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DPMP Evidence Hub: Evidence Brief for changes in heroin deaths in NSW

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The characteristics of drug markets have changed since the introduction of the Sydney Medically Supervised Injecting Centre (MSIC), an important harm reduction initiative, in 2001. Gentrification of inner city areas such as Kings Cross where the MSIC is located, has resulted in a greater dispersion of populations of people who inject drugs and drug markets to suburbs outside the Sydney metropolitan area (Dertadian & Tomsen, 2020). The local illicit drug supply is also increasingly being contaminated by potent synthetic opioids such as nitazenes (Nielsen, Roxburgh, & Armour, 2024). These substances have been responsible for increasing numbers of drug-related overdoses and deaths internationally (e.g. the UK and North America) (Davidson, 2023; Pergolizzi, Raffa, LeQuang, Breve, & Varrassi, 2023), and are emerging across Australia (Nielsen, et al., 2024). Heroin-related deaths have been steadily increasing since 2012 and are comparatively high in New South Wales (NSW) (AIHW, 2024).

In this Evidence Brief we present summary statistics on changes in the geographic location of heroin-related deaths across NSW.

Heroin-related deaths

Data

Data on deaths in NSW (2001 to 2022) where the coroner determined heroin overdose as the underlying cause of death were extracted from the National Coronial Information System (NCIS). The NCIS is an online coronial database of all deaths in Australia and New Zealand that are reportable to the coroner. All drug-related deaths are reportable to the coroner in Australia.

Analysis

Heroin death rates per 100,000 population were calculated by Statistical Area 4 (SA4) across NSW.

We compared rates from the five year period 2001-2005 with the five year period 2018-2022 (representing the latest available and most complete data).

The relative percentage change (the difference between 2001-2005 and 2018-2022) in the rates of heroin deaths by SA4 are presented in Figure 1.1 (a map of NSW) and Figure 1.2 (a map of Sydney and outer metropolitan areas). The number of deaths by SA4 for 2018-2022 are also presented.

Results

- Rates of heroin deaths in 2018-2022 were highest in Sydney City and Inner South (N=105, 6.1 per 100,000 population), increasing slightly since 2001-2005 (N=70, 5.9 per 100,000).
- Sydney South West (bordering the Blue Mountains area) recorded relatively high rates at 2.5 per 100,000 (N=58) in 2018-2022 representing a slight increase in rates from 2001-2005 (2.1 per 100,000 N=37).
- Sydney Eastern Suburbs also recorded 2.5 deaths per 100,000 population (N=35) in 2018-2022, representing an increase since 2001-2005 (0.9 per 100,000, N=11).
- Rates of deaths in Sydney Outer West and Blue Mountains have more than doubled from 0.42 per 100,000 (N=6) in 2001-2005 to 1.63 (N=27) in 2018-2022.
- Other areas of concern where increases are occurring are Sydney Inner West, the Central Coast, Newcastle and Lake Macquarie.

Implications

- Heroin deaths remain highest in Sydney City and Inner South. These remain important areas for harm reduction and life-saving services.
- Data presented shows evidence in the dispersion of heroin deaths across the greater Sydney metropolitan area.
- Consideration should be given to further implementation of evidence-based harm reduction services including overdose prevention services, needle and syringe programs and enhanced distribution of take-home-naloxone in areas showing increases in fatal heroin overdoses. Evidence for the effectiveness of these services is summarised in Stewart and Dietze (2024) available on the DPMP Evidence Hub.
- One overdose prevention service (such as the Sydney MSIC) is unlikely to be sufficient to meet the needs of people who use drugs or to effectively reduce opioid-related harms across NSW.
- Spatial analyses of other indicators such as ambulance callouts and treatment attendance across NSW will be important in further determining the areas of greatest need for additional harm reduction services.

Conclusions

- The NSW drug summit represents an important opportunity to make a difference to many people's lives. The 1999 drug summit resulted in the opening of the Sydney Medically Supervised Injecting Centre, which has reduced drug harms and improved the lives of many people who use drugs (Roxburgh et al, 2021).
- Given the evolving nature of drug markets and the geographic changes in drug harms, enhancing our harm reduction efforts to reduce drug morbidity and mortality is critical.

Figure 1: Relative percentage change in rates of heroin deaths per 100,000 population 2018-2022 compared to 2001-2005

Figure 1.1: New South Wales

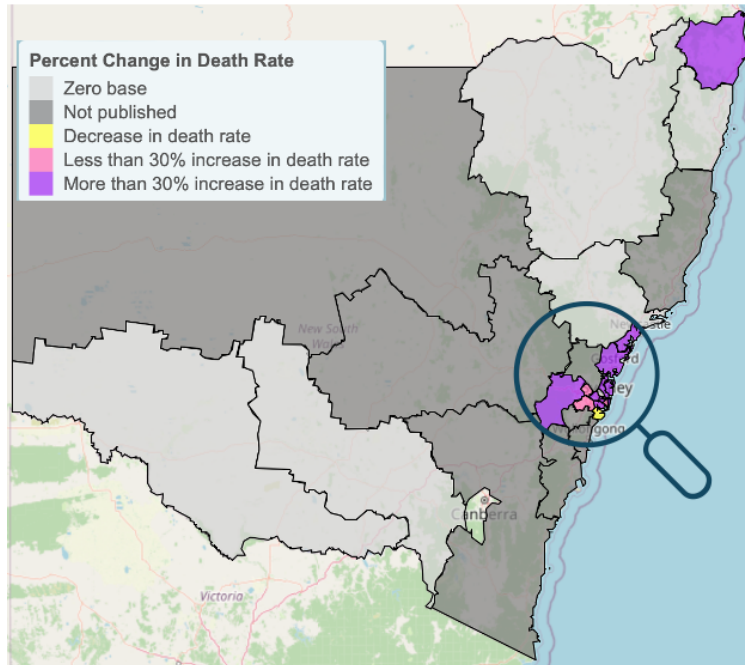


Figure 1.2: Sydney and outer metropolitan areas

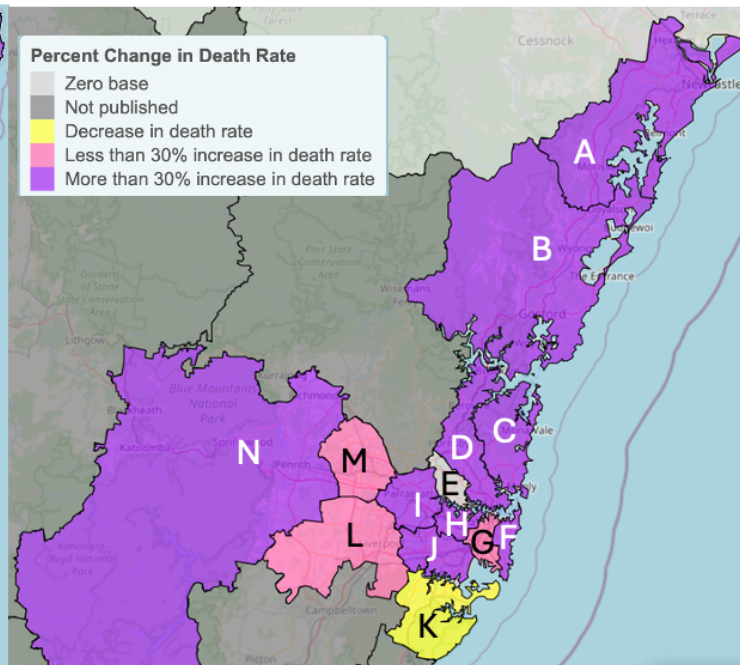


Figure 1.2: Legend

Key	SA4	No. of Deaths 2018-2022
A	Newcastle/Lake Macquarie	39
B	Central Coast	31
C	Nth Sydney/Hornsby	16
D	Northern Beaches	11
E	Ryde	Zero base
F	Eastern Suburbs	35
G	City & Inner South	105
H	Inner West	34
I	Parramatta	36
J	Inner SouthWest	42
K	Sutherland	9
L	SouthWest	58
M	Blacktown	16
N	Outer West/Blue Mtns	27

NB: Not published relates to areas where there were less than six deaths, 2001-2005.

Zero base means there were zero deaths in those areas in the period 2001-2005.

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