

# SYNERGISTIC RISK BEHAVIOURS: CHARACTERISING AUSTRALIAN ADULTS' DUAL SMOKING AND HIGH-RISK DRINKING TO INFORM PUBLIC HEALTH APPROACHES

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**Introduction:** Smoking and alcohol consumption are major preventable causes of morbidity and mortality which co-occur and act synergistically to increase chronic disease and cancer risk. Alcohol use can increase smoking initiation and relapse, while smoking can reinforce alcohol use and undermine attempts to reduce drinking. Multiple health behaviour interventions are common in schools but are far less common in adult populations. Profiling adults with dual risky use may identify a group with specific health promotion and treatment needs.

**Methods:** Data were from Australia's 2022–23 National Drug Strategy Household Survey (n=20,306). Adult participants were categorised as: (1) dual risk (smoking/drinking ≥11 standard drinks/week), (2) smoking only, (3) drinking ≥11 standard drinks/week only, and (4) neither. Analyses accounted for survey weighting and sampling. We assessed prevalence of dual risk, investigated associated sociodemographic and health characteristics (using multivariable binary logistic regression – dual risk vs not dual risk) and made adjusted comparisons of health-related attitudes and service use between dual risk and smoking-only and drinking-only groups.

**Results:** An estimated 4.3% (>850,000) of Australian adults were classified as dual risk. Dual risk was more likely among men, younger and middle-aged adults, people with lower educational attainment, those living in remote areas, un-married individuals, those with poorer general health or mental health, and those living in English-speaking households. Compared with drinking-only participants, dual risk individuals more often perceived their alcohol use as harmful and were concerned about their drinking. Compared with smoking-only participants, dual risk individuals had greater engagement with cessation services.

**Discussion and Conclusions:** The findings suggest dual risk individuals are a distinct group with greater readiness for behaviour change, and implementation and evaluation of integrated multi-risk behaviour interventions should be a priority.

**Implications on communities, practice, policy:** Integrated approaches may strengthen progress in reducing tobacco- and alcohol-related harms in Australia.

**Disclosure of Interest Statement:** JAB, NH and GD receive funding from the Australian Government Department of Health Disability and Ageing to conduct alcohol and drug research.