

DRUG TRENDS

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Introduction

Two major events have influenced trends in opioid overdose deaths in Australia:

- 1) The marked reduction of heroin availability in Australia; and
- 2) The broader use of opioids such as morphine oxycodone and fentanyl for chronic non-cancer pain



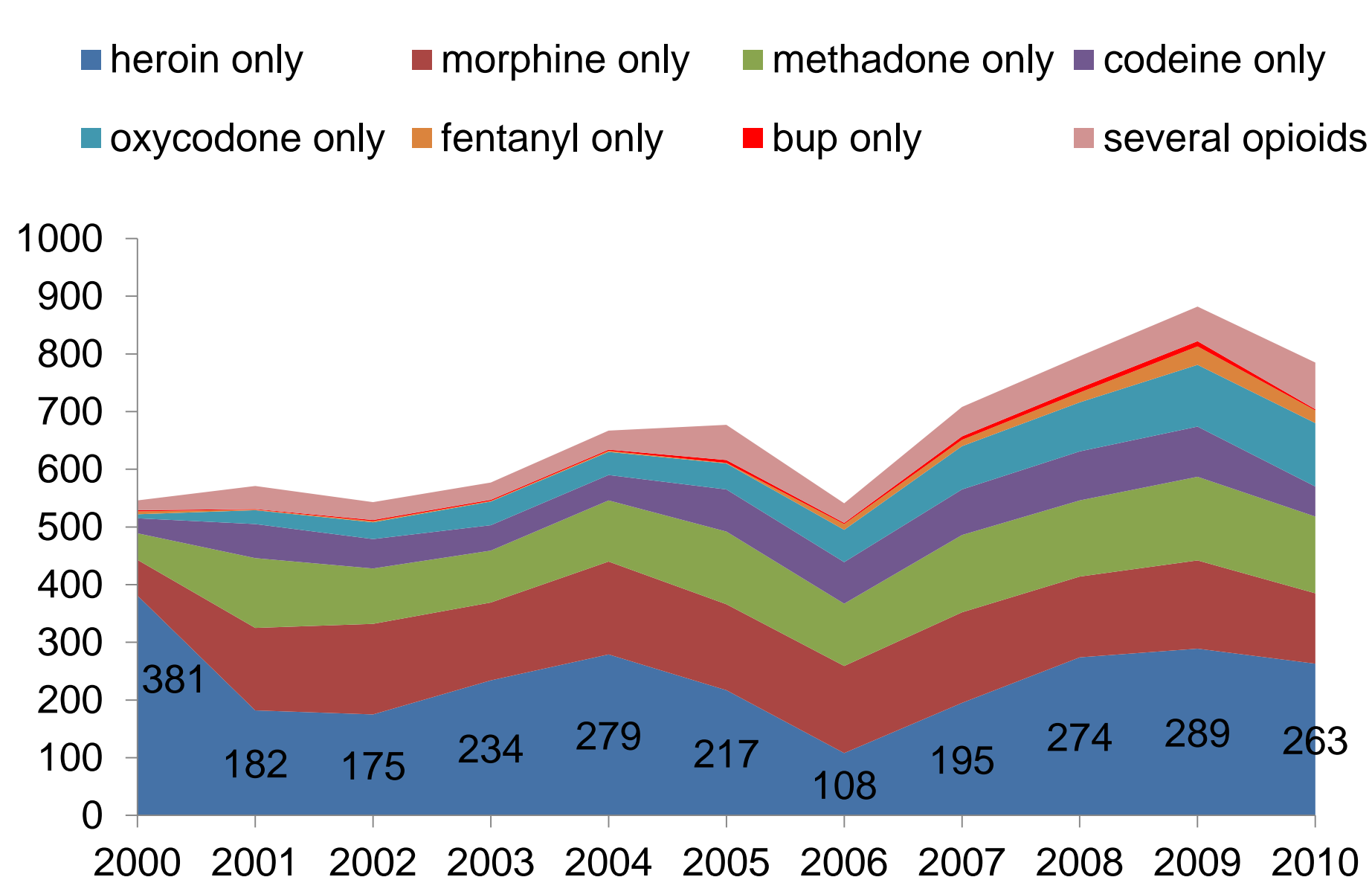
Method

- Data was extracted from the National Coronial Information System for the period 2000 to 2013 for cases where heroin, morphine, fentanyl, oxycodone, buprenorphine, codeine and methadone were determined to be either the underlying or contributory cause of death.
- Due to the complexities in the way that heroin, morphine and codeine are metabolised in the human body, detailed decision trees were devised to differentiate these deaths.
- Heroin deaths are most likely underestimated.

Results

- Figure 1 shows the number of deaths per year by opioid type as well as the number of deaths that had several opioids recorded.
- Only data to 2010 are shown as figures from 2011 onwards are likely to be incomplete.
- There is a general upward trend in opioid overdose deaths in Australia over time.
- Deaths due to heroin dropped dramatically in 2001, however they have started to increase again over the past four years.
- Morphine and methadone deaths are the next most prevalent across opioid types however, some of the morphine deaths are likely to be due to heroin.

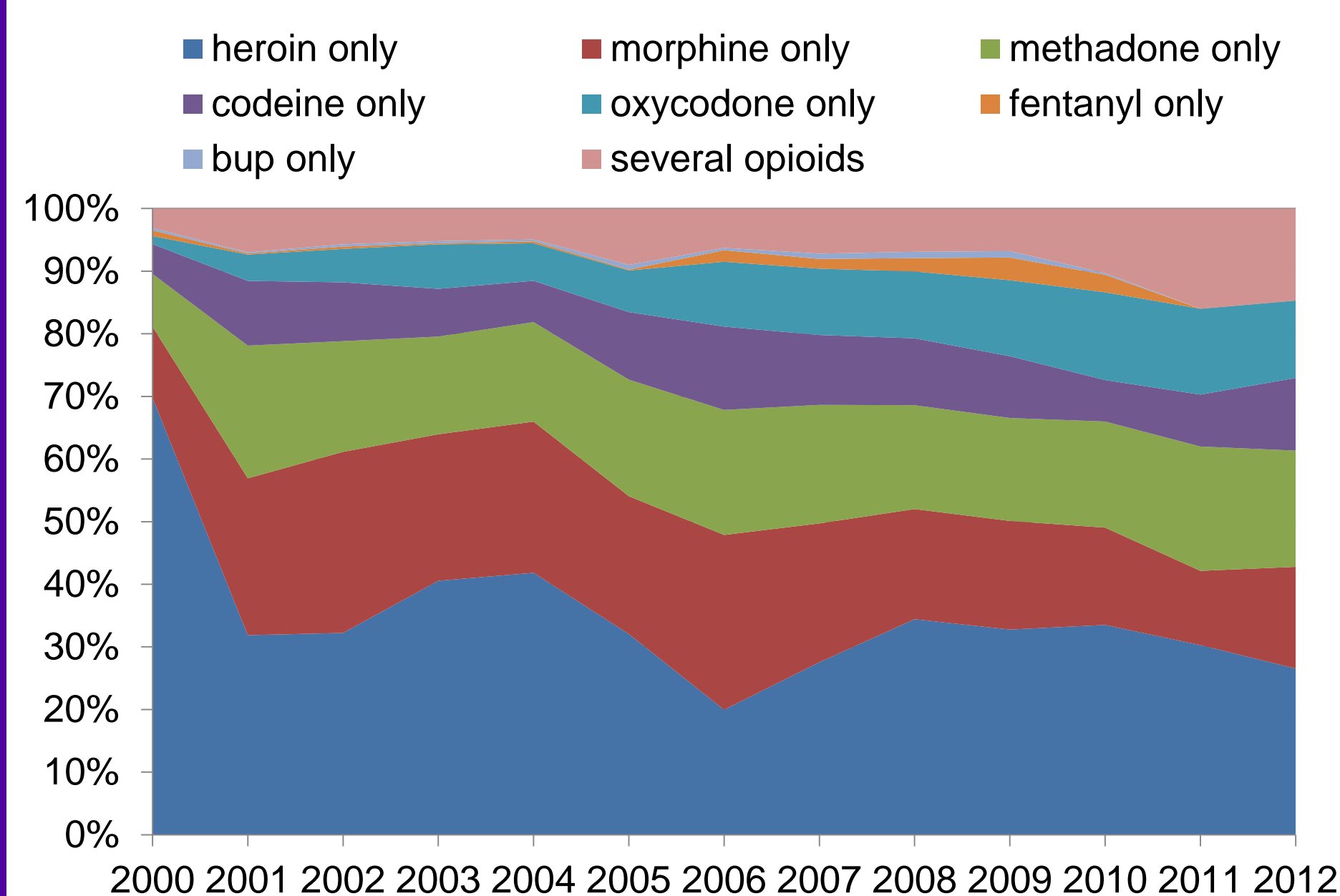
Figure 1: Number of deaths by opioid type



Results

- Figure 2 shows the proportion of deaths that are comprised of each opioid type.
- In 2000 heroin comprised 70% of the total of opioid deaths. In 2012 this figure was approximately 30%.
- Other opioids combined then, comprise a much larger proportion of opioid deaths in 2012.
- However, heroin on its own continues to account for the largest proportion, with morphine and methadone accounting for approximately 15% each.
- The other trend of note is the increase over the past four years in deaths with several opioids were detected in toxicology.
- It should be noted that the majority of these deaths had other non-opioid drugs (particularly benzodiazepines) detected in the toxicology.

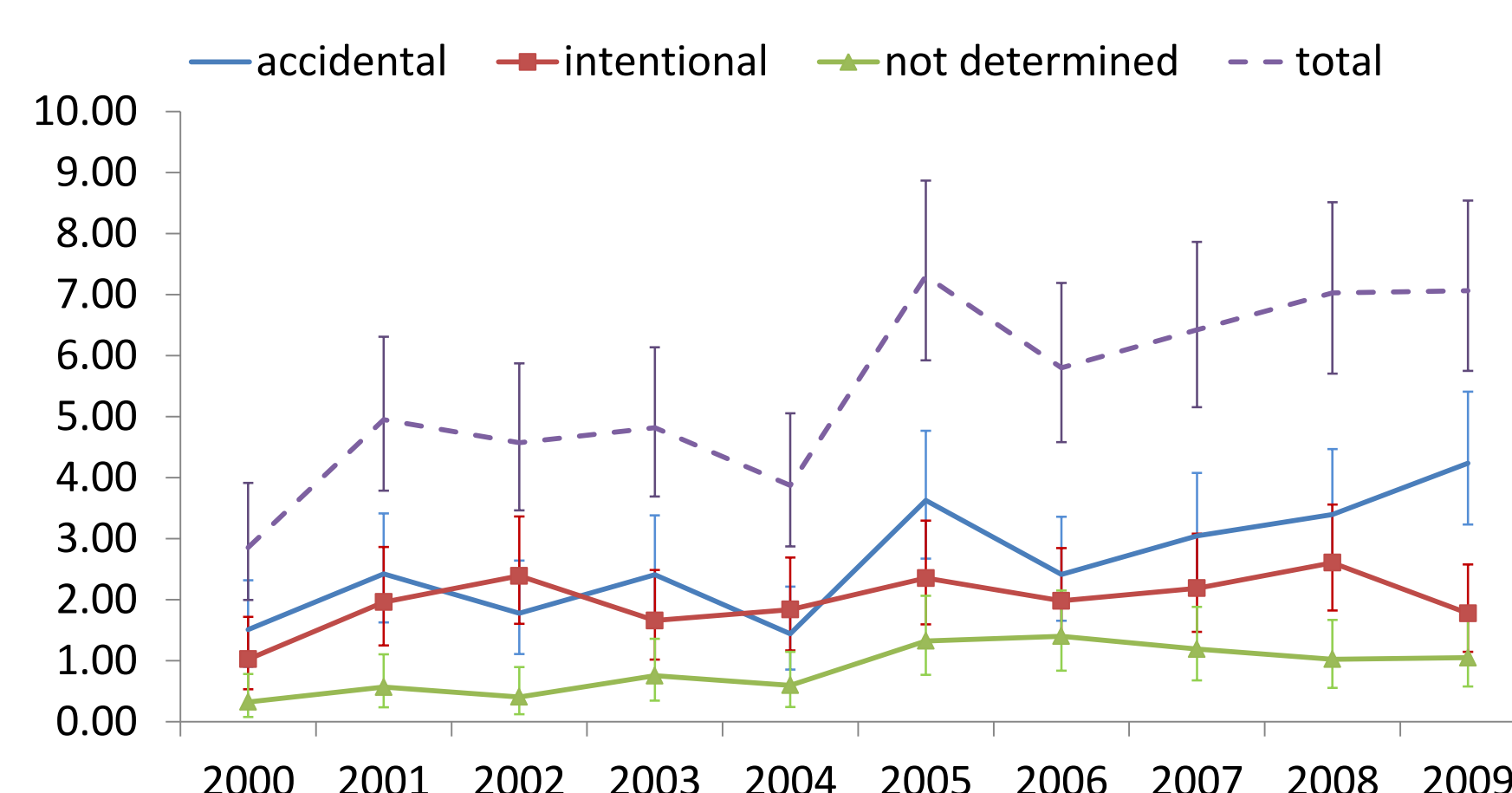
Figure 2: Proportion of deaths by opioid type



Results – focus on codeine deaths

- Figure 3 shows the rate of codeine related deaths per year, by intent.
- Codeine deaths have increased over time and the increase is being driven by accidental codeine overdose.

Figure 3: Rates of codeine deaths by intent



- There were clear differences between those who had accidentally overdosed compared to intentional overdoses.
- Those who had intentionally overdosed were more likely to be female, to have a history of mental health problems and to be older.
- Those who had accidentally overdosed were more likely to have a history of substance use problems, and a history of injecting drug use

Discussion

- There is an increasing trend in opioid overdose deaths in Australia over time.
- While heroin accounted for the majority (70%) of these deaths in 2000, only 30% of opioid deaths in 2012 were attributed to heroin.
- Other opioids now account for the majority of opioid overdose deaths in Australia.
- Nevertheless heroin deaths on their own still account for the largest proportion of deaths compared to the other opioids.
- Over the past four years there has also been an increase in deaths where several opioids were detected in toxicology.
- Codeine deaths have also increased over time, and in 2012 they accounted for approximately 10% of opioid deaths.
- The increase in codeine deaths is being driven by accidental overdose.
- The profile of accidental codeine overdose deaths was distinctly different from the intentional overdose deaths, suggesting different responses are required to reduce codeine-related mortality.

Future work . . .

- Involves looking at what is driving the increase in deaths across all opioids.
- Is it intentional or accidental overdose?
- Are these deaths increasingly happening among people with a history of mental health problems, substance use problems, a history of injecting drug use or chronic pain?
- The answer to these questions will have important clinical implications for reducing opioid-related mortality in Australia.

Further information

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