

Title:

Commentary on Lim et al.: Real-world e-cigarette use under prescription-only regulation.

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Key message:

Prescription-only access to e-cigarettes has been proposed as a regulatory compromise that could restrict youth uptake while enabling access for smoking cessation. Evidence from Australia's experience suggests that this model neither prevented experimentation among never-smokers nor facilitated widespread use of regulated products for cessation, instead shifting use toward unregulated supply channels.

Commentary:

Prescription-only access to e-cigarette has been proposed as a policy solution that strikes an appropriate balance between preventing youth uptake and enabling adult smokers to access e-cigarettes as smoking cessation aids. Australia represents one of the most prominent real-world tests of this approach. From October 2021 until mid-2024, nicotine-containing e-cigarettes were legally available only with a prescription and subject to therapeutic product standards, while non-prescription supply was prohibited (1). Lim et al. (2) provide timely population-level evidence on how this model operated in practice.

Using data from the 2022–2023 National Drug Strategy Household Survey, Lim et al. (2) analysed e-cigarette use among 21,500 individuals aged 14 years and older. Using latent class analysis, the authors move beyond overall prevalence to identify distinct patterns of use, including experimentation, sustained vaping, and use for smoking cessation, offering

insight into how e-cigarettes were accessed and used under Australia's prescription-only framework.

A central finding is that much of the observed e-cigarette use reflected short-term or occasional experimentation rather than sustained uptake. The largest latent class comprised individuals, predominantly younger people who had never smoked, who reported curiosity-driven use that was infrequent and often transient. Importantly, this experimentation occurred almost entirely through non-prescription sources, indicating that the prescription-only model did not prevent experimentation among never-smokers. Instead, access appears to have been displaced to informal supply channels operating outside regulatory oversight.

This finding is particularly relevant to claims that prescription-only access can prevent youth uptake. Although sustained use among never-smokers appeared uncommon, widespread access to unregulated products, including high-appeal disposable devices banned in Australia, creates conditions under which experimentation may progress to more regular use. Evidence from other jurisdictions, such as the UK, suggests that such devices can facilitate transitions from experimentation to sustained vaping, including among people who have never regularly smoked (3). The Australian experience therefore raises questions about whether restrictive access alone is sufficient to protect young people when enforcement is incomplete and illicit markets remain robust.

Lim et al. (2) also identify a distinct subgroup of individuals who reported using e-cigarettes with the intention of quitting smoking, including both active cessation use and experimentation for this purpose. However, use of prescribed e-cigarettes was rare even among these cessation-motivated groups, with most individuals obtaining products outside the prescription pathway. This suggests that legal access through medical prescribing did not translate into widespread use of regulated products for smoking cessation.

This pattern suggests that the prescription-only model may have constrained the real-world uptake of e-cigarettes as cessation tools, despite their legal availability for this indication. This is noteworthy given strong evidence that e-cigarettes can be effective aids for quitting combustible tobacco (4). Smoking cessation research consistently shows that ease of access,

timely availability and clear guidance influence uptake of cessation aids (5, 6). In this context, the requirement for a medical consultation and prescription may have functioned as a practical barrier, particularly when non-prescription e-cigarettes were more readily accessible through illicit markets.

Reliance on unregulated products for both experimentation and smoking cessation carries additional public health risks. Illicit e-cigarettes are not subject to consistent quality or safety standards and may contain harmful contaminants. Moreover, access to high appealing devices through informal channels may undermine regulatory efforts to reduce product appeal, particularly among young people. Together, these findings highlight a key limitation of highly restrictive access models: limiting legal supply does not necessarily reduce demand but may instead redirect use toward less controlled and potentially higher-risk products.

Taken together, Lim et al.'s (2) findings suggest that Australia's prescription-only approach struggled to achieve its intended balance between youth protection and harm reduction for people who smoke. While the model sought to tightly control access to e-cigarettes, in practice it neither prevented experimentation among never-smokers nor facilitated widespread use of regulated products for smoking cessation. Instead, much e-cigarette use occurred outside the regulated system. Australia's subsequent move away from strict prescription-only access reflects growing recognition of these limitations. Ongoing evaluation will be essential to determine whether revised frameworks can more effectively limit youth uptake while ensuring that adults who smoke can access evidence-based, lower-risk alternatives within a regulated environment.

References

1. Jenkins C, Morgan J, Kelso C. A short history of e-cigarette policy in Australia. *Perspect Public Health*. 2025;145(2):57-9.
2. Lim CCW, Sun T, Lai G, Hall W, Connor J, Lee YY, Cho A. Patterns, reasons and characteristics of e-cigarette use in Australia: Findings from the 2022-2023 National Drug Strategy Household Survey. *Addiction*. 2025.

3. Jackson SE, Shahab L, Tattan-Birch H, Brown J. Vaping among adults in England who have never regularly smoked: a population-based study, 2016–24. *The Lancet Public Health*. 2024;9(10):e755-e65.
4. Lindson N, Butler AR, McRobbie H, Bullen C, Hajek P, Wu AD, et al. Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews*. 2025(1).
5. Roddy E, Antoniak M, Britton J, Molyneux A, Lewis S. Barriers and motivators to gaining access to smoking cessation services amongst deprived smokers--a qualitative study. *BMC Health Serv Res*. 2006;6:147.
6. Smith AL, Carter SM, Chapman S, Dunlop SM, Freeman B. Why do smokers try to quit without medication or counselling? A qualitative study with ex-smokers. *BMJ Open*. 2015;5(4):e007301.