

Comparison of ONS and NPSUM data
suggests that opioid-related
deaths in England & Wales have been
systematically underestimated

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ONS

- Office for National Statistics
- 100% death certificates
- 'Cause of Death'

2. Medical cause of death

1a **Acute morphine toxicity**

b

c

II

1(a) Mixed Drug Toxicity

(b)

(c)

II




1a) Opiate/Opioid Toxicity

1b)

1c)

2

 **Record of Inquest**

Following an Inquest opened on the _____ and an inquest hearing at _____ Court on _____
heard before _____ in the coroner's area for _____

The following is the record of the inquest (including the statutory determination and, where required, findings).

1. Name of Deceased (if known)

2. Medical cause of death

1a

1b

1c

II

3. How, when and where, and for investigations where section 5(2) of the Coroners and Justice Act 2009 applies, in what circumstances the deceased came by his or her death

4. Conclusion of the Coroner as to the death

5. Further particulars required by the Births and Death Registration Act 1953 to be registered concerning the death

(a) Date and place of birth

(b) Name and Surname of deceased

(c) Sex

(d) Maiden surname of woman who has married

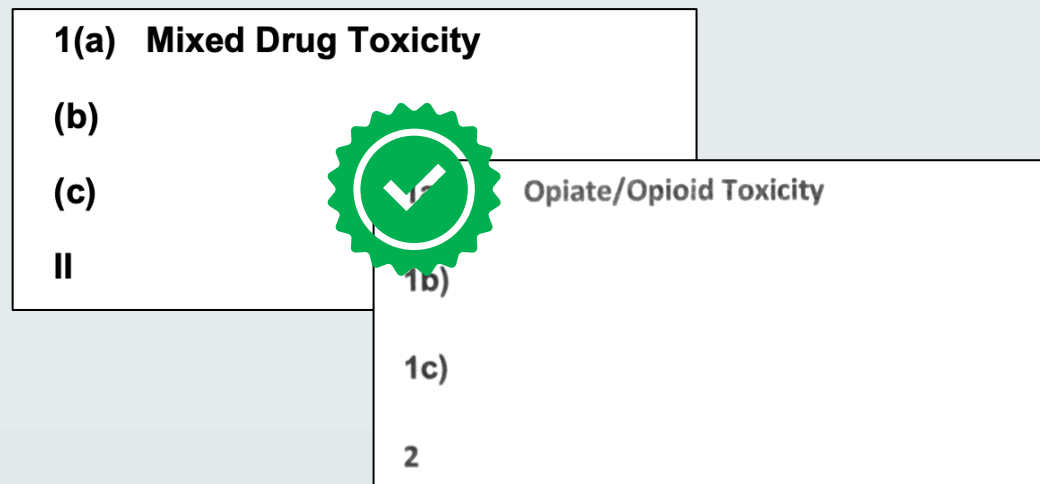
(e) Date and place of death

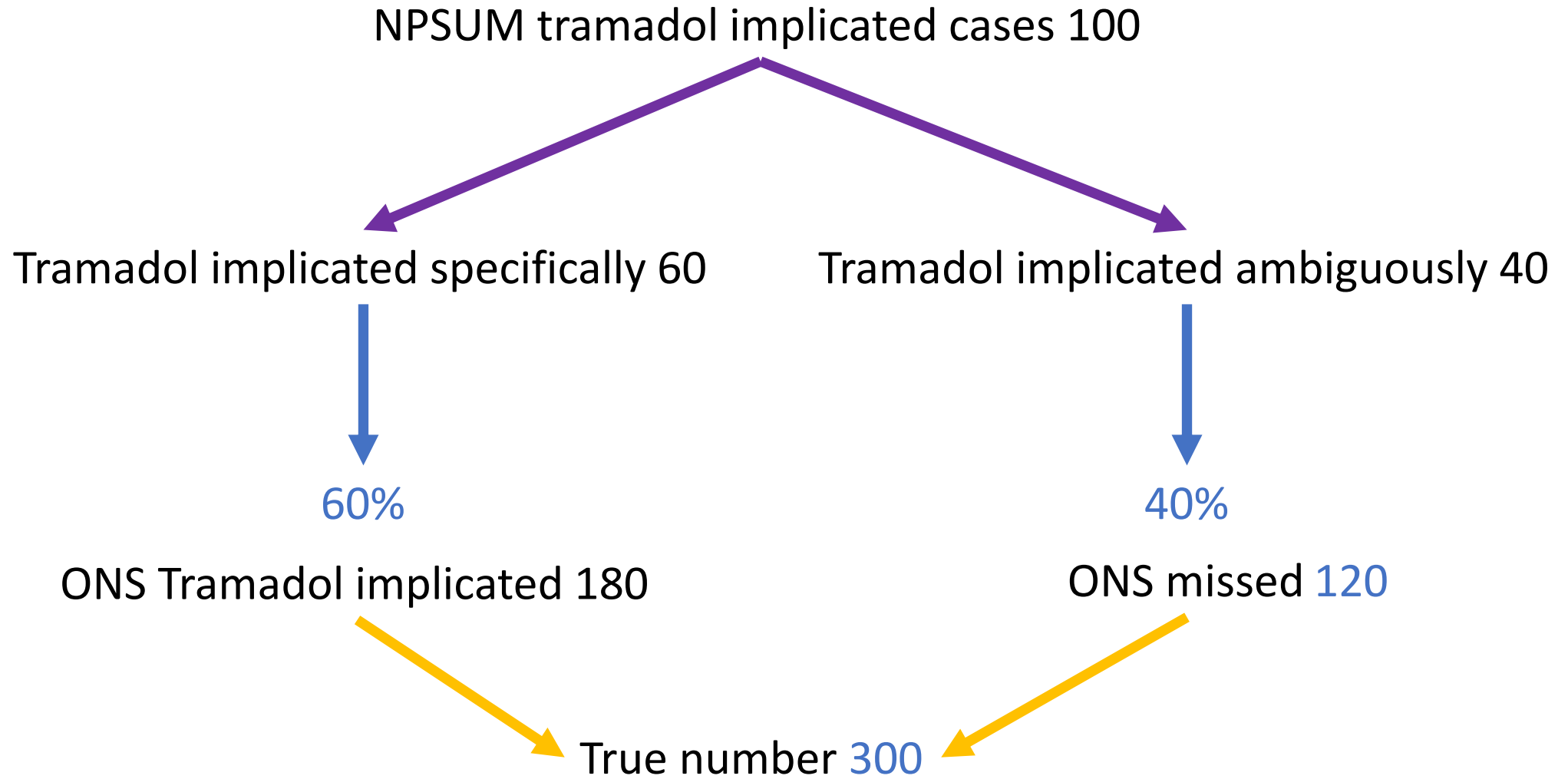
(f) Occupation and usual address

Signature of _____

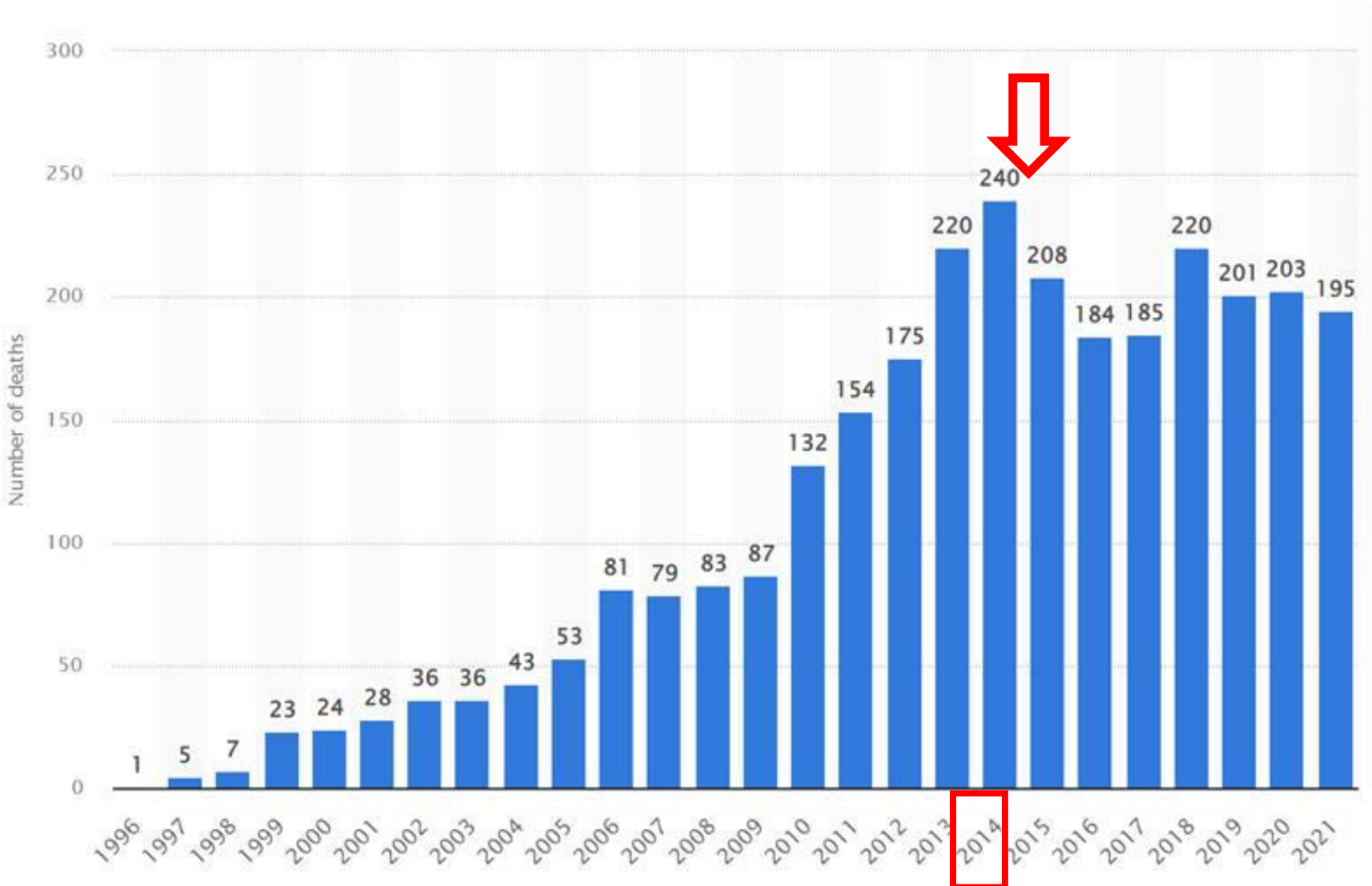
NPSUM

- National Programme on Substance Use Mortality
- Voluntarily reported by the coroners :
 - (a) Psychoactive/controlled drugs implicated/detected in post-mortem
 - (b) The deceased had a history of drug abuse/dependence.
- Toxicology/post-mortem reports
- Total cases = cases implicated specifically + cases with ambiguous causes





ONS Number of deaths from drug poisoning by tramadol in England and Wales



Aim

- **To estimate the number of deaths due to individual opioids in England and Wales by triangulating data between ONS and NPSUM**

Data sources

ONS data

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsrelatedtodrugpoisoninginenglandandwales/2021registrations>

NPSUM data

Database

Extract implicated cases

Heroin/Morphine, Methadone, Tramadol,
Dihydrocodeine, Fentanyl, Codeine

Year of death/Occurance 2011-2020

SPSS: data collection, data analysis

EXCEL: data analysis, graphs, tables

Deaths related to drug poisoning in England and Wales: 2021 registrations

Deaths related to drug poisoning in England and Wales from 1993 to 2021, by cause of death, sex, age and substances involved in the death.

This is the latest release. [View previous releases](#)



Contact:

[Paul Breen and Asim Butt](#)

Release date:

3 August 2022

Next release:

To be announced

Dataset

Deaths related to drug poisoning by date of occurrence,
England and Wales

Contact:

[Paul Breen and Asim Butt](#)

Release date:

03 August 2022

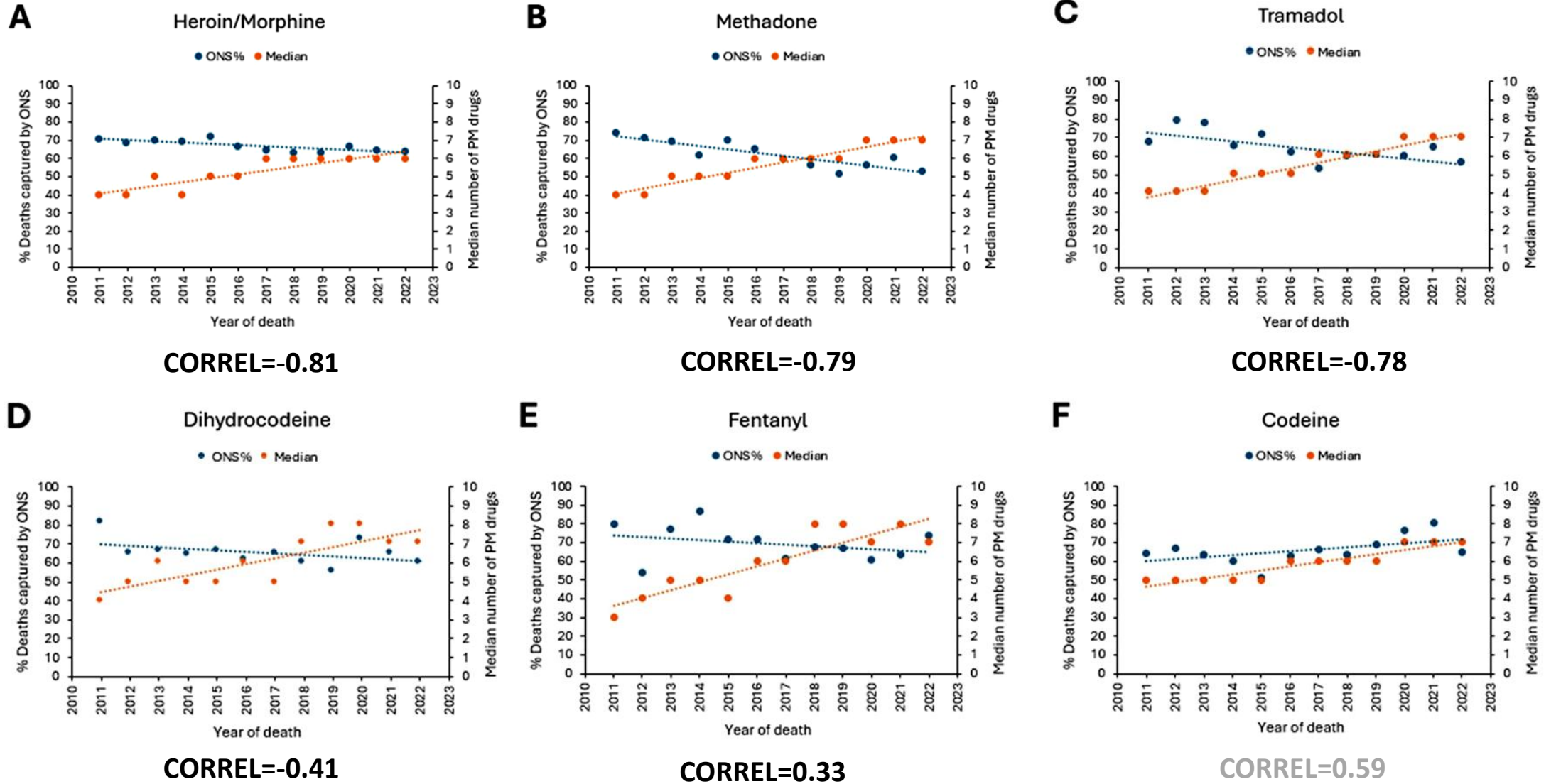
Next release:

To be announced

Results

	ONS number	True number ?	Underestimate
Heroin/Morphine	13,471		

Results



Summary

1. Deaths due to specific opioids are *underestimated*
2. ONS identified cases *decreasing*
3. No. substances detected in PM *increasing*

Discussion



Poly-drug users



CNS depressants , Cardiorespiratory depression



Additive adverse effects



Underestimate the severity of opioid use and opioid-related mortality



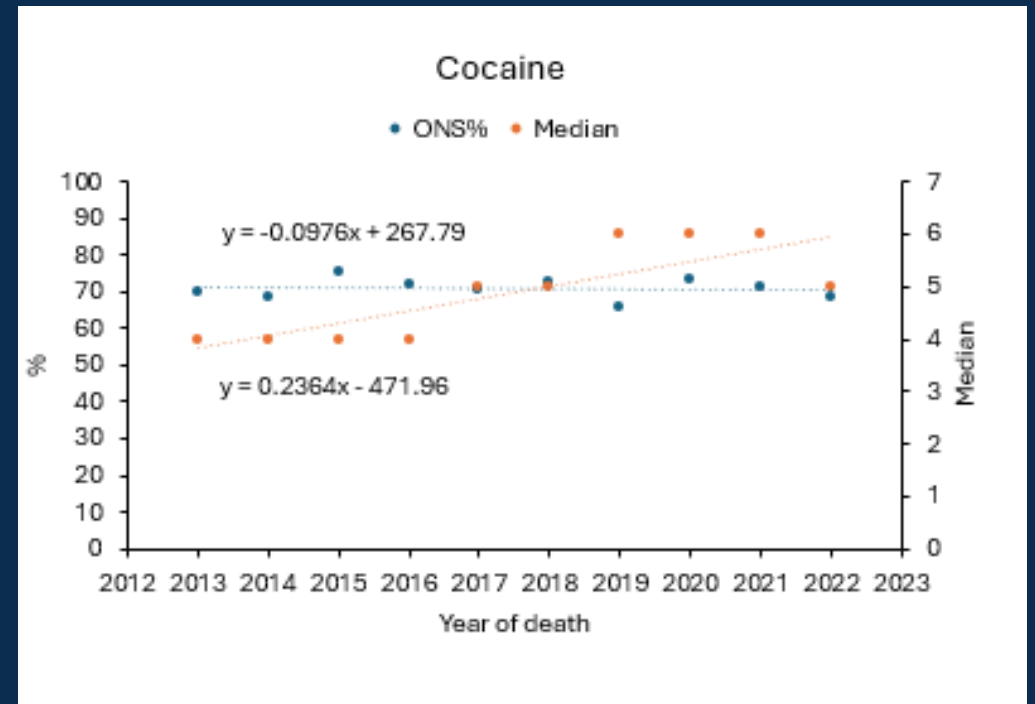
Resource allocation



Toxicology reports

But this isn't just an opioid thing...

	ONS number
Cocaine	5,954



But going back to opioids....

Nitazenes

195 nitazene deaths reported to ONS in 2024
171 nitazene deaths reported to NPSUM in 2024
104 of these deaths had a nitazene listed on the death certificate (~61% of cases)
2024 nitazene deaths more likely to therefore be ~282 deaths

CLINICAL TOXICOLOGY
<https://doi.org/10.1080/15563650.2025.2601141>



BASIC RESEARCH

OPEN ACCESS Check for updates

Is nitazene-related mortality underestimated? Findings from an *in vivo* and *ex vivo* rat study and pharmacoepidemiological analysis of coroner-reported deaths

Shuoqi Chen^a, Daniyar Aldabergenov^a , Khalid S. Alotaibi^{b,c} , Adam Holland^{d,e,f} ,
Robert Moore^g, Rebecca Wood^g, Simon Hudson^h, Holly Milton^h, Eleanor Menzies^h, Claire Parks^{ij} ,
Alexander J. Lawson^k, Magdalena Harris^{e,f} , Mervyn Singer^b , Alex Dyson^{a,b}
and Caroline S. Copeland^{a,e}

Thanks for Listening



Shuoqi Chen



David Mais