



Harm Reduction & Vaping Fact Sheet

What is Harm Reduction?

The goal of harm reduction is to reduce the adverse effects of a certain activity. Classic examples of harm reduction are seat belts or cycling helmets. They don't make driving perfectly safe but reduce the potential harm drastically. The reason why they work is that they are practical. A total driving ban would decrease the risk of driving the most, but it is just unrealistic. That is why we try to make driving as safe as possible. Harm Reduction means putting practical solutions first instead of idealized goals which don't work in practice.

Why is vaping harm reduction?

When it comes to tobacco harm reduction, vaping is the best-case example for it. Total abstinence would be the idealized goal of many, but also highly unrealistic. We clearly see there is a demand for nicotine consumption. That is the reason why we see millions of smokers worldwide. What vaping does is separate the most harmful components of smoking from nicotine consumption. While it is not entirely risk-free, it is way less harmful than smoking. So every smoker switching to vaping reduces their personal risk.

Three basic questions for policy decisions:

Is vaping less harmful than smoking?

Yes, and there are well over 100 organizations & government institutions that agree that vaping is less harmful than smoking. The Safer Nicotine Wiki team compiled a [list](#) of many of these organizations. Additionally, CASAA, a US-based vaping consumer organization, provides an extensive list of research on vaping [here](#).

Does vaping help smokers quit?

Yes, a new systematic evidence review including 78 completed studies (representing 22,052 participants) from the health NGO [Cochrane](#) confirmed that vaping helps smokers to quit. Cochrane systematic reviews are recognized globally as the gold standard in health evidence.

How should vaping be regulated?

What we need is **risk-based regulation**. Vaping is 95% less harmful than smoking and, therefore, must not be treated the same way. Less harmful alternatives should be less regulated than the most harmful product on the market - cigarettes. WVA's suggestion for the Tobacco Products Directive update can be found here: [WVA's Vaping Products Directive](#)

Below are the most relevant studies compiled in the following areas:

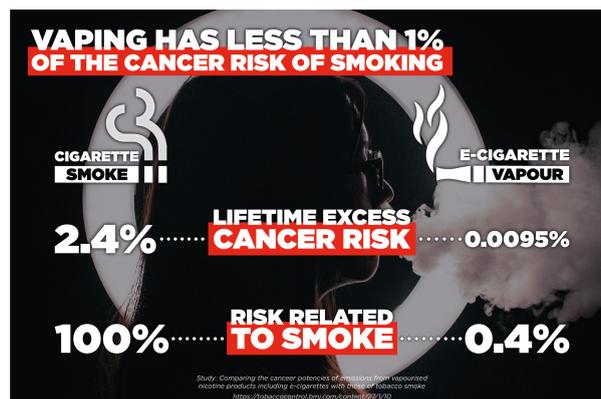
1. Health effects of vaping
2. Vaping and smoking cessation
3. Adolescents and vaping
4. Vaping Flavours
5. Vaping taxation
6. Effects of nicotine
7. Nicotine pouches & Snus

1. Vaping and health effects

- Public Health England stated that vaping is [95% less harmful](#) than smoking. Recently the [largest literature review of its kind by Kings College reconfirmed](#) this and 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.”*

Dr Debbie Robson, one of the report’s authors from King’s, says: *“The levels of exposure to cancer-causing and other toxicants are drastically lower in people who vape compared with those who smoke. Helping people switch from smoking to vaping should be considered a priority if the Government is to achieve a smoke-free 2030 in England.”*

- In the British Medical Journal, Dr. William E Stephens of St. Andrews University showed that the [risk of cancer from e-cigarettes compared to that from smoking is less than half a percent.](#)



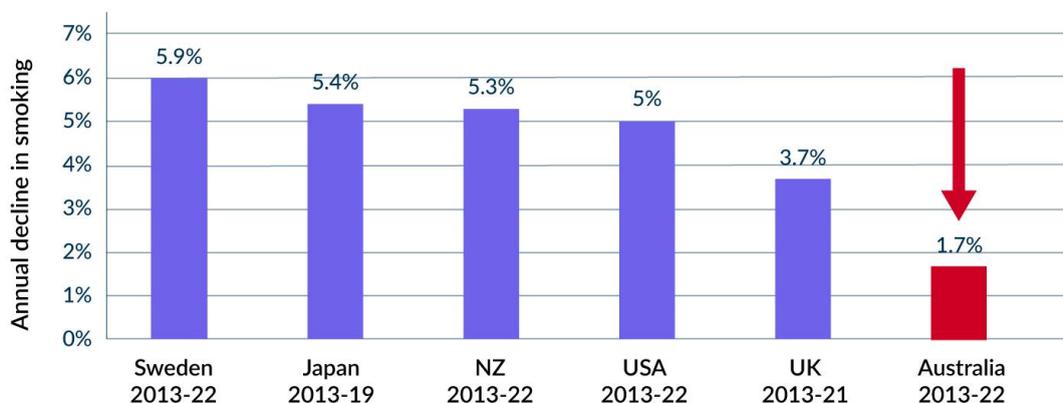
- Professor Jacob George (University of Dundee) [found](#) that smokers who switch to vaping *“demonstrate significant improvement in vascular health”*. A similar [study](#) found that *“e-cigarettes offer similar vascular health benefits to that of NRT. This happens at a very early stage in the stop smoking process (3 days).”*
- A new [study](#) successfully replicates three key studies comparing the toxicity of cigarette smoke and vaping and concludes that vaping possesses *“substantially reduced toxicity”* compared to smoking.
- The [Royal College of Physicians](#) summarized 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 [...].”*
- A [study](#) from the University of Washington found that smokers who switch to vaping also tend to pick up healthier routines and exercise more.

- 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.”

2. Vaping and smoking secession

- The highly regarded healthcare NGO Cochrane concluded in its latest [meta-review](#) of 78 studies 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.”
- Vaping is a [recommended](#) means of quitting for smokers in [France](#). Outside of the EU, the [United Kingdom](#), [Health Canada](#), and [New Zealand](#)’s Ministry of Health also recommend vaping to smokers looking to quit.
- The smoking rate in the UK has been steadily declining in recent years, and it is [now at its lowest rate since records](#) began, with only 13.3% of adults smoking. This decline has been attributed to the introduction of e-cigarettes and other vaping products, which have been credited with helping many people to quit smoking. There is also no gateway from vaping to smoking seen: Only 1.5 % of those who had never smoked said that they currently vape.
- According to a Queen Mary University clinical trial, vaping is [twice as effective](#) for quitting smoking as nicotine replacement therapies.
- According to researchers from the University of Geneva and the Virginia Commonwealth University, 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](#) 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.”
- In contrast to gums & patches, vaping even helps people with no intention to quit smoking, this recent [study](#) found. 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.
- 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 other more hostile countries such as Australia.

Decline in adult smoking 2013-2022 pa



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

3. No gateway effect seen among teenagers

- An often ignored explanation for vaping uptake by adolescence is “common liability.” In other words, adolescents who are likely to vape are also likely to smoke – e.g. because of [personality traits](#), [genetic predisposition](#), or social and environmental factors. The problem is most studies only account for a few shared risk factors. An in-depth analysis can be found [here](#).
- According to researchers from the University of New South Wales, Sydney and the University of Queensland, Herston, [at least 70-85% of all adolescents](#) try vaping after having already started smoking, and regular vaping is very rare (below 0,5%) among teenagers who are non-smokers.
- The same study found that vaping appears to divert a subset of youth at high risk of cigarette smoking away from smoking.
- According to a [review of fifteen studies](#) published in 2019 “*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.
- A [study](#) conducted by Kevin Tan, Jordan P. Davis, Douglas C. Smith & Wang Yang in 2020 found that adolescents who were less satisfied with their life, 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 behaviors.
- In the US, where we mostly hear about the so-called “vaping epidemic”, youth vaping [dropped](#) significantly in the past years.
- Overall, smoking rates for adolescents are declining since vaping gained popularity, as this [study](#) found: “*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.*”

In Germany, we also see a [declining smoking rate](#) among young people. So no gateway effect in sight.

- Also, the data from [Action on Smoking and Health \(ASH\) UK](#) shows that youth smoking rates are at an all-time low and youth use of e-cigarettes is rare, and most users are current or former smokers.
- In a [study](#) published in 2022, Prof. Pelosa summarizes 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.”*
- Another indication that vaping and cigarettes are substitutes is looking at consumer behavior when prices change. Raising taxes on vaping [increases cigarette sales](#) and vice versa.

4. Vaping Flavours

- According to the Yale School of Public Health, vaping flavoured e-cigarettes is associated with a 230% [increase in the odds of adult smoking cessation](#).
- By not reminding vapers of the taste of tobacco, flavours are more likely to keep people off traditional cigarettes: *“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 the public health benefits.”* [Mendelsohn, Collin](#)
- [Friedman, A.S. et al \(2020\)](#) found that *“[A]dults who vaped flavoured e-cigarettes were more likely to subsequently quit smoking than those who used unflavored e-cigarettes”* and *“[A]dults who began vaping non-tobacco-flavored e-cigarettes were more likely to quit smoking than those who vaped tobacco flavors.”*
- According to the same study, *“relative to vaping tobacco flavours, vaping non-tobacco-flavored e-cigarettes was not associated with increased youth smoking initiation but was associated with an increase in the odds of adult smoking cessation.”*
- Banning flavours will disproportionately hit consumers trying to quit and goes against the goals of any public health authority.
- EU’s [SCHEER report](#) concludes: *“To date, there is no specific data that specific flavourings used in the EU pose health risks for electronic cigarette users following repeated exposure.”*

- [5 out of 10 vapers](#) would find a way to get their banned flavour on the black market or take up smoking again.
- A [flavour ban in San Francisco](#) resulted in rising smoking rates among teenagers for the first time in decades.
- Estonia banned flavours in 2020, and the result was that [60% of vapers kept using](#) them by mixing their own liquids or obtaining them from the black market without any quality or safety control.
- A comprehensive flavour ban in Massachusetts resulted in [higher sales of cigarettes](#).
- Flavours enhance the appeal of nicotine gum. If they are not problematic in gums, they should also be accessible for vapers.

5. Taxation & Vaping

- E-cigarettes consumption is 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](#).
- At the same time, there is plenty of [evidence](#) that vaping and cigarettes are substitute products, suggesting that [tax increases in vaping products lead to higher smoking rates](#). Taxes on vaping products have the unintended effect of pushing vapers back to smoking.
- The consequences of vaping taxes seem to be particularly bad for young adults. A [study](#) 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.”*
A recent [study](#) confirmed this results: *“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.”*
- A [study](#) on the e-cigarettes taxes implemented by more than half of the United States states showed 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.
- On the contrary, there is [evidence](#) suggesting that lower prices and greater availability of vaping products can reduce tobacco consumption.

6. Nicotine

- The British [National Health Service](#) follows a pragmatic approach towards nicotine consumption and vaping by stating 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.”*
- [Yorkshire Cancer Research](#) states similarly: *“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.”*
- In another [paper](#), Niaura et al. also state 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.”*
- Smokers who switch to vaping improve their health no matter if they keep consuming nicotine or not, according to a recent [study](#) from professor Jacob George
- According to a recent [study](#), 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.”*
- 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.**”*

7. Nicotine Pouches & Snus

Snus:

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](#).

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.

Nicotine Pouches:

Nicotine pouches are the newest smoking alternative and, therefore, not yet adequately regulated in many countries. 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 strive toward smoke-free goals.

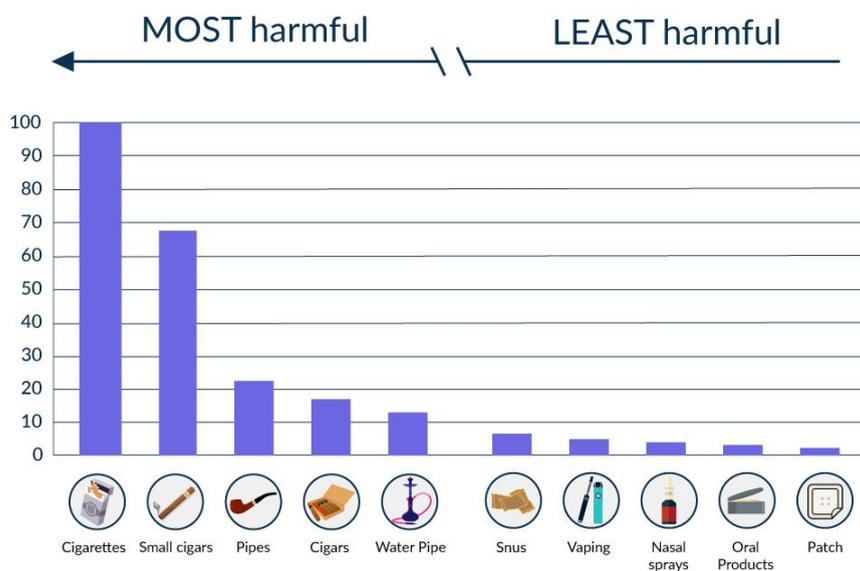
Key facts:

- 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.
- Nicotine pouches have [enormous potential](#) to reduce smoking-related deaths.

8. Recommendations

- **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, it puts practical solutions center stage. Harm reduction has proved to be effective and is accepted in many countries.
- **Encourage current smokers to switch to e-cigarettes** like the governments of France, the United Kingdom, Canada, and New Zealand.
- **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 less taxed than cigarettes. The same applies for other less harmful alternatives such as nicotine pouches and snus.

Nicotine Products Risk Continuum



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