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

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MISUse
Monitoring Illicit Substance Use Consortium

Introduction

Background

- Global burden of disease estimates suggest that the impact of illicit substance use is increasing worldwide.[1]
- In Australasia, illicit substance use is within the top 10 leading causes of disease burden and its impact has increased.[1]
- Multi-wave, prospective cohort studies are essential to advance understanding of the natural history, antecedents, and consequences.
- However, the low population prevalence of illicit substance use makes lifecourse studies difficult. [2]
- Solution? Maximise the value of illicit substance use data collected across multiple cohort studies using integrative data analysis. [3,4]

Aims

- To pool data across four of the longest running cohort studies in our region to examine: (1) the natural history, (2) antecedents, and (3) consequences of illicit substance use from adolescence to adulthood

Methods

Participants

- The Christchurch Health and Development Study (CHDS; est. 1977, Christchurch, New Zealand) – N=1,265 from infancy to adulthood (24 waves).
- The Australian Temperament Project (ATP; est. 1983, Victoria, Australia) – N=2,443 from infancy to adulthood (16 waves).
- The Victorian Adolescent Health Cohort Study (VAHCS; est. 1992, Victoria, Australia) – N=1,943 from adolescence to adulthood (11 waves).
- The International Youth Development Study (IYDS, Australian sample; est. 2002, Victoria, Australia) – N=2,884 from childhood to adulthood (10 waves).

Measures (Figure 1):

- Cannabis, amphetamine, cocaine, ecstasy, hallucinogens, opioids.
- Assessments vary across 'ever', 'yearly', 'monthly', 'weekly', 'daily'

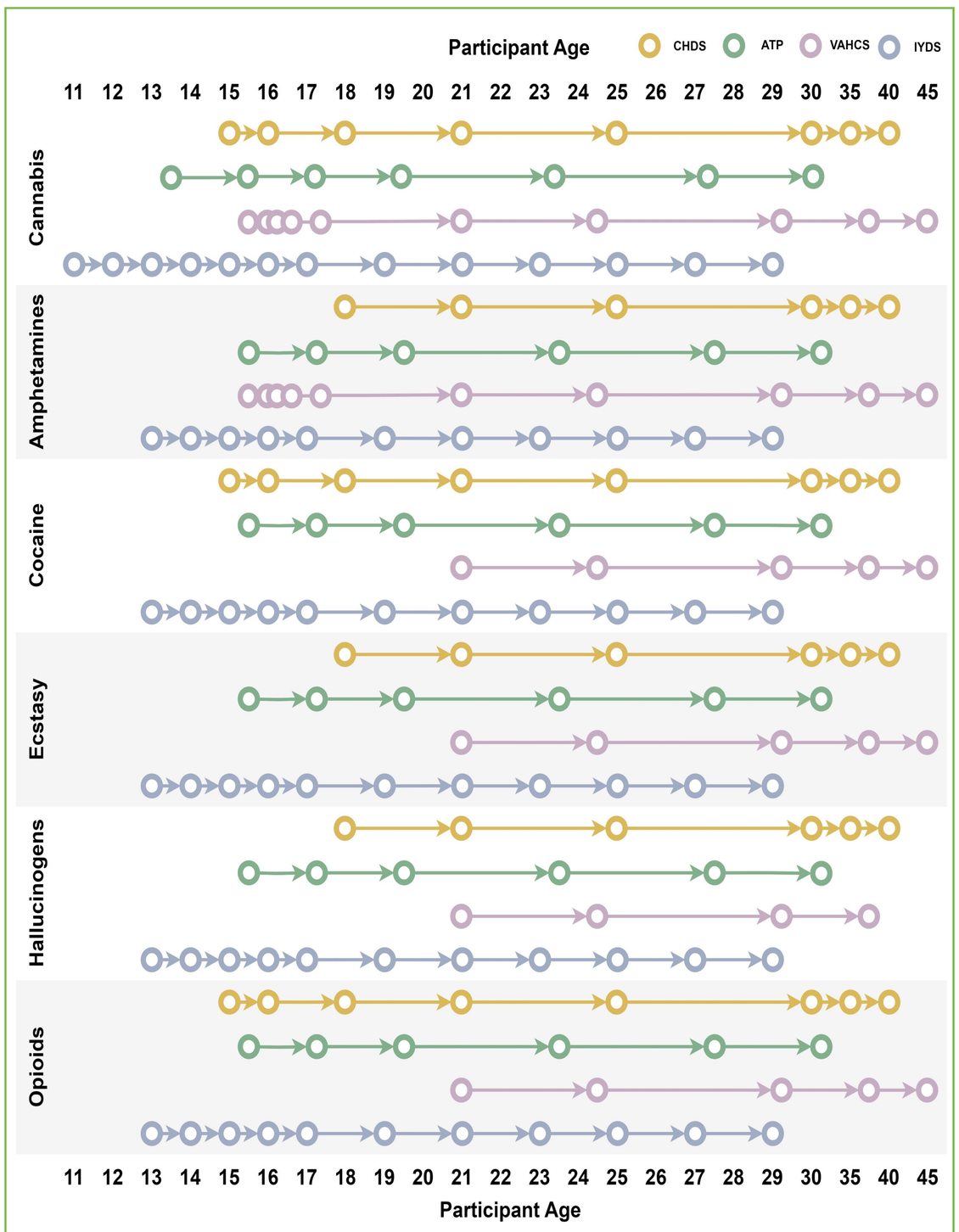

Figure 1: Illicit substance use assessments

Data (Figure 2)

- Clear patterns of increased use from adolescence and adulthood.
- Cannabis use: 27% and 39% in adolescence and young adulthood, respectively.
- Non-cannabis use: 1-4% to 1-20% in adolescence and young adulthood, respectively.

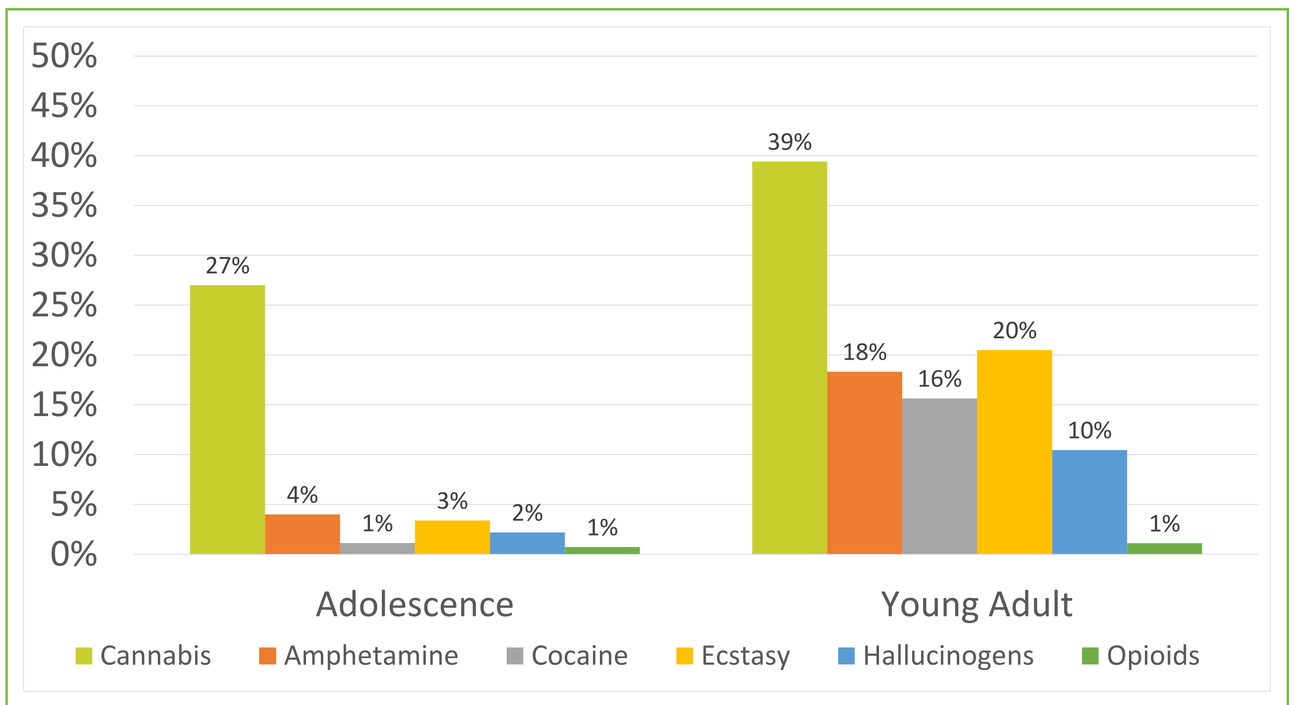

Figure 2: Developmental patterns across integrated data

Current examinations

- Descriptive epidemiology – examine patterns of illicit substance use behaviour across developmental periods.
- Causal modelling – examine associations between amphetamine use and mental health problems across adolescence and young adulthood.

Conclusions

- The MISUse consortium builds on the strength of four long-running prospective cohort studies across Australia and New Zealand.
- Analyses are directly informed through close working relationship with translational partners in clinical practice and government.
- Variations in assessments of substance use, antecedents, and consequences across the cohort studies will require careful harmonisation going forward.

Interested in collaborating?

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