

**Submission
No 47**

E-CIGARETTE REGULATION AND COMPLIANCE IN NEW SOUTH WALES

Organisation: World Vapers' Alliance

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**World Vapers' Alliance Letter to the New South Wales
Committee on Law & Safety**

The Committee on Law and Safety is seeking input to improve e-cigarette regulation and compliance in New South Wales, with particular reference to:

- (a) the current situation in NSW regarding:
 - i. the prevalence of e-cigarette use among children and young people
 - ii. health risks associated with e-cigarette products
 - iii. the impact of programs and services aimed at preventing uptake or continuing use of e-cigarettes,
- (b) NSW's current regulatory framework, in particular:
 - i. its effectiveness in reducing harm from e-cigarette use
 - ii. its effectiveness in preventing illegal supply
 - iii. challenges to enforcement and compliance and ways to overcome these,
- (c) how NSW can work with the Federal Government to implement reforms on e-cigarette products,
- (d) any other related matter.

The World Vapers' Alliance sends this letter as a response to the [New South Wales' inquiry into e-cigarette regulation](#) and provides information for a better understanding of vaping and its implications on public health, and how better regulation can reduce the burden of smoking in New South Wales.

On the current situation in NSW:

Regarding the prevalence of e-cigarette use among children and young people:

Despite the fact that the sale and delivery of e-cigarettes to those under the age of 18 is illegal, some minors use these products. This can only be due to a gap in the state's capacity to enforce the law, combined with the emergence of an illicit market in which products are traded without complying with the law.

To better understand the problem of e-cigarette use by minors and to try to solve it, we should first analyze the profile of this age group of users, the prevalence of use among them and the reasons that drive them to use e-cigarettes.

As within adults, three groups of users can be identified among young vapers: current or former smokers, never-smokers who would have been smokers if vaping was not available and never-smokers who would have never consumed nicotine in the absence of vaping. E-cigarette use among young never-smokers is rare. Data shows it is experimental and occasional, and it only happens for a short period of time, rather than becoming a habit.

[Watts et al. \(2022\)](#) conducted a survey of 721 young people aged 14 to 17 years from NSW and 32% of them reported being an ever vaper, of which 47% reported vaping only a few puffs and 22% reported vaping in less than 10 occasions. Moreover, almost half of them (47%) reported smoking prior to starting vaping, while 28% had vaped without smoking. Of the total 721, only 9% had vaped while having never smoked, and only 2% of them vaped nicotine frequently. This data suggests that underage vaping happens mainly among smokers while vaping alone or starting smoking after vaping is very rare. It also shows that vaping is mainly occasional and it rarely becomes a long-term habit.

Since most underage vaping takes place among smokers, it is, therefore, necessary to tackle the causes of tobacco consumption among minors rather than further restricting access to vape products in a generalized manner, particularly considering their use by adults to quit smoking. [Kevin et al. \(2020\)](#) provided the main explanation for the take up of tobacco by finding that adolescents who were less satisfied with their lives were more likely to seek risky experiences and had a higher tendency to use illicit substances regularly. [Hiemstra et al. \(2021\)](#) suggested that, during early adolescence, other factors, such as personality traits, are associated with the onset of alternative nicotine products' use and conventional smoking. It appears that a combination of these two factors is the main cause of tobacco use by minors, while other factors such as anxiety, parental smoking habits, peer attitudes, and household income also seem to be correlated with young smoking.

Regarding the second group of interest, those who started vaping after smoking but do not smoke anymore, it seems that, if anything, vaping allows them to consume nicotine in a safer manner. [Public Health England \(2015\)](#) showed that vaping is 95% less harmful than smoking, and [Queen Mary University \(2020\)](#) estimated it to be twice as effective as any other nicotine replacement therapy. These two characteristics of vaping make it an ideal replacement for smoking, and it is possible that vaping is diverting a group of underage smokers to consume nicotine in a less harmful manner.

This may also be true for those young who vape while having never smoked, since it is likely that the factors that led them to vape would have led to smoke if they hadn't had the possibility of vaping. In this sense, vaping is diverting some young people who

would have otherwise smoked away from smoking. It, therefore, seems that the number of young people who would not have consumed nicotine in the absence of vaping is very low.

Regarding the health risks associated with e-cigarette products:

The scientific evidence on the health risks associated with e-cigarettes is large, and most of it highlights its low harm potential relative to smoking. While it is important to analyze the absolute health effects of vaping, studying them in relationship to smoking is essential due to the substitutability among both.

[Public Health England \(2015\)](#) commissioned a report on e-cigarettes and estimated that *“using electronic cigarettes is 95% safer than smoking.”* This seems to be due to the lack of combustion in vaping and the lack of carcinogens in e-liquids, as the [Institute of Psychiatry, Psychology and Neuroscience \(2022\)](#) explained in the largest literature review on vaping products: *“the use of vaping products rather than smoking leads to a substantial reduction in exposure to toxicants that promote cancer, lung disease and cardiovascular disease.”* Similarly, [Caruso, Emma & Distefano \(2021\)](#) compared the toxicity of cigarette smoke and vaping and found that vaping possesses “substantially reduced toxicity” in comparison to smoking.

These characteristics of vaping make the possibility of suffering from cancer or cardiovascular diseases much lower. [Stephens \(2018\)](#) showed that the lifetime excess cancer risk of vaping is of 0.0095%, just 0.4% relative to smoking, which has a lifetime excess cancer risk of 2.4%. [George \(2019\)](#) found that smokers who switch to vaping *“demonstrate significant improvement in vascular health.”* And [Klonizakis et al. \(2021\)](#) found that *“e-cigarettes offer similar vascular health benefits to that of NRT (...) at a very early stage in the stop smoking process (3 days).”*

In summary, not only the health risks associated with e-cigarette products are low, but they are significantly lower than those of smoking.

On NSW's current regulatory framework:

Regarding its effectiveness in reducing harm from e-cigarette use and its effectiveness in preventing illegal supply:

As we have explained in the pages above, the harm from e-cigarettes is very limited, and, if we consider its impact on smokers who switched, the net public health effect of vaping is positive.

Yet, NSW's regulatory framework fails to acknowledge vaping's potential to improve public health. Nicotine-containing e-cigarettes can only be accessed legally from pharmacies and with a prescription from a doctor. Effectively, this recognizes to some extent the positive effects of vaping on the health of those who switch, but it does also have some negative unintended consequences. It poses a large barrier of entry for smokers wishing to use e-cigarettes to quit since they first need to visit a doctor, which may be sufficiently discouraging for some of them. Additionally, [only a minimum share of doctors are authorized prescribers of nicotine vaping products](#), and the decision of whether to prescribe them or not is entirely up to them, which makes legal nicotine e-cigarette prescriptions a very rare event. As a result, [independent estimates](#) suggest that only 8% of Australian vapers (1.3 million) have a nicotine prescription. This leads to a large number of smokers who want to use e-cigarettes but do not have legal access to them, which fosters illegal trade.

This regulatory approach has led to the emergence of a disproportionate black market in Australia, with implications not only for users but also for public health and safety. Users are forced to obtain their products via illicit markets, where products are not controlled and do not comply with safety and quality standards, increasing the risks of explosions, intoxications, etc. Law enforcement is avoided and sellers do not restrict access from minors. Moreover, products do not pay taxes. Additionally, there is evidence that the market is controlled by criminal organizations. The profits made from the illicit trade of e-cigarettes support their activities in other areas and lead to security concerns.

Overall, the regulatory framework discourages smokers from switching, makes it difficult, more expensive and dangerous to keep vaping for those who have already switched, gives access to minors and damages public health and national security. The unintended consequences of its attempt to prevent Australians from the harm of e-cigarette use cause more harm than good. It is necessary that New South Wales takes steps towards an open approach to e-cigarettes to tackle the consequences of its bad policy.

Other considerations:

In our submission to the consultation, we attach the World Vapers' Alliance Tobacco Harm Reduction & Vaping Factsheet, which includes an extensive review of the literature on e-cigarettes and a guide to an effective, public health-improving regulatory framework. We also attach an extensive evidence review on nicotine vaping by Mendelsohn and Wodak, which contains information on the state of youth vaping in Australia and a series of public policy recommendations.

World Vapers' Alliance policy recommendations:

Based on both scientific evidence and successful government-backed policies such as those in Sweden and the United Kingdom, World Vapers' Alliance suggests the following approaches be implemented on the institutional level:

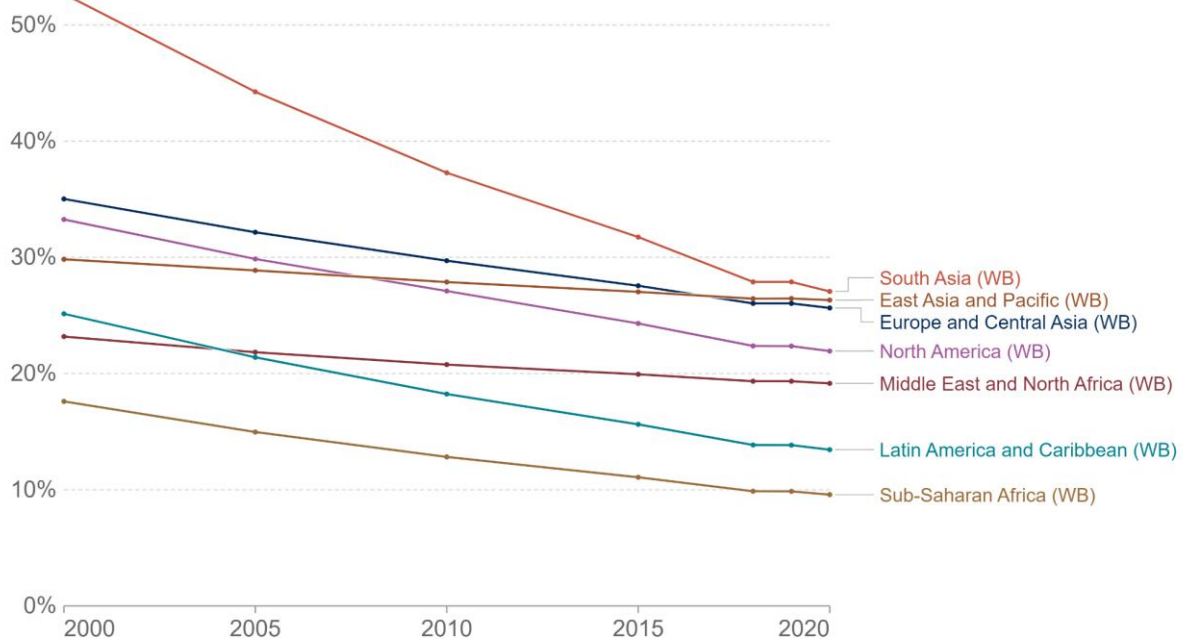
- **A clear commitment to the concept of harm reduction:** The goal of harm reduction is to reduce adverse consequences among persons who continue to use unhealthy products. It was developed in response to the unsuccessful “zero tolerance approach”. Instead of idealised goals, harm reduction puts practical solutions centre stage. Harm reduction has proved to be effective and is accepted in many countries.
- **Encourage current smokers to switch to vaping and similar less harmful products:** Like the governments of France, the United Kingdom, Canada, and New Zealand, assist smokers in their effort to quit by promoting vaping as less harmful alternatives to cigarettes.
- **Guarantee access to vaping products for adults and prevent flavour bans:** It is essential that affordability and variety are ensured. Flavour bans would hurt public health by pushing millions of vapers back to smoking or to the black market.
- **Risk-based regulation and taxation:** A modern, open, risk-based regulatory framework focused on tobacco harm reduction should be implemented. Vaping is not smoking and must not be treated the same. Since vaping is less harmful than smoking, it should be less strictly regulated and taxed less than cigarettes. The same applies for other less harmful alternatives such as nicotine pouches, snus and heat-not-burn products.

Clearing the Air: The Science Behind Harm Reduction & Vaping

With [1.3 billion tobacco users in the world](#),¹ smoking is a global problem. So far, the traditional approaches of quitting smoking have been shown to be greatly ineffective. Since the pioneering of nicotine-based smoking alternative products, we have seen huge progress in cutting smoking rates worldwide. For instance, Sweden, a country with a long tradition of promoting snus, but also nicotine pouches and vaping, is being celebrated for being the first country in the world to become smoke-free. [The United Kingdom has slashed its smoking rates by almost 50% between the public endorsement of vaping by Public Health England in 2015 and 2021](#),² now rolling out a nationwide program to encourage smokers to give up cigarettes by swapping it for a free vape instead. Harm reduction has been proven to be a driving force in the global fight against smoking.

Share of adults who smoke, 2000 to 2020

The share of men and women aged 15 and older who smoke any tobacco product on a daily or non-daily basis. It excludes smokeless tobacco use.



Source: World Health Organization (via World Bank)

OurWorldInData.org/smoking • CC BY

This fact sheet aims to shed light on the issue of vaping and tobacco harm reduction, offering a comprehensive overview of the most relevant and up-to-date scientific research and regulatory policies around the world.

¹ Data from the World Health Organization Tobacco Factsheet: <https://www.who.int/news-room/fact-sheets/detail/tobacco>

² Data from the 'Attitudes of Europeans towards tobacco and electronic cigarettes' Barometers.



What is harm reduction?

Harm reduction aims to minimise the negative impacts of an activity. Just like seat belts and helmets enhance safety while driving, harm reduction seeks practical solutions over unrealistic ideals. It prioritises feasible ways to mitigate risks effectively.

Why is vaping harm reduction?

In terms of tobacco harm reduction, vaping stands out as a prime example. While complete abstinence may be what some consumers aspire toward, it's often unattainable. Given the widespread demand for nicotine, as evidenced by the existence of millions of smokers, vaping offers a way to decouple nicotine consumption from the most harmful aspects of smoking. While not completely risk-free, vaping significantly reduces harm compared to smoking, making it a valuable alternative for smokers looking to mitigate their personal risk.

Three basic questions for policy decisions:

Is vaping less harmful than smoking?

Yes. There are well over [100 organizations & government institutions](#) that agree vaping is less harmful than smoking.

Does vaping help smokers quit?

Yes. A new systematic evidence review including 78 completed studies from the British public health Non-Governmental Organization, [Cochrane](#), confirmed that vaping helps smokers to quit. Cochrane's systematic reviews are recognized globally as the gold standard in health evidence.

How should vaping be regulated?

What we need is a **risk-based regulation**. Vaping is 95% less harmful than smoking and must not be treated in the same way. Less harmful alternatives should be less regulated than the most harmful product on the market — cigarettes.



Table of contents

Below are the most relevant studies on vaping compiled on different topics, information about alternative products such as nicotine pouches and snus, as well as relevant information from countries implementing tobacco harm reduction policies to tackle smoking. You'll also find our recommendations for policymakers looking to reduce tobacco use:

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1. Vaping and its health effects

Research has demonstrated that although not completely harmless, vaping is much less harmful than smoking. The risk of cancer compared to smoking is virtually non-existent. Here is the main evidence about the health effects of vaping in comparison with smoking:

- [Public Health England \(2015\)](#)¹ found that vaping is 95% less harmful than smoking.
- The [Institute of Psychiatry, Psychology and Neuroscience \(2022\)](#),² in the largest literature review of its kind led by King's College London academics, found that *“the use of vaping products rather than smoking leads to a substantial reduction in exposure to toxicants that promote cancer, lung disease and cardiovascular disease.”*
- [Stephens \(2018\)](#),³ a researcher at St. Andrews University, showed that the risk of cancer from e-cigarettes compared to that from smoking is less than half a percent.



- [George \(2019\)](#),⁴ a researcher at University of Dundee, found that smokers who switch to vaping *“demonstrate significant improvement in vascular health.”*
- [Klonizakis et al. \(2021\)](#)⁵ found that *“e-cigarettes offer similar vascular health benefits to that of NRT (...) at a very early stage in the stop smoking process (3 days).”*
- [Caruso, Emma & Distefano \(2021\)](#)⁶ successfully replicated three key studies comparing the toxicity of cigarette smoke and vaping and found that vaping possesses *“substantially reduced toxicity”* in comparison to smoking.
- The [Royal College of Physicians \(2016\)](#)⁷ summarised the role of vaping in the following way: *“E-Cigarettes meet many of the criteria for an ideal tobacco harm-reduction product. [...], they can in principle deliver a high dose of nicotine, in the absence of the vast majority of the harmful constituents of tobacco smoke [...].”*
- [Kosterman et al. \(2022\)](#)⁸ found that smokers who switch to vaping also tend to pick up healthier routines and exercise more.
- [Mendelsohn et al. \(2022\)](#)⁹ concluded that vaping is a net public health benefit, according to numerous studies: *“The overall benefits of vaping are considerably greater than the harms and are likely to improve public health.”*
- [Holt et al \(2023\)](#)¹⁰ compared biomarkers of exposure among adult smokers, users of electronic nicotine delivery systems, dual users and nonusers to find that exclusive use of ENDS (vs. cigarette smoking) was associated with much lower exposures to many harmful chemicals associated with smoking-related disease.

References:

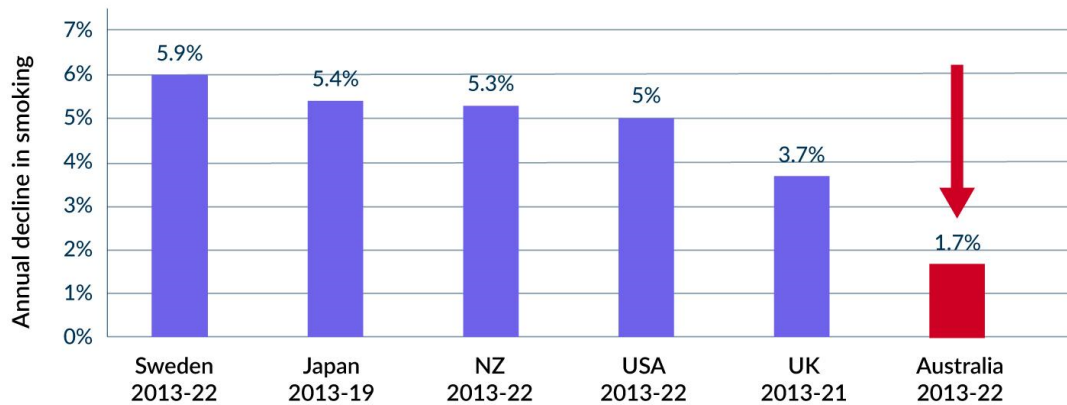
1. Public Health England. (2015). *E-cigarettes: an evidence update*. Public Health England, London.
2. Institute of Psychiatry, Psychology and Neuroscience (2022). *Nicotine vaping in England: 2022 evidence update*. Report commissioned by the Office for Health Improvement and Disparities in the Department of Health and Social Care, carried out by King's College London academic.
3. Stephens, W. E. (2018). Comparing the cancer potencies of emissions from vapourised nicotine products including e-cigarettes with those of tobacco smoke. *BMJ Publishing Group Ltd*, 27(1), 10-17.
4. George, J. et al. (2019). Cardiovascular Effects of Switching From Tobacco Cigarettes to Electronic Cigarettes. *Journal of the American College of Cardiology*, 74(25), 3112-3120.
5. Klonizakis, M. et al. (2021). Short-Term Cardiovascular Effects of E-Cigarettes in Adults Making a Stop-Smoking Attempt: A Randomized Controlled Trial. *Multidisciplinary Digital Publishing Institute, Biology* 2021(10), 1208.
6. Carusso, M., Emma, R., & Distefano, A. (2021). Electronic nicotine delivery systems exhibit reduced bronchial epithelial cells toxicity compared to cigarettes: the Replica Project. *Scientific Reports*, 11(24182).
7. Tobacco Advisory Group of the Royal College of Physicians. (2016). *Nicotine without smoke: Tobacco harm reduction*. Royal College of Physicians, London.
8. Kosterman, R. et al. (2022). Is e-cigarette use associated with better health and functioning among smokers approaching midlife? *Drug and Alcohol Dependence*, 234, 109395.
9. Mendelsohn, C. et al. (2022). A critical analysis of 'Electronic cigarettes and health outcomes: Systematic review of global evidence. *Drug Alcohol Review*, 41(7), 1493-1498.
10. Holt, N.M., Shiffman, S., Black, R.A. et al. Comparison of biomarkers of exposure among US adult smokers, users of electronic nicotine delivery systems, dual users and nonusers, 2018–2019. *Sci Rep* 13, 7297 (2023)

2. Vaping as a smoking cessation aid

There is enough evidence to conclude not only that vaping helps to quit smoking, but to say that vaping is one of the most efficient aids to do so. Vaping is a [recommended](#) means of quitting for smokers in [France](#), the [United Kingdom](#), [Canada](#), and [New Zealand](#); and it has been key in reducing smoking rates in countries that have an evidence-based approach towards it, such as in the [United Kingdom](#), where smoking is at an all-time low. Here is the primary research:

- [Hartmann-Boyce et al. \(2022\)](#),¹¹ in a meta-review of 78 studies published by the highly regarded healthcare NGO Cochrane, stated that *"there is high certainty evidence that ECs [E-Cigarettes] with nicotine increase quit rates compared to NRT [nicotine replacement therapy] and moderate certainty evidence that they increase quit rates compared to ECs without nicotine."*
- [Hajek et al. \(2019\)](#),¹² a group of researchers of the Health and Lifestyle Research Unit at Queen Mary University's Wolfson Institute of Preventive Medicine, in a clinical trial which involved almost 900 smokers who also received additional behavioural support, found vaping to be twice as effective for quitting smoking as nicotine replacement therapies.
- [Etter & Eissenberg \(2015\)](#),¹³ researchers from the University of Geneva and the Virginia Commonwealth University, found that former smokers who switched to vaping are less dependent on e-cigarettes than long-term users of nicotine gum were dependent on gum.
- The [Royal College of Physicians \(2016\)](#)¹⁴ stated that *"the addiction potential of currently available e-cigarettes is likely to be low. NRT and e-cigarettes may satisfy smokers who are already using nicotine, but they have little appeal for never-smokers."*
- [Kasza et al. \(2021\)](#)¹⁵ found that, in contrast to gums & patches, vaping even helps people with no intention to quit smoking. They also found that daily vapers were eight times as likely as non-vapers to quit and nearly ten times as likely to stop smoking every day.
- [Carpenter et al. \(2023\)](#)¹⁶ found that e-cigarette use also leads to smoking cessation in those users not looking to quit smoking, and state that: *"or smokers who may not be able to quit using existing pharmacologic approaches, e-cigarettes may be considered to achieve that purpose."*
- [Aycock et al. \(2023\)](#)¹⁷ evaluated the use of ENDS as a cessation tool in relation to point-prevalence tobacco abstinence at one-year follow-up and found that smokers reporting ENDS use for cigarette cessation were more likely to be abstinent at one-year follow-up as well as quit using non-cigarette tobacco products than those reporting ENDS use for alternative reasons, supporting the idea that ENDS may provide a useful harm reduction alternative.

Decline in adult smoking 2013-2022 pa



Source: Dr Colin Mendelsohn (<https://colinmendelsohn.com.au/science-denial/>)

Up to date, vaping is the most effective smoking cessation aid, as the highly regarded healthcare NGO Cochrane concluded in their latest meta-analysis carried out by [Lindson et al. \(2023\)](#).¹⁸

References:

11. Hartmann-Boyce, J. L. et al. (2022). Electronic cigarettes for smoking cessation. Cochrane Database of Systematic Reviews(11).
12. Hajek, P. et al. (2019). A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy.
13. Etter, J. F. & Eissenberg, T. (2015). Dependence levels in users of electronic cigarettes, nicotine gums and tobacco cigarettes. *Drug and alcohol dependence*, 142, 68-75.
14. Tobacco Advisory Group of the Royal College of Physicians. (2016). *Nicotine without smoke: Tobacco harm reduction*. Royal College of Physicians, London.
15. Kasza, K. A. et al. (2021). Association of e-Cigarette Use With Discontinuation of Cigarette Smoking Among Adult Smokers Who Were Initially Never Planning to Quit. *JAMA Network Open*, 4(12).
16. Carpenter, M. J. et al. (2023) Effect of unguided e-cigarette provision on uptake, use, and smoking cessation among adults who smoke in the USA: a naturalistic, randomized, controlled clinical trial. *EClinicalMedicine*.
17. Aycock, C. A. et al. (2023). Motives for using electronic nicotine delivery systems (ENDS) as a cessation tool are associated with tobacco abstinence at 1-year follow-up: A prospective investigation among young adults in the United States Air Force. *Preventive medicine reports*, 35, 102399.
18. Lindson, N. et al- (2023) Pharmacological and electronic cigarette interventions for smoking cessation in adults: component network meta-analyses. *Cochrane Database of Systematic Reviews* 2023, Issue 9. Art. No.: CD015226.

3. Vaping and the youth

Vaping as a gateway for adolescents into smoking is one of the most worrying myths in tobacco control. However, little to no evidence exists which lays out a connection between youth vaping and conventional smoking. There are many [other reasons why youngsters smoke](#). Let's take a look at what science has been able to show:

- [Lee, Coombs & Afolalu \(2018\)](#)¹⁹ conducted a review of fifteen studies and concluded that *“a true gateway effect in youths has not yet been demonstrated.”* Factors such as anxiety, parental smoking habits, peer attitudes, and household income must be considered.
- [Kevin et al. \(2020\)](#)²⁰ found that adolescents who were less satisfied with their lives, in general, were more likely to seek risky experiences and have a higher tendency to use illicit substances regularly. As such, e-cigarettes are not a gateway for smoking, but rather bad circumstances in teenagers' lives lead to various risky behaviours.
- [Meza, Jiménez-Mendoza & Levy \(2020\)](#)²¹ found that smoking rates for adolescents are declining since vaping gained popularity: *“Use of cigarettes and smokeless tobacco decreased more rapidly since 2012 as e-cigarette use began to increase. Smoking and smokeless tobacco use reached historically low levels among adolescents in the US.”*
- [Khouja et al \(2021\)](#)²² highlighted the explanation of “common liability” and show that, despite tobacco smoking and e-cigarette use being strongly associated, it is currently unclear whether this association is causal, or due to shared factors that influence both behaviours such as a shared genetic liability.
- [Hiemstra et al \(2021\)](#)²³ suggested that, during early adolescence, different personality traits are associated with the onset of ATP use and conventional smoking.
- [Mendelsohn & Hall \(2020\)](#)²⁴ found that at least 70-85% of all adolescents try vaping after having already started smoking, and that regular vaping is very rare (below 0.5%) among teenagers who are non-smokers. The study also found that vaping appears to divert a subset of youth at high risk of cigarette smoking away from smoking.

Other than the lack of evidence relating youth vaping with smoking, data shows that both youth smoking and vaping rates have been falling in many countries in recent years. The data from Action on Smoking and Health (ASH) UK shows that [youth smoking rates are at an all-time low](#) and data from the [Office for National Statistics](#) shows that youth vaping is rare among those who never smoked. Most users are current or former smokers. In the US, where we hear often about the so-called “vaping epidemic”, youth vaping [dropped](#) significantly in the past years.

[Prof. Polosa et al. \(2022\)](#)²⁵ summarised the pattern of youth use of vaping as: *“EC use has surged greatly among high school students and young adults over the last decade but fortunately has declined significantly since its peak in 2019. During the same time period, smoking rates have constantly fallen to new low record levels. These trends argue against EC use as a gateway to smoking. Most EC usage is infrequent and unlikely to increase a person's risk of negative health consequences. Furthermore, the majority of EC usage has happened among those who have previously smoked.”* No gateway effect is in sight.

References:



19. Lee, P. N., Coombs, K. J. & Afolalu, E. F. (2018). Considerations related to vaping as a possible gateway into cigarette smoking: an analytical review. *F1000Research*, 7.
20. Kevin, T. et al. (2020). Individual, Family, and School Correlates across Patterns of High School Poly-substance Use. *Substance Use & Misuse*, 55(5), 743-751.
21. Meza, R., Jimenez-Mendoza, E., & Levy, D. T. (2020). Trends in Tobacco Use Among Adolescents by Grade, Sex, and Race, 1991-2019. *JAMA Network Open*, 3(12).
22. Khouja J. N. et al. (2021) Association of genetic liability to smoking initiation with e-cigarette use in young adults: A cohort study. *PLOS Medicine* 18(3).
23. Hiemstra, M. et al. (2021) Associations of Substance Use Risk Profiles with the Use of Alternative Tobacco Products and Conventional Smoking among Adolescents. *International Journal of Environmental Research and Public Health*. 18(24):13248.
24. Mendelsohn, C. P., & Hall, W. (2020). Does the gateway theory justify a ban on nicotine vaping in Australia?. *The International journal on drug policy*, 78, 102712.
25. Polosa, R. et al. (2022). A Close Look at Vaping in Adolescents and Young Adults in the United States. *The journal of allergy and clinical immunology. In practice*, 10(11), 2831–2842.

4. Vaping flavours

Flavours are one of the most contentious subjects as it regards public policy on vaping. It is commonly believed that flavours are targeted to teenagers and barely used by adults. However, a large body of research has established their importance for adults trying to quit, and there is ample evidence that flavour bans do more harm than good.

Here is the evidence around vaping flavours:

- [Friedman & Xu \(2020\)](#),²⁶ researchers from the Yale School of Public Health, associated the use of vaping flavours with a 230% increase in the odds of adult smoking cessation and concluded that: *“Adults who vaped flavoured e-cigarettes were more likely to subsequently quit smoking than those who used unflavoured e-cigarettes. (...) Adults who began vaping non-tobacco-flavoured e-cigarettes were more likely to quit smoking than those who vaped tobacco flavours.”*
- [Mendelsohn \(2017\)](#),²⁷ on a submission to an Australian House of Representatives’ Committee, stated that flavours are more likely to keep people off traditional cigarettes, since they help them forget the flavour of tobacco: *“Flavours are an important part of the appeal of vaping for adult smokers and make the products attractive as an alternative to smoking, just as flavours are also used to enhance the appeal of nicotine gum. Banning flavours would likely undermine the use of e-cigarettes and public health.”*
- [Friedman \(2020\)](#)²⁸ analysed the effects of a flavour ban in San Francisco and found that it resulted in rising smoking rates among teenagers for the first time in decades.
- [Rich \(2022\)](#)²⁹ analysed the effects of a flavour ban in Massachusetts and concluded that it resulted in higher sales of cigarettes.
- [Gravelly et al. \(2020\)](#)³⁰ surveyed users of vaping non-tobacco flavours in Canada, the United Kingdom and the United States and found that, in the case of a flavour ban, 5 out of 10 would get their flavours from the back market or take up smoking again.
- The [Tholos Foundation \(2022\)](#)³¹ analysed the effects of a flavour ban in Estonia and found that 60% of vapers kept using them by mixing their own liquids or obtaining them from the black market.
- [Friedman et al. \(2023\)](#)³² studied flavoured ENDS restrictions across the United States and estimated a trade-off of 15 additional cigarettes for every 1 less 0.7 mL ENDS pod sold due to ENDS flavour restrictions. The authors concluded that *“any public health benefits of reducing ENDS use via flavour restrictions may be offset by public health costs from increased cigarette sales.”*

As the [EU SCHEER \(2021\)](#) report concluded: *“To date, there is no specific data that specific flavourings used in the EU pose health risks for electronic cigarette users following repeated exposure.”*

References:

26. Friedman, A. S., & Xu, S. (2020). Associations of Flavored e-Cigarette Uptake With Subsequent Smoking Initiation and Cessation. *JAMA network open*, 3(6).



27. Mendelsohn, C. (2017). Inquiry into the Use and Marketing of Electronic Cigarettes and Personal Vaporisers in Australia. Submission to the House of Representatives Standing Committee on Health, Aged Care and Sport.
28. Friedman, A. S. (2021). A Difference-in-Differences Analysis of Youth Smoking and a Ban on Sales of Flavored Tobacco Products in San Francisco, California. *JAMA Pediatrics*, 175(8), 863-865.
29. Rich, J. J. (2022). Estimates of Cross-Border Menthol Cigarette Sales Following the Comprehensive Tobacco Flavor Ban in Massachusetts. Cold Spring Harbor Laboratory Press.
30. Gravely, S. et al. (2022). Responses to potential nicotine vaping product flavor restrictions among regular vapers using non-tobacco flavors: Findings from the 2020 ITC Smoking and Vaping Survey in Canada, England and the United States. *Addictive behaviors*, 125.
31. Tholos Foundation. (2022). Vaping flavor bans - Estonia. Tholos Foundation.
32. Friedman, A. et al. (2023) E-cigarette Flavor Restrictions' Effects on Tobacco Product Sales (September 26, 2023).

5. Vaping taxation

Taxes on Electronic nicotine-delivery systems (ENDS) are believed by many policymakers to be an instrument capable of reducing vaping use and improving public health. Regardless, most evidence shows that tax increases on e-cigarettes lead vapers to take up smoking again.

- [Huang, Tauras & Chaloupka \(2014\)](#)³³ measured the impact of price and tobacco control policies on the demand for ENDS and found e-cigarettes consumption to be very responsive to price changes, meaning that policies increasing e-cigarettes retail prices, such as taxes on vaping products, can lead to significant reductions in e-cigarettes sales. The researchers concluded that a \$1 increase in ENDS taxes yielded significant reductions in young adults' daily vaping, alongside increases in recent smoking, primarily reflecting greater dual use.
- [Cotti et al. \(2020\)](#)³⁴ analysed the effects of e-cigarette taxes on tobacco products sales and concluded that vapes and cigarettes are substitute products, suggesting that increases in e-cigarette taxes can lead to increases in tobacco consumption.
- [Pesko, Courtemanche & Maclean \(2020\)](#)³⁵ studied the effects of traditional cigarettes and e-cigarettes taxes on the use of both products in the United States and found that higher e-cigarette tax rates increase traditional cigarette use.
- [Friedman & Pesko \(2022\)](#)³⁶ studied young adults' responses to traditional cigarettes and ENDS taxes and found that: *"higher ENDS tax rates are associated with decreased ENDS use, but increased cigarette smoking among 18- to 25-year-olds, with associations reversed for cigarette taxes."*
- [Abouk et al. \(2023\)](#)³⁷ studied the unintended consequences of e-cigarette taxes on youth tobacco use and concluded: *"we estimate sizable positive cigarette cross-tax effects, suggesting economic substitution between cigarettes and ENDS for youth. (...) We conclude that the unintended effects of ENDS taxation may considerably undercut or even outweigh any public health gains."*
- [Grace, Kivell & Laugesen \(2015\)](#)³⁸ showed that e-cigarettes are potentially substitutable for regular cigarettes and their availability will reduce tobacco consumption and stated that: *"policy makers should consider maintaining a constant relative price differential between e-cigarettes and tobacco cigarettes."*

Taxes on alternative products should be set in accordance with their risk relative to that of cigarettes. From an incentives point of view, it does not make sense to tax traditional and electronic cigarettes the same way. Taxes on traditional cigarettes are meant to cover the healthcare costs and negative externalities derived from smoking. Since vaping is 95% less harmful for the user and does not have negative effects to those around him, it is only proportional that taxes are 95% lower too. This will not only be enough to cover the healthcare costs derived from vaping, but the price differential with traditional cigarettes will be yet another incentive for smokers to switch and improve public health and their own.



References:

33. Huang, J., Tauras, J., & Chaloupka, F. J. (2014). The impact of price and tobacco control policies on the demand for electronic nicotine delivery systems. *Tobacco control*, 23(3), 41-47.
34. Cotti, C. D. et al. (2020). The Effects of E-Cigarette Taxes on E-Cigarette Prices and Tobacco Product Sales: Evidence from Retail Panel Data. *National Bureau of Economic Research*(26724).
35. Pesko, M. F., Courtemanche, C. J., & Catherine Maclean, J. (2020). The effects of traditional cigarette and e-cigarette tax rates on adult tobacco product use. *Journal of risk and uncertainty*, 60(3), 229–258.
36. Friedman, A. S., & Pesko, M. F. (2022). Young adult responses to taxes on cigarettes and electronic nicotine delivery systems. *Addiction*, 117(12), 3121-3128.
37. Abouk, R. et al. (2023). Intended and unintended effects of e-cigarette taxes on youth tobacco use. *Journal of Health Economics*, 87(102720).
38. Grace, R. C., Kivell, B. M., & Laugesen, M. (2015). Estimating cross-price elasticity of e-cigarettes using a simulated demand procedure. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 17(5), 592–598.

6. Nicotine and its health effects

Nicotine is commonly believed to be harmful and the idea that vaping nicotine products cause cancer is equally widespread. It is, therefore, often claimed that vaping nicotine is as harmful as smoking. Even though e-cigarette vapour does not contain the most harmful elements in tobacco smoke, such as tar or carbon monoxide, it is believed it still causes cancer. However, nicotine has been proven relatively harmless:

- [George \(2019\)](#)³⁹ studied the cardiovascular effects of switching from smoking to vaping and found that those who switch improve their health no matter if they keep consuming nicotine or not.
- [Foulds et al. \(2021\)](#)⁴⁰ found that nicotine is an important factor in whether smokers are able to switch. The authors found that vaping *“with nicotine delivery approaching that of a cigarette are more effective in helping ambivalent smokers to quit cigarette smoking.”*
- [Niaura \(2016\)](#)⁴¹ stated that *“most of the physiological harm attributable to cigarette smoking derives from the toxicants in tobacco and combustion products. Preventable morbidity and mortality have overwhelmingly been related to combusted tobacco smoking, not to nicotine itself. Decoupled from combustion or other toxic modes of delivery, nicotine, by itself, is much less harmful.”*

The view that nicotine is not the harmful component in tobacco products has been supported by several health organisations. The British [National Health Service](#), following a pragmatic approach towards nicotine consumption and vaping, stated that: *“While nicotine is the addictive substance in cigarettes, it’s relatively harmless. Almost all of the harm from smoking comes from the thousands of other chemicals in tobacco smoke, many of which are toxic.”*

Similarly, [Yorkshire Cancer Research](#) stated: *“Nicotine is not the cause of death from smoking. Nicotine is not a carcinogen; there is no evidence that sustained use of nicotine alone increases the risk of cancer. Of the three main causes of death from smoking (lung cancer, Chronic Obstructive Pulmonary Disease and cardiovascular disease), none are caused by nicotine. The harm from smoking comes from the thousands of other chemicals in tobacco smoke.”*

Shirley Cramer, Chief Executive of Royal Society For Public Health, [said](#): *“Getting people onto nicotine rather than using tobacco would make a big difference to the public’s health – clearly there are issues in terms of having smokers addicted to nicotine, but this would move us on from having a serious and costly public health issue from smoking related disease to **instead address the issue of addiction to a substance which in and of itself is not too dissimilar to caffeine addiction.**”*

References:



39. George, J. et al. (2019). Cardiovascular Effects of Switching From Tobacco Cigarettes to Electronic Cigarettes. *Journal of the American College of Cardiology*, 74(25), 3112-3120.
40. Foulds, J. et al. (2021). Effect of Electronic Nicotine Delivery Systems on Cigarette Abstinence in Smokers With No Plans to Quit: Exploratory Analysis of a Randomized Placebo-Controlled Trial. *Nicotine & Tobacco Research*, 24(7), 955-961.
41. Niaura, R. (2016). Re-thinking nicotine and its effects. *Truth Initiative*, 3.

7. Snus & nicotine pouches

Snus:

Snus is a smokeless, moist powder tobacco pouch which originated in Sweden, and is used by placing it under the top lip. The use of snus has surpassed the smoking of combustible cigarettes in Sweden. Sweden is on the way to becoming the first country to reach the smoke-free goal, with a current smoking rate of 5.6%. Even though the total nicotine consumption in Sweden is within a similar range to other European countries, smoking-related mortality is much lower, as demonstrated by [Clarke et al. \(2019\)](#).⁴²

Key facts:

- Snus is far less harmful than smoking and helps smokers quit.
- Sweden is becoming the first country to achieve the smoke-free goal of a 5% smoking rate.
- Public health improved in Sweden due to the transition from smoking to snus.

References:

42. Clarke, E. et al. (2019). Snus: a compelling harm reduction alternative to cigarettes. *Harm reduction journal*, 16(1), 62.

Nicotine Pouches:

Nicotine pouches are the newest smoking alternative and, therefore, not yet adequately regulated in many countries. Nicotine pouches are used similarly to snus, but unlike snus they contain a nicotine powder instead of a tobacco leaf. Currently, they are either unregulated, entirely banned or treated the same as cigarettes in most countries — and none of these alternatives are optimal. With consumer-friendly regulation, nicotine pouches could be a cornerstone of our march toward smoke-free populations.

Key facts:

- [Azzopardi, Liu & Murphy \(2022\)](#)⁴³ showed that nicotine pouches are the least harmful nicotine alternative to smoking and have a similar risk profile as conventional nicotine replacement products (e.g. gums or patches).
- At the same time, they work as a smoking cessation tool, as shown by [Lunell et al. \(2020\)](#).⁴⁴
- Nicotine pouches have enormous potential to reduce smoking-related deaths, as [Lee, Fry & Ljung \(2022\)](#)⁴⁵ estimated.



References:

43. Azzopardi, D., Liu, C., & Murphy, J. (2022). Chemical characterization of tobacco-free "modern" oral nicotine pouches and their position on the toxicant and risk continuums. *Drug and chemical toxicology*, 45(5), 2246–2254.
44. Lunell, E., et al. (2020). Pharmacokinetic Comparison of a Novel Non-tobacco-Based Nicotine Pouch (ZYN) With Conventional, Tobacco-Based Swedish Snus and American Moist Snuff. *Nicotine & tobacco research: official journal of the Society for Research on Nicotine and Tobacco*, 22(10), 1757–1763.
45. Lee, P.N., Fry, J.S. & Ljung, T. (2022) Estimating the public health impact had tobacco-free nicotine pouches been introduced into the US in 2000. *BMC Public Health* 22, 1025.

8. Countries case studies

Alternative nicotine products have the potential to reduce smoking rates and improve public health. Proof of it is that countries with a relatively high adoption of alternative nicotine products such as vaping, heated tobacco, nicotine pouches, and snus, generally lower smoking rates faster than countries who refrain. The United Kingdom and Sweden prove that lower smoking rates can be achieved with an open approach toward alternative nicotine products.

The United Kingdom: helping smokers switch

The United Kingdom is the most progressive country in the world when it comes to vaping. The government and public health institutions fully endorse vaping as a harm reduction tool, and smokers are encouraged to switch to this less harmful alternative. In the UK, [smoking rates had fallen by more than 29% in the last decade](#)³ (when vaping became popular). Compared to the EU, smoking rates in the UK have fallen twice as fast, according to [Fagerström \(2022\)](#).⁴⁶ This year, the UK has launched 'Swap-to-Stop', the largest government supported stop smoking strategy to date using e-cigarettes.

Sweden: becoming the first smoke-free country with the help of snus

In Sweden, the use of snus has surpassed the smoking of combustible cigarettes mainly due to smokers switching to it. Thanks to the replacement of tobacco by this safer alternative, Sweden is on the way to becoming the first country to reach the smoke-free goal, with a smoking rate of 5.6% as of 2023. Even though total nicotine consumption in Sweden is within a similar range to their European neighbours, smoking-related mortality is much lower, as shown by [Clarke et al. \(2019\)](#),⁴⁷ proving snus a much less harmful product which can improve public health overall. Sweden is now looking to accelerate this process by reducing its tax on snus by 20%.

³ Data from the UK's Office for National Statistics:
[https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2021#:~:text=In%202021%2C%20the%20proportion%20of,14.0%25%20of%20the%20population\).](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2021#:~:text=In%202021%2C%20the%20proportion%20of,14.0%25%20of%20the%20population).)

Japan: heat-not-burn products driving smoking rates down

Heat-not-burn (HnB) products heat the tobacco and create an inhalable aerosol instead of burning it like traditional cigarettes. [Simonavicius et al. \(2019\)](#) found that the lack of combustion makes them considerably safer than traditional cigarettes.⁴⁸ Due to their introduction and popularisation in Japan, within only five years (2016-2021), cigarette sales in cigarettes plummeted by 43%. More and more people in Japan are rejecting cigarettes and choosing less harmful alternative products such as heat-not-burn. The HnB rate in Japan is currently at about 4.5%, and the Health and Nutrition Survey found that 76% of HnB users were not smoking cigarettes at all anymore.

New Zealand: making smokers aware of safer alternatives

Providing smokers with accurate information on alternative products can help them make better decisions and improve their health. The Ministry of Health of New Zealand is the best-case example of communicating about vaping. The website [VapingFacts](#), also supported by most public health organisations in New Zealand, provides accurate health information, cessation tips, a helpline, and in-person support opportunities. While other countries spread misinformation and ignore the extensive research supporting vaping as a smoking cessation method, New Zealand is driving smoking rates fastly by providing good information to smokers.

References:

46. Fagerström K. (2022). Can alternative nicotine products put the final nail in the smoking coffin?. *Harm reduction journal*, 19(1), 131.
47. Clarke, E. et al. (2019). Snus: a compelling harm reduction alternative to cigarettes. *Harm reduction journal*, 16(1), 62.
48. Simonavicius, E. et al. (2019) Heat-not-burn tobacco products: a systematic literature review. *Tobacco Control* 28: 582-594.

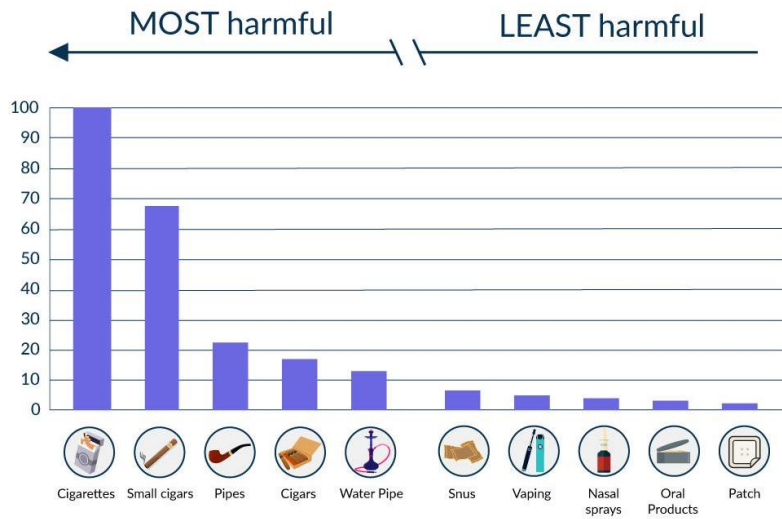


9. WVA's policy guidelines

Based on both scientific evidence and successful government-backed policies such as those in Sweden and the United Kingdom, World Vapers' Alliance suggests the following approaches be implemented on the institutional level:

- **A clear commitment to the concept of harm reduction:** The goal of harm reduction is to reduce adverse consequences among persons who continue to use unhealthy products. It was developed in response to the unsuccessful “zero tolerance approach”. Instead of idealised goals, harm reduction puts practical solutions centre stage. Harm reduction has proved to be effective and is accepted in many countries.
- **Encourage current smokers to switch to vaping and similar less harmful products:** Like the governments of France, the United Kingdom, Canada, and New Zealand, assist smokers in their effort to quit by promoting vaping as less harmful alternatives to cigarettes.
- **Guarantee access to vaping products for adults and prevent flavour bans:** It is essential that affordability and variety are ensured. Flavour bans would hurt public health by pushing millions of vapers back to smoking or to the black market.
- **Risk-based regulation and taxation:** A modern, open, risk-based regulatory framework focused on tobacco harm reduction should be implemented. Vaping is not smoking and must not be treated the same. Since vaping is less harmful than smoking, it should be less strictly regulated and taxed less than cigarettes. The same applies for other less harmful alternatives such as nicotine pouches, snus and heat-not-burn products.

Nicotine Products Risk Continuum



Source: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3079-9/figures/1> 4

⁴ Figure Nicotine Products Risk Continuum shows the relative health risks of different alternative nicotine products to tobacco.

Other attachments included with submission

C Mendelsohn, A Wodak, W Hall & R Borland, '[Evidence review of nicotine vaping. Recommendations for regulation in Australia](#)', October 2023