

# NICOTINE IS NOT YOUR ENEMY

HERE ARE SIX REASONS WHY

POLICY NOTE

*Written by Maria Chaplia and Michael Landl*

# INTRODUCTION

Smoking is one of the leading causes of illness and death in the world. More than eight million people die each year due to smoking, with almost 99% of tobacco-related deaths caused by smoking — not from other forms of nicotine consumption.

Reducing the number of smokers and allowing them to rapidly and efficiently switch to a less harmful alternative should be a major priority for governments and public health agencies worldwide. Unfortunately, too many people confuse nicotine consumption with the diseases caused by smoking. In this paper, we outline six main reasons why the war on nicotine is pointless and should stop.





NO SMOKING

## BACKGROUND

In the past few years, we have witnessed great successes in reducing smoking rates globally, especially in countries where smokers had many alternatives to choose from. In the UK for example, Public Health England, an agency of the Ministry of Health, actively recommended smokers to switch to e-cigarettes. That allowed for very progressive frameworks on vaping to be introduced. Due to these policies, the [UK has seen much better results](#) in reducing smoking compared to more restrictive countries.

In the UK, smoking rates have fallen by 25% since 2013 (when vaping became popular). By contrast, in Australia, which has some of the world's toughest vaping regulations, smoking rates fell by just 8% in the same period. Due to the openness towards snus, a form of smokeless tobacco, [Sweden](#) reports the lowest adult smoking rate in the developed world, at just 7% (while it remains banned elsewhere in the European Union). The result is lower rates of smoking-induced illnesses. Norway experienced similar success due to its relaxed approach to snus regulation.

Instead of celebrating declining numbers of smokers and far fewer deaths, many governments, public health agencies and anti-smoking activists have been on the hunt for new enemies. They decided to scapegoat nicotine, and as a result, the fight against smoking gradually transformed into a fight against nicotine. Such an approach has dire consequences: fewer people switching to less harmful alternatives.

It is time to end the war on nicotine. Here are six main reasons why.





## It is time to end the war on nicotine. Here are six main reasons why.

### 1. People consume nicotine, but they die from smoking

It is true that people should not be encouraged to start consuming nicotine. But public health authorities must abstain from preventing current smokers from switching to vaping and other alternatives. 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.”

In the average dosage in vaping or smoking, nicotine mimics some effects of an endogenous substance (acetylcholine) and thereby activates nerve cells in the brain and in the autonomic nervous system. [Professor Bernd Mayer](#) (toxicologist at the University of Graz & Scientific Advisor of the World Vapers' Alliance) explains that “the effect of a nerve poison, the blockage of the function of nerve cells, only occurs in the event of a massive overdose, which is not achieved with inhalation. “In addition”, adds Mayer, “smokers do not die from

their addiction but from the harmful effects of the ingredients in tobacco smoke. In the cardiovascular system, much like caffeine, nicotine leads to a slight increase in blood pressure and heart rate. These effects are clinically harmless, the risk of serious illnesses (heart attack, stroke) or mortality is not increased by nicotine.”

[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.”

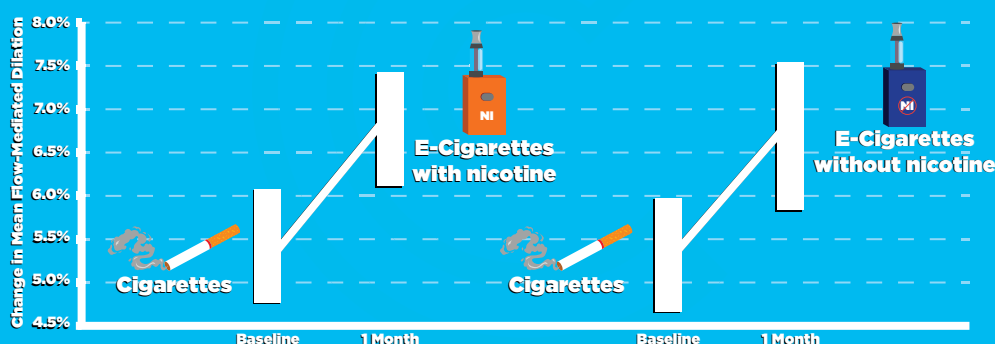
In another [paper](#), Niaura et al. also state that “most of the physiological harm attributable to cigarette smoking derives from the toxicants in tobacco and combustion products. Preventable morbidity and mortality has overwhelmingly been related to combusted tobacco smoking, not to nicotine itself. Decoupled from combustion or other toxic modes of delivery, nicotine, by itself, is much less harmful.”

A recent study from professor Jacob George found that smokers who switch to vaping “demonstrate significant improvement in vascular health within 1 month” and that “early improvement appears to be unrelated to the abstinence from nicotine but rather from other toxic material produced by combustion in TC [tobacco cigarettes]”.

In other words, smokers who switch to vaping improve their health no matter if they keep consuming nicotine or not.

If we want to improve public health, we need to give smokers all possible options to quit. A war on nicotine will not improve public health, but discourage many from switching to less harmful alternatives.

## How does switching to Vape Improve Your Health?



Source: <https://www.sciencedirect.com/science/article/pii/S0735109719381938>



## 2. Nicotine in patches & gums is not a problem — it is neither when vaped nor in a pouch

Nicotine is not considered a problem in conventional nicotine replacement therapy, therefore it cannot be a bigger problem in vaping or snus. The package leaflet from Nicorette’s inhalator says: “It is the toxins in cigarette smoke such as tar, lead, cyanide and ammonia that cause smoking related disease and death, not the nicotine.” The question arises, therefore, why should nicotine be a bigger problem when consumed in e-cigarettes or snus?

We don’t see the same concern about thousands of people addicted to nicotine inhalers or nicotine gums. Rather, we see quite the contrary: smokers are not satisfied with traditional cessation methods and therefore look to other alternatives as a means of quitting.

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**nicorette®**

**inhalator  
nicotine  
inhalation cartridges**

**What you should know about  
nicorette® inhalator  
(nicotine 10 mg per cartridge)**

**Please read this leaflet carefully** before you start using this medicine. It provides useful information on how to use it safely. Keep the leaflet, you might need it again.

If you think you are having side-effects, have any questions or are not sure about anything please ask your doctor, nurse or pharmacist.

**1** What this medicine is for  
Nicorette inhalator is a nicotine replacement therapy (NRT). It is used to relieve and/or prevent withdrawal symptoms and reduce the cravings you get when you try to stop smoking.

absorbing. You may experience unpleasant feelings and a strong desire to smoke (craving). This indicates that you were dependent on nicotine.

When you use nicorette inhalator, air is drawn through the inhalator and nicotine is released. The nicotine is absorbed into your body through the lining of your mouth. This relieves the unpleasant withdrawal symptoms. It will also help to stop your craving to smoke, but will not give you the “buzz” you get from smoking a cigarette.

Benefits you can get from using NRT instead of smoking

For the best effect, ensure that you use nicorette inhalator correctly – see “How to Use Nicorette Inhalator.”

**The benefits of stopping smoking far outweigh any potential risk from using nicotine from NRT. It is the toxins in cigarette smoke such as tar, lead, cyanide and ammonia that cause smoking related disease and death, not the nicotine.**

■ You may think that smoking helps relieve

The Royal College of Physicians summarized the role of vaping as a nicotine delivery method the following way: “E-Cigarettes meet many of the criteria for an ideal tobacco harm-reduction



product. Although nicotine delivery from e-cigarettes depends on a number of factors, [...], they can in principle deliver a high dose of nicotine, in the absence of the vast majority of the harmful constituents of tobacco smoke [...].”

Nicorette and NicoDerm brand director Scott Yacovino correctly [stated](#) when introducing a new product: “We know that quitting is very difficult, so we are always looking for ways to improve and bring a great usage experience to our nicotine replacement products. Obviously the better a product tastes as it relates to flavor and experience, hopefully the easier it is for people to stick to their quit journey.”

The same applies to consuming nicotine with vaping. Vaping has been proven to be [95% less harmful than smoking](#) and has been endorsed by multiple international health bodies as a safer alternative. If governments followed the lead of these countries, [200 million lives](#) could be saved around the world. The reason why vaping is more effective compared to NRT is because it is also pleasurable. People are different and therefore they also need different products when trying to quit smoking. For some, patches work, for some snus works and for others vaping vanilla-chocolate-cookie flavours works. A war on nicotine when vaped or consumed with pouches makes no sense when at the same time it is no problem in patches or gums.

### 3. Addiction is complex and not solved by a war on nicotine

There is no doubt that nicotine triggers the release of dopamine and thus contributes to addiction to smoking, but it can't be the only reason why so many people fail to quit smoking. If nicotine were the sole reason for smoking addiction, every smoker using a nicotine patch should be able to quit smoking right away. Clearly, this is not the case. The smokers' addiction is based on a combination of nicotine and other ingredients of tobacco smoke together with conditioned behaviour [the so-called 'smoking ritual'] like the coffee break or the inhalation process.

The addictive potential of pure nicotine, i.e. in the absence of tobacco smoke, has long been a source of controversy among experts. Even though one needs to be careful with animal studies, it seems like the delivery mechanism of nicotine makes a big difference. A [study](#) with rats showed that nicotine in combination with the 8000 other constituents found in tobacco smoke is “more potent than nicotine alone”.

Another study compared the dependence levels between NRTs, vaping and smoking and showed that in the absence of tobacco smoke, the [potential for addiction to nicotine is very low](#), so that most vapers feel much less addictive pressure than smokers. It is even

shown that former smokers who switched to vaping for more than three months are less dependent on e-cigarettes than long-term users of nicotine gums. The [Royal College of Physicians](#) stated that “the addiction potential of currently available e-cigarettes is therefore likely to be low. NRT and e-cigarettes may satisfy smokers who are already using nicotine, but they have little appeal for never-smokers.”

All this doesn't mean that every smoker who quit and switched to vaping will eventually also be able to stop vaping, but at least they have an option to consume in a less harmful way.

Nevertheless, [studies](#) suggest that vaping is a gateway out of smoking and eventually even out of nicotine consumption: “E-cigarettes may have less potential than conventional combusted cigarettes to produce dependence, suggesting that individuals who switch from smoking to e-cigarettes may reduce their nicotine dependence as well as their health risks. This, in turn suggests that smokers who transition from cigarettes to e-cigarettes may find it easier to subsequently transition off e-cigarettes should they try to do so.”

When it comes to addiction, public health should not single out a single substance. Addiction is more complex and is not solved with a war on nicotine.

## 4. Nicotine has scientifically proven therapeutic benefits for some people

For decades nicotine has been synonymous with smoking. This made a majority of people believe that nicotine per se is the main reason for the negative health effects caused by smoking. While it is clear that most people should not start consuming nicotine if they don't already do, it is time to assess nicotine fully and completely without leaving out the evidence that doesn't fit into the anti-nicotine agenda. Nicotine can have positive health effects in some settings, and for the sake of scientific honesty, the discourse on smoking shouldn't turn a blind eye to those.

[Research](#) since the 1960's has demonstrated that smokers show lower rates of Parkinson's disease, and recently a [study](#) suggested the reason for this is nicotine. The study found that “non-smoking men who used snus had a substantially lower risk of Parkinson's disease”. One of the reasons for this is that nicotine has cognitive-enhancing effects. According to this [study](#), “attention, working memory, fine motor skills and episodic memory functions are particularly sensitive to nicotine's effects. Recent studies have demonstrated that [...] subunits of the nicotinic acetylcholine receptor (nAChR) participate in the cognitive-enhancing effects of nicotine”.



Another indication that nicotine can increase cognitive performance is that 90% of people suffering schizophrenia are smokers. According to experts such as [Niaura](#) et al. this could be a sign of self-medication. "Some nicotine users benefit from self-medication effects for

alleviation of stress, anxiety, depression, and other mental health and medical conditions, including schizophrenia and Parkinson's disease", they write. Moreover, nicotine [improves](#) cognitive performance of people with ADHD.

Sport > Football > International

# Euro 2016: England's Jamie Vardy admits to using nicotine pouches

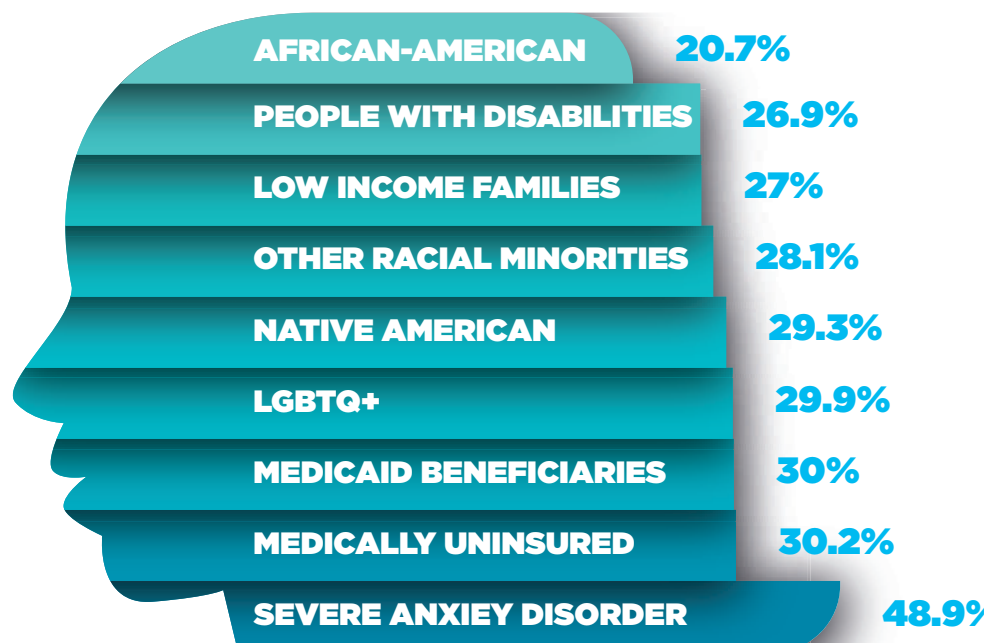
Source: <https://www.independent.co.uk/sport/football/international/england-s-jamie-vardy-admits-to-using-nicotine-pouches-a7087876.html>

It is well known that smokers who quit tend to gain weight in the aftermath. [This](#) suggests that nicotine has an appetite suppressing effect and therefore acts as a weight suppressant. "These findings may lead to identification of therapeutic targets to counteract human obesity", a recent [study](#) concludes. Studies also suggest that nicotine can improve exercise [endurance](#) and [strength](#). Therefore, it is not surprising that many professional athletes are using nicotine to improve their performance.

Up to [half](#) of all professional athletes - particularly in team sports - use nicotine to improve concentration and attention and to control their body weight.

Due to the negative image of nicotine, too many lawmakers, public health agencies and anti-smoking activists are not seeing the positive potential of nicotine. This is especially hard on disadvantaged populations who tend to have the highest nicotine consumption rates.

## Who Pays The Price?



Source: [https://pubmed.ncbi.nlm.nih.gov/33211681/#:~:text=In%202019%2C%20an%20estimated%2050.6,and%20pipes\\*%20\(1.0%25\)](https://pubmed.ncbi.nlm.nih.gov/33211681/#:~:text=In%202019%2C%20an%20estimated%2050.6,and%20pipes*%20(1.0%25))

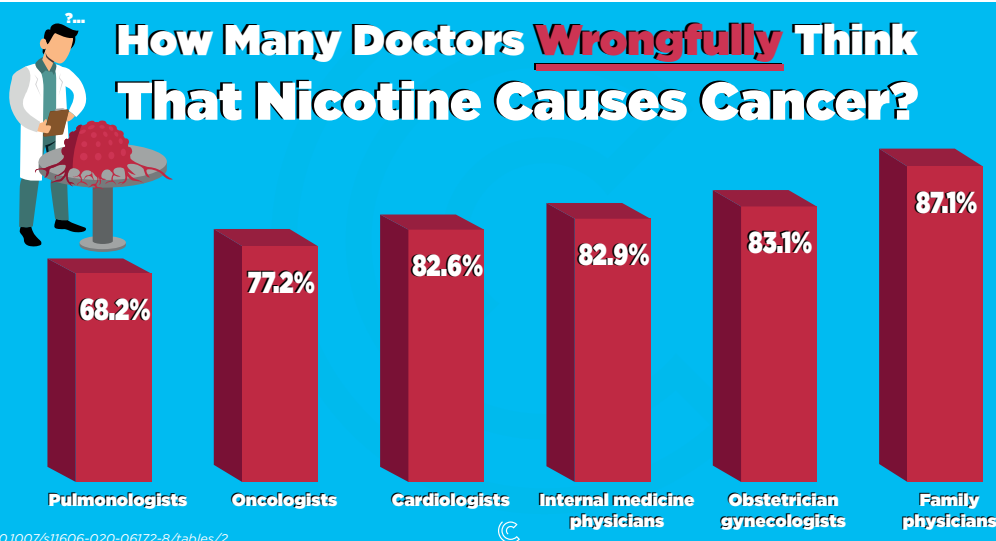


## 5. Misconceptions about nicotine are hindering progress

The public perception when it comes to nicotine is unfortunately tortured. 57% of respondents in a survey falsely agreed with the statement that “nicotine in cigarettes is the substance that causes most

of the cancer caused by smoking” and even 80% of physicians falsely believe that nicotine causes cancer. These wrongfully held beliefs by the public and experts have negative effects.

Less smokers who are unable to quit are trying less harmful alternatives such as vaping. If smokers believe that nicotine is the main factor of negative health effects they don't have a reason to switch from smoking cigarettes to vaping



or snus. This should concern public health advocates, because if they truly want to improve public health, every smoker should be encouraged to at least switch to less harmful ways of consuming nicotine. This can only be achieved, if smokers, but also to experts and the general public are educated on the actual dangers of smoking.

Another consequence of this bias is that science becomes one sided and potential benefits are neglected. A recent review of 755 case studies about the general effects of vaping concluded that only 37 “are eligible for precise criteria of scientific quality”. What makes such a bias even worse is that these studies are

often used to base vaping policy on. If countries legislate vaping based on studies which don't meet scientific standards, the real life consequences for public health will be dire. We end up with bad regulation and less people switching to less harmful alternatives.

A recent paper on the increasing polarization of science in the field of tobacco harm reduction concluded that “divisive, dominant perspectives on e-cigarettes move the field of nicotine and tobacco science away from scientifically rigorous discourse on this important public health topic, which involves millions of lives at stake”.

The war on nicotine discourages people

to switch away from cigarettes and it distorts scientific research. Public health will be impaired by this. Not only that unnecessarily many people will keep smoking, the narrow limits on scientific research when it comes to nicotine, will rob us from potential innovation and maybe even treatments for many diseases.

## 6. Prohibition never works

If policy makers by now should have learned one thing from history, it is that prohibition doesn't work. Alcohol prohibition in the US was a complete disaster leading to more alcohol consumption, unsave consumption and generated huge cartells. The war on drugs worldwide is a complete failure and in many cases resulted in counterproductive policies. Therefore, it is fair to assume that the war on nicotine will have the same results. Restricting or even banning nicotine for adults will boost black market activities and simultaneously increase the consummation of already banned products. Because as [Clive Bates](#) writes: "Black marketeers are a gateway to other black-market products and have no scruples about age restrictions or what is sold to whom".

It is time for a science and evidence based approach when it comes to nicotine. The primary goal should be to reduce harm as much as possible. In the field of nicotine most harm arises from the consumption of cigarettes. Therefore, policy makers should follow practical solutions instead of idealized goals like ending nicotine consumption at all. Such a practical solution is to encourage

those smokers who cannot or don't want to quit to switch to less harmful alternatives. A war on nicotine itself is not possible to win, because "any harm reduction approach should include harms created by the policies introduced to attain the goal – for example, arising from black markets, regressive taxation, stigma or negative welfare arising from coercion or punitive measures. These harms place limits on how a government can push conventional tobacco control policies", Bates continues.

Finally we must acknowledge that many people are using nicotine as a recreational stimulant and thus, should be treated more like caffeine or alcohol. A consumer product which needs to be properly regulated, but not demonized. We don't see moral panic when it comes to moderate beer consumption or caffeine intake and hence, have sensible discussions about regulation, public health policies and scientific research. Unfortunately, when it comes to nicotine consumption such a rational approach is missing.

[Marcus Munafò](#), a biological psychologist at Britain's Bristol University, put it bluntly: "Should we really be that bothered about addiction in and of itself, if it doesn't come with any other substantial harms? It's at least a discussion we need to have."

## 7. Policy recommendations:

- © Put practical solutions first: to reduce smoking rates, public health needs to make use of all available possibilities. People who cannot quit smoking should be encouraged to switch to less harmful alternatives. Nicotine is not the main problem when it comes to smoking, the toxins are.
- © Regulation must be drafted according to the actual risk of a product. Vaping or snus are less harmful than smoking, hence must be treated differently.
- © Nicotine doesn't become a poison when delivered through vaping. When nicotine isn't a problem in gums and patches, it can't be a bigger problem in vaping. The moral panic when it comes to nicotine must end.
- © Addiction is complex and is not solved with a war on nicotine. When it comes to addiction, public health policies should not single out a single substance.
- © Potential benefits of nicotine must be explored and unbiased scientific endeavours must be ensured.
- © Public policy must accept that many people use nicotine recreationally. A war on nicotine will fail like the war on drugs or alcohol prohibition failed.
- © Public misconceptions about nicotine must be fought. They discourage people from switching to less harmful alternatives and therefore hurt public health.

# About the Authors

## **Maria Chaplia** *Research Manager*

Maria Chaplia is the research manager at the Consumer Choice Center.

She mainly works in the field of trade, lifestyle regulations, and platform economy. Her research and writing have been featured in Daily Mail, The Independent, Financial Times, Der Spiegel, Huffington Post, Conservative Home, CapX, Spiked, Euractiv, The Parliament Magazine, Cato Institute, the Institute of Economic Affairs, and more.

Maria holds a degree in law and economics and is currently pursuing a masters in public policy at King's College London.



## **Michael Landl** *Director of World Vapers' Alliance*

Michael Landl is the director of the World Vapers' Alliance.

He is from Austria and based in Vienna. He is an experienced policy professional and passionate vaper.

He studied at the University of St. Gallen and worked for several public policy outlets and as well in the German Parliament. Therefore, he is delighted to bring this experience to WVA's network and to the vaping community in general.





A black silhouette of a person's head and shoulders is shown in profile, facing right. The person is wearing a headband with a single unicorn horn. A large, thick plume of white smoke or vapor is being exhaled from their mouth, rising and expanding into a large cloud that partially obscures the logo above. The background is a warm, orange-hued sunset sky with some clouds.

*[info@consumerchoicecenter.org](mailto:info@consumerchoicecenter.org)*  
*[www.consumerchoicecenter.org](http://www.consumerchoicecenter.org)*

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*700 12th St N.W Suite 700 PMB 94982  
Washington, DC 20005*