

Novel synthetic opioids in Australian drug markets

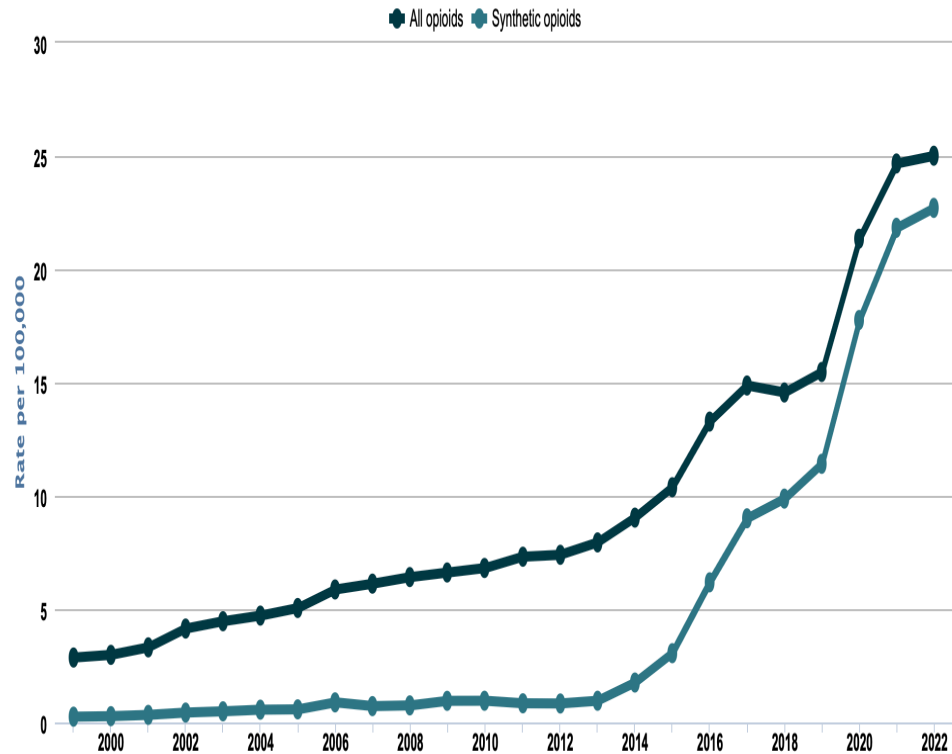
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AT BURNET INSTITUTE, WE PROUDLY ACKNOWLEDGE THE BOON WURRUNG PEOPLE OF THE KULIN NATIONS AS THE TRADITIONAL CUSTODIANS OF THE LAND ON WHICH OUR OFFICE IS LOCATED AND RECOGNISE THEIR CONTINUING CONNECTION TO LAND, WATERS AND COMMUNITY. WE ACKNOWLEDGE ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES AS AUSTRALIA'S FIRST PEOPLES AND ACKNOWLEDGE THAT SOVEREIGNTY WAS NEVER CEDED. WE PAY OUR RESPECT TO ELDERS PAST AND PRESENT, AND EXTEND THAT RESPECT TO ALL FIRST NATIONS PEOPLE.



Background – Rising deaths in the US and the UK



Source

Centers for Disease Control and Prevention, National Center for Health Statistics via CDC WONDER Database.

Table 1: nitazenes detected in laboratory testing of death cases in England, June 2023 to May 2024

Nitazene detected	Deaths
Protonitazene	73
N-desethyl isotonitazene	46
Metonitazene	34
N-pyrrolidino protonitazene	16
Isotonitazene	2
Etonitazene	2
N-pyrrolidino etonitazene	1
N-desethyl etonitazene	1
Metodesnitazene	1
Unspecified nitazene	17

Research and analysis

Deaths linked to potent synthetic opioids

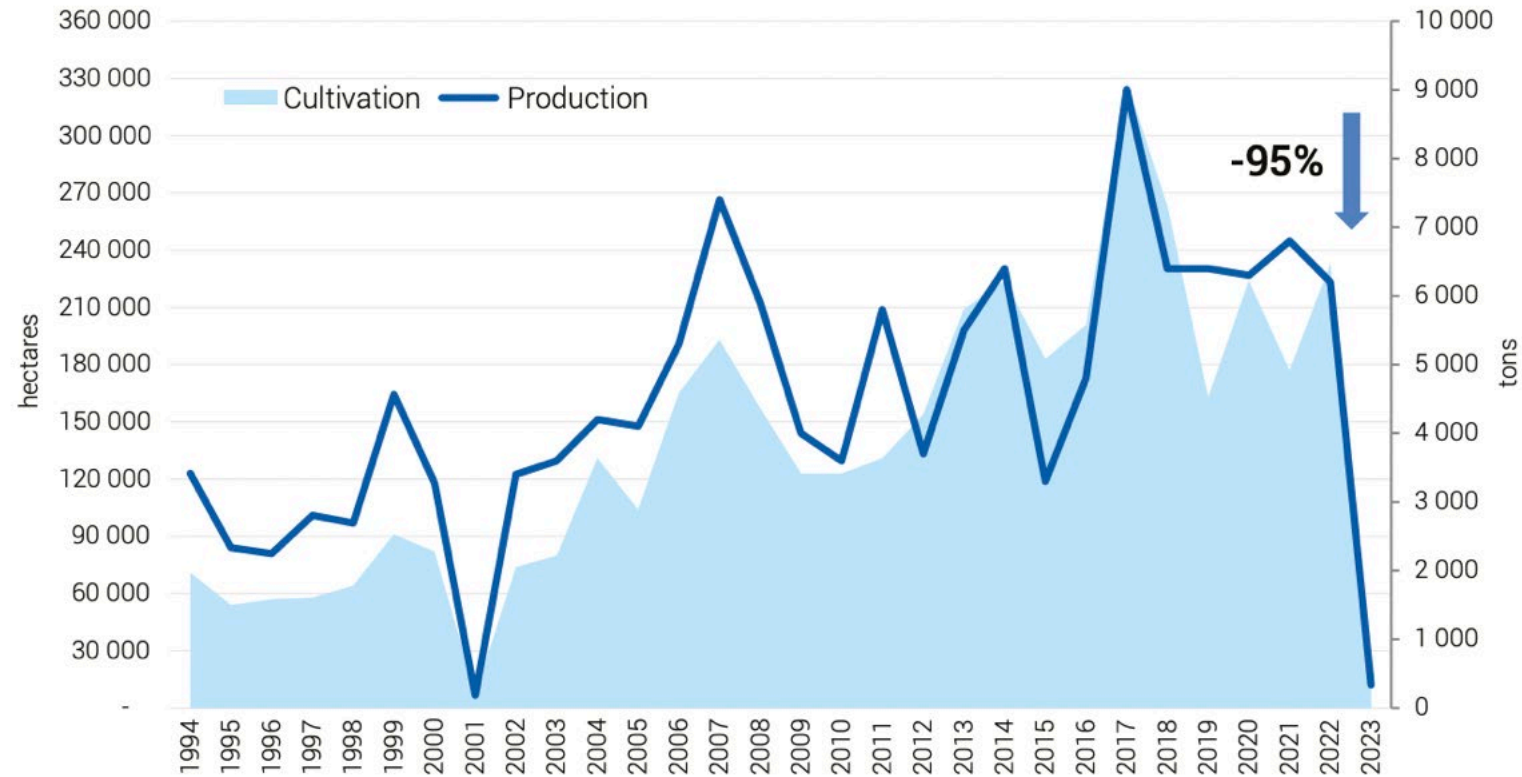
Published 3 October 2024

Office for Health Improvement and Disparities

Background – Ban on opium cultivation in Afghanistan 2022



Opium cultivation and production in Afghanistan, 1994-2023.



Source: UN Office on Drugs and Crime



AIMS

- **Conduct a scoping review** of indicators of NSOs in drug markets in Australia – academic and grey literature
- **To understand their emergence** in local markets
- **And inform responses** to reduce harms

DEFINITION

- **Emerging novel psychoactive opioid substances** (e.g. fentanyl analogues, U4-7700 nitazenes)
- **Excludes illicitly manufactured fentanyl**

ELIGIBILITY CRITERIA

- **Included if:**
 - specific to **NSOs in Australia**
 - provided information on **market indicators, use, or harms**
- **Excluded studies** only reporting on IMF

PRISMA DIAGRAM

1011 studies imported
for screening

99 duplicates removed

912 studies screened

832 studies deemed
irrelevant

80 full-text studies
assessed for eligibility

43 studies excluded

37 studies included

Exclusion Reasons:

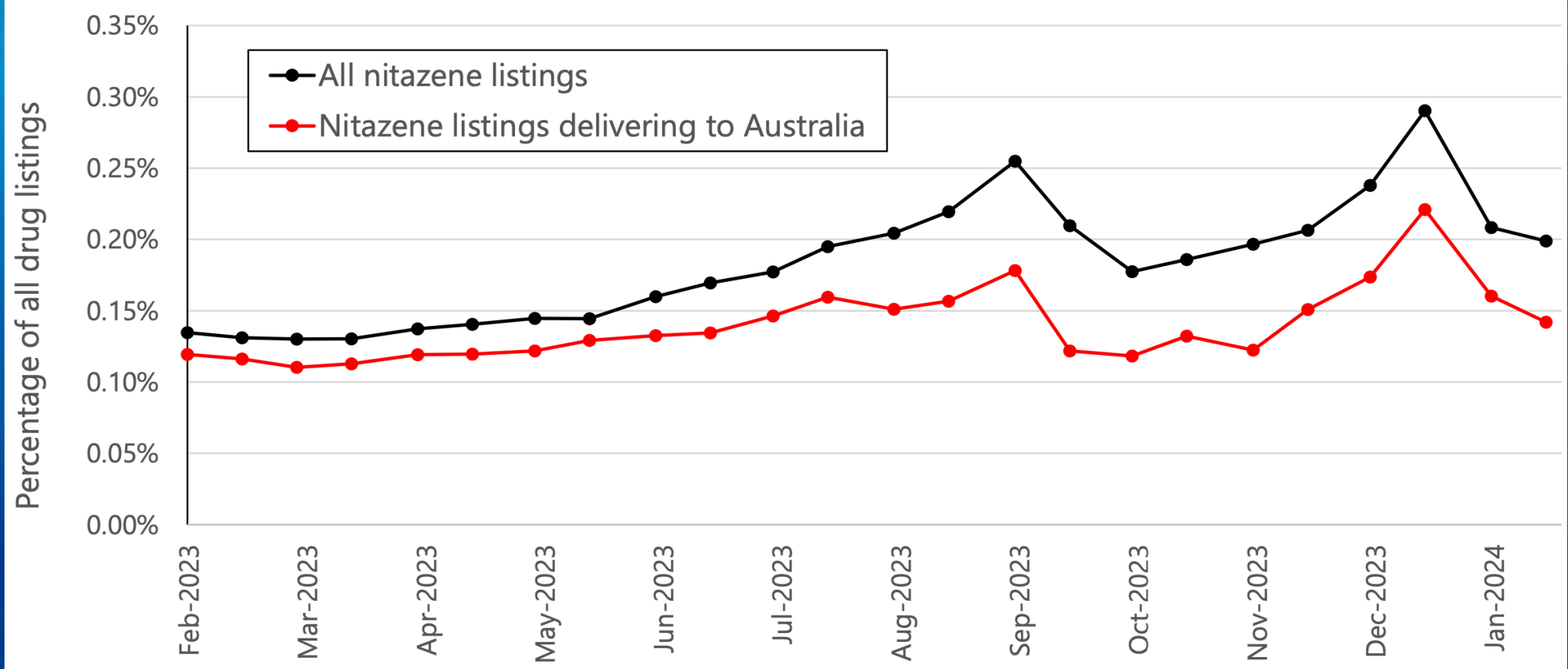
- Not specifically about NSO and/or Australia: **34**
- Duplicate article/results: **7**
- Incorrect referencing of deaths in Australia: **1**
- Irrelevant study type: **1**



MONITORING STUDIES – N=30

- ★ 6 Wastewater studies – low prevalence of detections of fentanyl analogues, U47700; festival testing 2019-2020 – No NSOs
- ★ 8 studies from EDNAV – ED tox presentations – early nitazene detection 2021
- ★ 5 studies in SIFs – urinalysis & injecting equipment testing – no fentanyl analogues detected - MSIC; 2 Beta U10 detections MSIR
- ★ 5 cryptomarket studies fentanyl analogues, U47700, 2-MAP-237, nitazenes Australia listed as country of origin/destination for small # listings

Cryptomarket listings for nitazenes 2023-2024






Availability of nitazenes for purchase in Australia and internationally via cryptomarkets




Nicola Man, Vandit Sadaphale, Monica J. Barratt, Raimondo Bruno, Rachel Sutherland and Amy Peacock



MORTALITY STUDIES – N=7

-  3 single case studies— acetylfentanyl, furnaylfentanyl, U-47700, & AH7921
-  3 case series— 22 fentanyl analogue deaths to 2021; 12 U-47700; 20 nitazene
-  1 review – US, Europe, Australia – 2019 no cases identified in academic literature on NSO deaths

PUBLIC DRUG ALERTS 2019 -2024

-  50 alerts issued
-  17 (34%) - NSOs – earliest in 2020
-  12 (24%) - nitazenes

Conclusions



Majority of academic literature related to monitoring studies



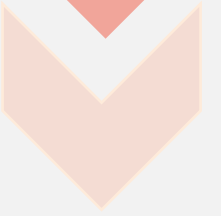
Evidence of NSOs emerging from as early as 2013, nitazenes emerging more recently (2021)



NSOs still not highly prevalent but reports of nitazenes are emerging rapidly



Unclear what the demand for NSOs is in Australia, with only a few reports of intentional purchase and intentional consumption



NSOs have been found as contaminants across a range of non-opioid drugs - methamphetamine, MDMA, cocaine, ketamine. Unclear what the motivation is for contaminating non-opioid substances

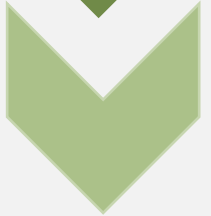
Limitations



Literature moving rapidly so we've likely missed papers/reports/alerts



Technical capability of detecting these drugs means findings may be underestimated



NSO related mortality – difficulties regarding timeliness means figures will be incorrect

Implications



Australia has good monitoring capability post consumption – wastewater, ED tox, testing equipment

Drug checking pre-consumption way more useful in reducing NSO-related harms to allow consumers to make more informed choices - for people who use opioids / are opioid naive

Expansion of take home naloxone particularly for events/venues e.g. nightclubs dance parties

Drug alerts extremely useful

- **need to engage more directly with groups who consume drugs**
- **warnings about the increased/unknown potency of NSOs & shorter time to overdose/respond**
- **interagency and cross jurisdiction information sharing central**



Thank you

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