

Age period cohort analysis: Twenty-one years of heroin mortality in Australia

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Introduction

- ★ Opioid markets changing internationally
- ★ COVID-19 border closures impacted Aust. drug markets
- ★ Age period cohort (APC) analysis to understand trends in heroin deaths
- ★ APC analysis has been undertaken on all drug-induced deaths¹, suicide deaths² and methamphetamine deaths³
- ★ GAP: APC analysis has NOT been applied to heroin deaths

Methods

-  Age effects: changes that happen as a person gets older
-  Period effects: changes that affect everyone at the same time
-  Cohort effects: changes that impact people differentially based on when they were born
-  **Data:** Closed heroin death cases National Coronial Information System
-  NATIONAL CANCER INSTITUTE Division of Cancer Epidemiology & Genetics **Analysis:** the APC analysis web tool

Results

Overall upward increase (net drift) of 5.5% per year

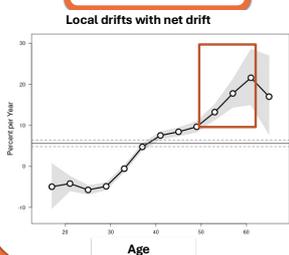
- ★ 51-54 yrs 13.2%
- ★ 55-58 yrs 17.7%
- ★ 59-62 yrs 21.5%

Increasingly higher mortality risk 2011-2020 compared to 2001

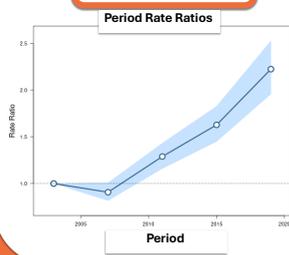
Partly driven by increase in methamphetamine involvement from 10% in 2011 to 37% in 2020

Relative mortality risk high among Generation X (born 1965 -1979)

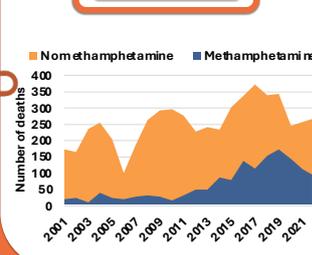
Age



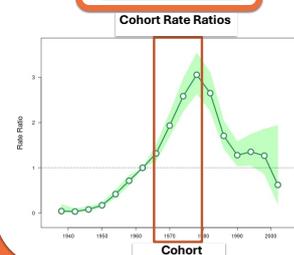
Period



Period

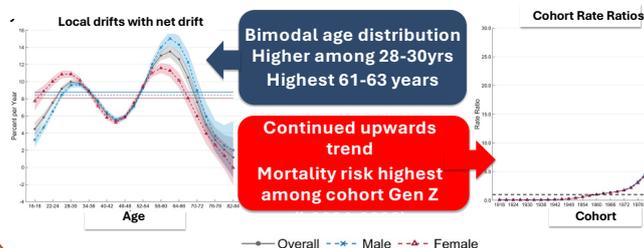


Cohort



US comparison trends

US Drug overdose mortality 2000-2020⁴



Discussion

- ★ Increases in heroin deaths, highest risk among Generation X
- ★ Other research shows sustained declines in injecting initiation in Australia recorded⁵
- ★ Suggests increasing mortality likely due to increased risk rather than increased prevalence of use
- ★ Provision of more targeted services for older Australians who inject & upscaling of low threshold services
- ★ Continued work to reduce stigma

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