10.26190/hmz3-gc38

Trends in self-reported past year non-fatal overdose and responses to overdose: Findings from the Illicit Drug Reporting System

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Background

- Fatal and non-fatal overdose amongst people who inject drugs (PWID) is a serious public health concern. Opioids are consistently the most commonly identified substances involved in fatal and non-fatal drug overdoses. In Australia, opioids were identified as being involved in over two-thirds (61%) of drug-induced deaths.[1]
- People who inject drugs (PWID) are at higher risk of non-fatal overdose, and recent non-fatal overdose is associated with a higher risk of fatal overdose.[2] PWID who report high risk injecting activities, such as public injecting, are at increased risk of multiple non-fatal overdoses.[3]
- Overdose outcomes are dependent on appropriate responses following overdose. Given this, it is crucial to monitor patterns of non-fatal overdose and responses amongst people who inject drugs.
- This bulletin examines trends in self-reported non-fatal overdose and responses to heroin overdose amongst a sample of people who regularly inject drugs recruited from capital cities in all states and territories in Australia.

Method

- Data for this bulletin were drawn from the surveys of PWID conducted as part of the Illicit Drugs Reporting System (IDRS) between 2004 and 2020.
- The Illicit Drug Reporting System (IDRS) is an annual cross-sectional survey of people who regularly inject drugs recruited from all capital cities of Australian states and territories. Participants were administered a one-hour face-to-face interview and reimbursed $40 for their time, with the exception of 2020 when interviews were conducted via telephone or video-conference due to COVID-19. For further details on the overall methods of the IDRS see (4).
- Logistic regression was used to investigate trends in self-reported past-year any overdose and past-year heroin overdose from 2004-2020.
- Logistic regression was used to analyse trends in treatment received on the occasion of last heroin overdose from 2009-2020 (data were available from 2009).
- Survey year was treated as a continuous variable. Differences were considered significant at $p<0.05$.

Funded by the Australian Government Department of Health under the Drug and Alcohol Program

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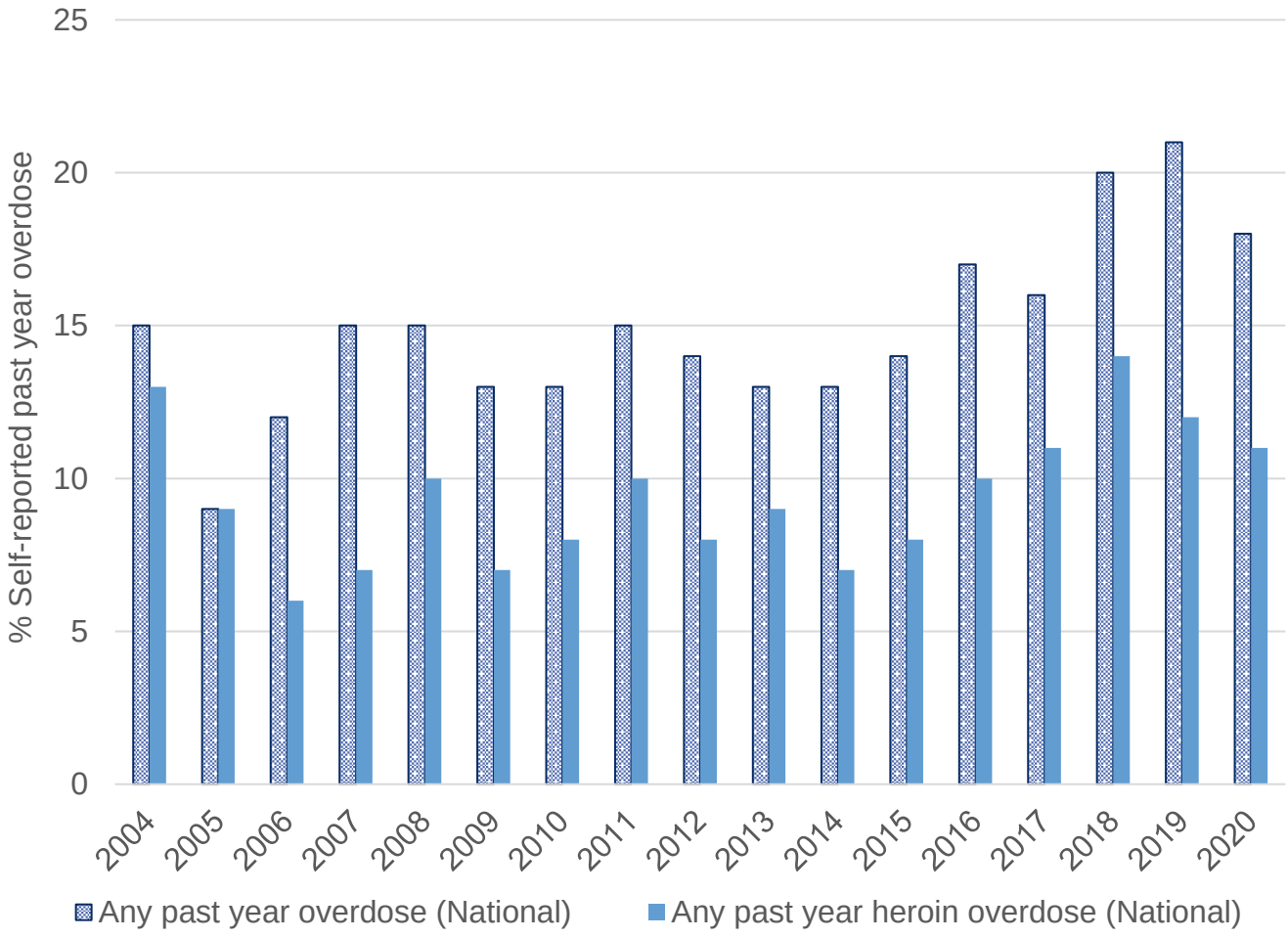
Findings

Trends in past year any overdose and heroin overdose

- Trends from 2004-2020 suggested an overall annual increase of 3% in incidence of any overdose (OR=1.03; CI_{95}=1.02-1.04; p<0.001).
- Visual inspection of the trends in Figure 1 below suggest an increase in self-reported overdose since 2014, which was confirmed through logistic regression (p<0.001). We found an 9% increased likelihood of any overdose between 2014-2020 (OR=1.09; CI_{95}=1.05-1.13). There was no change between 2004 and 2013 (OR=1.01, CI_{95}=0.99-1.03, p=0.247).
- There was a stable trend in past year heroin overdose from 2004 to 2013 (OR=0.98, CI_{95}=0.95-1.01, p=0.286) and an increasing trend from 2014 onwards (OR=1.10; CI_{95}=1.05-1.14, p<0.001).

Figure 1. Trends in any self-reported past year overdose and self-reported past year heroin overdose among a sample of people who regularly inject drugs, nationally, 2004-2020



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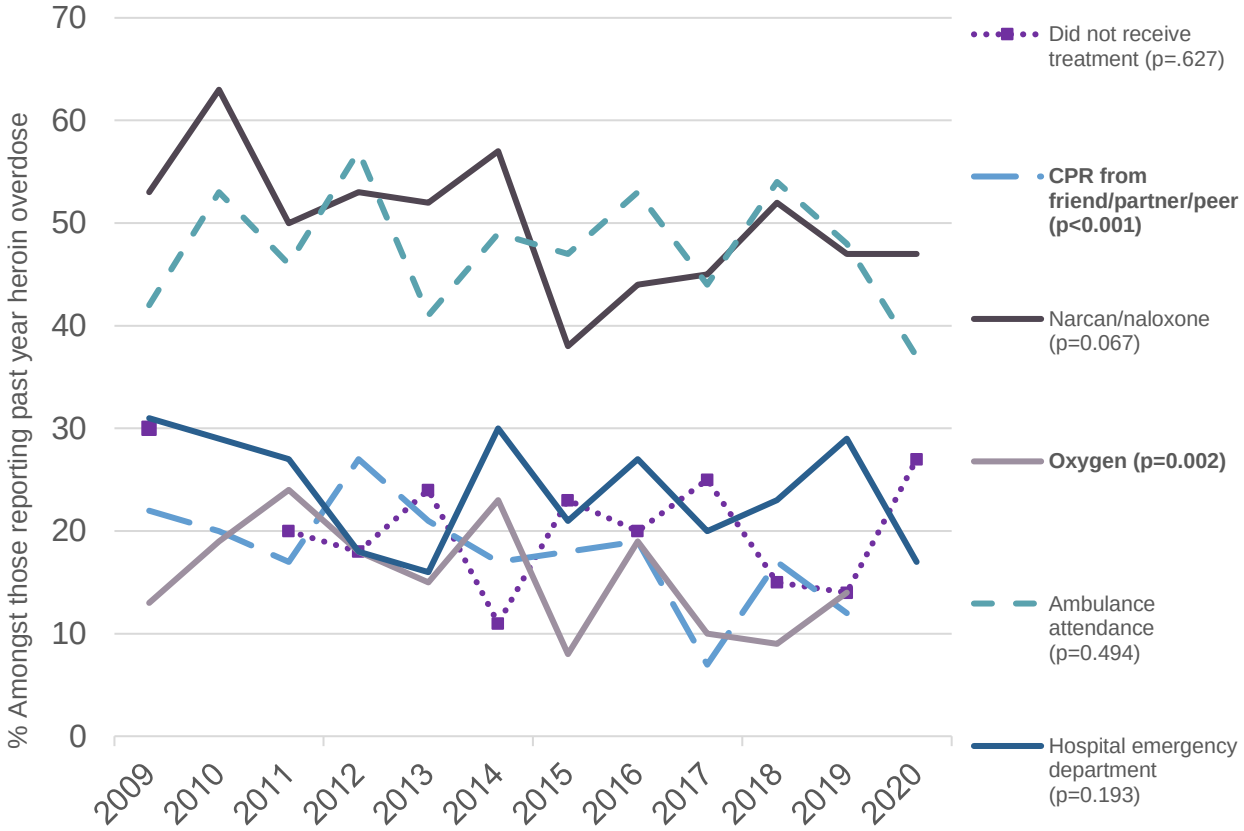
Findings

Trends in response to last heroin overdose

- Amongst those who reported overdosing on heroin in the past year in 2020, the most common treatment received on the occasion of the last overdose was administration of Narcan/naloxone.
- Ambulance attendance has remained similarly high.
- Although there has been fluctuation, the percentage of participants reporting that they received no treatment on the occasion of their last heroin overdose has remained above 10% since 2011.
- There has been a decrease in administration of oxygen and CPR by a peer following overdose (Figure 2).

Figure 2. Trends in treatment received on occasion of last heroin overdose, 2009-2020



Note. Data on treatment received on occasion of last heroin overdose collected from 2009 onwards. Values for small numbers (less than or equal to five) were suppressed. Logistic regression examined overall change in treatment received on occasion of last heroin overdose from 2009 to 2020. p-values for each regression are indicated in the legend above.

Conclusion

There has been a significant increase in self-reported past year heroin overdose since 2014. Amongst those who reported a past year heroin overdose, administration of naloxone and ambulance attendance remain the most common responses at the time of overdose but are not universal. A notable percentage reported receiving no treatment on the occasion of their last heroin overdose, putting them at potential risk of adverse outcomes. Further promotion of appropriate overdose responses, monitoring of trends in overdose and investigation of motivations for overdose responses are all warranted.

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Participating researchers and research centres

- Antonia Karlsson, Julia Uporova, Daisy Gibbs, Rosie Swanton, Olivia Price, Roanna Chan, Professor Louisa Degenhardt, Professor Michael Farrell and Dr Amy Peacock, National Drug and Alcohol Research Centre, University of New South Wales;
- Cristal Hall, Dr Campbell Aitken and Professor Paul Dietze, Burnet Institute Victoria;
- Yalei Wilson and Associate Professor Raimondo Bruno, School of Psychology, University of Tasmania;
- Catherine Daly, Dr Natalie Thomas, Dr Jennifer Juckel, Dr Joemer Maravilla and Dr Caroline Salom, Institute for Social Science Research, The University of Queensland;
- Dr Seraina Agramunt and Professor Simon Lenton, National Drug Research Institute, Curtin University, Western Australia; and
- Chris Moon, Northern Territory Department of Health.

Other acknowledgements

- The people who inject drugs who participated in the IDRS survey.
- The agencies that assisted with recruitment and interviewing.
- The IDRS is funded by the Australian Government under the Drug and Alcohol Program.

Suggested citation

Thomas, N., Juckel, J., Daly, C., Maravilla, J., & Salom, C. (2021). Trends in self-reported past year non-fatal overdose and responses to overdose: Findings from the Illicit Drug Reporting System. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney. doi:10.26190/hmz3-gc38