



# DEATHS FOLLOWING KETAMINE USE

Dr Caroline Copeland

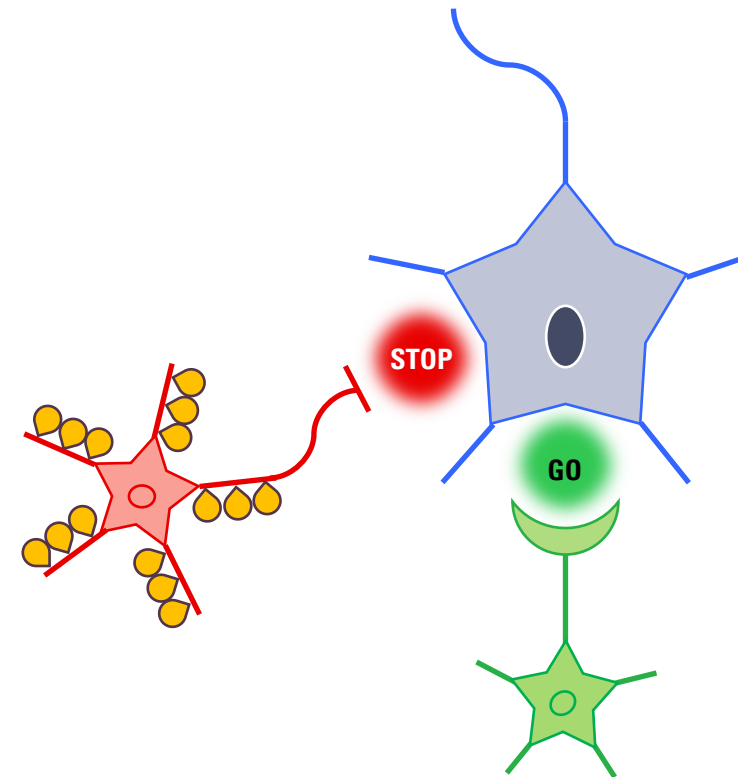
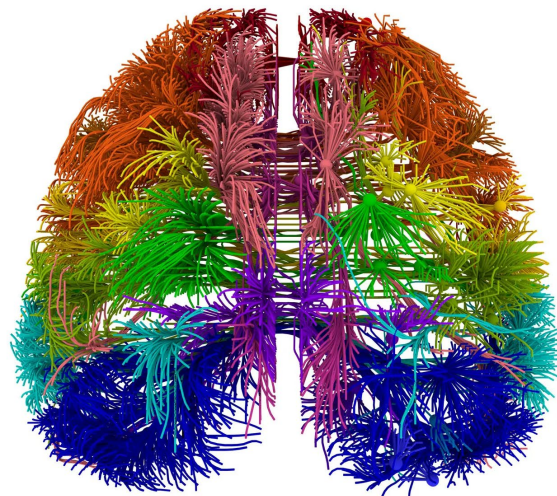
Senior Lecturer in Pharmacology & Toxicology, King's College London

Director, National Programme on Substance Use Mortality (NPSUM)

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# WHAT DOES KETAMINE DO?

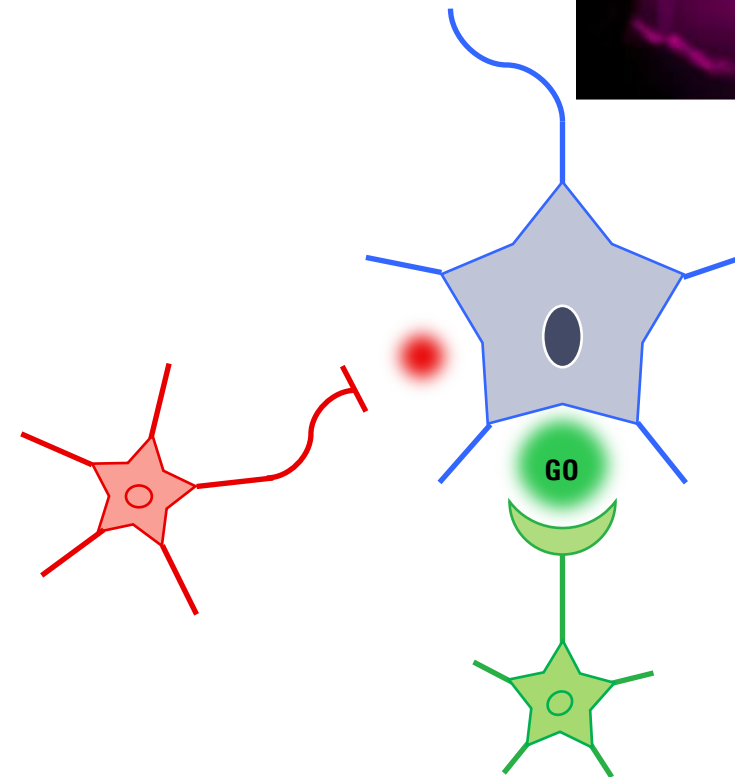
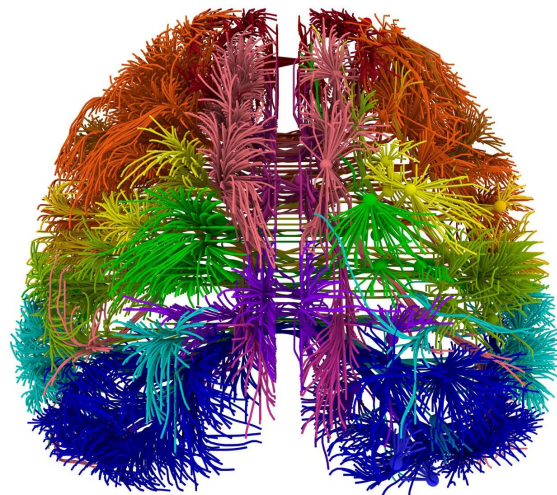
NMDA Receptor Antagonist



 NMDA Receptor

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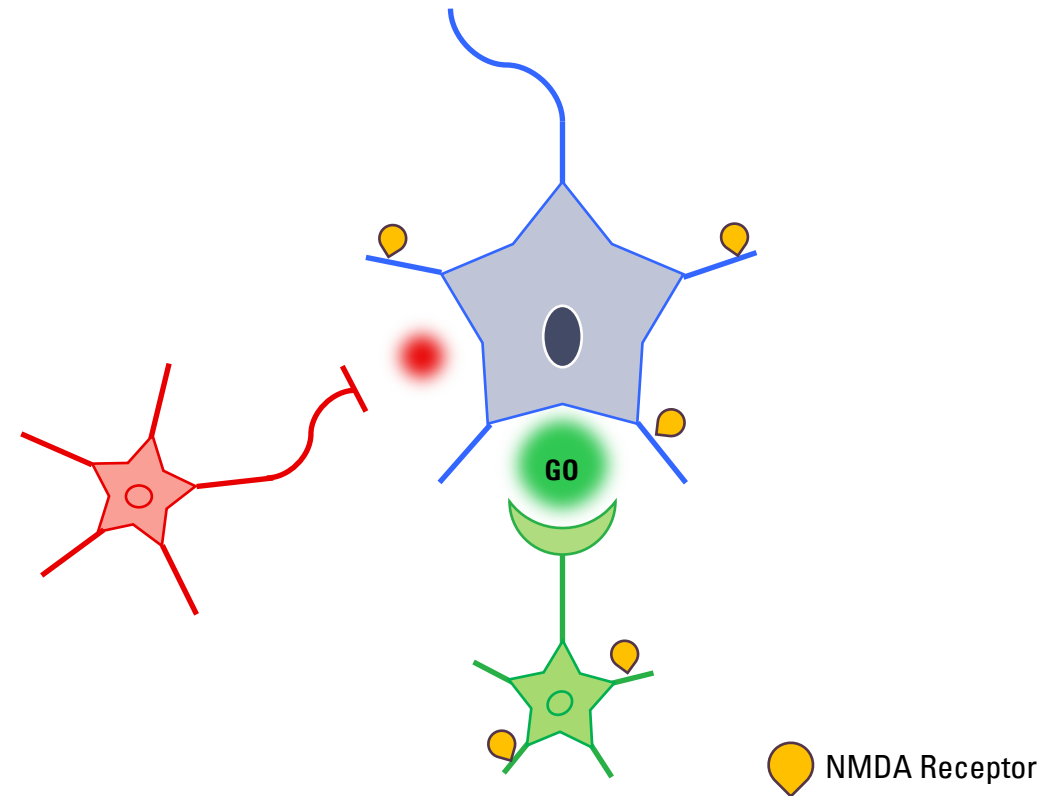
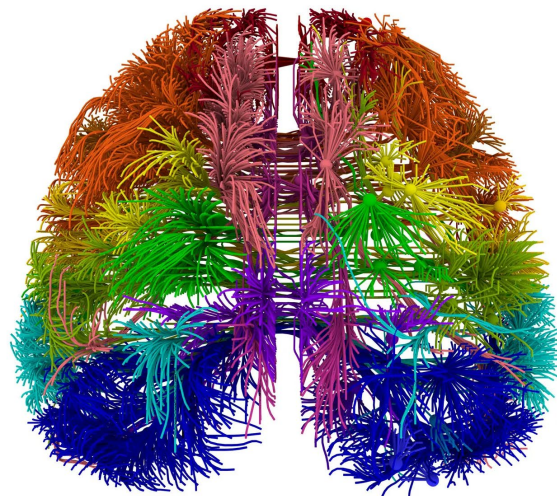
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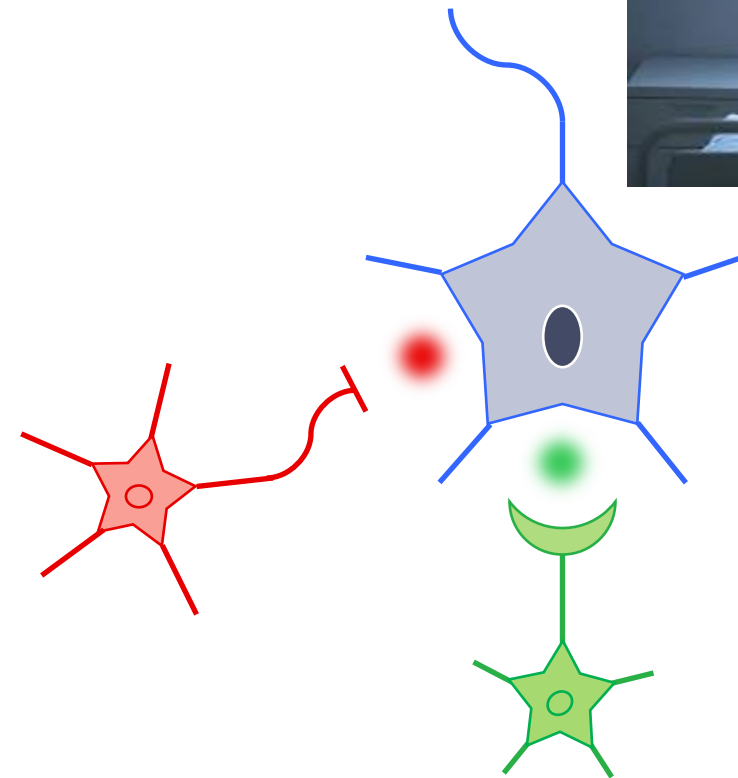
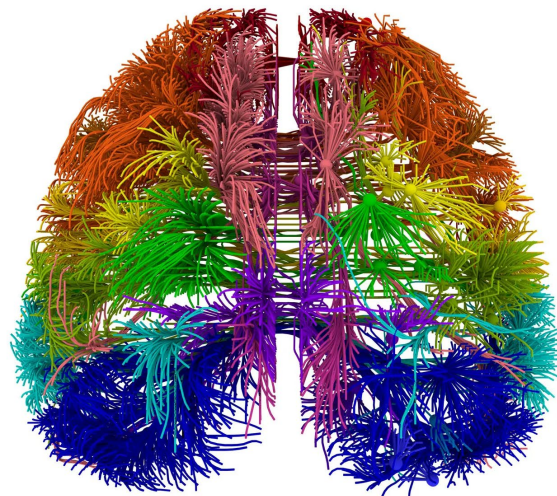
# WHAT DOES KETAMINE DO?

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# KETAMINE FATALITIES IN THE UK

*Short report*

## Deaths following illicit ketamine use in England, Wales and Northern Ireland 1999–2024: An update report to inform the reclassification debate

Jade Pullen<sup>1</sup>, John M. Corkery<sup>2</sup> , Rebecca McKnight<sup>3</sup>  
and Caroline S. Copeland<sup>1,4</sup> 



*Journal of Psychopharmacology*

1–9

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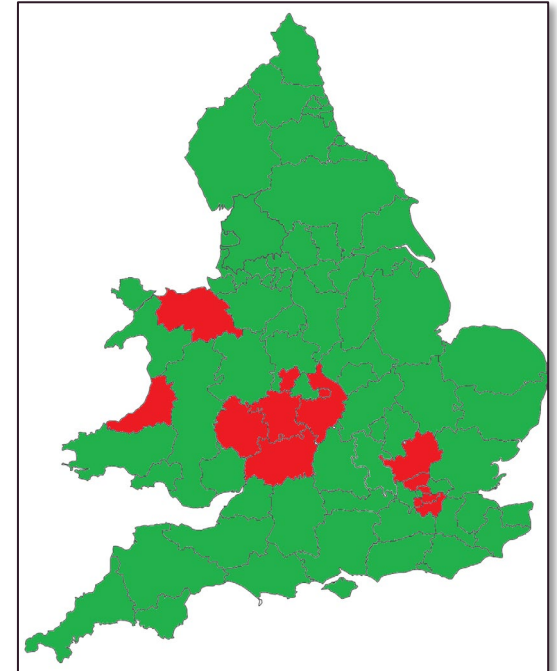
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# NATIONAL PROGRAMME ON SUBSTANCE USE MORTALITY (NPSUM)

- A database of deaths following drug use reported to voluntarily by coroners across most of the UK (>90% of jurisdictions) – not currently Scotland.
- Started in 1997 – nearly 60,000 reports received to date
- Cases that qualify for reporting:
  - The presence of psychoactive drugs at post-mortem and/or implication in causing the death
  - The decedent had a history of drug use
- Data fields collected:
  - Demographic data (sex assigned at birth, age, usual address, ethnicity, living arrangements, employment status)
  - Details pertaining to death (cause(s) and manner of death, toxicology, narrative of circumstances)
  - Past medical history (prescribed drugs, co-morbidities, known to use drugs)



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# KETAMINE FATALITIES IN THE UK

Original Paper

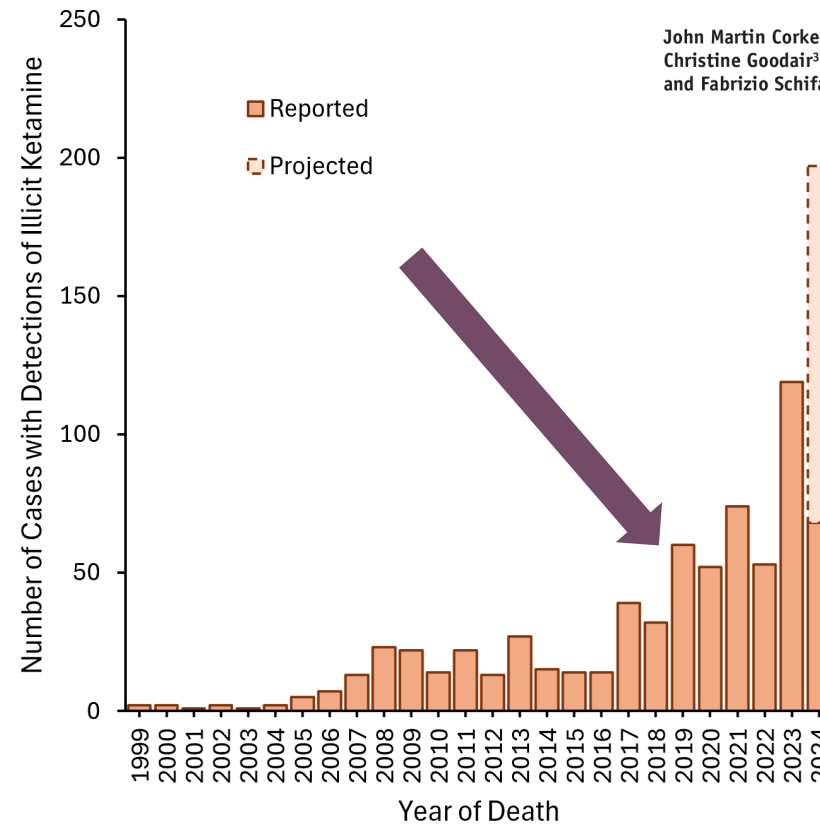
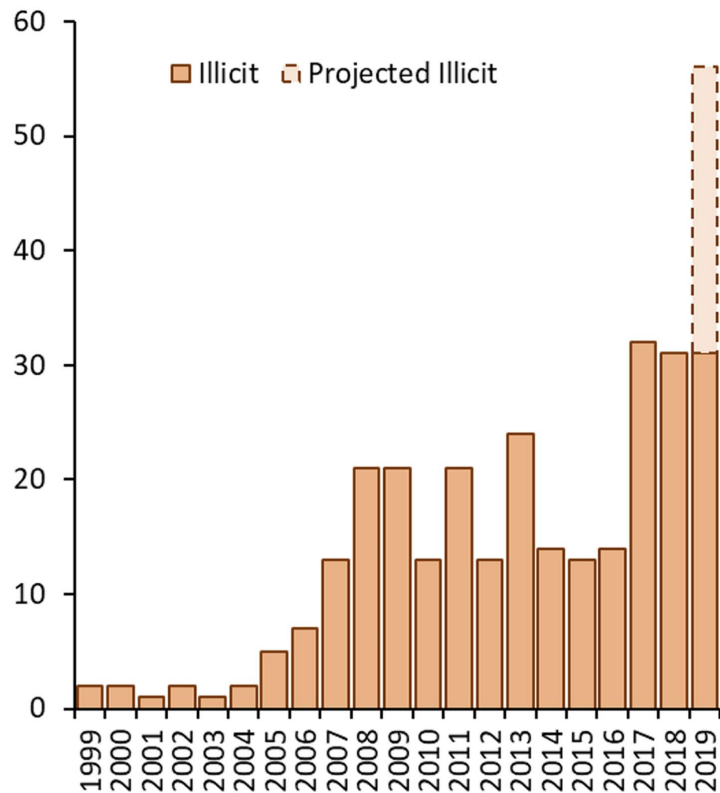
Recreational ketamine-related deaths notified to the National Programme on Substance Abuse Deaths, England, 1997–2019



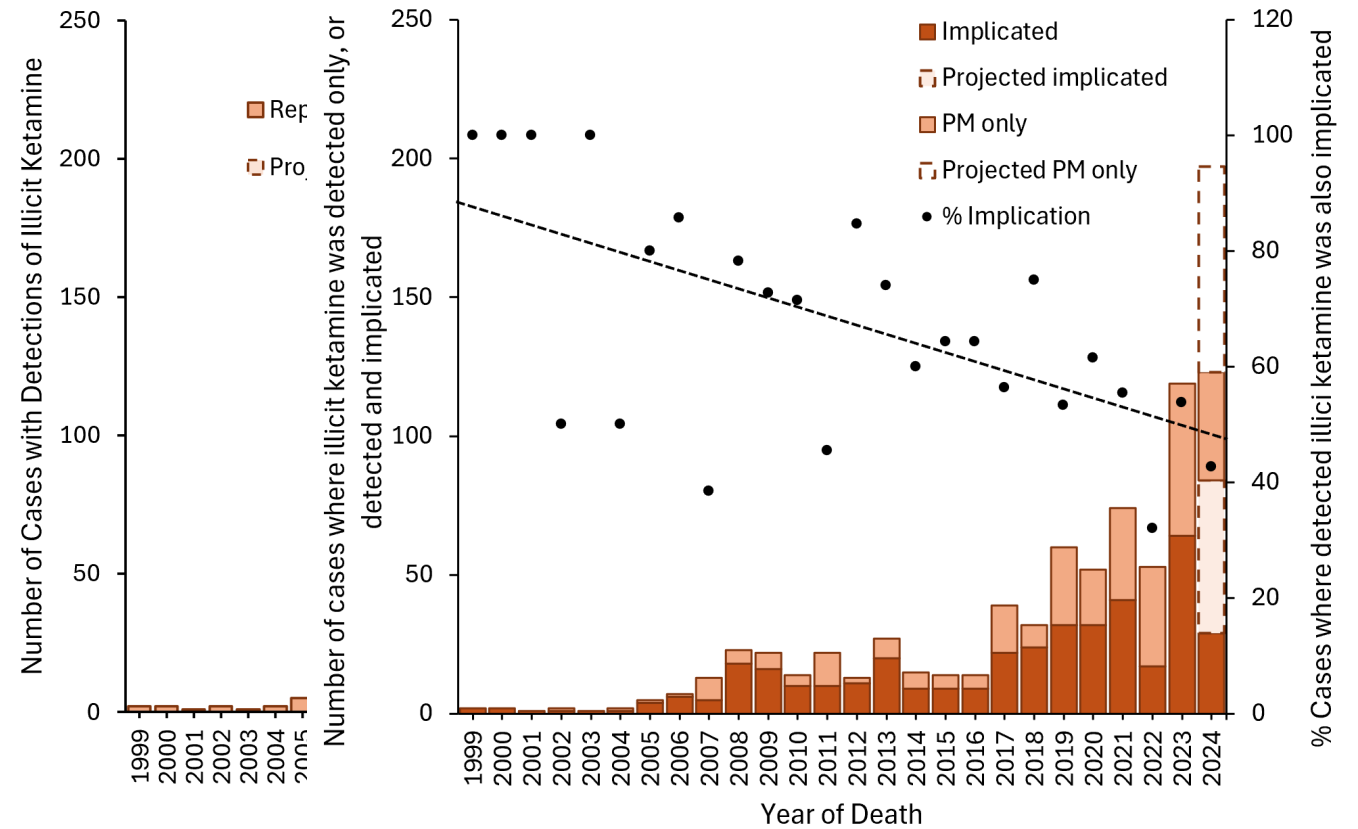
Journal of Psychopharmacology  
2021, Vol. 35(11) 1324–1348  
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John Martin Corkery<sup>1</sup>, Wan-Chu Hung<sup>2</sup>, Hugh Claridge<sup>3,4</sup>,  
Christine Goodair<sup>3,4</sup>, Caroline S Copeland<sup>2,3,4</sup>  
and Fabrizio Schifano<sup>1</sup>



# KETAMINE FATALITIES IN THE UK



So what is deemed to have caused these deaths?

# KETAMINE FATALITIES IN THE UK

Opioids implicated  
in 58% of deaths



39% with heroin/morphine

Stimulants implicated  
in 42% of deaths

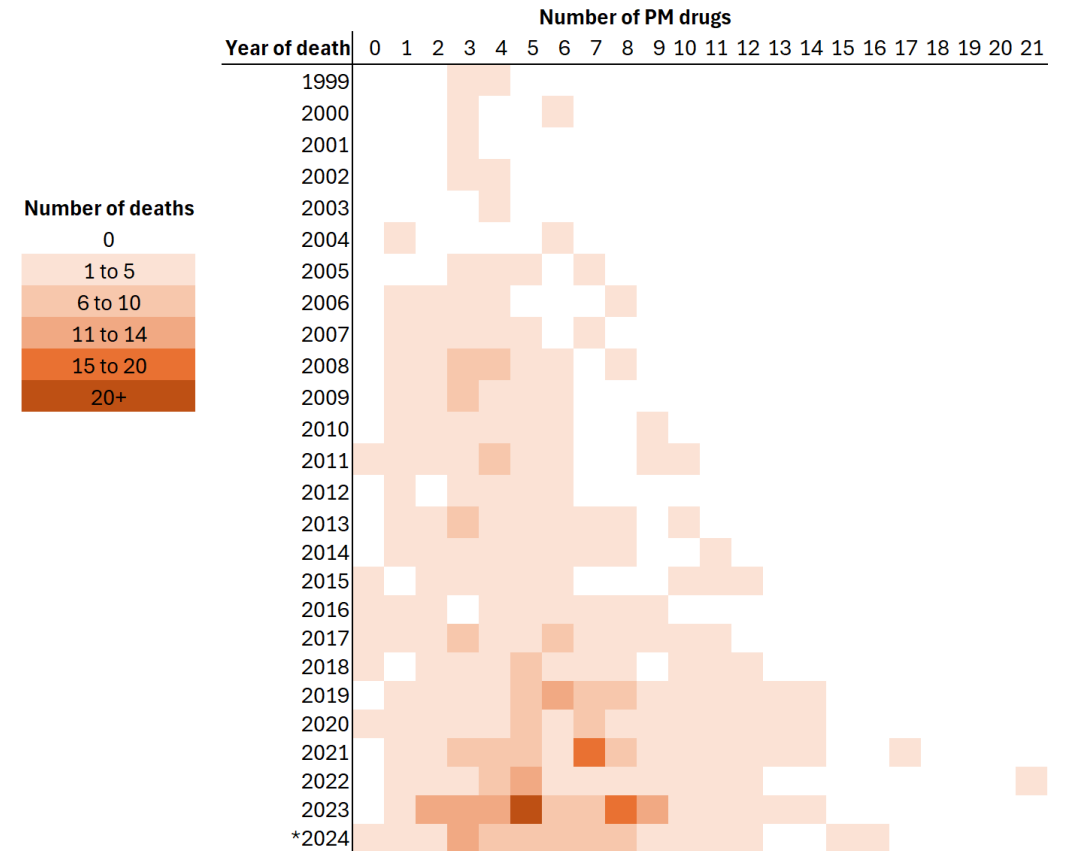


31% with cocaine

Benzodiazepines implicated  
in 21% of deaths



11% with diazepam



# KETAMINE FATALITIES IN THE UK

## Underlying Cause of Death

Majority due to  
acute drug toxicity



86.2%

Few attributable to  
chronic use



1.6%

Remainder due to  
physiological or  
external factors



12.2%

# KETAMINE FATALITIES IN THE UK

## Context of Death

1999-2004



75% in a recreational  
use setting



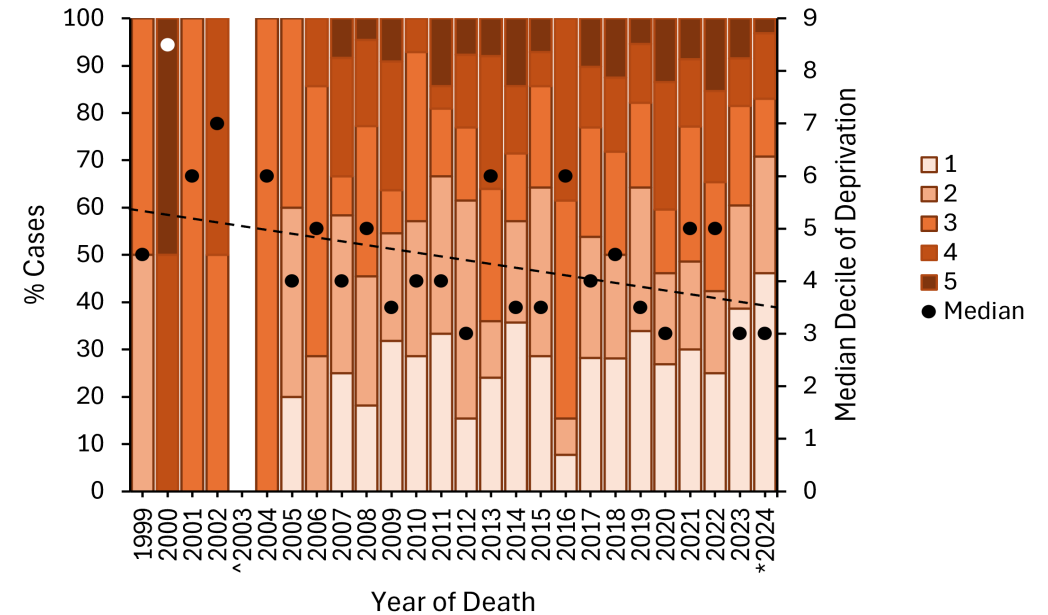
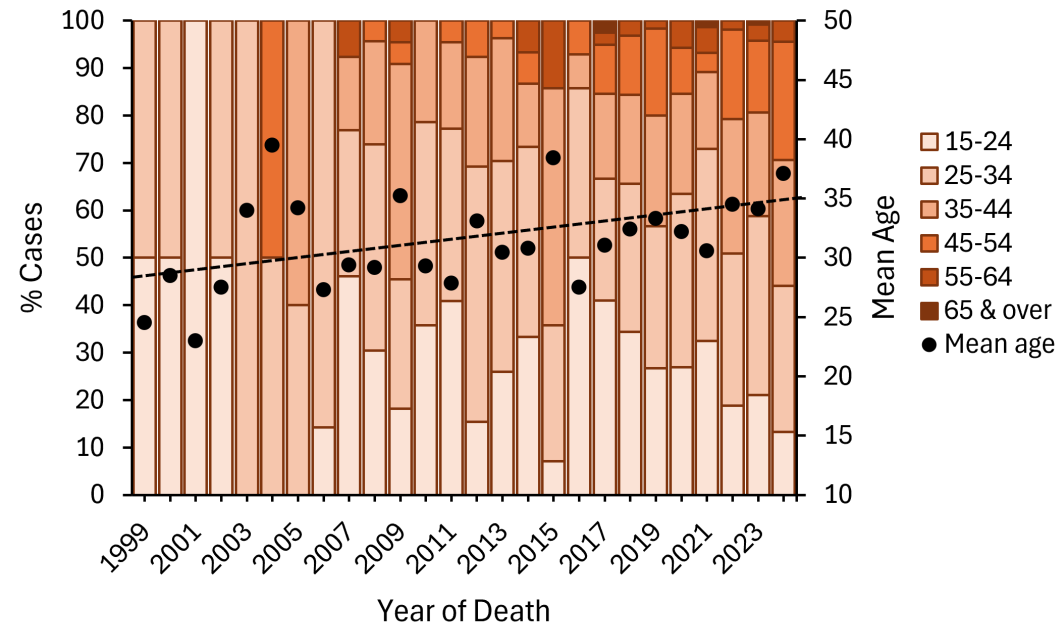
2019-2024



71% in a dependent  
use setting

# KETAMINE FATALITIES IN THE UK

## Decedent Demographics



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# SUMMARY

- Deaths following ketamine use are increasing
  - Drivers: Low cost? Easy availability? Riskier drug supply?
- Polydrug use is increasingly common and causative in death
  - Effectiveness of single substance controls?
- An increasingly socioeconomically deprived demographic
  - But this is **deaths**, not overall use

Opioids implicated  
in 58% of deaths



39% with heroin/morphine

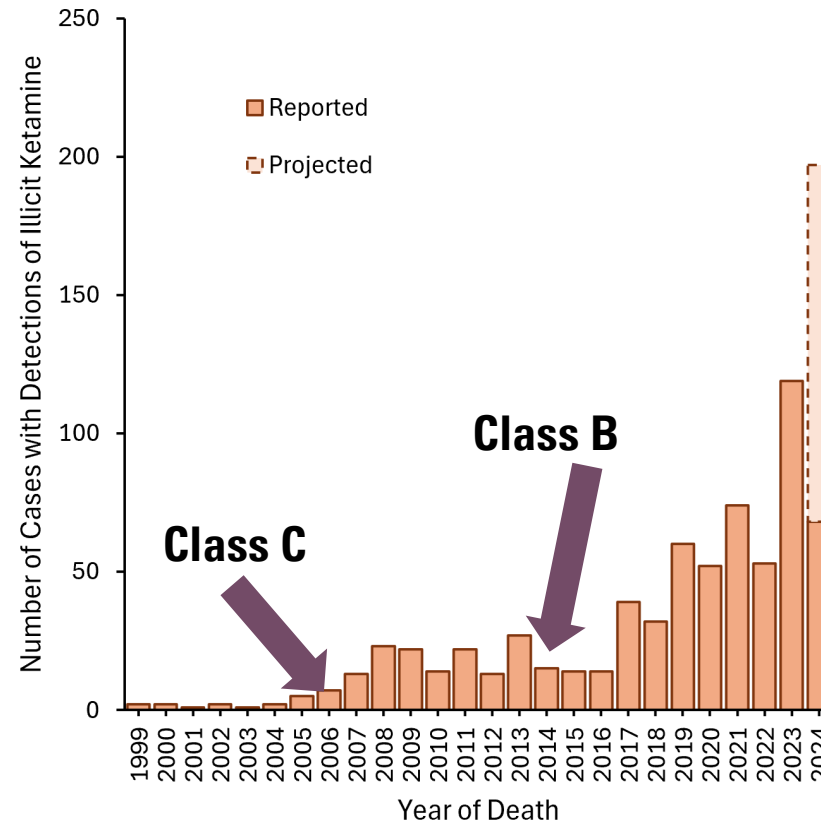
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31% with cocaine



# SHOULD KETAMINE BE MOVED TO CLASS A?



Education  
 Treatment  
 Prevention

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# WITH THANKS TO....

- Jade Pullen
- Dr John Corkery
- Dr Rebecca McKnight

