

## Drug-driving incidence in a high-risk cohort of people who use methamphetamine in Melbourne and rural Victoria

Dagnachew Muluye Fetene<sup>a</sup>, Paul Agius<sup>a</sup>, Bernadette Ward<sup>a,b</sup>, Keith Sutton<sup>b</sup>, Rebecca Jenkinson<sup>c</sup>, Brendan Quinn<sup>a,b,c</sup>, Matthew Hickman<sup>d</sup>, Paul Dietze<sup>a,b,e</sup>

<sup>a</sup>Burnet Institute, Melbourne, Australia

<sup>b</sup>Monash University, Melbourne, Australia

<sup>c</sup>Australian Institute of Family Studies, Melbourne, Australia

<sup>d</sup>Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, UK

<sup>e</sup>National Drug Research Institute, Curtin University, Perth, Western Australia.

Presenter's email: <[paul.dietze@burnet.edu.au](mailto:paul.dietze@burnet.edu.au)>

**Introduction and aims:** Driving under the influence of alcohol and other drugs is a major cause of road traffic injuries and fatalities. Previous work drug driving in Australia has typically relied upon cross-sectional studies of convenience samples of people who use drugs, typically recruited in capital cities. In this study we examine how drug driving changes over time and key time-varying (hence modifiable) factors that relate to drug driving in a cohort of people who use methamphetamine in Melbourne and regional Victoria.

**Design and methods:** Longitudinal analysis of Self-reported driving within three hours of taking illicit drugs in interviews of VMAX cohort participants. Mixed-effects multivariate logistic regression models were used to analyse associations of incidence with a range of exposure variables.

**Results:** We found the large majority had driven in the six months prior to recruitment (571/853, 67%) and the majority of these participants indicated that they had driven after taking illicit drugs. We found drug driving incidence over time was related to a range of exposure variables including screening positive for moderate to severe depression, being arrested in the past year, driving over the legal limit for alcohol and methamphetamine dependence. Protective factors included lower income and homelessness, most likely reflecting lower car access.

**Discussions and Conclusions:** Overall, our findings suggest possible drug-driving benefits of methamphetamine use reduction strategies (e.g. effective drug treatment) or mental treatment. Contacts with such services and law enforcement are potential touch points for drug driving education that may result in reduced incidence of drug driving.

**Disclosure of Interest Statement:** *PD has received investigator-driven funding from Gilead Sciences for work related to hepatitis C treatment and an untied educational grant related to the introduction of a Buprenorphine-Naloxone formulation. PD has served as an unpaid member of an advisory board for an intranasal naloxone product.*