

Position Statement: E-cigarette use in Australia

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About Lung Foundation Australia

Lung Foundation Australia is Australia's leading lung health peak body and national charity. Founded in 1990, we have become the trusted point-of-call for the one in three Australians living with a lung disease, including lung cancer.

We work to ensure lung health is a priority for all, from promoting lung health and early diagnosis, advocating for policy change, programs, and research investment, raising awareness about the symptoms and prevalence of lung disease, and championing equitable access to treatment and care. To support those living with a lung disease we deliver information and support services and facilitate access to peer support and exercise maintenance programs.

As a patient representative charity, we have partnered with patients, health professionals, researchers, medical organisations, and the Australian community to drive reform in the delivery of health services in Australia to benefit more than 7 million Australians impacted by lung disease and prevent even more Australians from developing lung disease.

Key messages

- Evidence has demonstrated that e-cigarettes are unsafe and harmful.
- LFA funded a pioneering study with Minderoo Foundation and Curtin University to uncover the toxic chemical content of e-cigarettes available over the counter in Australia. 1
- E-cigarettes contain a range of toxic chemicals including nicotine that damages the lungs.
- E-cigarette **use in Australia has substantially and rapidly increased** particularly in younger generations.
- We need to stop the next generation of Australians from becoming addicted to nicotine.
- The e-cigarette epidemic is undermining decades of successful tobacco control, with young people who try e-cigarettes five times as likely to take up smoking compared to those who have never vaped.
- Dual use of e-cigarettes and tobacco is common.
- E-cigarettes should only be a last line smoking cessation treatment for tobacco and nicotine dependence. There are other evidence-based and safe cessation treatments that should be attempted first such as Nicotine Replacement Therapies (NRT) alongside behavioural supports under the supervision of a health practitioner or pharmacist.
- Nicotine addiction and dependence is due to insidious industries that put profits before the health of people.
- Young people who are nicotine dependent should be appropriately supported to help them
 quit smoking and e-cigarettes, and they should not be stigmatised for being addicted to a
 product that is marketed and targeted towards them.
- The only thing that should be inhaled into the lungs is clean air.

Lung Foundation Australia makes recommendations under the following four priority areas:

- All State and Territory Government's amend their relevant legislation, at a minimum to align with the Commonwealth Therapeutic Goods and Other Legislation Amendment (Vaping Reforms) Bill 2024.
- 2. Strengthen monitoring and enforcement of e-cigarettes outside of the Schedule 3 (Pharmacist Only) Medicine model.
- 3. Increased investment in awareness and education campaigns, as well as cessation support, for young people and key target groups.
- 4. All jurisdictions amend relevant Acts to ban political donations from the tobacco and vaping industry in line with Article 5.3 of the World Health Organization Framework Convention on Tobacco Control (FCTC), and the Australian Government's National Tobacco Strategy 2022-2030 priority area 9.

Note: Lung Foundation Australia's position, advice and recommendations for smoking cessation (NRT, behavioural support, pharmacotherapies, and third-line treatments like e-cigarettes) for the approximately 11% of current daily smokers is not included in this position statement.

Summary

E-cigarettes, although marketed by tobacco and e-cigarettes industry groups as a safer alternative, have known and demonstrated short term health harms, and mounting evidence of long-term health harms.^{2–5} E-cigarettes contain toxic chemicals that are harmful to physical health and most contain the highly addictive drug nicotine, which is harmful to physical and mental health. There has been a large increase in uptake of e-cigarettes by never-smokers particularly in young people, leading to nicotine dependence. There is also evidence of non-smokers who take up e-cigarettes being 5x more likely to take up tobacco smoking,⁶ and dual use of e-cigarettes and tobacco leading to prolonged exposure to nicotine and heightened health risks.⁷

Tobacco and e-cigarette industries have promoted e-cigarettes as cessation tool, however there is currently limited evidence to suggest that e-cigarettes are more effective as smoking cessation aids. 8,9 In Australia, we currently have a variety of evidence based approved forms of smoking cessation tools and Nicotine Replacement Therapies (NRTs) that are tested for safety, quality, and efficacy. In addition, there are environmental health impacts of e-cigarettes in the form of plastic, chemical and electronic waste. 10 More research is uncovering the damage that e-cigarettes have on DNA similar to the damage caused by tobacco smoking. 2-5 The impact of tobacco on health and society more broadly has been devastating and there is a concern that the short term and long-term health impacts of e-cigarettes may be similar. There is a risk that the widespread use of e-cigarettes creates normalisation of smoking and nicotine use, and the development of nicotine addiction.

This position statement outlines Lung Foundation Australia's stance on e-cigarettes and their negative impacts on the health of people and the environment. The need for limiting access to e-cigarettes to protect the health of Australians, particularly of non-smokers and young people who are further impacted through the effects of toxic chemicals on developing brains and bodies, is of utmost importance.

New Federal government regulations introduced 1st July 2024 are a step in the right direction in limiting access to young people and non-smokers and making it easier for young people to quit or to never take up vaping in the first place. 11 LFA strongly supports this amendment as it puts health before industry profits.

What are e-cigarettes?

Electronic cigarettes (also known as e-cigarettes, vapes, electronic nicotine delivery systems (ENDS), or personal vaporisers) are devices designed to deliver nicotine and/or other chemicals via an aerosol vapour that is inhaled by the user. Most e-cigarettes have a battery, a heating element, and a component that holds a liquid.¹² The liquids used in e-cigarettes contain a range of hazardous chemicals including nicotine, formaldehyde and acetaldehyde and various flavourings.¹² E-cigarettes are often mislabelled as being nicotine-free and thus despite it being illegal, nicotine e-cigarettes were widely available to purchase in Australia, leading to a new generation becoming dependent on nicotine products.¹³

E-cigarette use in Australia

In 2022–2023 the Australian Institute of Health and Wellbeing National Drug Strategy Household Survey¹⁴ found that 1 in 5 (19.8%) people aged 14 and over in Australia reported having used e-cigarettes at least once in their lifetime, with 7% currently using e-cigarettes. This was a large increase from 2019, when only 11.3% of people had ever used e-cigarettes, and 2.5% were currently using them. The proportion of people who used e-cigarettes daily in 2022–2023 increased from 1.1% in 2019 to 3.5% in 2023 and 21% of 18–24-year-olds were currently using e-cigarettes.

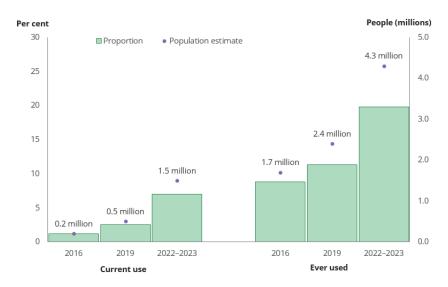


Figure 1: Use of e-cigarettes, proportion of people and population, people aged 14 and over, 2016 to 2022–202315

The Australian Secondary School's Alcohol and Drug Survey¹⁶ found that an increased use of ecigarettes by adolescents has raised concerns in terms of addiction and health risks, and in increasing the potential for uptake of tobacco use. 69% of students who had ever used an ecigarette had never smoked a tobacco cigarette before their first vape, and 20% of students who had never smoked prior to trying an e-cigarette reported subsequent smoking of tobacco cigarettes. According to the National Drug Strategy Household Survey 2022–2023¹⁵ rates of ecigarette use across the country tripled, with 49% of people 18-24 having used an e-cigarette, and 28% of young people aged 14-17.

The increase in e-cigarette use particularly among young people has the potential to normalise smoking leading to increases in e-cigarette and tobacco cigarette use.

Nearly 1 in 4 students (23%) started vaping as young as 12 years of age.

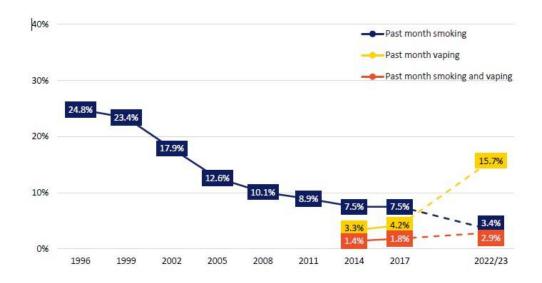


Figure 2: Past month smoking and past month vaping over time among Australian secondary school students, 1996-2022/202316

Rapidly increasing e-cigarette use puts at risk the positive tobacco control efforts of the past decades that have seen tobacco smoking rates decline, particularly in young people. E-cigarette use not only increases the risk of injury and disease, it also encourages the cycle of nicotine addiction and dependence which is challenging to stop and can lead to the use of tobacco cigarettes or dual use.

Health and environmental impacts of e-cigarettes

Health Impacts

A global systematic review on the health impacts of e-cigarettes by the Australian National University in 2022, identified health risks of e-cigarettes including: addiction; intentional and unintentional poisoning; acute nicotine toxicity, including seizures; burns and injuries; lung injury; indoor air pollution; environmental waste and fires; dual use with cigarette smoking; and increased smoking uptake in non-smokers. Less direct evidence indicates adverse effects of e-cigarettes on cardiovascular health markers, including blood pressure and heart rate, lung function and adolescent brain development and function. 17

Dual use with cigarette smoking, and increased smoking uptake in non-smokers is recognised as an ongoing concern.¹⁷

Nicotine is harmful to the developing brain and may increase the risk of future addiction to other drugs. There is a risk of the onset or worsening of mental health disorders such as anxiety and depression. 18,19 Chronic nicotine exposure during adolescence can have long-term consequences causing diminished cognitive function which could result in reduced attention span and enhanced impulsivity in adulthood. 20

In addition to nicotine, more than 200 chemicals²¹ have been associated with e-liquids which can cause potential lethal side effects in small quantities. There has been an increase in calls to poisons hotlines particularly for young children, and hospitalisations due to vaping.²² Toxic chemicals found in e-cigarettes include:

- Heavy metals such as nickel and silicon²³
- Volatile organic compounds such as benzene, which is found in car exhaust and can be toxic at sufficient doses²⁴

- Cancer-causing chemicals such as acetaldehyde, acrolein, and formaldehyde which are known to cause lung and heart disease²⁵
- Phthalates which are used to make plastics, many have reproductive toxicity, and can be endocrine disrupting²¹
- Pesticides²¹

Less direct evidence indicates adverse effects of e-cigarettes on cardiovascular health markers, including blood pressure and heart rate, lung function, and adolescent brain development and function.²⁵

E-cigarettes are detrimental to oral health and contribute to gum disease, teeth staining, bad breath, cavities, and irritation in the mouth that can lead to mouth sores such as thrush which are unsightly and cause difficulties in speaking and eating. Nicotine can promote tooth grinding which can lead to cracked or shortened teeth, lock jaw and headaches.²⁶

The environmental impacts of e-cigarette use

E-cigarettes contribute to deforestation and destruction of habitats from mining for materials, and carbon emissions from manufacturing and transportation.²⁷ E-cigarettes are made up of plastic, electronic and toxic waste components.

Plastics

Many e-cigarettes are made of non-biodegradable plastics with limited recycling options and end up in landfill, while others are discarded on the street as litter. Only 13% of plastic gets recycled, so even when e-cigarettes are disposed of correctly, they are likely to end up in landfill or the environment.²⁷

Chemical Waste

E-liquids are toxic and can contaminate water, soil and the air¹⁰ and impact aquatic life.^{27,28} Almost all e-liquids sold in Australia contain nicotine even if they are not labelled as such. They are classified as hazardous waste and are harmful to humans and the environment. They must be disposed of carefully to minimise impacts on the environment. E-liquids contain a mixture of toxic chemicals that can contaminate drinking water and leach into the environment. E-cigarettes release small particles into the air creating indoor air pollution which is harmful to breathe in.²⁷

Electronic Waste

The lithium batteries used in e-cigarettes are flammable and are not recyclable, with an estimated 1.8 million e-cigarettes thrown into household garbage every week in Australia. When thrown in household rubbish or incorrectly into recycling, they have been known to cause fires in waste disposal vehicles and at waste management facilities. It is estimated there are up to 35 fires per day in recycling centres across Australia.²⁹ Lithium is a precious natural resource that could instead be used to power green technology such as electric vehicles. Additionally, e-cigarette batteries have the potential to leak corrosive electrolytes and heavy metals which pose a danger to human and animal health.

There is some evidence that vaping can cause inflammation of the mouth which can lead to gum disease and other oral health problems.³⁰ A study published in December 2022 demonstrated that those who were vaping had a higher risk of developing caries.³¹ Evidence also suggests the potential for nicotine e-cigarettes to lead to oral cavity cancer creating a heightened awareness on the short- and long-term health risks of vaping.³²

Passive Vaping

Breathing in second-hand vape or passive vaping may cause health harms, with research indicating second-hand nicotine vape exposure was associated with increased risk of bronchitis symptoms and shortness of breath among young adults.³³ Short-term exposure to passive vaping has been shown to irritate eyes, irritate airways and worsen respiratory conditions. There is conclusive evidence that ecigarette use results in increased airborne particulate matter in indoor environments.³⁴

Various toxic chemicals have been detected in second hand smoke including nicotine, heavy metals, diacetyl which is linked to lung disease, and benzene found in car exhaust.³⁵

Third hand smoke is the accumulation of chemicals from smoking products on surfaces and clothing. Some studies have demonstrated that e-cigarettes can cause third hand smoke when used indoors. Both second and third hand smoke can have a detrimental effect on the health of children, pregnant women, the elderly and people who suffer from chronic lung or heart disease.^{36–38}

Nicotine addiction

Vaping products often contain the addictive drug nicotine which when used by adolescents can harm areas of the brain that control attention, learning, mood, and impulse control.³⁹ Nicotine is harmful to the developing brain (development occurs until around 25 years of age) and may increase risk for future addiction to other drugs.³⁹ Nicotine dependence can quickly occur, and when a person discontinues use they may experience nicotine withdrawal symptoms including irritability, restlessness, feeling anxious or depressed, trouble sleeping, problems concentrating and cravings for nicotine. ³⁹ Youths may use e-cigarettes as a way to manage stress or anxiety causing nicotine dependence which can in turn be a source of stress. ³⁹ A tobacco survey from the United Stated found the most cited reason for current use of e-cigarettes was "I am feeling anxious, stressed, or depressed" (43.4%).⁴⁰

Gateway to smoking

Tobacco use remains the leading risk factor for ill health and premature death in Australia.⁴¹ Public health measures have resulted in significant declines in smoking rates over the past two decades, with the smoking rate decreasing to 10.6% in Australians aged 18 and over.⁴² Vaping use has been increasing significantly in recent years and has the potential to increase smoking rates in Australia, impacting the years of hard work that has been done to reduce smoking and protect public health. Research has demonstrated those who take up vaping are more likely to take up smoking with:

Strong evidence that non-smokers who use e-cigarettes are five times as likely to go on to smoke combustible tobacco cigarettes.⁶ Ever-vapers were 18 times more likely to be ever-smokers than those who had never vaped. ⁴² Ever-smokers were seven times more likely to be ever-vapers than those who had never smoked.⁴²

Dual use of vaping and cigarettes

Data released by The Department of Health and Aged Care not only found increased ecigarette use but worryingly this data also revealed high levels of both vaping and smoking known as dual use.⁴³ Further, links were identified with age and preference for vaping or smoking by age, with the three youngest age groups more commonly undertaking exclusive vaping than exclusive smoking. On the other hand, within the older age groups, exclusive smoking was more

common than exclusive vaping. Additionally, dual use was most common for the two youngest age groups and became less common with increasing age.⁴³

A study from The Australian National University (ANU) found that those who are using e-cigarettes are not doing so for smoking cessation as use is highest in young people where smoking rates remain the lowest.⁸ Additionally, many who vape continue to smoke and are being exposed to the health harms of not only cigarettes but also e-cigarettes.⁸ In 2019, 53% of e-cigarette users were also smokers (dual users).⁸

E-cigarettes for smoking cessation

Since October 2021, nicotine vaping products have been categorised as a smoking cessation tool only. E-cigarette and tobacco industries have marketed e-cigarettes to existing smokers as both a smoking cessation tool and as a less harmful alternative to cigarettes and tobacco smoking.⁴⁴ Additionally, many cigarette smokers who begin using e-cigarettes as a smoking cessation tool, often become dual users and continue to use both products.⁴⁴

There is currently limited evidence to suggest that e-cigarettes are more effective smoking cessation aids. Long term research regarding vaping products and health is not currently available, however both the known and unknown health impacts have the potential to cause harm. In Australia, we currently have a variety of approved forms of smoking cessation tools and Nicotine Replacement Therapies (NRTs) that are tested for safety, quality, and efficacy. We further highlight the need cessation support for young people who are now dependent on nicotine e-cigarettes as these products have been widely available for purchase in Australia.

Tobacco industry influence

Big tobacco is used to describe the largest companies in the tobacco industry including Philip Morris International, British American Tobacco, Imperial Brands and Japan Tobacco International.⁴⁵ With the declining cigarette market, big tobacco companies now manufacture and sell e-cigarette products and own many of the most popular e-cigarette brands.

These companies are marketing nicotine e-cigarettes as less toxic and safer alternatives to conventional cigarettes, despite these products exposing users to hundreds of chemicals and nicotine, the highly addictive substance found in cigarettes. ⁴⁶ The tobacco industry claims that nicotine e-cigarettes help reduce cigarette smoking and assist in transitioning away from regular cigarettes which cause severe health harms. ⁴⁷ Big tobacco has flooded the Australian market with cheap, addictive, and dangerous e-cigarette products to hook a new generation and continue to increase profits with no regard for the health impacts on the individual and community.

In 2017, The Foundation for a Smoke-Free World was launched with the mission of ending smoking in this generation and eliminate smoking related death and tobacco dependent agriculture.⁴⁸ Philip Morris International, one of the Big Tobacco companies, funds the foundation despite being responsible for continuing to make products which kill half of its users.^{49,50} Philip Morris sells 'smokeless tobacco products' such as e-cigarettes which are proven to cause health harms and place users at risk. The development of The Foundation for a Smoke-Free World is another way tobacco companies tactfully market their products, which harm human health and cause addiction. In June 2024 WHO advised that The Foundation for a Smoke-Free World had changed its name to Global Action to End Smoking and reiterated their advice against partnering with this organisation.⁵¹

Big Tobacco companies have attempted to influence the nicotine prescription model in Australia, with a plan to offer pharmacies incentives to order e-cigarettes and products which are supported by Phillip Morris International.⁵² Additionally, in 2023, it was revealed that Philip Morris and The Foundation for a Smoke-Free World have financed more than 70 academic papers regarding e-cigarettes and smoking cessation since launching in 2017.⁵³ Funding such research allows tobacco companies to set and distort the research agenda and use such research to lobby for unregulated sales of e-cigarettes.

A study by the University of Melbourne found that 26% of submissions to the Australian Government's vaping reforms consultation in 2022 featured text from an astroturfing campaign led by the tobacco and vaping industry, and discreetly bypassing conflict of interest declaration requirements.⁵⁴

National Tobacco Strategy and National Preventive Health Strategy

The May 2023 release of the National Tobacco Strategy (NTS)⁵⁵ provides the framework for reducing smoking and e-cigarette use. This national strategy received state and territory endorsement, which is integral for implementation.

Strengthening regulations on e-cigarettes and novel and emerging products is a key priority outlined in the NTS and we re-iterate the need for states and territories to implement additional measures to further restrict the availability and use of e-cigarettes in line with action 9.1. Following the announcements from the federal government on the ban on importation of non-nicotine vaping products, all state and territory governments must step up and support these reforms by prohibiting the supply of vaping products.

Additionally, reducing tobacco use and nicotine addiction is a key focus area of The National Preventive Health Strategy. The strategy outlines policy achievements by 2030 including the implementation of stronger regulation, monitoring and enforcement for novel and emerging products including e-cigarettes. These two important national strategies outline the Federal and state and territory government's commitment to addressing the significant burden of tobacco and e-cigarette related death and disease and we acknowledge the work that has been done and the co-ordination efforts to date.

Current Legislation for e-cigarettes in Australia

- Since 1 January 2024, a ban on the importation of disposable vapes has been in place.
- From 1 March 2024, new standards were introduced including restrictions on e-cigarette flavours.
- On 27th June 2024 the Federal Therapeutic Goods and Other Legislation Amendment (Vaping reforms) Bill 2024 was formally passed. This new vaping legislation will put an end to the sale of all vapes in retail stores except pharmacies from July 1, 2024.
- From 1 July 2024 vapes will only be available behind the counter from a pharmacist as a last line cessation tool to help Australians quit smoking.
- From 1 October 2024, therapeutic vapes with a nicotine concentration of 20mg/mL or less will be available from Australian pharmacies to patients 18 years or over without a prescription where a pharmacist assesses this to be clinically appropriate subject to individual State and Territory laws.
- As of December 2024, Tasmania and Western Australia are currently moving through legislation to have e-cigarettes as a Schedule 4 Prescription Only Medicine available from a pharmacy. Therapeutic vapes for patients under 18 years and/or with a nicotine concentration of more than 20 mg/mL will continue to be available with a prescription from a medical or nurse practitioner, subject to state and territory laws. The laws in some jurisdictions prevent the supply of any vape to a person under 18.
- The National Vaping Enforcement Framework was formally endorsed by the National Vaping Working Group on 20 May 2024. The Framework was agreed by the Therapeutic Goods Administration (TGA), the Australian Border Force (ABF), the Australian Federal Police and all state and territory health departments and police forces.
- The Framework outlines how Commonwealth agencies, state and territory health departments and police will work together to enforce the vaping reforms, including establishing operational mechanisms and information sharing to support an interconnected and united approach to enforcement.

Lung Foundation Australia recommendations

We welcome the strong reforms from the Australian Government to tackle this ongoing and increasing public health crisis. Restricting access to vaping products will protect the health of both children and non-smokers who are recreationally using e-cigarettes. Evidence shows that e-cigarettes cause considerable health harms in the short term and provide no benefit to those who do not currently smoke, which is only a small portion of the Australian population.

States and territories play a significant role in ensuring such reforms achieve the desired outcome of protecting public health. We need co-ordinated action from states and territories who are responsible for their own tobacco legislation and enforcement monitoring. We must prevent tobacco industries from continuing to influence government policy and protect children and non-smokers from their profit driven marketing tactics.

As we have witnessed with tobacco, it takes decades to reduce nicotine tobacco smoking, and we have the opportunity to prevent this from occurring again. We must ensure vaping products are only accessible for smoking cessation as a last line cessation aid for those who smoke. Lung Foundation Australia continues to call for increased government action to protect the lung health of all Australians.

Specifically we recommend:

 All State & Territory Government's to amend their relevant legislation, at a minimum to align with the Commonwealth Therapeutic Goods and Other Legislation Amendment (Vaping Reforms) Bill 2024

Australian states and territories amend their legislation at a minimum to align with the Commonwealth vaping reforms 2024. These reforms aim to ensure that youth and non-smokers are protected from the harms of vaping products and ensure that e-cigarettes are only available from a pharmacy as a Schedule 3 (Pharmacist Only) Medicine. The amendment prohibiting the supply of all vaping products outside the schedule 3 model will enable strengthened enforcement action to be undertaken, simplifying the process for authorised persons. In addition, aligning penalties with the Federal reforms will also ensure that individuals and organisations who sell products illegally will be sufficiently dissuaded to do so. We recognise that some states and territories have chosen to pursue stronger regulations within their jurisdiction with the aim to prevent and reduce e-cigarette use by young people and non-smokers, which we support.

2. Strengthen monitoring and enforcement of e-cigarettes outside of the Schedule 3 (Pharmacist Only) Medicine model

Following the implementation of the new federal reforms, all state, territory and federal governments must intensify their current compliance, monitoring and enforcement measures to prevent e-cigarette products being sold outside of the Schedule 3 (Pharmacist Only) Medicine model and ending up in the hands of young people and non-smokers.

Enforcement processes should be streamlined and enforcement responsibilities clearly defined so that relevant departments can confidently carry out their role and enforcement can be efficiently actioned. The success of the reforms is reliant on strong enforcement action.

3. Increased investment in awareness and education campaigns, as well as cessation support, for young people and key target groups

With ongoing e-cigarette use by young people, more support will be needed to reduce use and prevent uptake. We need increased investment in awareness and education for target groups such as young people as well as for the communities supporting them. We note the importance of messaging that does not create stigma around vaping and empowers individuals to seek support to quit.

There continues to be a growing need to develop and implement strong education programs to discourage young people from e-cigarette use with vaping causing ongoing behavioural issues and distractions in school environments. However, we further note the need to educate young adults, parents, and carers on the harms of vaping and support all to reduce e-cigarette use.

4. All jurisdictions amend relevant Acts to ban political donations from the tobacco and vaping industry in line with Article 5.3 of the World Health Organization Framework Convention on Tobacco Control (FCTC), and the Australian Government's National Tobacco Strategy 2022-2030 priority area 9.

Australian is a signatory to the FCTC, which states that public policy should be free from influence from tobacco industry. All Australian states and territories should amend relevant legislation to include the banning of political donations from both the vaping industry to protect public health policy from vested interests.

Australia signed the World Health Organization Framework Convention on Tobacco Control (FCTC) in 2003 and since then has achieved milestones in reducing tobacco use by strengthening regulatory control, creating awareness through health campaigns, and enhancing smoking cessation services. Despite this, we must do more to meet the articles outlined in the FCTC and protect the health of Australians into the future. Article 5.3 of the WHO FCTC relates to protection of public health policies with respect to tobacco control from commercial and other vested interests of the tobacco industry. Australia's obligations under Article 5.3 extend to new and emerging products, such as e-cigarettes and heated tobacco products, due to the increasing integration between their manufacturers and the tobacco industry.² We note Australia supports the decision of the Sixth Conference of the Parties to the WHO FCTC, which invited parties to consider taking measures to: "protect tobacco-control activities from all commercial and other vested interests related to ENDS/ENNDS (i.e. e-cigarettes or electronic nicotine delivery systems/electronic non-nicotine delivery systems), including interests of the tobacco industry".3 Each jurisdiction has the power to do this, and New South Wales has taken a positive stance by prohibiting political donations from the tobacco industry (amongst others) or a 'close associate', as outlined in the Electoral Funding Act 2018 (NSW). This legislation replaced the previous Election Funding, Expenditure and Disclosures Act 1981, and is a valuable example of protecting public health interests.

References

- 1. Larcombe A, Allard S, Pringle P, Mead-Hunter R, Anderson N, Mullins B. Chemical analysis of fresh and aged Australian e-cigarette liquids. *Med J Aust*. 2021;216(1). Accessed April 15, 2024. https://www.mja.com.au/journal/2022/216/1/chemical-analysis-fresh-and-aged-australian-e-cigarette-liquids
- 2. Abrams Z. First genome-wide comparison of vapers and smokers finds similar DNA changes linked to disease risk. Newsroom. August 12, 2024. Accessed August 19, 2024. https://keck.usc.edu/news/first-genome-wide-comparison-of-vapers-and-smokers-finds-similar-dna-changes-linked-to-disease-risk/
- 3. Camila B, Carlos C, Maria-Jose P, Sergio R, Alejandra C, Adriana R. Genotoxicity and hypomethylation of *LINE-1* induced by electronic cigarettes. *Ecotoxicology and Environmental Safety*. 2023;256:114900. doi:10.1016/j.ecoenv.2023.114900
- 4. Healther Close. Korean study finds former smokers who use e-cigarettes or vapes have higher risk for lung cancer than ex-smokers who don't Kentucky Health News. May 21, 2024. Accessed August 23, 2024. https://kyhealthnews.net/2024/05/21/korean-study-finds-former-smokers-who-use-e-cigarettes-or-vapes-have-higher-risk-for-lung-cancer-than-ex-smokers-who-dont/
- Herzog C, Jones A, Evans I, et al. Cigarette Smoking and E-cigarette Use Induce Shared DNA Methylation Changes Linked to Carcinogenesis. Cancer Res. 2024;84(11):1898-1914. doi:10.1158/0008-5472.CAN-23-2957
- 6. Egger S, David M, Watts C, et al. The association between vaping and subsequent initiation of cigarette smoking in young Australians from age 12 to 17 years: a retrospective cohort analysis using cross-sectional recall data from 5114 adolescents. Australian and New Zealand Journal of Public Health. 2024;48(5):100173. doi:10.1016/j.anzjph.2024.100173
- 7. Banks E, Beckwith K, Joshy G. Summary Report on Use of E-Cigarettes and Impact on Tobacco Smoking Uptake and Cessation, Relevant to the Australian Context. Commissioned Report for the Australian Government Department of Health. National Centre for Epidemiology and Population Health Research School of Population Health The Australian National University; 2020. Available at http://hdl.handle.net/1885/211618
- 8. Banks E, Yazidjoglou A, Brown S, et al. Electronic cigarettes and health outcomes: umbrella and systematic review of the global evidence. *Medical Journal of Australia*. 2023;218(6):267-275. doi:10.5694/mja2.51890
- 9. Travis N, Knoll M, Cadham CJ, et al. Health Effects of Electronic Cigarettes: An Umbrella Review and Methodological Considerations. *International Journal of Environmental Research and Public Health*. 2022;19(15):9054. doi:10.3390/ijerph19159054
- 10. Ngambo G, Hanna EG, Gannon J, Marcus H, Lomazzi M, Azari R. A scoping review on ecigarette environmental impacts. *Tob Prev Cessat*. 2023;9:30. doi:10.18332/tpc/172079
- 11. Jongenelis MI, Gill M, Lawrence N, Wakefield CE. Quitting intentions and behaviours among young Australian e-cigarette users. *Addiction*. 2024;119(9):1608-1615. doi:10.1111/add.16530
- 12. Australian Government Department of Health and Aged Care. About vaping and ecigarettes. Australian Government Department of Health and Aged Care. February 12, 2024. Accessed March 14, 2024. https://www.health.gov.au/topics/smoking-vaping-and-tobacco/about-vaping
- 13. Department of Health & Human Services. E-liquids for use in e-cigarettes. Accessed June 28, 2024. http://www.betterhealth.vic.gov.au/health/healthyliving/e-liquids-for-use-in-e-cigarettes
- 14. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2022–2023, About. Australian Institute of Health and Welfare. February 29, 2024. Accessed June 28, 2024.

- https://www.aihw.gov.au/reports/illicit-use-of-drugs/national-drug-strategy-household-survey/contents/about
- 15. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2022–2023: Vaping and e-cigarette use in the NDSHS. Australian Institute of Health and Welfare. February 29, 2024. Accessed June 28, 2024. https://www.aihw.gov.au/reports/smoking/vaping-e-cigarette-use
- 16. Scully M, Bain K, Koh I, Wakefield M, Durkin S. ASSAD 2022/2023: Australian secondary school students' use of tobacco and e-cigarettes. Published online 2023. Available from: https://www.health.gov.au/sites/default/files/2023-11/secondary-school-students-use-of-tobacco-and-e-cigarettes-2022-2023.pdf.
- 17. Banks E, Yazidjoglou A, Brown S, et al. *Electronic Cigarettes and Health Outcomes: Systematic Review of Global Evidence*. National Centre for Epidemiology and Population Health; 2022. https://www.nhmrc.gov.au/sites/default/files/documents/attachments/ecigarettes/Electronic_cigarettes_and_health_outcomes_%20systematic_review_of_evidence.pdf
- 18. Taylor G, McNeill A, Girling A, Farley A, Lindson-Hawley N, Aveyard P. Change in mental health after smoking cessation: systematic review and meta-analysis. *BMJ*. 2014;348:g1151. doi:10.1136/bmj.g1151
- 19. Truth Initiative. Colliding Crises: Youth Mental Health and Nicotine Use. Published online 2021. https://truthinitiative.org/sites/default/files/media/files/2021/10/Mental%20Health%20and%20Nicotine%20Report_10.7.2021.pdf
- 20. Ruszkiewicz JA, Zhang Z, Gonçalves FM, Tizabi Y, Zelikoff JT, Aschner M. Neurotoxicity of ecigarettes. Food Chem Toxicol. 2020;138:111245. doi:10.1016/j.fct.2020.111245
- 21. Winnall W, Greenhalgh E, Bayly M, Scollo M. 18.5 Chemicals in e-liquids and e-cigarette aerosols. Tobacco in Australia: Facts and issues. Accessed March 19, 2024. https://www.tobaccoinaustralia.org.au/chapter-18-e-cigarettes/18-5-chemicals-in-e-liquids-and-e-cigarette-aerosols
- 22. National Health and Medical Research Council 2022. CEO Statement on Electronic Cigarettes. Published online 2022. https://www.nhmrc.gov.au/health-advice/all-topics/electronic-cigarettes/ceo-statement
- 23. Winnall W. 12.4 Emissions from tobacco products. Tobacco in Australia: Facts and issues. 2022. https://www.tobaccoinaustralia.org.au/chapter-12-tobacco-products/12-4-emissions-from-tobacco-products
- 24. American Lung Association. Health Risks of E-Cigarettes and Vaping. Accessed March 19, 2024. https://www.lung.org/quit-smoking/e-cigarettes-vaping/impact-of-e-cigarettes-on-lung
- 25. Ogunwale MA, Li M, Ramakrishnam Raju MV, et al. Aldehyde Detection in Electronic Cigarette Aerosols. ACS Omega. 2017;2(3):1207-1214. doi:10.1021/acsomega.6b00489
- 26. Tobacco in Australia. 18.6.9 Exposure to secondhand e-cigarette emissions. Tobacco in Australia: Facts and issues. 2023. Accessed March 19, 2024. https://www.tobaccoinaustralia.org.au/chapter-18-e-cigarettes/18-6-the-health-effects-of-e-cigarette-use/18-6-9-exposure-to-secondhand-e-cigarette-emissions
- 27. Lung Foundation Australia. The environmental impact from e-cigarettes. https://lungfoundation.com.au/wp-content/uploads/2024/01/Vape_FactSheet.pdf
- 28. Vic Health. The impact of vaping on our environment | VicHealth. 2023. Accessed March 20, 2024. https://www.vichealth.vic.gov.au/our-health/vaping/impact-environment

- 29. Hamilton-Smit L, Katsaras J. Exploding lithium-ion batteries in disposable vapes are causing five fires a day in Queensland alone. *ABC News*. https://www.abc.net.au/news/2023-12-02/qld-lithium-ion-battery-fire-dangers-warning-/103133178. December 1, 2023. Accessed March 4, 2024.
- Department of Health & Human Services. Effects of Smoking and Vaping on Oral Health. Better Health Channel. 2021. Accessed March 19, 2024. http://www.betterhealth.vic.gov.au/health/healthyliving/smoking-and-oral-health
- 31. Irusa KF, Finkelman M, Magnuson B, Donovan T, Eisen SE. A comparison of the caries risk between patients who use vapes or electronic cigarettes and those who do not: A cross-sectional study. *J Am Dent Assoc*. 2022;153(12):1179-1183. doi:10.1016/j.adaj.2022.09.013
- 32. Klawinski D, Hanna I, Breslin NK, Katzenstein HM, Indelicato DJ. Vaping the Venom: Oral Cavity Cancer in a Young Adult With Extensive Electronic Cigarette Use. *Pediatrics*. 2021;147(5):e2020022301. doi:10.1542/peds.2020-022301
- 33. Islam T, Braymiller J, Eckel SP, et al. Secondhand nicotine vaping at home and respiratory symptoms in young adults. *Thorax*. 2022;77(7):663-668. doi:10.1136/thoraxjnl-2021-217041
- 34. Passive smoking and vaping | healthdirect. Accessed June 28, 2024. https://www.healthdirect.gov.au/passive-smoking-and-vaping
- 35. American Lung Association. The Impact of E-Cigarettes on the Lung. 2023. Accessed March 19, 2024. https://www.lung.org/quit-smoking/e-cigarettes-vaping/impact-of-e-cigarettes-on-lung
- 36. Winnall W, Greenhalgh E, Scollo M, Winstanley M. 18.6.9 Exposure to secondhand e-cigarette emissions. Tobacco in Australia: Facts and issues. 2023. Accessed March 19, 2024. https://www.tobaccoinaustralia.org.au/chapter-18-e-cigarettes/18-6-the-health-effects-of-e-cigarette-use/18-6-9-exposure-to-secondhand-e-cigarette-emissions
- 37. Thirdhand Smoke Resource Center. Do electronic cigarettes create thirdhand smoke? Thirdhand Smoke Resource Center. March 1, 2023. Accessed March 19, 2024. https://thirdhandsmoke.org/do-electronic-cigarettes-create-thirdhand-smoke/
- 38. Nath S, Geraghty P. Should we worry about children's exposure to third-hand by-products generated from electronic nicotine delivery systems? *ERJ Open Res*. 2020;6(2):00194-02020. doi:10.1183/23120541.00194-2020
- 39. CDC. Quick Facts on the Risks of E-cigarettes for Young People. Centers for Disease Control and Prevention. January 16, 2024. Accessed February 28, 2024. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html
- 40. Gentzke AS. Tobacco Product Use and Associated Factors Among Middle and High School Students National Youth Tobacco Survey, United States, 2021. MMWR Surveill Summ. 2022;71. doi:10.15585/mmwr.ss7105a1
- 41. Tobacco use linked to more than 1 in 8 deaths, but burden easing. Australian Institute of Health and Welfare. October 24, 2019. Accessed June 28, 2024. https://www.aihw.gov.au/news-media/media-releases/2019/october/tobacco-use-linked-to-more-than-1-in-8-deaths-but
- 42. Alcohol, tobacco & other drugs in Australia, Tobacco and e-cigarettes. Australian Institute of Health and Welfare. April 23, 2024. Accessed June 28, 2024. https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/drugtypes/tobacco
- 43. Wakefield M, Haynes A, Tabbakh T, Scollo M, Durkin S. Current Vaping and Current Smoking in the Australian Population Aged 14+ Years: February 2018-March 2023. Australian Government Department of Health and Aged Care; 2023. https://www.health.gov.au/sites/default/files/2023-

- 06/current-vaping-and-smoking-in-the-australian-population-aged-14-years-or-older-february-2018-to-march-2023.pdf
- 44. Australian Government Department of Health and Aged Care. *Policy and Regulatory Approach to Electronic Cigarettes* (e-Cigarettes) in Australia.; 2019. https://www.health.gov.au/sites/default/files/documents/2019/12/policy-and-regulatory-approach-to-electronic-cigarettes-e-cigarettes-in-australia-principles-that-underpin-the-current-policy-and-regulatory-approach-to-electronic-cigarettes-e-cigarettes-in-australia.pdf
- 45. ACOSH. Big Tobacco's relentless campaign to get vaping legalised in Australia. Australian Council on Smoking and Health. 2022. Accessed June 28, 2024. https://www.acosh.org/big-tobacco-relentless-vaping-campaign/
- 46. World Health Organiation. Health literacy videos to evaporate confusion around e-cigarettes and heated tobacco products. 2022. Accessed June 28, 2024. https://www.who.int/azerbaijan/news/item/08-11-2022-health-literacy-videos-to-evaporate-confusion-around-e-cigarettes-and-heated-tobacco-products
- 47. Australian Council on Smoking and Health. Electronic cigarettes. Published online 2021. https://www.acosh.org/law-policy/australian-tobacco-control-legislation/e-cigarettes/#Who_is_lobbying_to_make_e-cigarettes_freely_available_in_Australia
- 48. Global Action to End Smoking (PMI). Homepage. Global Action to End Smoking. 2024. Accessed June 28, 2024. https://globalactiontoendsmoking.org/
- 49. 3 things to know about the Foundation for a Smoke-Free World. Accessed June 28, 2024. https://truthinitiative.org/research-resources/tobacco-prevention-efforts/3-things-know-about-foundation-smoke-free-world
- 50. World Health Organisation. Tobacco. Accessed April 10, 2024. https://www.who.int/news-room/fact-sheets/detail/tobacco
- 51. Alert on Philip Morris-funded Foundation name change to Global Action to End Smoking. Accessed June 28, 2024. https://www.who.int/news/item/06-06-2024-alert-on-philip-morris-funded-foundation-name-change-to-global-action-to-end-smoking
- 52. Attwooll J. newsGP Could Big Tobacco return to its old tricks with vapes? NewsGP. Accessed June 28, 2024. https://www1.racgp.org.au/newsgp/professional/could-big-tobacco-return-to-its-old-tricks-with-va
- 53. Woodley M. Smoke and vapours: RACGP warns of Big Tobacco research drive. NewsGP. Accessed June 28, 2024. https://www1.racgp.org.au/newsgp/clinical/smoke-and-mirrors-racgpwarns-of-big-tobacco-resea
- 54. Davey M. Quarter of submissions from vape users to Australian inquiry parrot text from tobacco industry campaign SEATCA. *The Guardian*. https://www.theguardian.com/australianews/2023/aug/18/quarter-of-submissions-from-vape-users-to-australian-inquiry-parrot-text-from-tobacco-industry-campaign#:~:text=More%20than%20one-quarter%20of,requirements%2C%20a%20study%20has%20found. August 18, 2023. Accessed June 28, 2024.
- 55. Department of Health and Aged Care. National Tobacco Strategy 2023–2030. Published online 2023. https://www.health.gov.au/sites/default/files/2023-05/national-tobacco-strategy-2023-2030.pdf