Using ambulance attendance data to quantify harms arising from alcohol intoxication

SHARON MATTHEWS1,2, ALI CHEETHAM1,2, ROSE CROSSIN1,2, DEBBIE SCOTT1,2, KAREN SMITH4,5,6, DAN I. LUBMAN1,2

1 Eastern Health Clinical School, Monash University, Box Hill, Australia, 2 Turning Point, Eastern Health, Richmond, Australia, 3 Florey Institute of Neuroscience and Mental Health, Parkville, Australia, 4 Ambulance Victoria, Doncaster, Australia, 5 Department of Community Emergency Health and Paramedic Practice, Monash University, Frankston, Australia, 6 Department of Epidemiology and Preventative Medicine, Monash University, Melbourne, Australia,

Presenter’s email: SharonM@turningpoint.org.au

Introduction and Aims: Harmful patterns of alcohol use is an avoidable risk factor for disease, illness, and injury. There are positive signs in Australia that, at a population level, alcohol consumption is decreasing. However, in contrast, alcohol-related harm may be increasing, highlighting that average alcohol consumption alone cannot be used as a proxy measure for alcohol-related harm. Therefore, the aim of this study was to determine whether alcohol intoxication harm follows similar trends to population-level consumption data and whether particular population subgroups are most at risk from alcohol intoxication harms.

Design and Methods: Ambulance attendance data (Victoria, Australia, January 2012 to June 2017) were extracted from a database of coded ambulance records. All 108,164 ambulance attendances that reported alcohol intoxication was a significant contributor to that attendance were included. Attendance characteristics were categorised by age and gender, and other characteristics of the attendance were analysed, with comparison between ‘Alcohol only intoxication’ and ‘Alcohol and other substance intoxication’ attendances.

Results: Alcohol intoxication attendances have increased in all age groups, other than under 18s. The greatest increase was observed in those aged over 50. Of all ambulance attendances involving alcohol intoxication, 82.5% of those involve only alcohol. There were significant differences in patients demographics and attendance characteristics, between ‘alcohol only’ attendances and ‘alcohol and other substance intoxication’ attendances.

Discussions and Conclusions: These results highlight a need for public health messaging to be re-targeted to address the harms associated with alcohol intoxication, as there is growing evidence that harms are increasing despite widespread decreases in alcohol consumption.

Implications for Practice or Policy: There may be a need to shift from population-level interventions to interventions that are targeted to high-risk sub-groups. However, further research is needed in order to understand the factors that increase harm within these groups, as well as identifying other population subgroups that may be vulnerable to alcohol intoxication-related harms.

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Sharon Matthews is a research fellow in the population health team of Turning Point, with an interest in drug and alcohol epidemiology, and particularly the harms from alcohol in an ageing population.