

RESEARCH BASED TEMPLATE

Submissions must not exceed 300 words (excluding title & authors). The document **must not** be password protected or saved as read only as this may result in your abstract failing to upload successfully. Use Arial 12 point type only. Please structure your submission using the subheadings below. If the abstract does not fit the headings, please put full abstract beneath introduction and we will remove the headings once submitted.

Results from a cluster randomised controlled trial of a school-based eHealth intervention to prevent e-cigarette use: the *OurFutures Vaping* program

Authors:

Gardner, L¹, Newton, N¹, Rowe, A¹, O'Dean, S¹, Teesson, M¹, Hides, L², McBride, N³, Sunderland, M¹, Freeman, B⁴, Egan, L¹, Hawkins, A¹, Ellem, R², Catakovic, A², Caradmone, E², Alcorn, C², Blackburn, K³, East, J³, Thornton, L¹, Stapinski, L¹, Birrell, L¹, Lee, Y^{5,6,7}, Mihalopoulos, C⁵, Leung, J^{8,2}, McRobbie, H⁹, Lee, N¹⁰, Allsop, S³, Champion, K^{1,4}, & Stockings, E¹

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, ⁴School of Public Health, The University of Sydney, Sydney, NSW, Australia, ⁵Health Economics Group, School of Public Health and Preventive Medicine, Monash University, Melbourne, VIC, Australia, ⁶School of Public Health, The University of Queensland, Brisbane, QLD, Australia, ⁷Queensland Centre for Mental Health Research, Brisbane, QLD, 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

Background:

E-cigarette use ('vaping') among adolescents is a global public health concern. Effective behaviour change interventions are urgently needed. Schools offer an ideal setting for delivery and eHealth methodology can increase engagement, intervention fidelity, and scalability. This study aimed to evaluate the efficacy of the *OurFutures Vaping* program, a universal school-based eHealth intervention to prevent e-cigarette use among adolescents.

Methods:

A cluster randomised controlled trial (ACTRN12623000022662) was conducted among Year 7 and 8 students in 40 secondary schools across New South Wales, Western Australia and Queensland. Schools were randomly assigned (1:1) to *OurFutures Vaping* (a four-lesson, web-based skills and education programme) or an active control group (usual health education), stratified by state and school gender composition. The primary outcome was past 12-month e-cigarette use, assessed at the 12-month follow-up. Knowledge about e-cigarettes and tobacco was a secondary outcome. Intention-to-treat analyses were conducted using generalised mixed effects regression, with random effects accounting for participants clustered within schools.

Results:

A total of 40 schools with 5157 eligible students (46.0% female; M_{age}=13.3, SD=0.60) completed the baseline survey. Compared to the control group,

RESEARCH BASED TEMPLATE

Submissions must not exceed 300 words (excluding title & authors). The document **must not** be password protected or saved as read only as this may result in your abstract failing to upload successfully. Use Arial 12 point type only. Please structure your submission using the subheadings below. If the abstract does not fit the headings, please put full abstract beneath introduction and we will remove the headings once submitted.

participants who received the intervention had reduced odds of past 12-month e-cigarette use (OR=0.35; 95%CI: 0.18–0.66, $p=.001$) and higher e-cigarette and tobacco knowledge scores ($b=2.11$, 95%CI: 1.88–2.34, $p<.001$) one year after receiving the intervention.

Conclusion:

This is the largest trial of a school-based eHealth intervention to prevent e-cigarette use worldwide, and the first of its kind in Australia. The *OurFutures Vaping* program offers an efficacious and scalable approach to prevent e-cigarette use.

Disclosure of Interest Statement:

This work is supported by a Medical Research Future Fund (MRFF) project grant (APP2023130). Lauren Gardner, Maree Teesson, Nicola Newton, Amy-Leigh Rowe, Emily Stockings, and Katrina Champion were the developers of the *OurFutures Vaping* program, which has been commercialised by the University of Sydney and is being distributed through the not-for-profit organisation, Our Futures Institute. There are no other interests to declare.