

## The Monitoring Illicit Substance USE (MISUSE) Consortium: A Study Protocol for Investigating Low Prevalence Substance Use Behaviours in Population Cohort Studies

Christopher J Greenwood<sup>1,2,3</sup>, Primrose Letcher<sup>1,2,3</sup>, Esther Laurance<sup>1</sup>, Joseph M Boden<sup>4</sup>, James Foulds<sup>4</sup>, Elizabeth A Spry<sup>1,2,3</sup>, Jessica A Kerr<sup>2,3,4</sup>, John W Toumbourou<sup>1</sup>, Jessica Heerde<sup>2,3,5</sup>, Cathie Nolan<sup>1,6</sup>, Yvonne Bonomo<sup>7,8</sup>, Delyse M Hutchinson<sup>1,2,3,9</sup>, Tim Slade<sup>10</sup>, Craig A Olsson<sup>1,2,3</sup>

<sup>1</sup> Deakin University, Geelong, Australia, School of Psychology, Faculty of Health, Centre for Social and Early Emotional Development, <sup>2</sup> Murdoch Children's Research Institute, Centre for Adolescent Health, Melbourne, Australia, <sup>3</sup> The University of Melbourne, Department of Paediatrics, Royal Children's Hospital, Australia, <sup>4</sup> Department of Psychological Medicine, University of Otago Christchurch, Christchurch New Zealand, <sup>5</sup> The University of Melbourne, Department of Social Work, Melbourne, Australia, <sup>6</sup> The Department of Education. Victorian Government, Australia, <sup>7</sup> The University of Melbourne, Department of General Practice, Faculty of Medicine, Dentistry & Health Sciences, Melbourne, Australia, <sup>8</sup> St Vincent's Health, Department of Addiction Medicine, Melbourne, Australia, <sup>9</sup> National Drug and Alcohol Research Centre, Faculty of Medicine, University of New South Wales, Sydney, Australia, <sup>10</sup> The Matilda Centre for Research in Mental Health and Substance Use, University of Sydney, Sydney, NSW, Australia

Presenter's email: [christopher.greenwood@deakin.edu.au](mailto:christopher.greenwood@deakin.edu.au)

**Introduction / Issues:** The population prevalence of substance use, including cannabis, amphetamine, cocaine, ecstasy, hallucinogens, and opioids, is low but Global Burden of Disease estimates report an increasing impact. Australia and New Zealand are among the few global regions in which use (primarily illicit) of these classes of substances remains within the top 10 causes of disease burden. However, prevent and harm minimisation evidence from population-based cohort studies has been limited due to the low population prevalence. Here we describe the initial data from a new cross-cohort consortium which will pool data to increase sample size and power.

**Method / Approach:** The Monitoring Illicit Substance USE (MISUSE) Consortium includes four prospective cohort studies across Australia and Zealand: the Christchurch Health and Development study (est. 1977; N=1,265), the Australian Temperament Project (est. 1983; N=2,443), the Victorian Adolescent Health Cohort Study (est. 1992; N=1,943), and the International Youth Development Study (est. 2002; N=2,884).

**Key Findings:** The prevalence of illicit substance use in MISUSE studies is somewhat higher than national estimates. Additionally, there exist cohort differences in the prevalence of substance types likely reflecting secular and societal trends. Further, there is variability in the prevalence of use both developmentally and across substance type.

**Discussions and Conclusions:** The data available in the MISUSE consortium will further understanding of low prevalence illicit substance use behaviours by exploring the natural history, antecedents, and consequences of use across adolescence and young adulthood, extending to both earlier and later parts of the life course.

**Disclosure of Interest Statement:** The CHDS was funded by the Health Research Council of New Zealand (Programme grant 16/600). The ATP was supported primarily through Australian grants from the Melbourne Royal Children's Hospital Research Foundation, National Health and Medical Research Council (NHMRC), Australian Research Council (ARC), and the Australian Institute of Family Studies. Funding for this work was supported

by grants from the Australian Research Council [DP130101459; DP160103160; DP180102447] and the National Health and Medical Research Council of Australia [APP1082406]. The VAHCS was supported by NHMRC [APP1063091; APP1008273; APP1157378], Australian Rotary Health, Colonial Foundation, Perpetual Trustees, Financial Markets Foundation for Children (Australia), Royal Children's Hospital Foundation, and the Murdoch Children's Research Institute The IYDS was supported in part by grants from the National Institute on Drug Abuse (R01DA012140), the National Institute on Alcoholism and Alcohol Abuse (R01AA017188), and the NHMRC (491241) and the ARC (DP109574, DPO663371, and DPO877359). A/Prof Heerde receives salary and research support from a NHMRC Investigator Grant (GNT2007722). She holds a Dame Kate Campbell Fellowship awarded by the Faculty of Medicine, Dentistry and Health Sciences (MDHS) at The University of Melbourne. DMH was supported by the NHMRC [APP1197488]. CAO was supported by a NHMRC fellowship (Investigator grant APP1175086).