

Vaping may be slowing Australia's tobacco control progress

Michelle I Jongenelis¹ , Mike Daube AO²

Australia has long been recognised as a world leader in tobacco control. A suite of evidence-based tobacco control measures over recent decades has resulted in substantial reductions in the proportion of adults who report smoking daily and concomitant increases in the proportion of those who report having never smoked.¹ Rates of daily smoking among adolescents are impressively low at less than 2%.¹

Research published in this issue of the *Medical Journal of Australia* suggests these outcomes have been put in jeopardy by the emergence of vapes in Australia. Egger and colleagues² explored trends in adolescent smoking prevalence before and after the introduction of vapes on the Australian market. Using data from eight Australian Secondary Students' Alcohol and Drug Surveys administered between 1999 and 2022–2023, they conducted an interrupted time series analysis on the smoking behaviours of over 170 000 adolescents (12–17-year-olds).

Substantial declines in the prevalence of tobacco smoking were observed, a testament to Australia's continuing tobacco control efforts. Between 1999 and 2022–2023, the proportion of adolescents who had ever tried smoking decreased by 74.4% (from 52.7% to 13.5%), while the proportion who reported smoking in the past month or past week decreased by 85.5% (from 23.4% to 3.4%) and 89.1% (from 19.2% to 2.1%) respectively. By contrast, the results related to vaping are sobering: between 2017 and 2022–2023, the proportion of adolescents who reported they had ever vaped more than doubled, increasing from 13.5% to 29.9%. The proportion of those who reported vaping in the past month increased from 4.2% to 15.7% over the same period. This increase is consistent with findings from research conducted internationally^{3–5} and coincides with the emergence of cheap, disposable vape products. Made with nicotine salts rather than freebase nicotine, these products have a lower pH, reducing the harshness of the inhaled aerosol and making them highly palatable, addictive, and easy to inhale.^{6,7} Throw in a flavour of some sort (eg, watermelon ice crush, unicorn milk, gummy bear) and make them easy to conceal, and you have a product that is highly appealing to young people, especially those who were previously nicotine naïve.

A particularly concerning finding of Egger and colleagues is the slowing in the rate of decline in smoking-related behaviours, with results indicating that there would be fewer adolescents smoking today had vapes not entered the Australian market — a trend that has also been observed in New Zealand.⁸ Specifically, results suggest that the emergence of vapes may have contributed to an extra 74 adolescents out of every 1000 having tried smoking, and an extra 16 out of every 1000 smoking weekly. Although the cross-sectional nature of the data means causality cannot be assumed, results were largely consistent across a number of sensitivity analyses that varied the timing of the onset of the effect of vaping and controlled for the

affordability of tobacco cigarettes, attesting to the robustness of the findings.

It is important to look beyond the statistics. Behind each number is an adolescent who was on their way to living a tobacco- and nicotine-free life. Tobacco companies claim to want “a smokeless world”,⁹ but 75 years after conclusive evidence that smoking causes lung cancer,^{10,11} they continue to sell and promote their lethal products, and oppose and undermine evidence-based action to reduce smoking and protect young people. It was only a matter of time before the industry responded to a shrinking cigarette market by producing a range of products designed to addict a new generation to nicotine. And respond they did, investing substantially in vape product development and promotion¹² along with a growing range of other nicotine products.

In response to increased rates of vaping, the Australian Government introduced the *Therapeutic Goods and Other Legislation Amendment (Vaping Reforms) Act 2024*, which was designed to reduce both the supply and demand of vape products. The supply of vapes via retailers such as tobacconists and convenience stores is prohibited, while those who wish to use vapes to quit smoking can purchase products that meet the Therapeutic Goods Administration's standards from pharmacies. This controlled supply model has been strongly supported by the public health community, teachers and parents, with over 80 organisations calling for decision makers to pass the legislation.¹³ There was little opposition, other than from the tobacco and vape industries and their allies.

The findings published by Egger and colleagues demonstrate just how important vaping prevention approaches — such as the controlled supply model — are at protecting tobacco control efforts from industries determined to undermine public health policy. Our response to vapes can certainly be improved. For example, there is no doubt that enforcement efforts in some jurisdictions have been slow, and must be greatly enhanced.^{14,15} Cross-jurisdiction information sharing is key, and those states that are lagging must learn from the experiences of those that have acted early and decisively to shut down illegal retailers and strengthen legislation, such as South Australia and Queensland.

Beyond this, we must ensure that the emergence of vapes, oral nicotine pouches, and other nicotine products does not distract us from the action needed to reduce the toll of death and disease caused by smoking, and to protect new generations from the harms being perpetrated by predatory industries. Egger and colleagues rightly call for integrated and comprehensive tobacco and vaping control strategies. It is time for these to include approaches that involve phasing out the commercial tobacco industry and, following the example set by other countries such as Canada¹⁶ and the United States,¹⁷ require that the industry pay for the costs our society incurs as a result of its activities.

Acknowledgements: Michelle Jongenelis is supported by a National Health and Medical Research Council Investigator Grant (APP1194713). The funder had no involvement in the writing and publication of this article.

Competing interests: No relevant disclosures.

Provenance: Commissioned; not externally peer reviewed.

Author contributions: Michelle Jongenelis: Writing – original draft. Mike Daube: Writing – review and editing. ■

© 2025 AMPCo Pty Ltd.

- 1 Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2022–2023 [website]. Canberra: AIHW, 2024. <https://www.aihw.gov.au/reports/illicit-use-of-drugs/national-drug-strategy-household-survey/contents/tobacco-and-e-cigarettes-vapes> (viewed Sept 2025).
- 2 Egger SJ, David M, Weber MF, et al. Trends in adolescent smoking prevalence before and after the emergence of vaping in Australia: an interrupted time series analysis, 1999–2023. *Med J Aust* 2025; 223: 517–524.
- 3 Tattan-Birch H, Brown J, Shahab L, et al. Trends in vaping and smoking following the rise of disposable e-cigarettes: a repeat cross-sectional study in England between 2016 and 2023. *Lancet Reg Health Eur* 2024; 42: 100924.
- 4 Ministry of Health. Annual update of key results 2023/24: New Zealand Health Survey. 19 November 2024. <https://www.health.govt.nz/publications/annual-update-of-key-results-202324-new-zealand-health-survey> (viewed Sept 2025).
- 5 Hammond D, Reid JL. Trends in vaping and nicotine product use among youth in Canada, England and the USA between 2017 and 2022: evidence to inform policy. *Tob Control* 2025; 34: 115–118.
- 6 Tackett AP, Hébert ET, Stevens EM, Wagener TL. E-cigarette regulation: a delicate balance for public health. *Addiction* 2020; 115: 2197–2199.
- 7 Voos N, Goniewicz ML, Eissenberg T. What is the nicotine delivery profile of electronic cigarettes? *Expert Opin Drug Deliv* 2019; 15: 1193–1203.
- 8 Egger S, David M, McCool J, et al. Trends in smoking prevalence among 14–15-year-old adolescents before and after the emergence of vaping in New Zealand; an interrupted time series analysis of repeated cross-sectional data, 1999–2023. *Lancet Reg Health West Pac* 2025; 56: 101522.
- 9 British America Tobacco. Omni. <https://asmokelessworld.com/gb/en> (viewed Sept 2025).
- 10 Doll R, Hill AB. Smoking and carcinoma of the lung. *Br Med J* 1950; 2: 739–748.
- 11 Wynder EL, Graham EA. Tobacco smoking as a possible etiologic factor in bronchiogenic carcinoma; a study of 684 proved cases. *J Am Med Assoc* 1950; 143: 329–336.
- 12 Tobacco Tactics. E-cigarettes. Bath: University of Bath, 2023. <https://www.tobaccotactics.org/article/e-cigarettes/> (viewed Sept 2025).
- 13 Australian Council on Smoking and Health. Please, protect our kids' health and pass the Vape Bill 2024. <https://acosh.org/advocacy-priorities/vapefree/> (viewed Sept 2025).
- 14 Parliament of Victoria, Public Accounts and Estimates Committee. Vaping and tobacco controls inquiry. Melbourne: Parliament of Victoria, 2024. <https://www.parliament.vic.gov.au/495d36/contentassets/e60aeb0c9e7642f3a4342baef12832b0/paec-60-09-inquiry-into-vaping-and-tobacco-controls.pdf> (viewed Sept 2025).
- 15 Parliament of New South Wales, Legislative Assembly, Committee on Law and Safety. E-cigarette regulation and compliance in New South Wales. Sydney, Parliament of NSW, 2024. <https://www.parliament.nsw.gov.au/ladocs/inquiries/2994/Report%20-%20E-cigarette%20regulation%20and%20compliance%20in%20New%20South%20Wales%20-%20August%202024.pdf> (viewed Sept 2025).
- 16 Government of Canada. Tobacco Charges Regulations: SOR/2025-80. 6 March 2025. <https://gazette.gc.ca/rp-pr/p2/2025/2025-03-26/html/sor-dors80-eng.html> (viewed Sept 2025).
- 17 Master Settlement Agreement 1998. <https://www.naag.org/wp-content/uploads/2020/09/2019-01-MSA-and-Exhibits-Final.pdf> (viewed Sept 2025). ■