

## **Making sense of different trends in population-level substance use and emotional concerns: strengthening, staying the same, or decoupling?**

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**Issue:** Across high-income countries, adolescent emotional concerns have been increasing and it is unclear if and how substance use relates to these changes.

**Approach:** This presentation reviews three projects. The first proposes a data- and youth-driven framework for exploring the intersection between trends in substance use and emotional concerns (InterSECT Framework). The second examines joint trends in psychological distress and substance use from representative surveys of grade 7-12 students across Ontario, Canada from 2013-2019. The third identifies age-period-cohort effects related to trends in risky alcohol consumption and psychological distress among Australians aged 14-79, using data from the 2004-2019 Australian National Drug Strategy Household Surveys.

**Findings:** The framework presents three hypotheses including strengthening of co-occurrence or the “hardening” hypothesis, the “consistency” hypothesis, and weakening or the “decoupling” hypothesis. Ontario data showed evidence of the consistency hypothesis across drinking, cannabis, and smoking with students using substances reporting 1.2- and 2.7-times higher prevalence of distress across all years. Australian national data showed evidence of the consistency hypothesis related to period effects (i.e., positive associations that did not significantly change across years), but possible decoupling related to cohort effects (i.e., weakening for those born  $\geq 1980$ ).

**Discussion:** The framework seeks to guide the understanding of changes in the co-occurrence of substance use and emotional concerns over time. Applying this framework in samples across two countries, we provide initial evidence suggesting that while substance use remains important to consider alongside psychological distress, recent increases in distress do not appear to be explained by substance use.

**Implications for Policy and Practice:** The framework and examples presented here can guide future researchers and policymakers in the design, interpretation, and actions relevant for future studies seeking to explore trends in co-occurrence over time.

**Disclosure of Interest Statement:** JH is funded by a Canadian Institutes for Health Research Banting Postdoctoral Fellowship. The Youth Advisory Board is supported by an NHMRC Centre of Research Excellence Grant (PREMISE; APP11349009). MT is supported by an NHMRC Investigator Grant Fellowship (GNT1041756). No authors have any conflicts of interest to declare.