

Protocol of a randomised controlled trial of a school-based eHealth intervention to prevent e-cigarette use among adolescents: The OurFutures Vaping Program

Lauren A. Gardner¹, Amy-Leigh Rowe¹, Emily Stockings¹, Katrina E. Champion¹, Leanne Hides², Nyanda McBride³, Steve Allsop³, Siobhan O'Dean¹, Matthew Sunderland¹, Yong Yi Lee^{4,5,6}, Cathy Mihalopoulos⁴, Becky Freeman⁷, Janni Leung^{8,2}, Hayden McRobbie⁹, Lexine Stapinski¹, Nicole Lee¹⁰, Louise Thornton¹, Louise Birrell¹, Maree Teesson¹, & Nicola C. Newton¹

¹The Matilda Centre for Research in Mental Health and Substance Use, The University of Sydney, Sydney, NSW, Australia, ²School of Psychology, The University of Queensland, Brisbane, QLD, Australia, ³National Drug and Research institute, EnAble Institute, Curtin University, Perth, WA, Australia, ⁴Health Economics Group, School of Public Health and Preventive Medicine, Monash University, Melbourne, VIC, Australia, ⁵School of Public Health, The University of Queensland, Brisbane, QLD, Australia, ⁶Queensland Centre for Mental Health Research, Brisbane, QLD, Australia, ⁷School of Public Health, The University of Sydney, Sydney, NSW, Australia, ⁸National Centre for Youth Substance Use Research, The University of Queensland, Brisbane, QLD, Australia, ⁹National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia, ¹⁰National Drug and Research institute, Curtin University, Perth, WA, Australia

Presenter's email: lauren.gardner@sydney.edu.au

Introduction: Adolescent e-cigarette use, commonly known as vaping, is an issue of global public health concern due to the rapid increase in prevalence and emerging evidence of adverse physical and mental health effects. Effective behaviour change interventions are urgently needed, and school is an ideal setting for delivery. We have developed a universal school-based preventive intervention targeting e-cigarette use among adolescents.

Method: To evaluate the efficacy and cost-effectiveness of the intervention, a two-arm cluster randomised controlled trial is being conducted among Year 7 and 8 students (n>3500) in 42 secondary schools across New South Wales, Western Australia and Queensland (ACTRN12623000022662). Schools are randomised to the *OurFutures Vaping Program* intervention group or an active control (health education as usual). Built on the effective *OurFutures* model, the intervention consists of 4x40 minute web-based cartoon lessons and accompanying class activities. Students complete self-report assessments at baseline, post-test, 6-, 12-, 24- and 36-months. The primary outcome is the uptake of e-cigarette use at 12-month follow-up. Cost-effectiveness and the effect on primary and secondary outcomes will also be examined over the longer-term.

Results: Baseline data collection is underway and will be complete by September. Analyses will be conducted among the full sample to understand patterns and prevalence of e-cigarette use and an overview will be provided as part of this presentation.

Discussions and Conclusions: This is the first trial of an eHealth intervention to prevent e-cigarette use in Australia. The intervention has the potential to improve the immediate health and wellbeing of young people, while also safeguarding them from the serious health impacts and addiction caused by e-cigarettes.

Implications for Practice or Policy: If effective, the *OurFutures Vaping Program* could be immediately disseminated via the existing *OurFutures* platform, which has reached >1,400 schools/organisations (>36,000 students and >3,000 teachers), and incorporated into health education classes nationwide.

Disclosure of Interest Statement: This work is supported by a Medical Research Future Fund (MRFF) project grant (APP2023130).