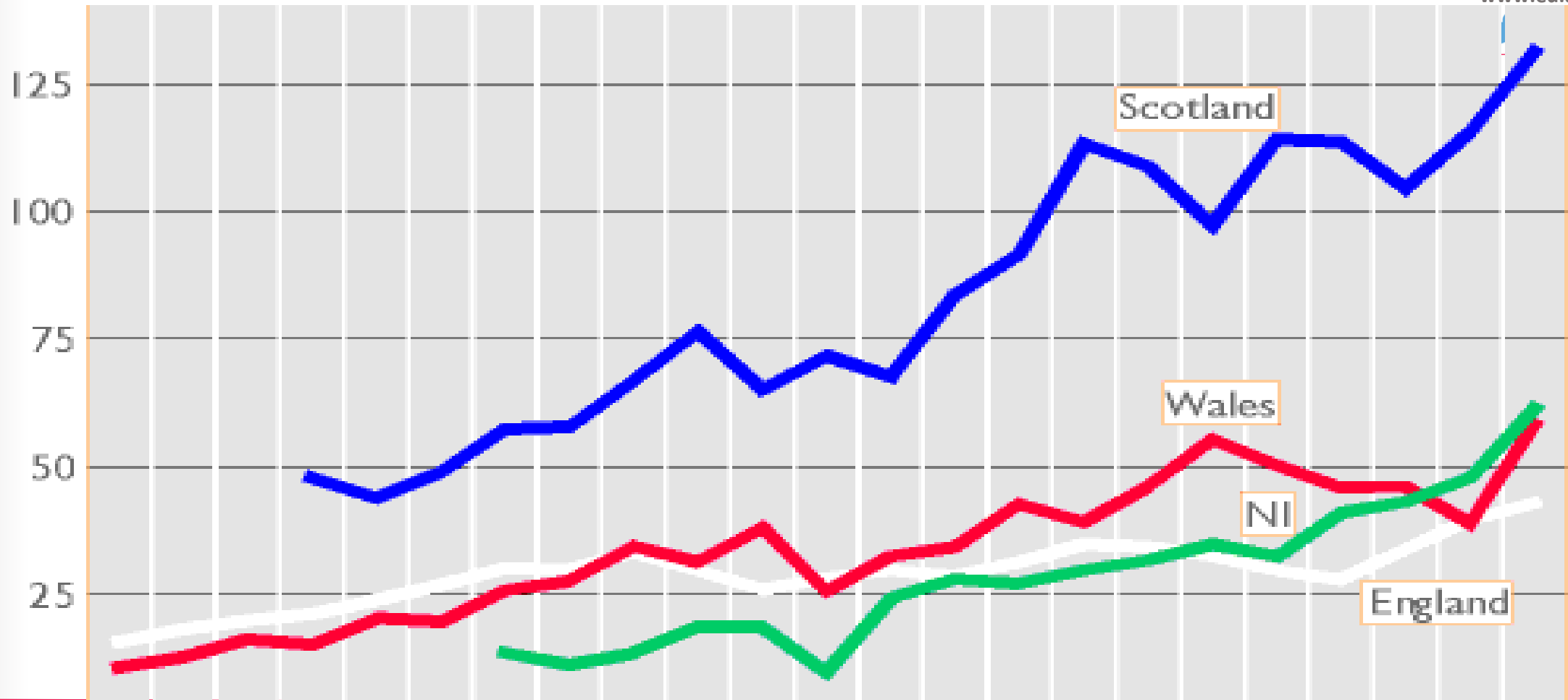
Drug misuse deaths in England, Scotland and Wales, and from 1999 in Northern Ireland

Source Mike Ashton. | "Findings" 2017



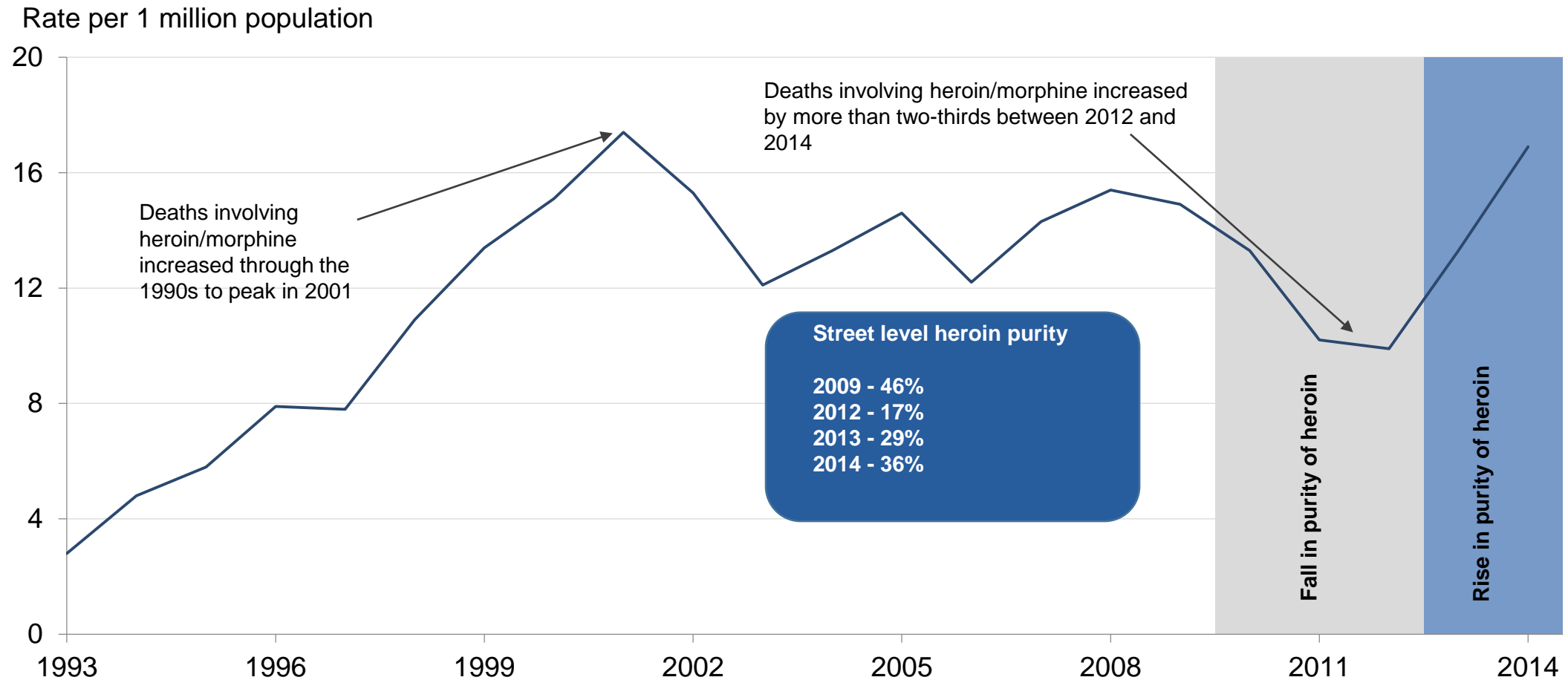
Drug Misuse Deaths per million population

Source Mike Ashton. | "Findings" 2017



Age-standardised mortality rate for deaths involving heroin/morphine, England, 1993-2014 registrations

Source ONS 2016



Causes and risk factors

Most recorded drug related deaths are due to overdose

Other causes, which may, or may not be attributed to drugs are; suicide and violence, accidents, physical health and complications of drug misuse

Risk factors include; being male, older age group, being out of treatment, co existing mental health problems, alcohol use, recent non fatal overdose, release from custody or other residential care causing reduction in tolerance to opiates, recent abstinence for other reason

Deaths data is not always simple (and causation is sometimes not obvious)

- Details on death certificate misleading, or omitted information lost in time (past infection due to disease may never be attributed to drug use...hepatitis C, end stage liver disease)
- Definitions important (vary over UK and Europe)
- Ascertainment important and opportunity fragile
- Interpretation of results once they are available depends upon knowledge of other factors (eg population at risk)

Forensic and pathological analysis – strengths and limitations.

Known unknowns and unknown unknowns

- You only get what you look for and chromatograms have to be interpreted against knowns and standards
- Interpretations of attributable causation variable and depends on up to date opinion (eg, do benzodiazepines cause death or are they cofactors, or passengers? What influence do synthetic substances have in causing death? And what about Gabapentin and Pregabalin?)
- Effect of antipsychotics, SSRIs and methadone on electrocardiographic changes and the importance in causation of deaths.

Death certificates may miss essential data

Patient 1 (54)

Cause of death – 1a Hepatocellular carcinoma 1b Hepatitis C

Patient 2 (35)

Cause of death - 1a Methadone toxicity

Patient 3 (42)

Cause of death - 1a Acute myocardial infarction

Patient 4 (45)

Cause of death - 1a Chest and abdominal trauma
1b Impact with a falling tree

Death certificates may miss essential data

Patient 5 (47)

Cause of death – 1a Hepatopulmonary syndrome

1b Alcoholic liver disease and hepatitis C

Patient 6 (54)

Cause of death – 1a Cirrhosis secondary to hepatitis C

1b Human Immunodeficiency virus (HIV)

Patient 7 (47)

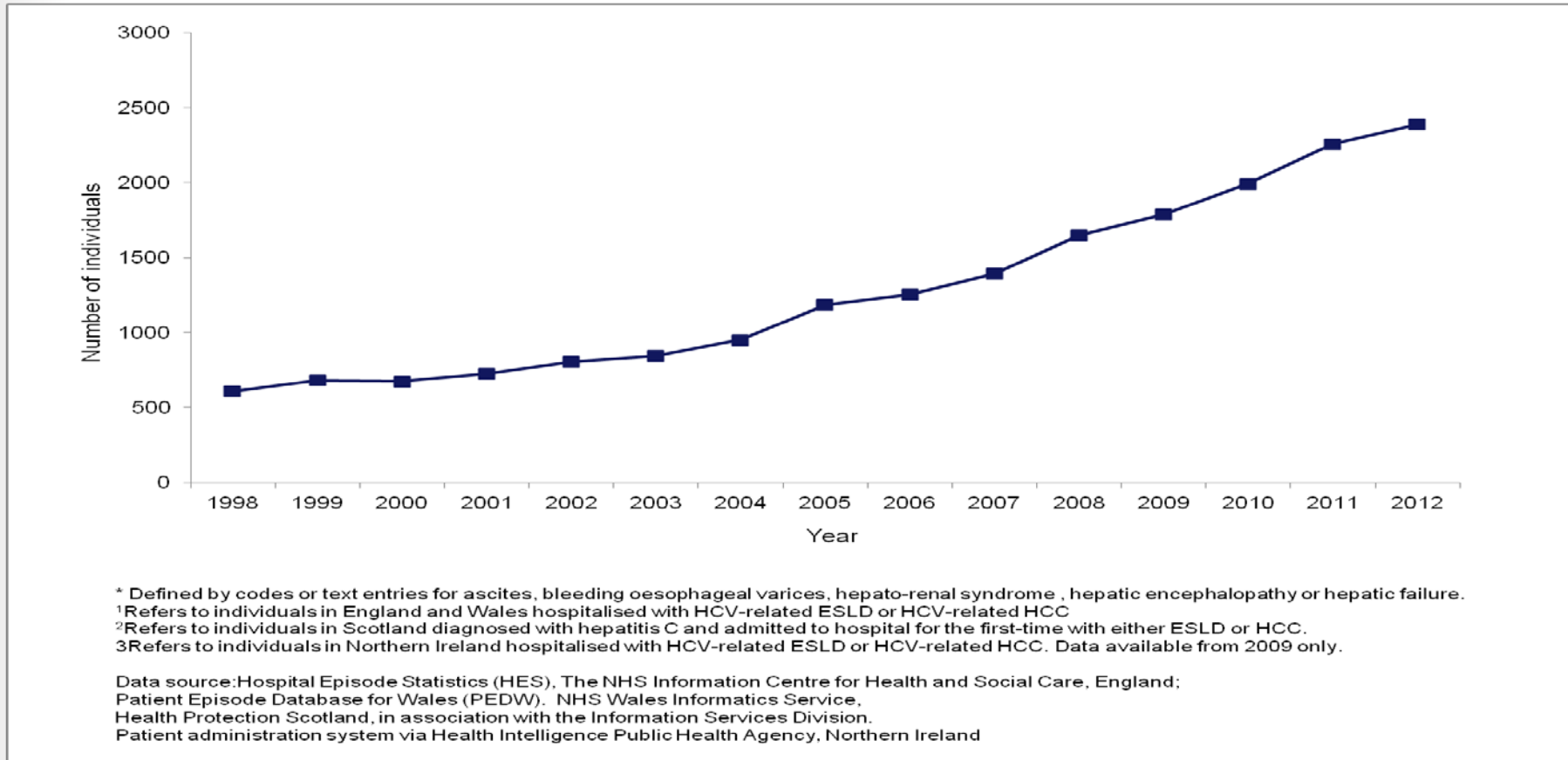
Cause of death – 1a Community acquired pneumonia

1b Obesity

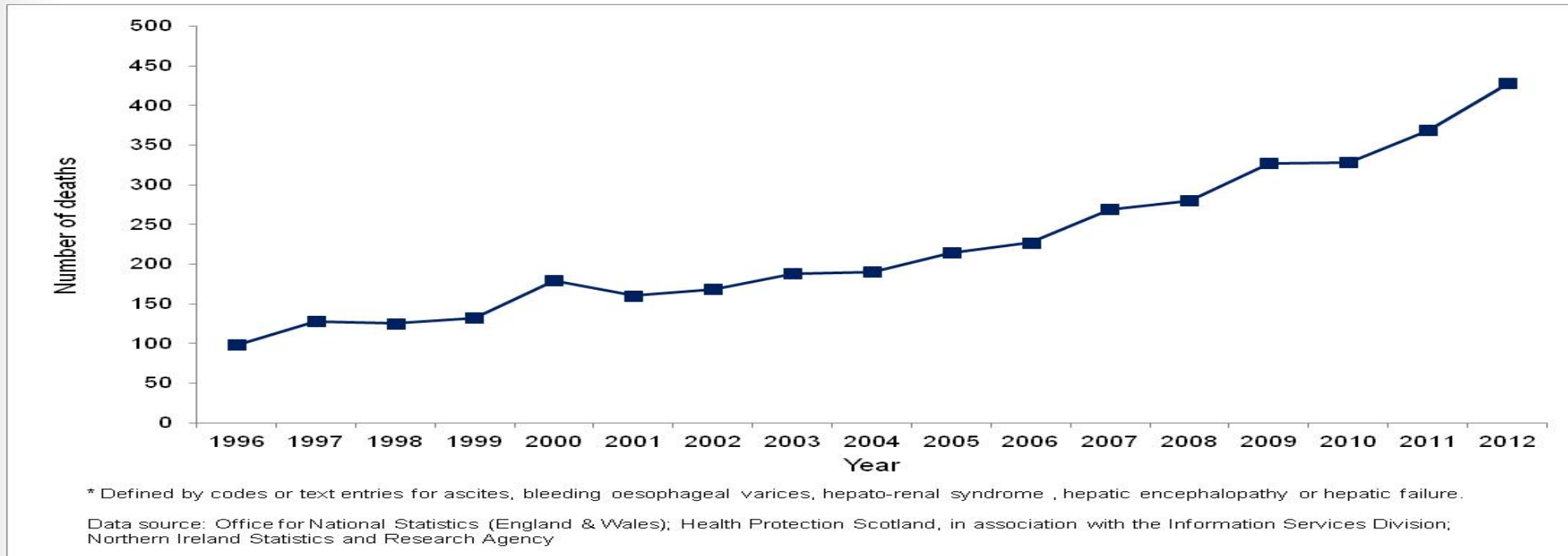
Patients 8,9,10 (55, 52,64)

Causes of death – Currently Unascertained

Annual number of individuals in England, Scotland, Wales¹ and Northern Ireland hospitalised with HCV-related ESLD* or HCV-related HCC: 1998-2012



Deaths from ESLD* or HCC in those with hepatitis C mentioned on the death certificate in the UK: 1996-2012



Drug-related deaths in the UK

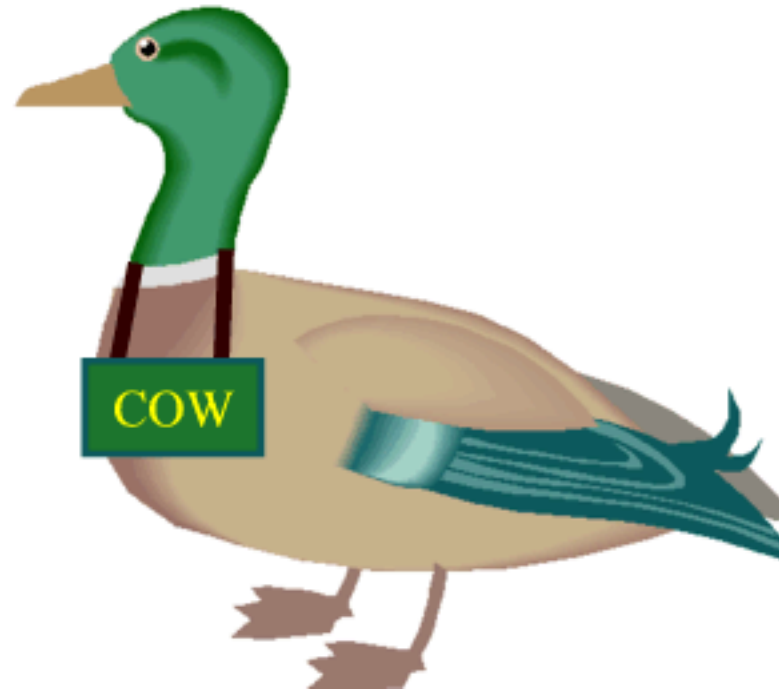
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OVERDOSE DEATHS IN THE UK: CRISIS AND RESPONSE

- UK drug overdose deaths now exceeding traffic fatalities
- few questions generate more heat than why the fall in deaths in 2009 to 2012 so decisively reversed in the following years.
- Was it a recovery-inspired but life-threatening turn away from harm reduction, or simply an ageing population of heroin users?

Source Mike Ashton. | "Findings" 2017

Are we missing something obvious?



Deaths and preventive effects of treatment 2008-2011

The “counterfactual” model generated an estimate that there would have been 880 excess opioid-related deaths each year from April 2008 to March 2011 had it not been for treatment.

White M., Burton R., Darke S. et al. *Addiction*: 2015, 110, p. 1321–1329. Fatal opioid poisoning: a counterfactual model to estimate the preventive effects of treatment for opioid use disorder in England

Direction of travel and guidance

- Reducing Opioid Related Deaths in the UK
Advisory Council on the Misuse Drugs 2016
- Reducing Drug Deaths in England and Wales drug strategy
- Road to recovery – refresh?
- Public Health England report 2016
- National Forum on Drug related deaths – Scotland recommendations 2015
- Orange Guidelines March 2017
- HAT/Safer injecting room Glasgow
- Take home naloxone roll out

Preventing overdose drug related death.

Engagement in treatment

- 50% of people who are known to use dangerous levels of drugs are not currently in treatment
- This is the group that are dying
- Stigma in Government, treatment services and in drug using communities is inhibiting engagement
- Economic cutbacks are disproportionately affecting drug users including benefit restrictions
- Alternatives to methadone are underused
- Naloxone

Being out of treatment is a risk factor

- We have known for a long time that deaths are associated with, opiates, injecting, polydrug use and alcohol and being outside treatment services

Zador, D., Kidd, B., Hutchinson, S., Taylor, A., Hickman, M., Fahey, T., Rome, A., Baldacchino, A. (2003) National Investigation into Drug Related Deaths in Scotland, 2003. Edinburgh: Scottish Executive.

- A continued barrier to prevention continues to be lack of engagement with treatment services – recent figures suggest that only 47% of those who died of overdose were in contact with treatment (Barnsdale et al, 2016).

Barnsdale, L., Gordon, R., Graham, L., Walker, D., Elliott, V., Graham, B. (2016) The National Drug-Related Deaths Database (Scotland) Report: Analysis of deaths occurring in 2014. NHS Scotland. <http://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Publications/2016-03-22/2016-03-22-NDRDD-Report.pdf>

Preventing deaths from other causes

- Testing and treatment of blood borne viruses
- Assessing mental health problems including suicide risk
- Management of respiratory and cardiovascular problems
- Avoiding multiple drug prescribing where possible
- Engagement in support services

Drug policy – institutional neglect ?

‘effective treatment’ is defined as drug free discharge within twelve weeks of entering treatment, with no return to treatment within twelve months, and subsequent funding is determined in part by the attainment of this target (NTA, 2013).

End

Drug misuse deaths (2015) Opioid-related deaths (2015) Percentage change in opioid-related deaths 2012-2015

Drug misuse deaths 2015	Opioid-related deaths (2015)	Percentage change in opioid-related deaths 2012-2015	
• England	2,300	1,842	58%
• Wales	168	141	23%
• Scotland	706	606	21%
• Northern Ireland	114	88	47%

Sources: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency