



**LISBON
ADDICTIONS
2019**

The Future of Prescription Drug Abuse Beyond Opioids: A UK Perspective

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Funding and Conflicts of Interest

Euro-DEN and Euro-DEN Plus

- 2013-2015: The Euro-DEN project had financial support from the DPIIP/ISEC Programme of the European Union
- 2015 onwards: The Euro-DEN Plus Project has received support from EMCDDA since August 2015



Rocky Mountain Poison and Drug Control Center

- Grants and statistical assistance with analysis of data from UK Internet surveys and web monitoring surveys
- Honorarium to attend and present at annual RADARS scientific meetings in 2014, 2015, 2016 and 2018



Why 1.6m Britons are addicted to prescription pills

The 'safe' painkiller that is turning unsuspecting women into drug addicts

- Co-codamol is a painkiller containing paracetamol and codeine
- Over the past decade, the number of prescriptions for it have doubled
- The majority of addicts are not men, but women

A nation of prescription drug addicts: More Britons die from abusing painkillers and tranquillisers than heroin and cocaine

Many GPs 'prescribe drugs to addicted patients'

By Claire Marshall
BBC News



theguardian

Prescription abuse outstrips illegal drug use, UN warns

- Counterfeit market has lethal consequences
- Crackdown on appetite suppressants urged

BRITAIN'S OPIOID CRISIS

Tackling benzodiazepine misuse



OPEN ACCESS

The time to take decisive action has come

Benedict Hayhoe¹, James Lee-Davey²

¹Department of Primary Care and Public Health, School of Public Health, Imperial College London, UK; ²Department of Psychological Medicine, East London NHS Foundation Trust, Royal London Hospital, UK

PREGABALIN AND GABAPENTIN

BMJ 2017;359:j5312 doi: 10.1136/bmj.j5312

Misuse of gabapentin and pregabalin may be underestimated

Limon K Nahar *toxicologist*¹, Rebecca Andrews *senior toxicologist and deputy head*¹, Kevin G Murphy *professor of endocrinology and metabolism*², Sue Paterson *consultant toxicologist and head*¹

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ACMD

Advisory Council on the Misuse of Drugs

Diversion and Illicit Supply of Medicines

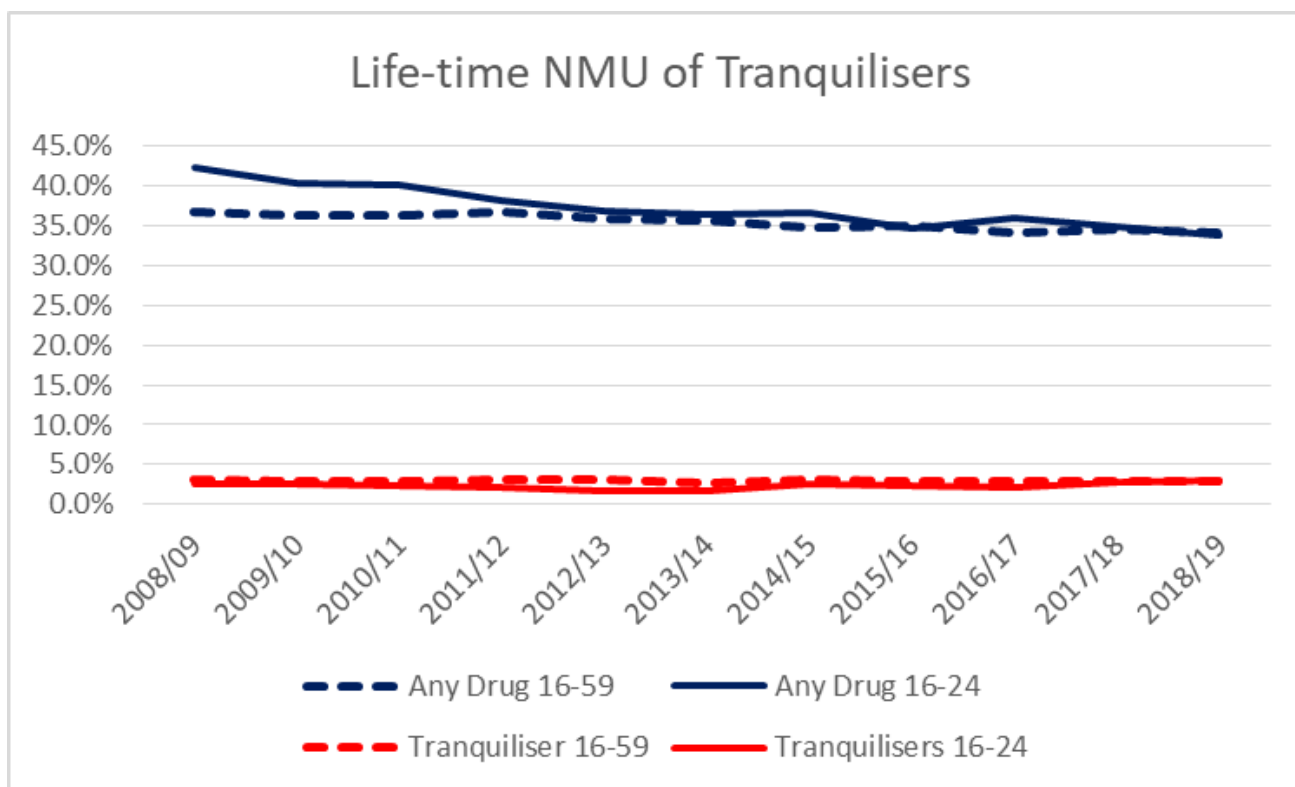
December 2016

Type of drug: The most prevalent diverted drugs are opioids and benzodiazepines. Increasing amounts of gabapentin and pregabalin are being diverted. Cognitive enhancers could be susceptible to diversion in the future. Further attention needs to be given to the misuse of codeine in over-the-counter (OTC) preparations as a precursor to the misuse of prescription opioids.



UK population level data

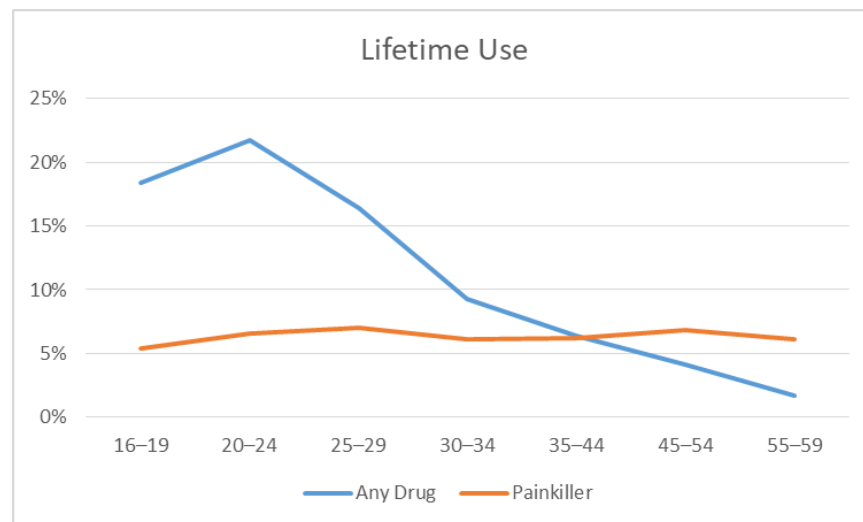
- Longitudinal data on 'tranquilisers'
- 2018/19 CSEW survey
 - Life-time use: 16-59y 2.9%; 16-24y 2.2%
 - Last year use: 16-59y 0.4%; 16-24y 0.6%

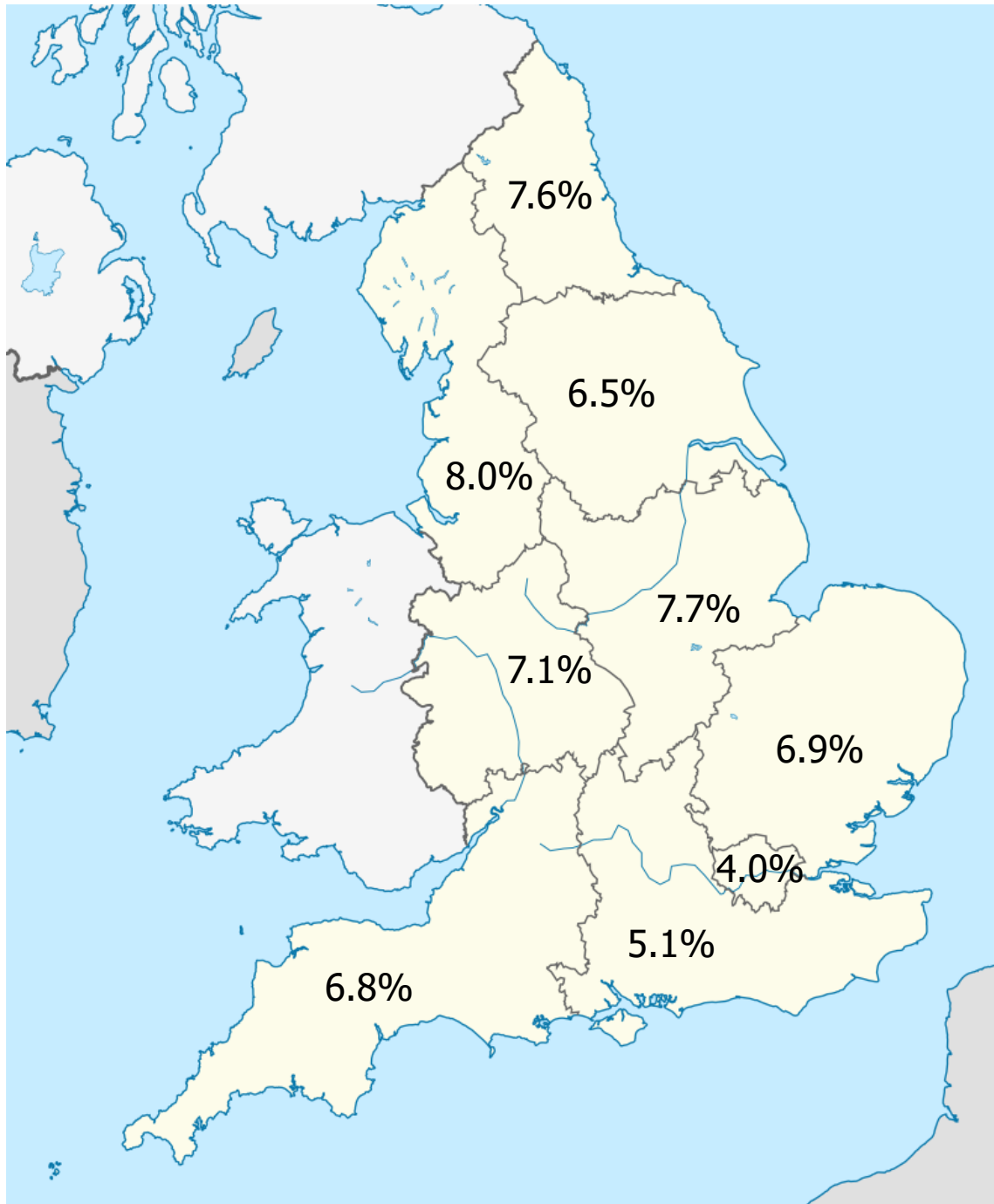
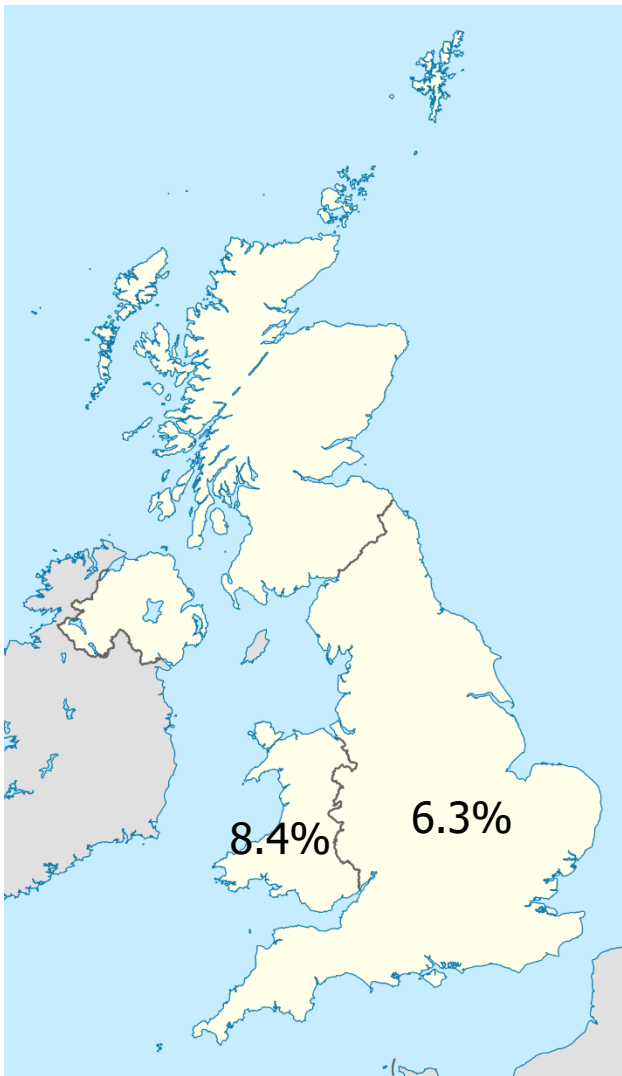


UK population level data: prescription painkiller misuse

- From 2014/15 CSEW survey following question included:
"Have you taken prescription-only painkillers not prescribed to you, which you took only for the feeling or experience it gave you"

	Any Drug	Painkillers
16 to 59 years old	9.4%	6.4%
16 to 24 years old	20.3%	6.1%
25 to 59 years old	7.0%	8.5%
Males	12.6%	6.9%
Females	6.3%	5.9%





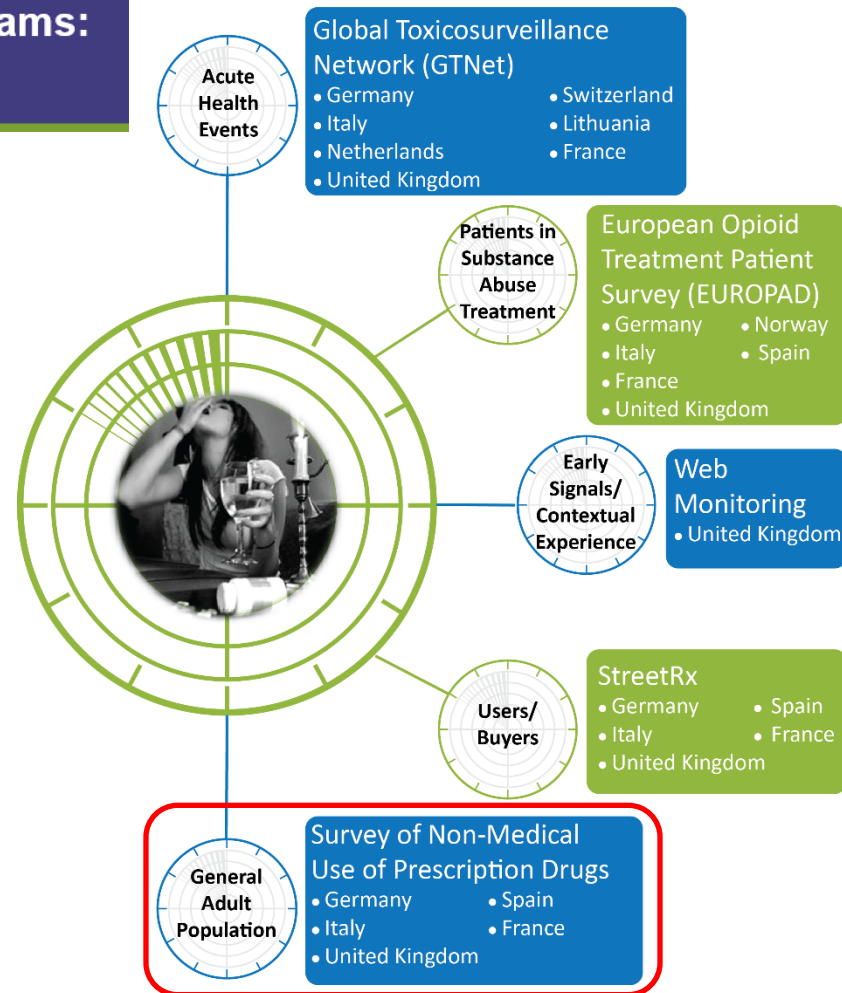
RADARS® System International Programs: European Mosaic

Guy's and St Thomas' 
NHS Foundation Trust

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SYSTEM



 **GMI GLOBAL ONLINE PANELS** 



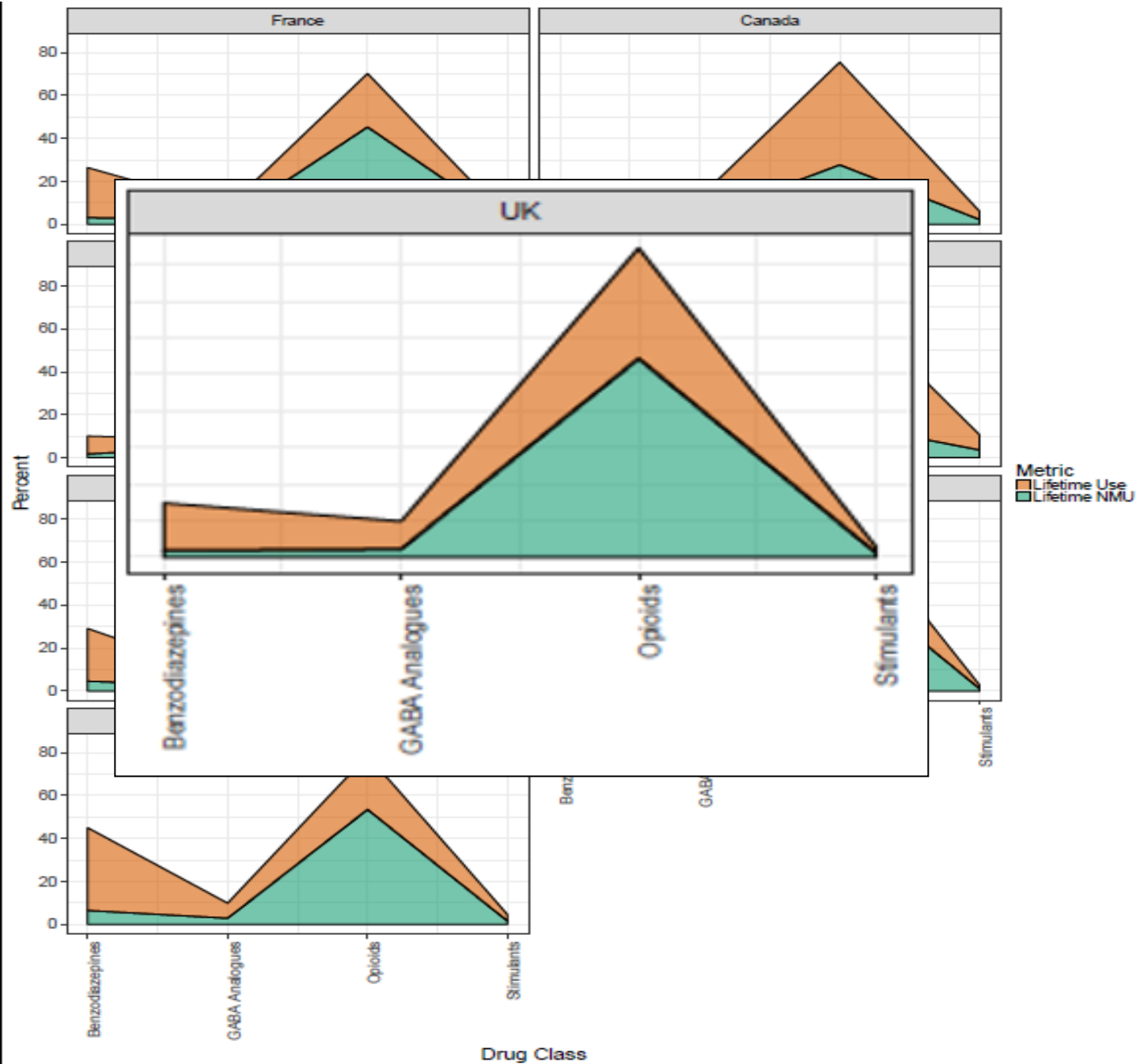
UK NMRUx survey established in 2012

"used without a doctor's prescription or for any reason other than what was recommended by your doctor"

UK survey of non-medical use of prescription drugs (NMURx) as a valuable source of general population illicit drug use data

Fu Liang Ng,^{1,2} Karilynn Rockhill,³ Joshua Black,³ Kevin Patrick May,³
Melanie D Whittington,³ David M Wood,^{1,4} Paul I Dargan,^{1,4} Jody L Green^{3,5}

Conclusions The NMURx survey has a broad reach of participants, and a sampling scheme that achieves external validity, compared with general population demographics. NMURx's online format allows flexibility in items surveyed and in response to emerging trends.



Misuse of benzodiazepines and Z-drugs in the UK

V. Kapil, J. L. Green, C. Le Lait, D. M. Wood and P. I. Dargan

- Life-time misuse of any benzodiazepine or Z-drug: 7.7%
- Highest life-time rates in frequently prescribed drugs:
 - Diazepam: 6.2%; Zopiclone: 2.8%
- 1.7% misusing weekly or more frequently
- Commonest reason for misuse was to help with sleep
 - Only 1.2% reported use to manage come down


Letter to the Editors

Misuse of the γ -aminobutyric acid analogues baclofen, gabapentin and pregabalin in the UK

Vikas Kapil,^{1,2,3} Jody L. Green,⁴ Marie-Claire Le Lait,⁴ David M. Wood^{1,5} & Paul I. Dargan^{1,5}

- Life-time misuse of any GABAergic: 2.5%
 - Baclofen: 1.3%
 - Gabapentin: 1.1%
 - Pregabalin: 0.5%
- Misuse drugs sourced variety of routes:
 - Health services: 63%
 - Family/Acquaintances: 58%
 - Internet: 8%

Nonmedical use of alprazolam in the UK: Results from a nationally representative survey

Joanna Hockenull¹  | Elise Amioka² | Joshua C. Black² | Colleen M. Haynes² | Paul I. Dargan^{1,3} | Richard C. Dart² | David M. Wood^{1,3}

Br J Clin Pharmacol. 2019;85:1841–1845.

- Survey of 10,019 UK based respondents
- Estimated national prevalence of lifetime NMU:
 - Alprazolam: 0.3% (males 0.5%, females 0.2%, $p=0.021$)
 - Diazepam: 1.3% (males: 1.4%, females: 1.2%, $p=0.475$)

- Estimated national prevalence of recent NMU:
 - Alprazolam: 0.08% (males 0.09%, females 0.08%)
 - Diazepam: 0.21% (males: 0.19%, females: 0.24%)

	Last 90 day nonmedical use weighted % (95% CI)	P-value
ALPRAZOLAM		
All ages	0.08 (0.01–0.15)	<.001
16–24 y	0.37 (0.00–0.81)	
25–34 y	0.14 (0.00–0.34)	
35 + y	0.01 (0.00–0.03)	
DIAZEPAM		
All ages	0.21 (0.12–0.31)	.262
16–24 y	0.17 (0.00–0.41)	
25–34 y	0.39 (0.07–0.72)	
35 + y	0.18 (0.08–0.27)	

TABLE 2 Reason for nonmedical use among respondents reporting lifetime nonmedical use of alprazolam or diazepam

Reason	Alprazolam weighted % ^a (95% CI)	Diazepam weighted % ^a (95% CI)
To treat a medical condition	54.9 (34.3–75.5)	71.5 (62.8–80.1)
To get high	39.1 (19.0–59.1)	33.7 (24.6–42.7)
To come down	26.8 (8.1–45.5)	21.1 (13.2–28.9)
To prevent withdrawal	11.3 (1.3–21.3)	8.5 (3.9–13.0)
Other	5.4 (0.0–12.9)	6.6 (2.3–10.9)

TABLE 3 Source of drug acquisition among respondents reporting lifetime nonmedical use of alprazolam or diazepam

Source	Alprazolam weighted % ^a (95% CI)	Diazepam weighted % ^a (95% CI)
Prescribed by a doctor or dentist	35.6 (15.6–55.6)	48.4 (39.5–57.4)
Bought on the Internet without a prescription	23.4 (8.1–38.7)	12.5 (7.0–18.0)
Acquired from family/friends	65.8 (45.7–85.9)	62.1 (53.6–70.7)
Bought from a dealer	34.8 (15.2–54.4)	24.3 (16.8–31.8)

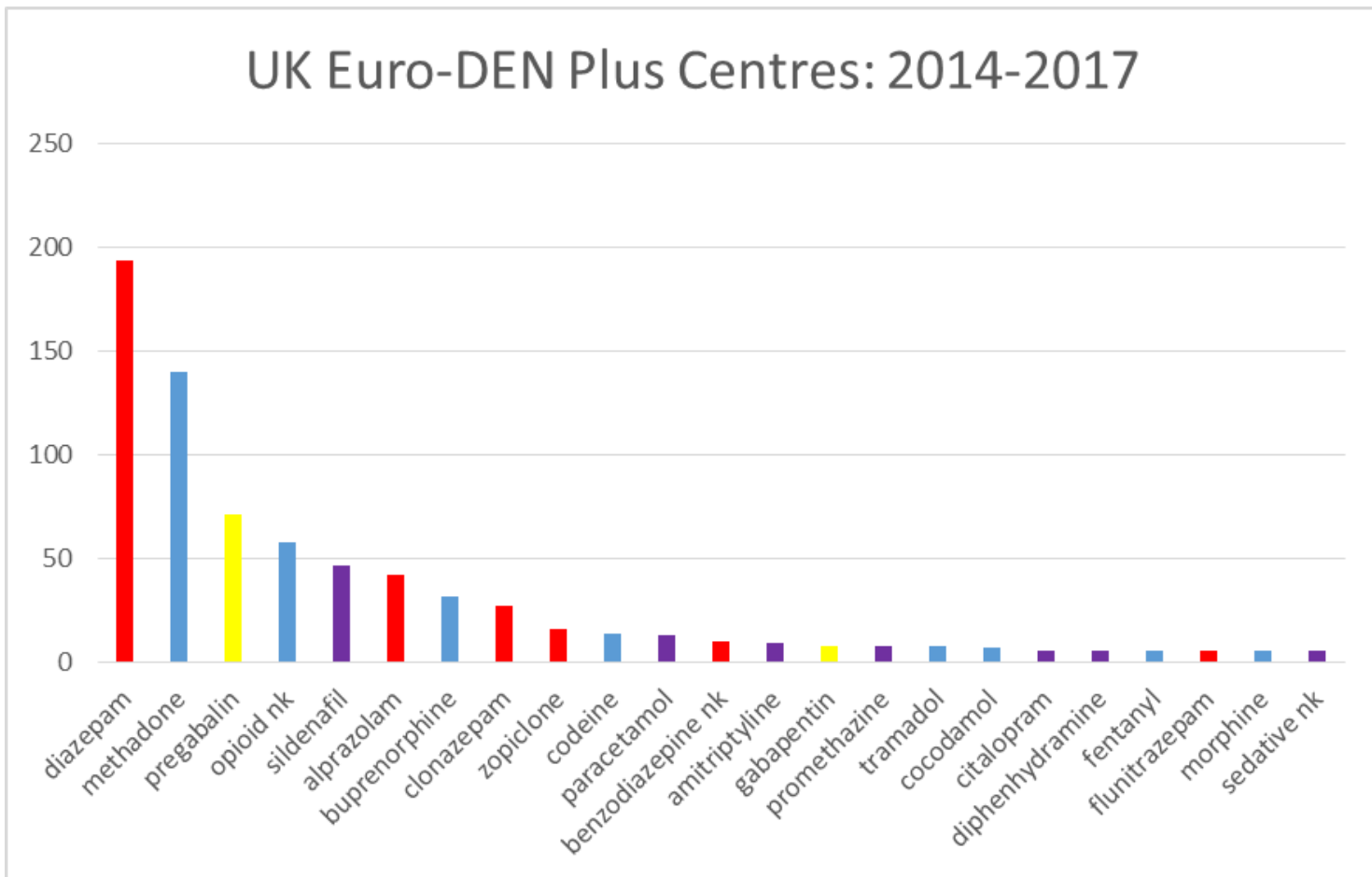
The European Drug Emergencies Network (Euro-DEN)

Clinical Toxicology (2014), **52**, 239–241

D. M. WOOD,^{1,2} F. HEYERDAHL,³ C. B. YATES,⁴ A. M. DINES,¹ I. GIRAUDON,⁵ K. E. HOVDA,³ and P. I. DARGAN^{1,2}




2018: 32 centres in 22 European/neighbouring countries



European Journal of Clinical Pharmacology (2019) 75:77–85

Presentations to the emergency department with non-medical use of benzodiazepines and Z-drugs: profiling and relation to sales data

C. Lyphout^{1,2}  • C. Yates³ • Z. R. Margolin⁴ • P. I. Dargan^{1,5} • A. M. Dines¹ • F. Heyerdahl⁶ • K. E. Hovda⁶ • I. Giraudon⁷ • B. Bucher-Bartelson⁴ • J. L. Green^{4,8} • Euro-DEN Research Group • D. M. Wood^{1,5}

- 2119 Euro-DEN Plus presentations over 2 years
- 25 different benzodiazepines and Z-drugs
 - ~77% were prescription medicines
- Mostly frequently reported to have been used:
 - Clonazepam (29.5% of presentations)
 - Diazepam (19.9%)
 - Alprazolam (11.7%)
 - Zopiclone (9.4%)

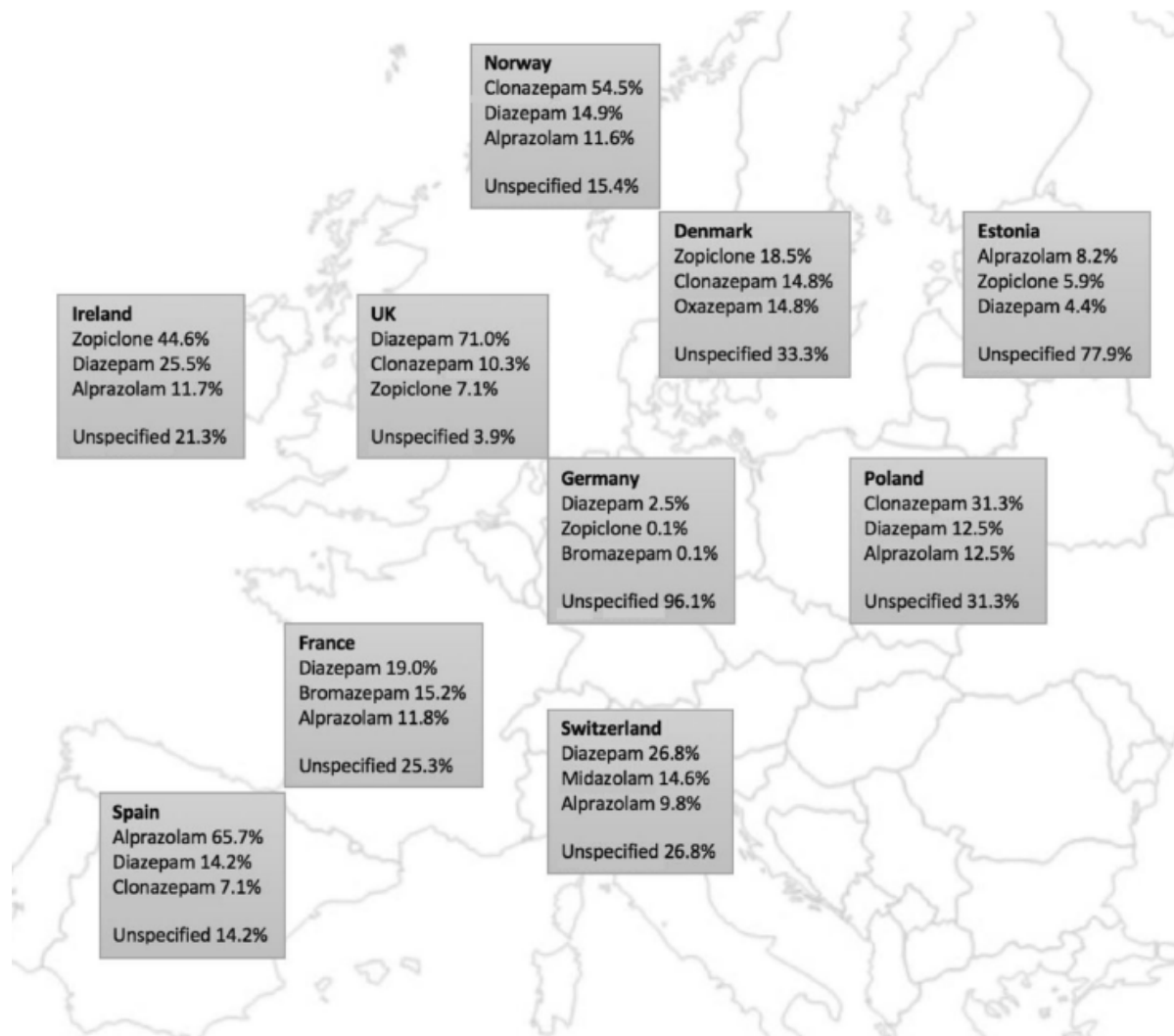


Table 2 Spearman correlation coefficients between percentage of Euro-DEN ED presentations and percentage of standard units sold with *p* value

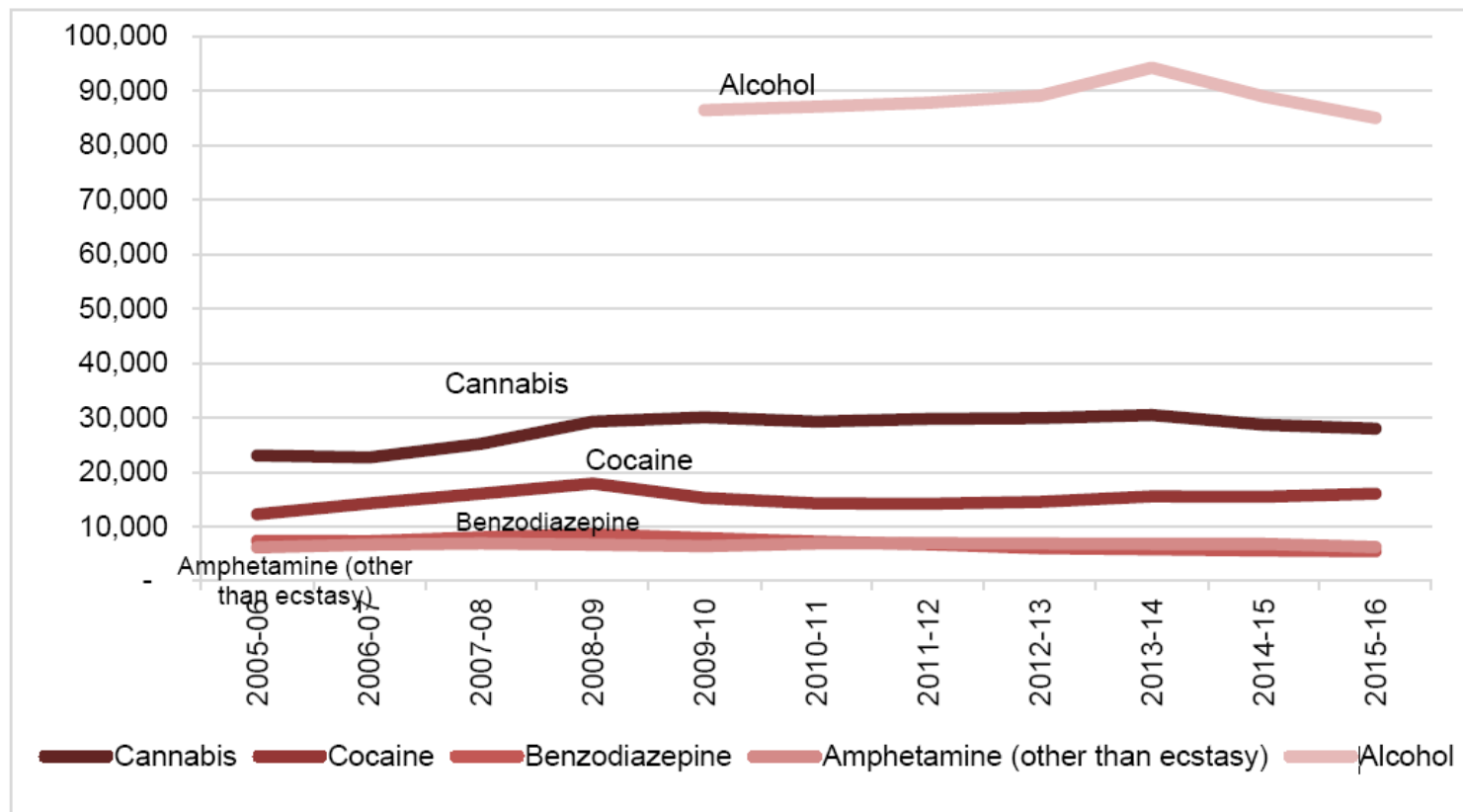
	France	Germany	Ireland	Spain	Norway	Switzerland	UK
Spearman Correlation	0.80	0.45	0.79	0.67	0.82	0.65	0.60
<i>p</i> value	<0.001	0.054	<0.001	0.002	<0.001	0.002	0.007



The misuse of benzodiazepines among high-risk opioid users in Europe

The Euro-DEN Plus project analysed 16 033 presentations (involving 24 538 drugs) with acute drug toxicity over the 3-year period from January 2014 to December 2016, from 21 sentinel centres in 14 European countries. There was a total of 3 742 presentations involving acute toxicity related to the self-reported use of heroin, of these 1 851 had used only heroin while 922 had used heroin together with at least one benzodiazepine. The most frequently reported benzodiazepines associated with heroin were clonazepam, 'unknown benzodiazepine', diazepam and alprazolam.

Figure 7.2.2 Number of new treatment presentations for other substances



Pre 2009-10 alcohol data is not included in figure 7.2.2 as alcohol providers data was only fully collected from 2009-10 onwards

Patients reporting problems related to prescription medicines:

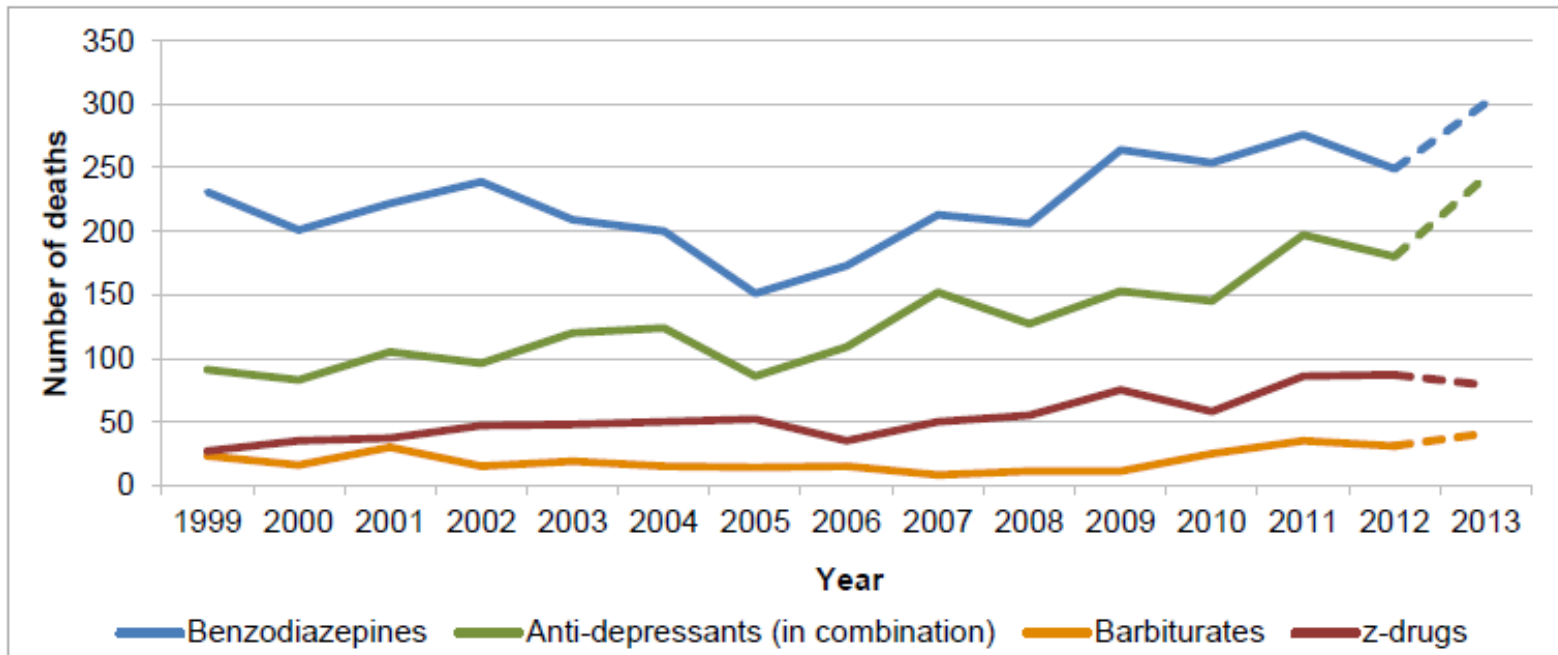
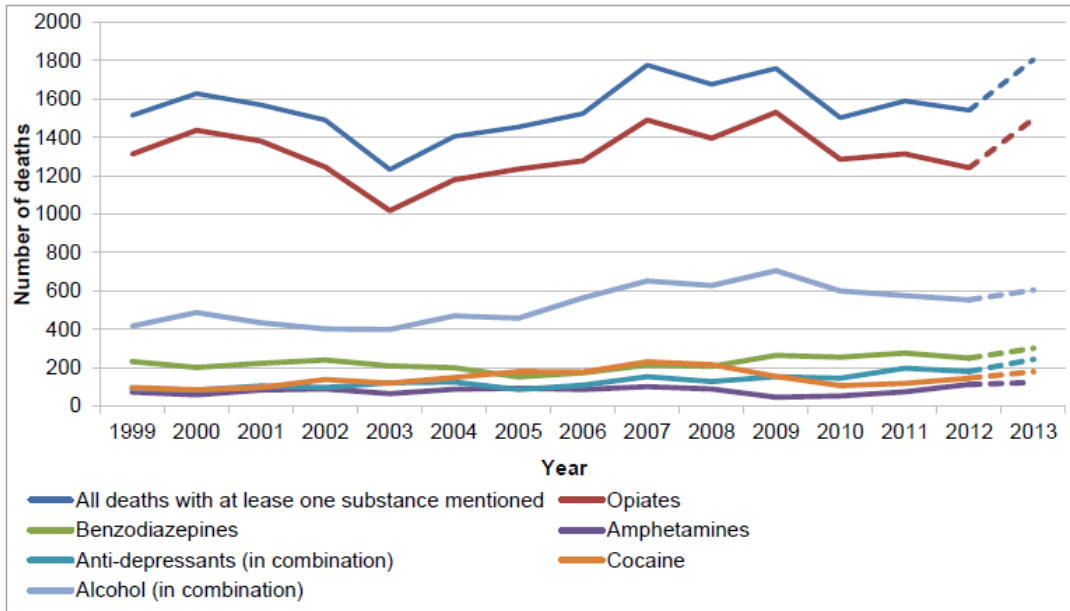
- Benzodiazepines: 20,727
- Other prescription drugs: 705

Public Health England | MANCHESTER | NDEC | Department of Health

Adult substance misuse statistics from the National Drug Treatment Monitoring System (NDTMS)

1st April 2015 to 31st March 2016

Trends in drug misuse deaths in England, 1999 to 2014



Deaths related to drug poisoning in England and Wales: 2016 registrations



Deaths related to drug poisoning in England and Wales from 1993 onwards, by cause of death, sex, age and substances involved in the death.

	Number of deaths				
	2012	2013	2014	2015	2016
All drug poisoning deaths	2,597	2,955	3,346	3,674	3,744
Any opiate ⁴	1,290	1,592	1,786	1,989	2,038
- Heroin and/or morphine	579	765	952	1,201	1,209
- Methadone	414	429	394	434	413
- Tramadol	175	220	240	208	184
- Oxycodone	37	51	51	51	75
- Fentanyl	22	22	40	34	58
Cocaine	139	169	247	320	371
Any amphetamine	97	120	151	157	160
Any new psychoactive substance	55	63	82	114	123
Any benzodiazepine	284	342	372	366	406
Pregabalin	4	33	38	90	111
Gabapentin	8	9	26	49	59
All antidepressants	468	466	517	447	460
Paracetamol ⁵	182	226	200	197	219
Propranolol	39	46	54	55	45



Source: Office for National Statistics

Journal of Analytical Toxicology, 2019;43:564–570

doi: 10.1093/jat/bkz036

Advance Access Publication Date: 7 May 2019

Article

OXFORD

Article

Misuse and Mortality Related to Gabapentin and Pregabalin are Being Under-Estimated: A Two-Year Post-Mortem Population Study

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¹Toxicology Unit, Imperial College London, Charing Cross Campus, St. Dunstan's Road, London W6 8RP, UK, and

²Department of Endocrinology & Metabolism, Imperial College London, London W12 0NN, UK


UK population level data: prescription painkiller misuse

- Association with illicit drug use
 - Used in last year 10.7% -vs- not used 5.9%
- Demographic factors associated with increased use
 - Most deprived 8.3% -vs- least deprived 4.4%
 - Rural 6.2% -vs- Urban 6.4%
 - Employed 6.2% -vs- Unemployed 7.2%
 - Long-term illness / disability

Drug	Yes	No
Prescription painkillers	12.6%	5.6%
Any illicit drug	12.7%	9.0%
Cannabis	10.9%	7.2%



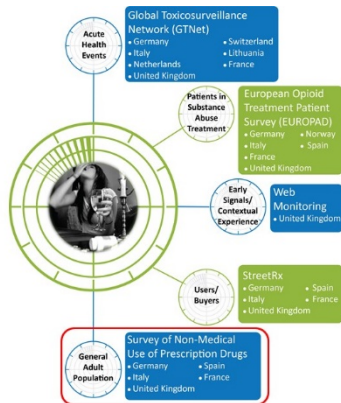
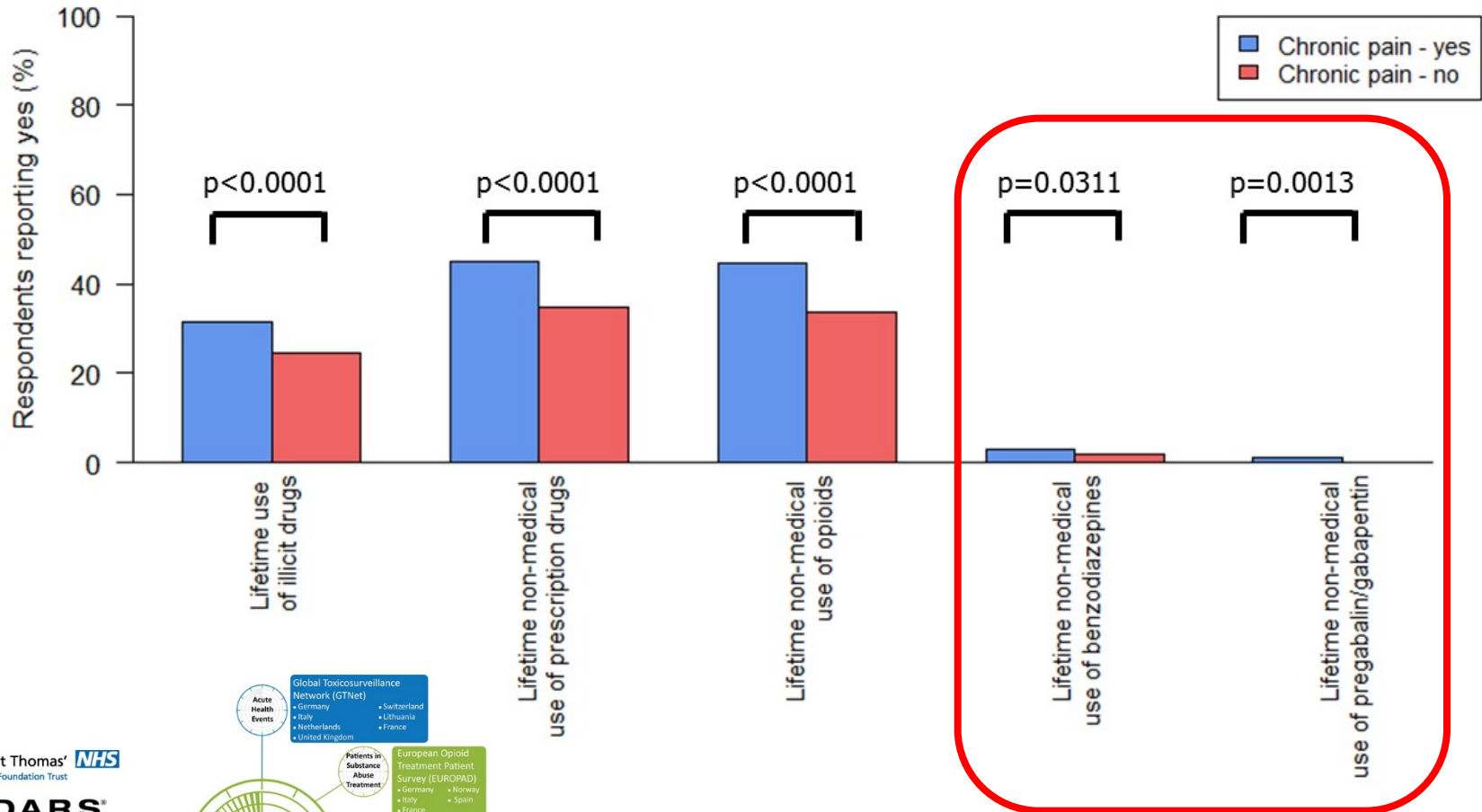
Home Office



Drugs Misuse: Findings from the 2018/19 Crime Survey for England and Wales

Statistical Bulletin: 21/19
19 September 2019

Prescription drug misuse and chronic pain



Substance misuse in patients who have comorbid chronic pain in a clinical population receiving methadone maintenance therapy for the treatment of opioid dependence

Cassie Higgins^{a,*}, Blair H. Smith^b, Keith Matthews^a

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^b Division of Population Health Sciences, University of Dundee, Mackenzie Building, Kirsty Semple Way, Ninewells Hospital and Medical School, Dundee, DD2 4RB Scotland, UK



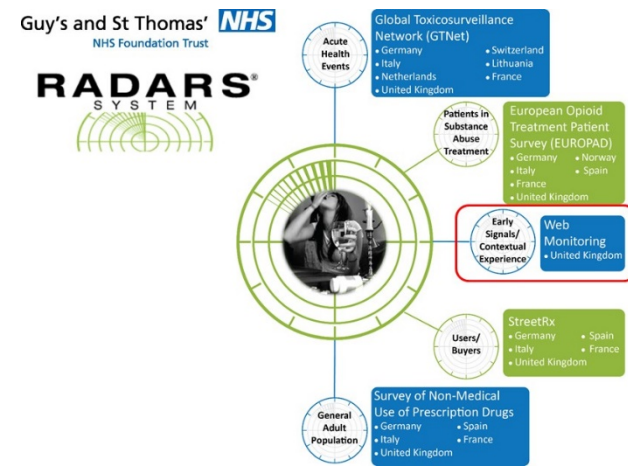
	CP		NoP	
	N	%	N	%
<i>Patient-reported illicit opioid use</i>	$\chi^2(1) = 1.814; p = 0.178 (\omega = 0.067)$			
Yes	111	52	110	59
No	102	48	77	41
<i>Patient-reported illicit heroin use</i>	$\chi^2(1) = 3.283; p = 0.044 (\omega = 0.090)$			
Yes	86	40	92	49
No	128	60	95	51
<i>Patient-reported illicit diazepam use</i>	$\chi^2(1) = 0.029; p = 0.475 (\omega = 0.008)$			
Yes	73	34	62	33
No	142	66	125	67
<i>Patient-reported illicit cannabis use</i>	$\chi^2(1) = 8.037; p = 0.003 (\omega = 0.142)$			
Yes	172	81	128	68
No	41	19	59	32
<i>Positive biochemistry opioid results</i>	$\chi^2(1) = 2.537; p = 0.067 (\omega = 0.076)$			
Yes	106	47	114	55
No	120	53	95	45
<i>Positive biochemistry benzodiazepine results</i>	$\chi^2(1) = 5.062; p = 0.016 (\omega = 0.108)$			
Yes	153	69	121	58
No	70	31	87	42
<i>Positive biochemistry cannabinoid results</i>	$\chi^2(1) = 4.720; p = 0.025 (\omega = 0.210)$			
Yes	46	84	34	65
No	9	16	18	35

Gabapentinoid Abuse in Order to Potentiate the Effect of Methadone: A Survey among Substance Misusers

Colin R.W. Baird^a Pauline Fox^b Lesley A. Colvin^a

- 22% of those surveyed admitted NMU of Gabapentinoid
 - 76% took to become intoxicated ('high', 'stoned')
 - 38% took to potentiate the effect(s) of methadone ('brings my methadone to highest peak', 'to get a little stoned from my methadone')

- UK Twitter posts 1st October to 31st December 2018
 - Modafinil tweets (196); methylphenidate tweets (436)
- Common keywords for modafinil
 - “cognitive” (7.7% of total modafinil tweets)
 - “smart” (5.6%)
 - “nootropic”, “student”, and “study” (each 5.1%)
- Common keywords for methylphenidate
 - “school” (4.4% of total methylphenidate tweets)
 - “focus” (3.4%)
 - “brain” (2.5%)
 - “concentrate” (1.6%)



Surveillance and uncertainty: community pharmacy responses to over the counter medicine abuse

Richard Cooper BSc MA LLB PhD

School of Health and Related Research (SchARR), University of Sheffield, Sheffield, UK

Accepted for publication 5 October 2012

News



Speeding up the best in health and care, together



London-wide initiative to tackle chronic joint pain could reduce use of strong painkillers

Leading NHS health innovator and physiotherapist speaks out after London newspaper The Evening Standard's [‘The Opioid Timebomb: Special Evening Standard investigation into the overuse of prescription painkillers’](#).

Parting Thoughts

- Increasing evidence of non-medical use of prescription medicines in the UK other than opioids
 - True extent of the problem not understood
 - Non-opioid NMU appears to be less than opioid NMU
- Misuse appears associated with chronic illness and pain, lower income and social deprivation
- Significant harms being associated with misuse
 - Drug treatment, drug-related deaths, ED presentations
- Understanding relationship between prescribing patterns will enable improved harm reduction strategies
 - Warning patients and clinicians of the risks of NMU

Thank You

