

ESTIMATING THE PREVALENCE OF OPIOID DEPENDENCE IN NEW SOUTH WALES FROM MULTIPLE DATA SOURCES, 2014-2016.

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Background:

Previous estimates of prevalence of injecting/opioid use in New South Wales (NSW) relied upon treatment multipliers suggesting prevalence was 7.3 per 1000 people in the population aged 15-64 (95% uncertainty interval 5.3-9.3). A Bayesian modeling framework was recently proposed for estimating prevalence using drug-related mortality data, which addresses many of the limitations of multiplier methods.

Methods:

We applied this modelling framework to data from the Opioid Agonist Treatment and Safety Study, a large, comprehensive study involving all people receiving opioid agonist treatment in NSW, Australia, in 2014-2016. We estimated prevalence of opioid dependence by gender, age group and year using linked opioid-related mortality data. We applied the same modelling approach to opioid-related hospital separations and charges for possession or use of opioids in separate and joint models.

Results:

Separate models of the three data sources returned comparable estimates for the overall population prevalence of opioid dependence in those aged 15-64 in NSW in 2016: 9.45 (95% credible interval [CrI]: 9.03-9.91) per 1000 people from charges data; 10.15 (95% CrI: 9.52-10.88) per 1000 people from separations data; and 9.32 (95% CrI: 8.02-11.18) from mortality data. However, the model of opioid-related hospital separations generated much higher estimates of the prevalence of opioid dependence in women. When mortality and charges data were combined in a joint model, the prevalence of opioid dependence in this population was estimated as 9.37 per 1000 people (95% CrI: 8.98-9.80). This is equivalent to 47,460 people (95% CrI: 45,480-49,640) aged 15-64 having been opioid dependent in NSW in 2016.

Conclusion:

We demonstrate a novel methodology for estimating prevalence of opioid use for the first time in NSW. More evidence is required on the proportion of opioid-related separations among people who inject drugs so we can create a single coherent model of all available data and reduce uncertainty.

Disclosure of Interest Statement: *See example below:*

None.