



# CLEARING THE SMOKE

## TOBACCO HARM REDUCTION

A GAME - CHANGER FOR  
MALAYSIAN SMOKING ISSUES



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# ABOUT US

Datametrics Research and Information Centre (DARE) is a Malaysian-based Think Tank committed to perform research and advocacy for a multitude of topics such as economics, social policy, political strategy, and technology. Established in 2021, DARE endeavours to undertake research that is independent, innovative and relevant in a professional manner.

Our team comprises experts from diverse background, with a common purpose of promoting better outcomes for the country.

# OUR PEOPLE



**PANKAJ KUMAR**  
Managing Director

Pankaj has a Master of Business Administration (MBA) in Finance and degree in Accounting from the University of Malaya. He has more than 20 years of experience in the finance and investment field, both in research and portfolio management.

Today, Pankaj is a well-followed newspaper columnist and commentator specialist in developments in corporate Malaysia, capital market investment and the economy. He is sought after by journalists and corporate personalities for his thoughts and opinion on economic and investment trends and developments taking place in Malaysia. His analysis has been published in major newspapers in Malaysia. He is also a consultant and trainer in the areas of corporate finance and investments for multinational corporations and public listed companies in Malaysia.



**DEXTER LEE**  
General Manager

Dexter has 17 years of experience in the healthcare / pharmaceutical industry with a 360\* coverage of the industry, cutting across industry stakeholders (from doctors, nurses, pharmacists & educators) and supply chain industries (medical universities, hospitals, general practitioners and pharmacies).

Dexter has vast international sales and marketing experience accumulated from various sectors including healthcare / pharmaceutical, e-commerce and consumer. Through his experience, he has developed a keen eye in understanding customer needs; psychography of purchasing behaviour; brand positioning to capture targeted customers and identifying unique selling proposition for products and services. His strong instinctive views in opportunities and threats have enabled him to align companies' strategic focus effectively to achieve financial goals.



**STEVE MURPHY**  
Director

Steve started his career in quantitative marketing research in the United Kingdom (UK). He became the Managing Director of Synovate Malaysia in 2001 and led the merged entity now know as Ipsos Malaysia until 2014.

A sought after market research resource, he has been featured in various media such as the Quirks Marketing Research Media and The Star.



**YAZID JAMIAN**  
Director

Yazid is a qualitative and quantitative market researcher. He has 20 years of leadership experience in Malaysia, Singapore, Indonesia and the United States (US). Yazid was the Managing Director at Research International Malaysia prior to its transition into TNS Malaysia. A veteran of the Malaysian market research industry, his work has been recognised by various professional associations and publications such as Top 10 Malaysia.



**PANKAJ KUMAR**  
Managing Director

# FOREWORD

There is no denying that smoking is harmful to the health of consumers due to the thousands of chemicals produced by the smoke from tobacco products and not from the nicotine that exists in most of them. Scientists do realise this impact and have over the years looked at alternative products by removing the impact from these chemicals themselves and introduced what is referred to as the Tobacco Harm Reduction (THR) concept. Globally, there have been many ways this was tested, from e-cigarettes or vape to snus, from smokeless oral tobacco to nicotine pouch and all have seen a varying degree of acceptance and acknowledgment among researchers and consumers.

The real test has to be scientific evidence from the users of these less harmful products and research has shown that products like vape are less harmful, more effective, and take a shorter time to show results. Other less harmful products like snus is more localised in its success, especially in Scandinavian countries, while products like nicotine pouch is a new form of alternative to smoking. There are of course challenges for most countries in adopting the THR strategy as it has to be introduced with proper market research as well as the level of acceptance among society as to the impact and purpose of the strategy itself.

Regulation will ensure high standards of manufacturing, safety, product information, quality, and efficacy. Introducing a regulatory framework that is proportionate to the risk of the product is key. In this way, regulators impose restrictions in proportion to the risk to health posed by the product. This can be further elaborated with an example using the warning label. For example, traditional cigarettes would have warnings for smokers, but vaping products should have more subtle messages about the value of switching.

Hence, for a similar reason, the proportion of taxes that are assigned to vaping products must be much lower than those that are imposed on traditional tobacco products. Products that can help to promote THR needs to be separated from current traditional tobacco products. The approach taken by the government in imposing taxes too should be differentiated based on the risk proportionality principle.

Based on a survey that was carried out by the Green Zebras (TGZ), a majority or 80% of Malaysians believe that the adoption of THR strategies in the country will help smokers quit traditional tobacco cigarettes as they will be able to switch to less harmful alternatives. After all, the potential benefit is huge. Based on data that is extrapolated from the UK, Malaysia's healthcare cost related to smoking can be reduced by up to 18% or RM1.33 billion in 2025 on the assumption that there is between 2.9% and 4.5% reduction in smoking prevalence through vape between 2021 and 2025. THR strategy is indeed the right strategy for the government to adopt for Malaysia to reduce the prevalence of smoking and towards a healthier Malaysia.



**DR ARIFIN BIN FII**  
Medical Practitioner

# FOREWORD

Smoking is the single greatest preventable cause of non-communicable disease (NCD). It is also the one risk factor common to the four main groups of NCD: cardiovascular disease, cancer, chronic lung disease and diabetes. Reducing tobacco smoking is therefore key to driving down the global incidence of deaths from NCD - an ambition both reflected in and quantified by the United Nations (UN) 2030 Agenda for Sustainable Development<sup>[01]</sup>.

Despite all the efforts of tobacco control, the tobacco epidemic is one of the biggest public health threats the world has ever faced, killing more than eight million people a year around the world. More than seven million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke<sup>[02]</sup>.

While there have been many smoking cessation programmes introduced in Malaysia, not many have been successful. It is clear from the statistics that the current strategies for reducing smoking incidences are not nearly enough to deliver on our country's public health agenda<sup>[03]</sup>. Therefore, it is vital that we continually evaluate our strategies for decreasing tobacco-related morbidity and mortality. One such strategy is the adoption of THR. THR is a range of pragmatic policies, regulations, and actions that looks to reduce the levels of disease (morbidity) and death (mortality) from tobacco use among smokers.

While THR as a social movement is relatively new, what affected communities (in this case smokers) have always been fighting for - the right to health, with nobody left behind has long been enshrined in the public health agendas of governments worldwide. In this space, as a medical professional and through my experience treating addiction, I believe that public health is not served by discouraging adult smokers from switching to less harmful alternatives, nor by implementing overly restrictive regulations that stop existing consumers accessing these products. People who use nicotine have the same fundamental right to enjoy the highest attainable standard of health as those who do not.

People who smoke to obtain nicotine therefore have the right to access accurate information and products that help them achieve this. In the recent years, there has been substantial body of global independent evidence indicating that alternative products such as vape and snus, are significantly less harmful than any combustible tobacco. Not only is the evidence base growing, so is the global market demonstrating that if smokers are given the option of less harmful products which are available, affordable, accessible and appropriate, they will be willing to make the switch.

All these findings have been documented in this report, along with succinct information on THR tools available, key statistics, potential benefits from THR adoption as well as recommendations for policymakers to consider. I strongly believe that with correct, unbiased information about THR to smokers and public, along with properly and fairly regulated policy and tools, strict enforcement of these policies and regulations as well as systematic implementation of THR programmes, Malaysia will be able to achieve the target of 5% smokers in 2045 or earlier. With this report, I hope DARE can move the needle on THR adoption in Malaysia. I commend DARE for taking on this initiative, and I look forward to the conversations that will be sparked with this report. My appreciation also to DARE for inviting me to consult and review this report.

<sup>[01]</sup> United Nations. *Transforming our World: The 2030 Agenda for Sustainable Development*. UN, 2015. <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

<sup>[02]</sup> Fact Sheet : Tobacco - World Health Organization <https://www.who.int/news-room/fact-sheets/detail/tobacco>

<sup>[03]</sup> National Health and Morbidity Survey 2019

# EXECUTIVE SUMMARY

- THR can be a game-changer to address public health issues related to smoking in Malaysia.
- THR seeks to eliminate the use of combustible tobacco products by encouraging smokers to switch to other nicotine products that are non-combusted.
- Vape products are effective in helping smokers quit and are 95% less harmful. Evidences from the UK, New Zealand, and other nations have shown the benefits of vaping in reducing smoking prevalence.
- Similarly, snus, an oral smokeless tobacco product, has substantiating evidence that it is less harmful, and is now a substitute for smoking in countries like Sweden.
- Newer forms of oral nicotine products such as nicotine pouches that are smokeless, tobacco-free, and similar in appearance and use to snus, are showing positive results too as less harmful compared with combustible tobacco products.
- 80% of Malaysians believe that the adoption of a THR policy in Malaysia will help smokers quit cigarettes for a less harmful alternative.
- Based on the UK model, by promoting vaping as a tool for smoking cessation, Malaysia can potentially gain as much as RM1.33 billion in savings from smoking-related health costs as some 881,564 smokers are likely to switch from smoking to vaping.
- Key in achieving the above bold targets is regulation for less harmful products as well as a fairer taxation system which will differentiate the lower risk profile of these products against traditional tobacco products and make them available at zero or minimal costs for at least a short period.
- Malaysian Ministry of Health's (MoH) ambitious target of reducing smoking rates to 15% by 2025 and below 5% by 2045 will likely face challenges as smoking prevalence has plateaued despite numerous awareness, new laws, and tobacco control activities in the past decade to reduce smoking rates.



Target of reducing smoking rates



## INTRODUCTION

1.0

Smoking is harmful to one's health, and if possible, nobody should be smoking. While traditional methods of quitting 'cold turkey', relying on medical products such as Nicotine Replacement Therapy (NRT) or getting support from smoking cessation services have been the focus in getting smokers on the journey to quit smoking, there are other more effective ways that can be explored.

The THR approach offers an alternative public health strategy to eliminate the health risks associated with the use of combustible tobacco products. Apart from helping smokers deal with nicotine dependence through switching to less harmful products, this approach can also help the government address the direct cost arising from treating diseases caused by smoking.

This paper attempts to examine the THR approach by using available data, science, as well as evidence from various countries on the use of products that is less harmful in reducing smoking prevalence. At the same time, the paper also attempts to provide logical solutions and approaches for the Malaysian government to adopt THR policies and strategies, which includes introducing relevant regulations, which is focused on less harmful products, as well as risk proportionate taxation system that will be fair to encourage smokers to switch to less harmful products associated with THR.



# THE TOBACCO HARM REDUCTION CONCEPT

2.0

There is little debate that smoking is the leading cause of major illnesses and is also among the top causes of death globally. World Health Organization (WHO) attributes deaths linked to tobacco use to as many as eight million users each year<sup>[64]</sup>. Complications that arise from tobacco smoking, both to smokers and non-smokers, via secondary smoke effects, have all been well documented. Main health complications are cancer, cardiovascular diseases, stroke, and even diseases related to skin and gum. Due to this, other than directly addressing the issue head-on by discouraging smoking through laws and mechanisms to control and reduce tobacco use, researchers and scientist have also looked at other options and substitutes that can reduce tobacco smoking. This brings the attention to THR concept. The origin of THR can be traced back 45 years ago when Professor Michael Russell wrote in his *“Low-Tar Medium-Nicotine Cigarettes: A New Approach to Safer Smoking”*<sup>[65]</sup> where he was quoted as saying *“People smoke for nicotine but they die from the tar”*. In essence, Professor Russell believes that the key was lowering tar yields produced from smoking combustible cigarettes and this sets the tone for a potential pathway to eliminate key harms arising from tobacco use.



## Royal College of Physicians

In 2007, the Tobacco Advisory Group of the Royal College of Physicians in the UK published a landmark report<sup>[66]</sup> arguing that most of the harm caused by smoking arises not from nicotine but other components and thousands of chemicals produced by tobacco smoke. The report also went on to state that the health and life expectancy of smokers could be radically improved by encouraging them to change to a smoke-free source of nicotine and that promoting substitution of cigarettes and other tobacco combustible products would help prevent diseases and deaths.

The Royal College of Physicians in its 2016 report<sup>[67]</sup> pointed out that while nicotine is the primary addictive component in cigarettes and other tobacco products, nicotine use does not result in clinically significant harm. It draws the point on the safety of NRT products being well established with no evidence of any increase in the risk of heart attack, stroke, or death and that nicotine alone is not carcinogenic.

## NICE

National Institute for Health and Care Excellence

The National Institute for Health and Care Excellence (NICE) in the UK<sup>[68]</sup> also established nicotine inhaled from smoking tobacco is highly addictive and that it is primarily the toxins and carcinogens in tobacco smoke - not the nicotine - that cause illness and death.

Tying these facts and the principle of harm reduction, the solution can be simple - help smokers change to harm-reduced alternatives without the smoke and reduce the harm from cigarette smoking.

## CASE FOR TOBACCO HARM REDUCTION

2.1

Despite most smokers saying that they want to stop smoking, studies have suggested that smoking rates are declining very slowly globally<sup>[69]</sup>. Hence, a lot more focus is needed on finding ways to help smokers quit smoking. Another reason why we are increasingly seeing more efforts being done to aid smokers in their quit smoking journey is that quitting cold turkey without any aid has proven to be ineffective<sup>[70]</sup>. It is then imperative that smokers get help and support to quit smoking.



In the case of medicinal NRT products, there have been many scientific data established on the safety, quality, and efficacy of NRT products such as patches, gums, lozenges, inhalers, spray with extensive studies to help smokers quit, reduce to quit or temporarily abstain from smoking.

While NRT has its role to play in helping smokers to quit, some studies have demonstrated that the currently available form of NRT have limitations in helping smokers in their quit journey with suggestions that they do not deliver nicotine in the same way as cigarettes and absence of rituals or sensory cues that would be difficult to convince smokers to switch to NRT or continue to use them<sup>[71]</sup>.

In addition, experts in a WHO report have also acknowledged the need of broadening new forms of nicotine products that will be acceptable to a broad range of smokers as well as suggesting that the traditional regulatory framework surrounding NRT products gives tobacco products a huge advantage in the marketplace as tobacco products continue to be freely sold as consumer products<sup>[72]</sup>. Given that it is important to continue to assist smokers to quit, it may be reasonable to seek new game-changing ways by turning to a THR approach with the ultimate aim and goal of eliminating tobacco smoking.

<sup>[64]</sup> Fact Sheet Tobacco - World Health Organization

<sup>[65]</sup> Low-tar medium-nicotine cigarettes: a new approach to safer smoking (Michael Russell, 1976)

<sup>[66]</sup> Harm reduction in nicotine addiction (Tobacco Advisory Group of the Royal College of Physicians, 2007)

<sup>[67]</sup> Nicotine without smoke: Tobacco harm reduction (Royal College of Physicians, 2016)

<sup>[68]</sup> Tobacco harm reduction approaches to smoking (NICE public health guidance 2013)

<sup>[69]</sup> Global trends and projections for tobacco use, 1990-2025: an analysis of smoking indicators from the WHO Comprehensive Information Systems for Tobacco Control (Bilano et al - 2015)

<sup>[70]</sup> Nicotine replacement therapy versus control for smoking cessation (Boyce et al - 2018)

<sup>[71]</sup> Tobacco harm reduction: The need for new products that can compete with cigarettes (Fagerström et al - 2013)

<sup>[72]</sup> Regulation of nicotine replacement therapies: an expert consensus (World Health Organization Regional Office for Europe - 2001)

# LESS HARMFUL PRODUCTS

3.0

## VAPE

3.1

Originating from China, vape was first introduced in 2003. The terms vape, electronic cigarettes, e-cigarettes, vape pens, and electronic nicotine delivery systems are interchangeably used globally. For purposes of this paper, the term 'vape' is used as it is more commonly known in Malaysia.

Vape are devices that use batteries, and nicotine is inhaled in a vapour that is generated by heat using water, nicotine, propylene glycol, or vegetable glycerin and typically with some form of flavouring. Contrary to perception, it does not contain tobacco and it is one of the most documented and debated harm-reduced products.

## SMOKELESS ORAL TOBACCO

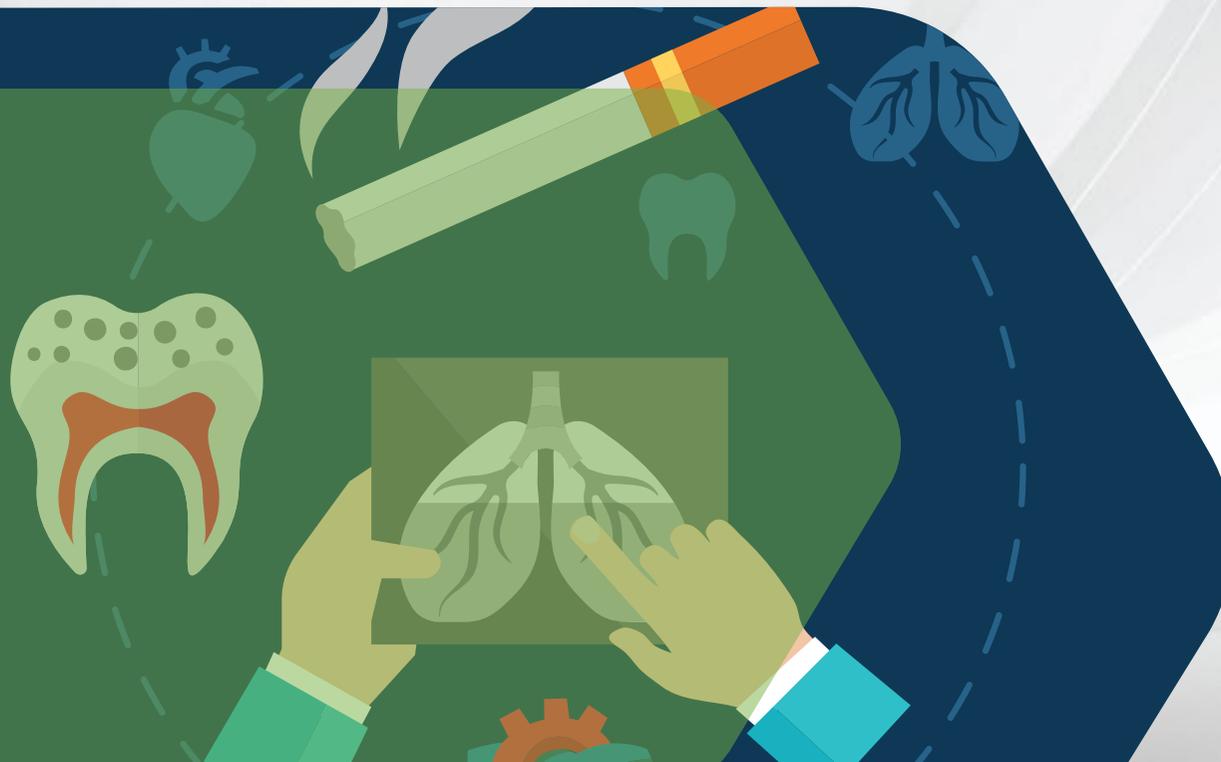
3.2

Smokeless oral tobacco products have been around for ages and are popular in countries like Sweden and Norway. These are non-combustible tobacco products, and they include dips, snus, moist snuff. These products involve placing them between the gum and the cheek or lip of its user. Dry snuff is loose finely cut or powdered dry tobacco that is typically sniffed through the nostrils, while moist snuff and snus are cut tobacco that can be loose or pouched and placed in the mouth by a user.

## NICOTINE POUCH

3.3

A nicotine pouch is a new form of nicotine product. It is smokeless and tobacco free, comprising a nicotine-containing cellulose matrix inside a fibre pouch. It is similar in appearance and use to snus, but without tobacco.



# SCIENTIFIC EVIDENCE ON LESS HARMFUL PRODUCTS

4.0

## VAPE

### 4.1.1 VAPES ARE 95% LESS HARMFUL

According to an article in the Harm Reduction Journal<sup>[13]</sup>, vaping may be a unique harm reduction innovation for smoking relapse prevention.



The researchers found that vaping meets the needs of some ex-smokers by substituting *physical, psychological, social, cultural and identity-related aspects*, of tobacco addiction.

This suggests that vaping is a viable long-term substitute for smoking, with substantial implications for THR.

In addition, there is also now substantial support for vaping as a harm reduction approach and as an alternative to tobacco smoking<sup>[14]</sup>.

### 4.1.2 E-CIGARETTES TAKES JUST 6 MONTHS TO BE EFFECTIVE

The updated Cochrane Review<sup>[15]</sup> on e-cigarettes for smoking cessation looked at 61 studies and found that e-cigarettes could be the answer many smokers are looking for when it comes to quitting.

Among the key findings were that smokers were likely to stop smoking for at least six months by switching to e-cigarettes with nicotine e-liquid as compared to NRT, nicotine-free vape, or behavioural support.

### 4.1.3 VAPE BETTER THAN NRT

In an article published in the New England Journal of Medicine<sup>[16]</sup>, it was found that **vaping was more effective for smoking cessation than NRT** when both products were accompanied by behavioral support. This report was an important milestone for vape and it has allowed the medical field to recommend smokers who are attempting to quit, to use vaping rather than NRT.

## TO THE CONTRARY, VAPING HAS BEEN EFFECTIVE

4.1.4

In England, a paper by Public Health England (PHE) 7<sup>th</sup> independent report<sup>[17]</sup> made the following findings:



E-cigarettes are around **95%** less harmful than tobacco

Nicotine vaping products were the most popular aid **27.2%** used by smokers trying to quit in England in 2020



It is estimated that in 2017, more than **50,000** smokers stopped smoking with the aid of a vaping product who would otherwise have carried on smoking

Using a vaping product as part of a quit attempt in local stop smoking services had some of the highest quit success rates – between **59.7%** and **74%** in 2019 and 2020 respectively.

## VAPE IS THE MOST EFFECTIVE TOBACCO HARM REDUCTION TOOL

4.1.5

Based on a study done by the University of Queensland<sup>[18]</sup>, it was found that vape is much more effective in helping smokers kick the habit than NRT and placebo.

The study involved 12,754 participants and an assessment of the effectiveness of vape and approved NRT including nicotine patches, gum, lozenges, mouth spray, inhalators, and intranasal sprays in helping smokers quit were carried out.



Nicotine Patches



Gum



Lozenges



Vape



Mouth Spray



Inhalators



Intranasal Sprays

It was found that vape are **50%** more effective than NRT, and more than **100%** more effective than the placebo.

<sup>[13]</sup> Notley, C., Ward, E., Dawkins, L. et al. The unique contribution of e-cigarettes for tobacco harm reduction in supporting smoking relapse prevention. *Harm Reduct J* 15, 31 (2018)

<sup>[14]</sup> E-cigarettes: balancing risks and opportunities" published in 2017

<sup>[15]</sup> Hartmann-Boyce J, McRobbie H, Lindson N, Bullen C, Begh R, Theodoulou A, Notley C, Rigotti NA, Turner T, Butler AR, Fanshawe TR, Hajek P. Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews* 2020, Issue 10. Art. No.: CD010216.

<sup>[16]</sup> Hajek P, Phillips-Waller A, Przulj D, et al. A Randomized Trial of E-Cigarettes versus Nicotine Replacement Therapy. *N Engl J Med*

<sup>[17]</sup> Vaping in England: an evidence update including vaping for smoking cessation" published in February 2021

<sup>[18]</sup> Chan C.K., et al. A systematic review of randomized controlled trials and network meta-analysis of e-cigarettes for smoking cessation, *Addictive Behaviour*, Volume 119, August 2021, 106912

# SNUS

4.2.0

## SNUS

According to a report entitled *Snus: a compelling harm reduction alternative to cigarettes*<sup>[19]</sup>, snus is an oral smokeless tobacco product that is usually placed behind the upper lip, either in a loose form or in portioned sachets and is primarily used in Sweden and Norway.

Snus can be inhaled and was common among the aristocracy in 18<sup>th</sup> and 19<sup>th</sup> century Europe, or it can be consumed orally, as is the case with dipping tobacco and snus. Unlike dip, you swallow the by-product rather than spit it out.

4.2.1

## SNUS HAS LOWER RISK THAN CIGARETTE SMOKING

Overall, prevalence statistics and epidemiological data indicate that the use of snus confers a significant harm reduction benefit which is reflected in the comparatively low levels of tobacco-related disease in Sweden when compared with the rest of Europe. The available scientific data, including long-term population studies conducted by independent bodies, demonstrates that the health risks associated with snus are considerably lower than those associated with cigarette smoking.

4.2.2

## US GIVES SNUS MRTP STATUS

Snus was seen as a popular choice for the US Food and Drug Administration (FDA)<sup>[20]</sup> when it authorised the marketing of products through the modified risk tobacco product (MRTP) pathway, which is product-specific and limited to five years. The authorisations were for eight Swedish Match USA, Inc. snus smokeless tobacco products sold under the "General" brand name and this was approved in October 2019. According to the FDA, "Using General Snus instead of cigarettes puts you at a lower risk of mouth cancer, heart disease, lung cancer, stroke, emphysema, and chronic bronchitis."

## SNUS HAS LOWER HARMFUL CHEMICALS

4.2.3

A landmark report<sup>[21]</sup> has provided an early glimpse as to what snus is all about, and from the study, it was found that snus is manufactured and stored in a manner that causes it to deliver lower harmful chemicals than other tobacco products, although it can deliver high doses of nicotine. The paper further stressed that snus is dependence forming, but does not appear to cause cancer or respiratory diseases.

Evidence also suggests that there has been a larger drop in male daily smoking (from 40% in 1976 to 15% in 2002) than female daily smoking (34% in 1976 to 20% in 2002) in Sweden, with a substantial proportion (around 30%) of male ex-smokers using snus when quitting smoking. The paper concluded its findings by summarising that the availability of snus in Sweden appears to have contributed to the unusually low rates of smoking among Swedish men by helping them transfer to a notably less harmful form of nicotine dependence.

## LESS LIKELY TO GET CANCER

4.2.4

According to a report from 2004<sup>[22]</sup>, a snus user is 90% less likely to get cancer than a smoker. Because there's no combustion when someone consumes snus, carcinogenic chemicals that lead to lung cancer like polycyclic aromatic hydrocarbons (the by-product of combustion of the tar in cigarettes), aren't present. In fact, according to a report<sup>[23]</sup> there's no statistical difference in lung cancer rates between snus users and those who never use tobacco in any form.

## SNUS IN SWEDEN IS UNIQUE

4.2.5

Swedish snus delivers more nicotine to the body than pharmaceutical NRT products like the patch or nicotine gum. According to the European Smokeless Tobacco Council, the Swedes consume just as much tobacco as the rest of the European Union (EU), but they smoke less and suffer fewer tobacco-related illnesses and deaths. Despite the high numbers of people using snus, tobacco-related mortality in Sweden is among the lowest in the developed world.

In contrast, in Sweden, less than 12% of men smoke, and 8% of deaths are related to smoking.



12%  
Smoke

8%  
Deaths smoking related diseases

Across the EU, 30% of men smoke, and 22% of male deaths are from smoking-related diseases.



30%  
Smoke

22%  
Deaths smoking related diseases

As a result, Swedes are healthier and live longer.



Cigarette smoking has plummeted in Sweden in the last

30 years



SNUS has **RISEN** dramatically

[19] Clarke, E., et al. Snus: a compelling harm reduction alternative to cigarettes. *Harm Reduct J* 16, 62 (2019)

[20] FDA grants first-ever modified risk orders to eight smokeless tobacco products (FDA Press Statement, Oct 22, 2019)

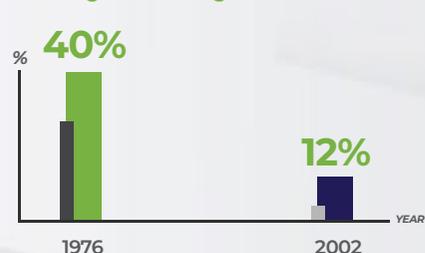
[21] Foulds J., et al., Effect of smokeless tobacco (snus) on smoking and public health in Sweden, *Tobacco Control*, 2003; 12: 349-359

[22] Levy et al., The Relative Risk of a Low-Nitrosamine Smokeless Tobacco Product Compared with Smoking Cigarettes: Estimates of a Panel of Experts, *Cancer Epidemiol Biomarkers Prev* 2004;13:2035-2042.

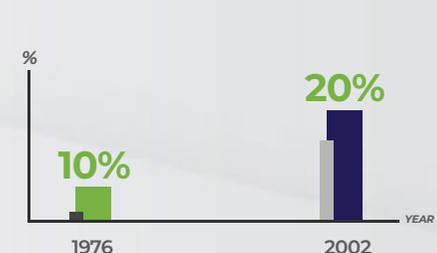
[23] Levy et al., The Relative Risk of a Low-Nitrosamine Smokeless Tobacco Product Compared with Smoking Cigarettes: Estimates of a Panel of Experts, *Cancer Epidemiol Biomarkers Prev* 2004;13:2035-2042.

Studies that looked at smoking rates among Swedish men found that between 1976 and 2002, daily smoking dropped from 40% to 12%, while snus use doubled from 10% to 20% in that same period<sup>[24]</sup>. A large percentage of the smoking quitters switched to snus instead. The same study found that 71% of daily smokers who also use snus were able to quit smoking, compared to 54% of non-snus users. 62% of men who quit smoking reported using snus as a cessation aid. This contrasts with only 38% who said they used NRT products. In other words, Swedish snus got people to quit smoking more than nicotine gum, the patch, and other tools designed for that purpose.

Smoking rates among Swedish men



Snus use



## NICOTINE POUCH

### NICOTINE POUCH

4.3.0

Nicotine pouch is smokeless and tobacco-free, comprising a nicotine-containing cellulose matrix inside a fibre pouch. Nicotine pouch are similar in appearance / use to snus, but without tobacco, have the potential to further reduce tobacco-related harm.

### NICOTINE POUCH HAS LOW TOXIC COMPOUND

4.3.1

A 2021 study<sup>[25]</sup> aimed to evaluate toxicant levels of nicotine pouch to estimate their position on the tobacco / nicotine product continuums of toxicant delivery and risk. Based on the present chemical analysis and estimated exposure, the use of nicotine pouch appears likely to expose users to lower levels of toxic compounds than Swedish snus, which is recognised to offer reduced levels of harm than associated with tobacco smoking.

### BUT NICOTINE POUCH NOT WIDELY USED

4.3.2

In a survey<sup>[26]</sup> conducted in the UK to gauge the public health impact of new nicotine products, it was found that adults with a history of nicotine use, very few currently used heated tobacco products (HTP) or nicotine pouch although satisfaction and interest in HTPs were substantial. The low level of use is unlikely to reduce the public health impact of smoking.

### NICOTINE POUCH HAS NO SIGNIFICANT ADVERSE IMPACT

4.3.3

According to another study entitled “*Characterization of Total and Unprotonated (Free) Nicotine Content of Nicotine Pouch Products*”<sup>[27]</sup>, nicotine pouch products varied in pouch content mass, moisture content alkalinity and % free nicotine. Total nicotine content ranged from 1.29 to 6.11 mg/pouch, whereas free nicotine ranged from 0.166 to 6.07 mg/pouch. The report further added that “given that nicotine pouch may appeal to a spectrum of users, from novice to experienced users, it is important to include these emerging tobacco products in tobacco control research, policy, and practice”.

These findings are quite similar to another study<sup>[28]</sup> which showed that a nicotine pouch delivers nicotine as quickly and to a similar extent as existing smokeless products, with no significant adverse effects.

<sup>[24]</sup> Foulds J., et al., Effect of smokeless tobacco (snus) on smoking and public health in Sweden, *Tobacco Control*, 2003;12: 349-359

<sup>[25]</sup> Azzopardi D., et al., Chemical characterization of tobacco-free “modern” oral nicotine pouches and their position on the toxicant and risk continuums, *Drug and Chemical Toxicology*, 2021

<sup>[26]</sup> Brose, Leonie S et al. “Heated Tobacco Products and Nicotine Pouches: A Survey of People with Experience of Smoking and / or Vaping in the UK.” *International journal of environmental research and public health* vol. 18,16 8852. 22 Aug. 2021

<sup>[27]</sup> Stanfill et al., Characterization of Total and Unprotonated (Free) Nicotine Content of Nicotine Pouch Products, *Nicotine & Tobacco Research*, Volume 23, Issue 9, September 2021, Pages 1590-1596

<sup>[28]</sup> Lunell E., et al., Comparison of a Novel Non-tobacco-Based Nicotine Pouch (ZYN) With Conventional, Tobacco-Based Swedish Snus and American Moist Snuff. *Nicotine Tob Res.* 2020 Oct 8;22(10):1757-1763

# SUCCESSFUL EXAMPLES FROM OTHER COUNTRIES WITH ADOPTION OF TOBACCO HARM REDUCTION

5.0

## UK (VAPE)

5.1

The UK has made extraordinary progress in reducing the public health burden of smoking-related diseases. Clear communication around the benefits to current smokers of switching to vape has had a material impact on smoking rates.

According to the Action on Smoking and Health (ASH) report<sup>[29]</sup>, in 2021:

Nearly two thirds of current vapers are ex-smokers (64.6%), and the proportion continues to grow, while the proportion who also smoke (known as dual users) has fallen to 30.5% in 2021.

The report also found that over half (58.9%) of vapers in UK were ex-smokers and the main reason given by them for switching to vaping was to help them to quit.

**FIGURE 1: SMOKING PREVALENCE HAS FALLEN IN ALL FOUR COUNTRIES OF THE UK SINCE 2011**

Source: Office for National Statistics - Annual Population Survey

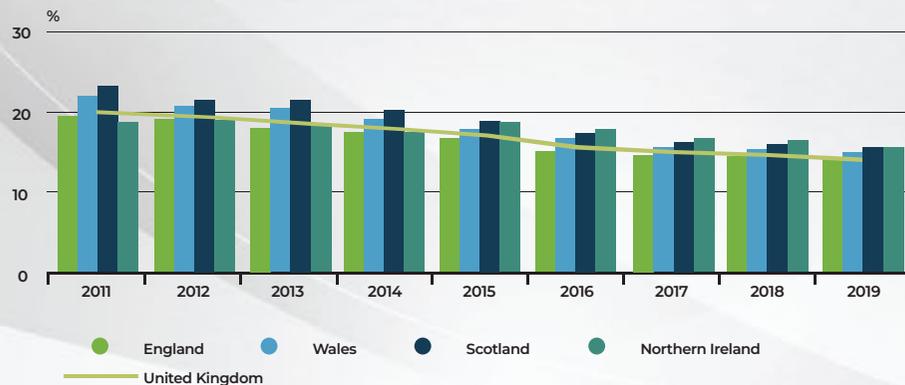


Figure 1 above summarizes the trend in the UK over the last nine years in terms of smoking prevalence it is rather clear that the trend is down.

For example, in England and the UK, the smoking prevalence of 19.8% and 20.2% in 2011 fell to just 13.9% and 14.1% respectively, down by 5.9% and 6.1% points over the last nine years. At the same time, the UK has seen a massive increase in the prevalence of vapers as the numbers reached three million in UK alone.

**FIGURE 2: PROPORTION WHO WERE CURRENT VAPERS, UK, 2015 TO 2019**

Source: Office for National Statistics - Opinions and Lifestyle Survey  
Proportion who were current vapers, UK, 2014 to 2019

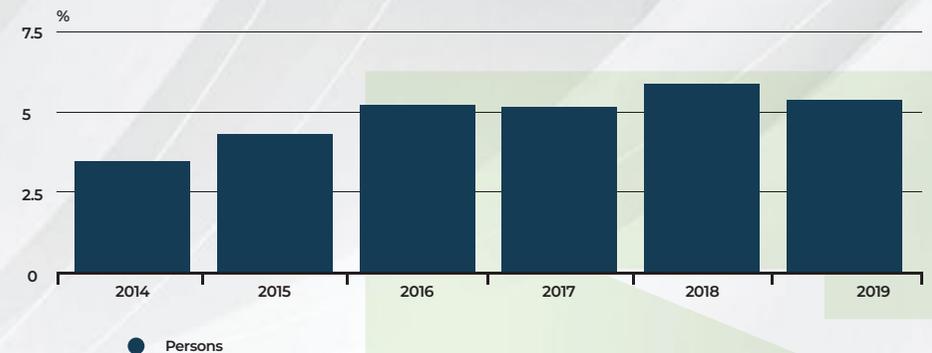


Figure 2 shows the trend of vapers in the UK and as can be seen, the numbers have been rising between 2014 to 2019. The data shows that vaping population has increased from 3.7% of the population to as high as 5.7% in the space of just over five years.

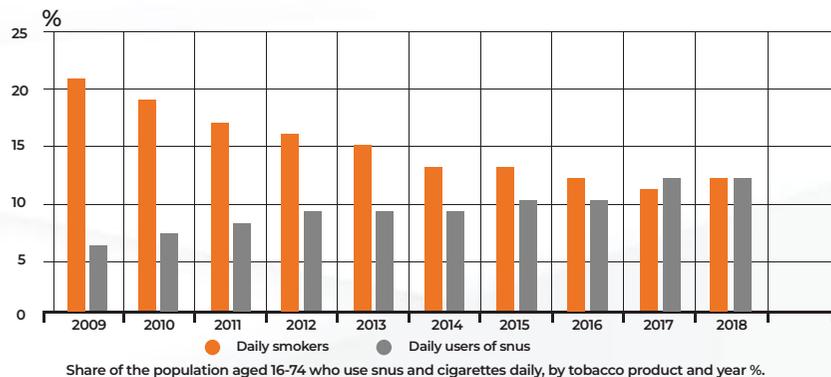
<sup>[29]</sup> Action on Smoking and Health (ASH). Use of e-cigarettes (vapes) among adults in Great Britain. 2021

Snus is an oral smokeless tobacco product that is usually placed behind the upper lip, either in a loose form or in portioned sachets. It is a popular quitting aid in Sweden especially among men and has been a major contributor to reducing smoking rates in the country. It was reported that the current cigarette smoking rate is reported to be at 7%<sup>[50]</sup> and studies have attributed it to be the most effective quitting aid when compared to NRT or any other treatment<sup>[51]</sup>. Smokers who use snus as a cessation aid have substantially higher success rates than other therapies<sup>[52]</sup>.

Similarly, in its neighbouring country, Norway, studies have also found that daily snus use is associated with a particularly high quit rate for smoking<sup>[53]</sup>. According to Statistics Norway, smoking rates in Norway have declined over the past decade whilst snus use has increased over the same period.

**FIGURE 3: SHARE OF THE POPULATION AGED 16-74 WHO USE SNUS AND CIGARETTES DAILY**

Source: Tobacco, alcohol and other drugs, statistics Norway



While this is the case, an interesting point that cannot be ignored is the long-time availability of snus in the two Scandinavian countries which can be seen as it is culturally acceptable that has driven its acceptance among smokers to switch. It remains to be seen if it has a similar impact in other countries as evidence is showing a positive impact in Scandinavian countries.

Perhaps another approach is to consider a more modern form, the nicotine pouch, which is tobacco-free, comprising of nicotine containing cellulose matrix inside a fiber pouch with similar in appearance and use to snus. The aim is to take learnings from other countries that have seen success in helping smokers quit smoking by encouraging or making it accessible for switching to another less harmful consumer product.

<sup>[50]</sup> Patterns of Smoking and Snus Use in Sweden: Implications for Public Health (Ramström et al, 2016)  
<sup>[51]</sup> Role of snus in initiation and cessation of tobacco smoking in Sweden (Ramström et al, 2006)  
<sup>[52]</sup> How Has the Availability of Snus Influenced Cigarette Smoking in Norway? (Ingeborg, 2014)  
<sup>[53]</sup> Snus and cigarettes equally popular (Statistics Norway, 2019)

When it comes to tobacco, New Zealand has shown it is one of the most heavily regulated countries. The local laws imposed a comprehensive ban on tobacco advertising and promotion, including standardised packaging on all tobacco products. Smoking in public and indoor places is widely prohibited<sup>[54]</sup>. All these are part of its SmokeFree 2025 goal to achieve less than 5% of New Zealanders smoking tobacco products.

As one of the countries that adopt a very hard stance against tobacco with the aim to reduce smoking prevalence, the New Zealand government recognised that it would not be able to achieve the SmokeFree 2025 target with just tobacco control policy alone.

In a Cabinet paper (redacted) made available on the New Zealand Ministry of Health’s website<sup>[55]</sup>, the paper pointed to its study that modelled the impact of a business-as-usual approach and the result is still far from its SmokeFree 2025 goal. The Cabinet paper also acknowledged there is a better opportunity in getting smokers to switch to less harmful products such as vaping and smoke less tobacco products with the end game of quitting completely.

Since then, the New Zealand government is set on a THR mission and underwent reforms to put in place regulations or vaping products to ensure the products are appropriately regulated to help the country achieve its SmokeFree 2025 goals.

In its **“Position Statement on Vaping”**<sup>[56]</sup> that is made available on its website, the New Zealand MoH says vaping products have the potential to contribute to the SmokeFree 2025 goal, helping to act as a route out of smoking for New Zealand’s 550,000 daily smokers, without providing a route into smoking for children and non-smokers. In addition, it has also launched a campaign called QUITSTRONG, to encourage smokers in New Zealand to switch to vaping by correcting the misinformation surrounding the use of vaping products as well as encouraging smokers to switch to less harmful alternatives in vaping<sup>[57]</sup>.

What is more interesting is the regulations on vaping products that were introduced this year encourages retailers to display signages reading **“Completely replacing your cigarette with a vape will reduce harm to your health”** or **“If you smoke, switching completely to vaping is a much less harmful option”**<sup>[58]</sup>.

Indeed, there is much to learn from the position taken by the New Zealand government on this by looking at the matter objectively, considering the THR approach concurrent with its tobacco control policy to bring down smoking rates in a country.

<sup>[54]</sup> Tobacco Control in New Zealand, Ministry of Health New Zealand website  
<sup>[55]</sup> Cabinet Paper - Supporting smokers to switch to significantly less harmful alternatives, Ministry of Health New Zealand  
<sup>[56]</sup> Position Statement on Vaping, Ministry of Health New Zealand

<sup>[57]</sup> S.73, Smokefree Environments and Regulated Products Regulations 2021  
<sup>[58]</sup> Position Statement on Vaping, Ministry of Health New Zealand

# CHALLENGES WITH ADOPTION OF TOBACCO HARM REDUCTION

6.0

## TAXATION FRAMEWORK

6.1

According to a white paper released by the International Centre for Law & Economics (ICLE)<sup>[39]</sup>, more than 20 countries have introduced taxation on vape products. However, the question as to the right amount of taxation is the key as the product itself is seen as less harmful and an alternative to smoking. Even the UK House of Commons Science and Technology Committee<sup>[40]</sup> concluded that “The level of taxation on smoking related products should directly correspond to the health risks that they present, to encourage less harmful consumption.”

Applying that logic, vape should remain the least-taxed and conventional cigarettes the most. It is necessary to understand that any policy decisions regarding taxation of vape products should take into account not only fiscal effects but broader economic and welfare effects on the nation. Hence, unlike current excessive excise duties imposed on tobacco products, tax policies related to vape should be one that looks at encouraging consumption to the extent it brings economic and social benefit to society.

Thus, vaping, which causes less direct harm or has lower externalities (such as the absence of second-hand smoke) should be subject to lower taxes. One way to deploy the right taxes for vape products is to undertake a cost-benefit analysis that would include the reduced health spending as an offset against excise tax revenue that was foregone by putting a lesser rate on those products. In this way, the government’s lower tax that is imposed on vape can easily be justified. It is no denying that any form of taxation will have a significant impact on the sales and pricing of vape.



However, before we answer that question, we need to understand as to “what do we tax?” and “how do we tax?” Should the tax be applied on liquids only, or also on devices and accessories? Should the tax system be ad-valorem or specific tax? Globally, there is a growing consensus to tax all liquids for vape (with or without nicotine) at a specific tax rate per millilitre of the liquid and this is now been accepted as a “norm”. Malaysia introduced an ad-valorem rate of 10% on all types of electronic and non-electronic cigarette devices, including vape; and nicotine-free liquids used in vape including vape devices are levied at 40 sen per milliliter. In Budget 2022<sup>[41]</sup>, the scope of excise duties was extended to cover all liquid or gels containing nicotine or without nicotine used in vape and vape devices. The excise duty levied is now at RM1.20 per milliliter for both nicotine and nicotine-free liquids and gels used in vape and vape devices effective January 1, 2022.

Effectively, this has tripled the previous rate and in effect will cause a significant increase in retail prices, leading to vape products to be even more expensive than cigarettes. In effect, the impact can potentially discourage smokers from switching to less harmful products. However, the Government has since announced that the implementation of the new rate has been delayed. It is hoped that the government will review this decision and revert to the previous rate of 40 sen per milliliter.

## MISINFORMATION

6.2

In the era of social media and exposure to everything online, there is a tendency for news to be sensationalised, and worse, even fake claims are deemed to be gospel truth. Even less harmful products too are subjected to this phenomenon, not only in Malaysia but globally. In an article<sup>[42]</sup>, it was found that US and UK adult current smokers may be deterred from considering using vape after brief exposure to tweets that vape were just as or more harmful than smoking.

Conversely, US adult current smokers may be encouraged to use vape after exposure to tweets that vape are completely harmless. These findings suggest that misinformation about vape harms may influence some adult smokers’ decisions to consider using vape. Similarly, a study carried in 2020<sup>[43]</sup> showed that misinformation about tobacco products on social media is a significant factor that may influence public misperceptions and adversely affect the health of populations who are most affected by tobacco product use and widen health disparities.

<sup>[39]</sup> Fruits, E. Vapor products, harm reduction, and taxation: Principles, evidence, and a research agenda, ICLE, Oct 2018

<sup>[40]</sup> UK Parliament website - <https://publications.parliament.uk/pa/cm201719/cmselect/emsctech/505/50508.htm>

<sup>[41]</sup> The Budget 2022 speech - <https://budget.mof.gov.my/pdf/2022/ucapan/bs22.pdf>

<sup>[42]</sup> Wright C., et al. Effects of brief exposure to misinformation about e-cigarette harms on Twitter: a randomized controlled experiment BMJ Open 2021

<sup>[43]</sup> Tan, A., et al. Misinformation About Commercial Tobacco Products on Social Media-Implications and Research Opportunities for Reducing Tobacco-Related Health Disparities. American journal of public health, 110(53), S281-S283.

## WRONG MEDIA ATTENTION

6.3

Since the introduction of vaping globally, many misguided claims have been made and associated with the THR strategy as being harmful. Disproportionate media attention has been given to misleading research and unrelated health concerns. Most of this misinformation stems from the US. In 2019, the US suffered an outbreak of lung injuries and deaths, which were quickly associated with vaping. In August 2019, the Centers for Disease Control and Prevention (CDC) began investigating the outbreak and termed the condition as E-cigarette or Vaping Product Use-Associated Lung Injury (EVALI).

Though it quickly became clear the outbreak was caused by the purchase of illicit tetrahydrocannabinol (THC) cartridges laced with vitamin E acetate, which cannot be used in nicotine vape, it was only in January 2020 that CDC removed its guidance advising Americans to refrain from vaping altogether<sup>[44]</sup>. The outbreak was covered extensively by the US and UK media, and the ramifications were severe. The Trump administration banned non-tobacco and menthol flavours in closed system vape products until approved for use by the US FDA. The impact of the EVALI crisis on public opinion was extremely damaging.

A Morning Consult poll<sup>[45]</sup> published in February 2020 showed 66% of adults incorrectly blamed vaping for the outbreak. The percentage of adults who considered vaping to be “very harmful” rose to 65%, an increase of 7% from September 2019. No efforts were made to correct these misperceptions. Public health authorities can learn from the mistakes of their US counterparts and forcefully correct popular misconceptions about reduced-risk nicotine products that appear in the media.

## RESISTANCE TO REFORMS

6.4

While direct tobacco consumption is harmful, some laws and regulations have been put in place to control the prevalence of smoking and it is the government's overall objective to reduce it over a period of time. However, with the availability of THR globally today, governments too need to evolve to accept the changing market dynamics and assist affected smokers to change their habits. Among THR, vaping is seen as an effective tool in Malaysia while in other countries, other than vaping, snus and nicotine pouch too have been used.

Hence the government must play a more active role in encouraging reforms within the industry and embracing the change. Malaysia is not the only country in the world that faces this resistance to reform, other countries too have experienced it as well. In a report<sup>[46]</sup>, it has been estimated that there were around 63,000 daily vapers in New Zealand, and vaping is helping many New Zealanders stop smoking, despite the regulatory grey area it currently occupies.

The report further added that “It is clear that there are smokers who want access to effective, satisfying and less harmful alternatives to cigarettes. It is also clear that quitting smoking will improve the life expectancy, health outcomes, and financial wellbeing of smokers.” However, the government response has been rather slow. The report added that “thus it is perplexing that some of those committed to reducing the harm of smoking in our community have been so resistant to allowing broader access to these risk-reduced products”. It further stressed that “while the government needs to clarify its position, any regulations introduced should neither hinder access to these products nor misleadingly conflate reduced risk products with the known harms of smoked tobacco products.”

<sup>[44]</sup> Source: Wall Street Journal - <https://www.wsj.com/articles/cdc-steps-back-from-broad-recommendation-to-refrain-from-e-cigarettes-11579293494#>

<sup>[45]</sup> Source: Morning Consult - <https://morningconsult.com/2020/02/05/electronic-cigarettes-increasingly-blamed-by-public-for-lung-illnesses-even-as-evidence-points-elsewhere/>

<sup>[46]</sup> Jeram, J. Smoke and vapour: the changing world of tobacco harm reduction, Analysis and Policy Observatory (11 May 2018)

# SMOKING RATES AND ITS COST BURDEN IN MALAYSIA

7.0

## CURRENT APPROACH TO REDUCE SMOKING IN MALAYSIA

7.1

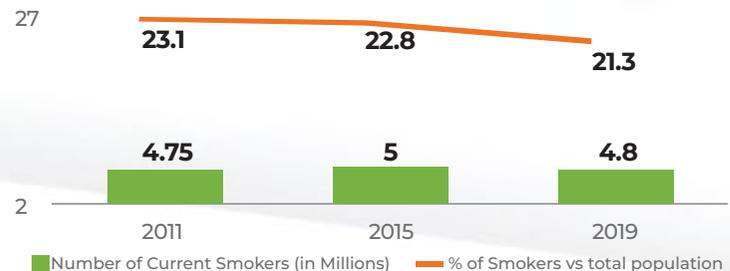
The latest National Health and Morbidity Survey 2019 report published by the MoH estimates more than 27,200 Malaysian deaths annually are related to smoking. The MoH has a National Strategic Plan on Tobacco Control (NSPTC) 2015 - 2020 developed to strengthen the implementation of tobacco control in Malaysia. It has a target to reduce smoking prevalence in Malaysia to 15% by the year 2025 and below 5% by 2045<sup>[47]</sup>. This is an ambitious target given that smoking prevalence in Malaysia has plateaued for more than a decade. Diving deeper into the NSPTC, the plan takes after the WHO model of MPOWER strategy by focusing on:



In assessing the framework from the NSPTC, the main focus by the MoH is based on the principles of prevention, deterrent, awareness as well as supporting smokers through medical smoking cessation services. It needs to be stressed that the framework is glaringly missing the approach of THR which is to encourage smokers to turn to less harmful products. In addition, the current MoH's Clinical Practice Guidelines on Treatment of Tobacco Use Disorder 2016 continues with the traditional method of encouraging smokers to quit by turning to support services and medicinal NRT products as a cessation tool. Through the NSPTC framework, the MoH also has in the past decade introduced various restrictive laws as well as raised taxes on tobacco products to deter smokers from continuing the habit. Some of the restrictive measures include price control on tobacco products, smoking restriction in public places, comprehensive ban on tobacco advertising, promotion and sponsorship, prohibition in advertising and, (cigarette packets) health warning on<sup>[48]</sup> and a high tax burden. However, fact remains that smoking prevalence in Malaysia has plateaued over the past decade hovering at an average of 22% despite multiple prevention, deterrent, awareness measures being put in place.

**FIGURE 4: NUMBER OF SMOKERS IN MALAYSIA**

Source: Global Adult Tobacco Survey 2011, National Health Morbidity Survey 2015: Report on Smoking Status among Malaysian Adults, National Health Morbidity Survey 2019.



In addition, the MoH has also indicated that there were only 22,601<sup>[49]</sup> smokers who have visited quit smoking clinics in 2019, out of which, 45.7%<sup>[50]</sup> has a success rate in quitting, raising the need to assess the approach of aiding smokers to quit smoking.

This is also not helped by the fact that there is a significant amount of cheap smuggled cigarettes in Malaysia as a result of the high tax burden on legitimate products due to multiple tax-led price increases in the past decade leading smokers not to quit but turn to smuggled products. According to a report by Nielsen Malaysia, commissioned by the local tobacco industry, Malaysia's incidence of illegal cigarettes is at 63.8%<sup>[51]</sup> and Euromonitor International has also placed Malaysia as the No. 1 in the illegal tobacco market<sup>[52]</sup>.

Having to face huge challenges where multiple preventions, deterrents, awareness measures in the past decade have produced little result, current quit smoking cessation support being seen as unpopular and smokers have easy access to cheap smuggled cigarettes, a new game-changing approach is required to help Malaysia reduce smoking rates. The experience shown in the UK, Sweden, and New Zealand tells us that there is another way to reduce smoking rates and Malaysia too should move towards adopting a policy that embraces tobacco harm reduction.

Malaysia has much to gain by embracing the THR approach as it has proven to be successful elsewhere and well documented via various research findings. Reducing smoking rates is an important public health issue and the government needs to consider the role that harm reduction strategies can play in achieving its goal of lowering the country's smoking prevalence to 15% by 2025.

<sup>[47]</sup> Pelan Strategik Kawalan Tembakau Kebangsaan 2015-2020 (Kementerian Kesihatan Malaysia, 2015)  
<sup>[48]</sup> Control of Tobacco Product Regulations 2004  
<sup>[49]</sup> RM2.8 juta untuk rawatan berhenti merokok (Harian Metro, 30 November 2020)  
<sup>[50]</sup> Estimated Federal Expenditure 2021 (Ministry of Finance, 2020)  
<sup>[51]</sup> Illicit Cigarette Study (Nielsen Malaysia 2020)  
<sup>[52]</sup> Malaysia world No. 1 in tobacco black market (New Straits Times, 19 October 2020)

## SMOKING HAS A COST BURDEN ON MALAYSIA

7.2

According to a report from Khazanah Research Institute<sup>[53]</sup>, more Malaysians are dying because of NCDs. These diseases, such as heart disease and cancers, constitute the leading causes of medically certified deaths in Malaysia and many of these NCDs are often associated with lifestyle choices including tobacco smoking, and as such, are considered to be preventable. There is no denying that one of the major risk factors for NCDs is related to tobacco smoking with heart disease and lung cancer among the top diseases.

However, there is little evidence or study to suggest the actual health cost related to smoking in Malaysia. One report that has been referred to by the MoH dated back to 2007<sup>[54]</sup> where it showed a cost-analysis study undertaken to estimate the cost of medical care of three smoking-related diseases. These diseases were chronic obstructive pulmonary disease, ischemic heart disease, and lung cancer. The total smoking-attributable cost of the three selected diseases was estimated at RM2.92 billion.

Interestingly as the data was based for the year 2004, smoking health-related costs accounted for 16.5% of the National Health Expenditure in Malaysia or 0.74% of the Gross Domestic Product (GDP) then. In that year, the nation's healthcare cost was RM19.1 billion. Today, based on the country's RM27 billion healthcare bill for 2021 and the country's GDP of almost RM1.5 trillion, the nation's healthcare bill of 1.8% of GDP is significantly higher. According to the former Health Minister, Datuk Seri Dr Dzulkefly Ahmad in 2018<sup>[55]</sup>, referring to the model offered from the 2007 report, the government is expected to spend **RM7.4 billion** in treatment costs for major illnesses caused by smoking, such as lung cancer and coronary heart problems by 2025 if the prevalence of smoking has not reduced in Malaysia. On the assumption that the nation's economy expands by 4-5% between 2020-2025, this RM7.4 billion figure will translate to approximately 0.4% of the country's GDP and approximately 20% of the nation's healthcare operating expenditure.

<sup>[53]</sup> Tobacco Control: Curbing the Craving (Khazanah Research Institute, 2018)

<sup>[54]</sup> Healthcare Costs of Smoking in Malaysia, (Syed Muhamed Aljunied, 2007)

<sup>[55]</sup> Oral Answer by Former Minister of Health, Dewan Rakyat- 31 October 2018



# CAN MALAYSIA BENEFIT BY EMBRACING TOBACCO HARM REDUCTION?

8.0

## POTENTIAL REDUCTION IN MALAYSIA'S SMOKING RATE

8.1

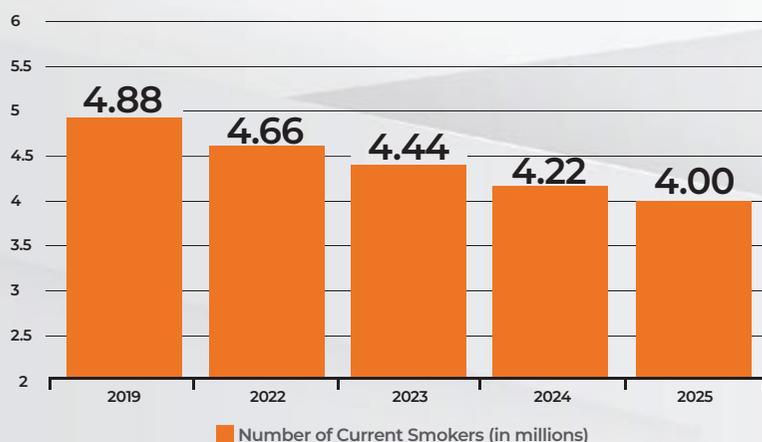
While numerous studies have shown that harm-reduced products such as vaping proved to be effective for smokers to quit smoking, it is challenging to find researches using a specific model to quantify the impact of harm-reduced products on smoking prevalence in a country. However, PHE attributed vaping to be positively associated with quitting smoking successfully in the UK.

The 2021 report points to over 50,000 smokers who stopped smoking with a vaping product who would otherwise have carried on smoking in 2017<sup>[56]</sup> and referred to a research paper<sup>[57]</sup> developed by local researchers to draw the causal link between vaping and smoking cessation. In essence, the research concluded for the UK where every 1% increase in vape use in quit attempts would result in a 0.06% increase in quit success rate with other things being equal.

The Cochrane Review has in its latest 2021 evidence review that looked at 61 completed studies, representing 16,759 participants, has indicated that the quit success rate is higher with 9%-14% out of every 100 people who are relying on vaping to quit smoking<sup>[58]</sup>. Applying the same model for Malaysia, we analyse to see the potential absolute numbers in realising the number of smokers quitting smoking per annum by switching to vaping. The result is astounding, as we estimate approximately **140,000 - 220,000** Malaysian smokers could quit smoking every year through vaping translating into 2.9% - 4.5% decline per annum based on current smoking prevalence.

This estimate is by assuming 48.9%<sup>[59]</sup> of 4,877,697<sup>[60]</sup> and prevalence of vape use in a quit attempt by smokers was 66%<sup>[61]</sup>, resulting in 1,574,228 (4,877,697 x 0.489 x 0.66) smokers would use vape during a quit attempt; and equates to the range between 141,680 - 220,391 (1,574,228 x 0.09 - 0.14). This is 21 times more than the current quit smoking success rate where only 45.7%<sup>[62]</sup> of the 22,601<sup>[63]</sup> smokers who visited quit smoking clinics have successfully quit smoking. Applying this estimation, we could potentially see Malaysia's smoking population drop to **four million** by 2025, which is a significant reduction from 4.88 million currently as seen in Figure 5.

FIGURE 5: PROJECTED NUMBER OF SMOKERS IN MALAYSIA WITH A TOBACCO HARM REDUCTION APPROACH\*



\*Note: Assumption based on the total number of direct smokers is reduced by 220,391 per annum from 2022 onwards.

In essence, by embracing the THR approach to encourage smokers to switch to vaping as a harm-reduced product, there is real potential to see a decline in smoking rates in Malaysia.

<sup>[56]</sup> Vaping in England: 2021 evidence update summary (Public Health England, 2021)

<sup>[57]</sup> Association of prevalence of electronic cigarette use with smoking cessation and cigarette consumption in England: a time-series analysis between 2006 and 2017 (Beard et al, 2019)

<sup>[58]</sup> Electronic cigarettes for smoking cessation (Cochrane Review, Hartmann-Boyce, et al., 2021)

<sup>[59]</sup> National Health and Morbidity Survey 2019 (Ministry of Health, 2019)

<sup>[60]</sup> National Health and Morbidity Survey 2019 (Ministry of Health, 2019)

<sup>[61]</sup> 88pc ex-smokers say vape helped to quit, GZSB survey shows (New Straits Time, 8 April 2021)

<sup>[62]</sup> Estimated Federal Expenditure 2021 (Ministry of Finance, 2020)

<sup>[63]</sup> RM2.8 juta untuk rawatan berhenti merokok (Harian Metro, 30 November 2020)

## POTENTIAL REDUCTION IN MALAYSIA'S HEALTHCARE COST

8.2

Applying the data from the previous chapter, we also measure the potential reduction in healthcare costs associated with the reduction in smoking rates upon embracing the THR approach. In an earlier chapter, we examined that the projected healthcare cost would see Malaysia spend RM7.4 billion in treatment for major illnesses caused by smoking by 2025 if the prevalence of smoking has not reduced in Malaysia.

Using this data and a yearly reduction of between 2.9% and 4.5% in smoking prevalence due to vaping alone, leaving everything else unchanged, translates to reducing Malaysia's healthcare cost related to smoking by up to 18% or **RM1.33 billion** in 2025. This does not include the potential annual savings in the years leading up to 2025.

**RM7.4  
BILLION**

projected spend in  
healthcare cost in 2025



**RM1.33  
BILLION**

savings from healthcare  
cost related to smoking

Hence, Malaysia must take the crucial step in addressing the escalating cost related to tobacco-related health diseases by embracing THR and introducing policies to support the adoption of THR to reap the benefit derived from it, which include potential cost savings as well as reduction of smoking rates in Malaysia.

# MALAYSIANS WANT TOBACCO HARM REDUCTION POLICIES

9.0

Apart from delving into hard facts, we also commissioned an opinion poll to understand Malaysian's understanding of THR, their thoughts on this public health strategy as well as whether they would support THR policies if they are adopted by the Government.

## THR SEEN AS AN EFFECTIVE SMOKING CESSATION APPROACH 9.1

A majority or 80% of Malaysians believe that the adoption of THR strategies in the country will help smokers quit traditional tobacco cigarettes as they will be able to switch to less harmful alternatives. The poll also revealed that over half of the respondents or 58% are aware of multiple studies that have proven less harmful products to be less harmful than traditional cigarettes. Of all the less harmful products available, the majority of the respondents, or 51% find vaping to be the most practical way to quit smoking, and the majority selected vaping to be the top safest form to quit smoking.

## MAJORITY MALAYSIANS ARE SUPPORTIVE OF THE GOVERNMENT ADOPTING THR POLICIES 9.2

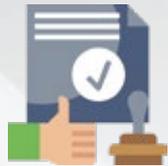
It does not come as a surprise that the TGZ survey also found that an overwhelming majority or 95% said that the Malaysian government must be involved in implementing THR strategies in Malaysia. However, half of the respondents, or 50% do not think that the government is actively developing THR strategies. In fact, if less harmful alternatives to traditional cigarettes are proven to be effective in reducing smoking levels in the country, then 98% of those surveyed would be supportive of the government adopting the THR approach.

### THR AS EFFECTIVE SMOKING CESSATION APPROACH



**80%**

believe that the adoption of **THR strategies** will help smokers quit traditional cigarettes



**58%**

are aware of studies that has proven **THR product** to be less harmful

Majority said vaping is the

**TOP SAFEST FORM**

to quit smoking.

**51%**

find vaping to be the **most practical way** to quit



### SUPPORT FOR GOVERNMENT TO ADOPT THR POLICIES

**95%**

said that the **Malaysian government** must be involved in implementing **THR strategies**

**50%**

do not think that the **government** is actively developing **THR strategies**

**98%**

would support **THR adoption** if it is proven to be **effective in reducing smoking levels**



# RECOMMENDATIONS

10.0

## REFORM REGULATORY FRAME WORK SURROUNDING NICOTINE PRODUCTS

10.1

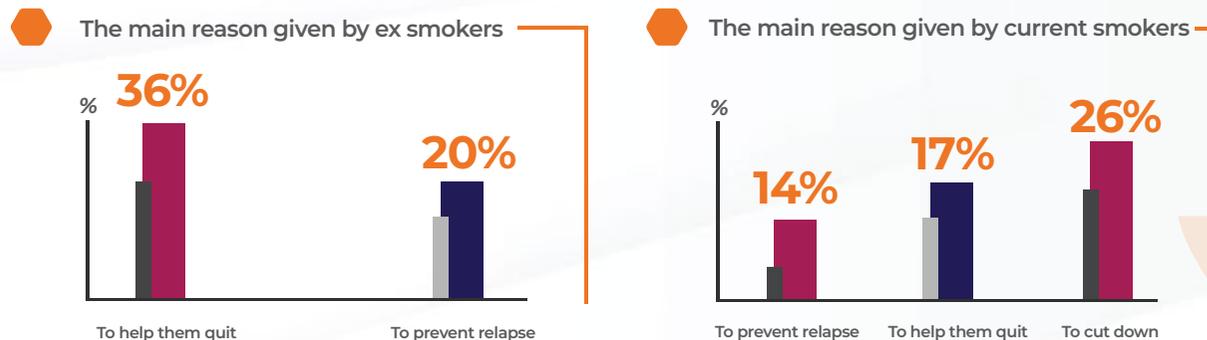
Malaysia has yet to introduce a regulatory framework that will help to address some of the concerns related to nicotine-based products. For example, nicotine e-liquids are presently governed under the Poison Act, 1952 which regulates the import, possession, manufacture, compounding, storage, transportation, sale, and use of poisons. The Poison Act, 1952, lists nicotine as one of the restricted substances that can be handled and administered by registered medical practitioners only. This effectively makes vape products that are being sold in the market by retailers and entrepreneurs to be illegal in Malaysia. Hence, the government ought to revisit the legislative framework and expand the current Poison Act, 1952 which limits the use of nicotine products to just medicinal form including any nicotine products to treat tobacco addiction.

Another point of contention is how the current legislative framework discriminates nicotine products against tobacco products. Hence, while tobacco products are sold freely as consumer products, nicotine products can only be sold as medical products with strict oversight. This puts nicotine products at an unfair disadvantage. Thus, the government ought to strive for a level playing field by allowing nicotine products to also be sold as a consumer product with regulations to enable access to nicotine products for smokers to switch to other forms of harm-reduced nicotine products including vaping. However, this does not mean it is made freely accessible. We would need regulations to prescribe sales to genuine buyers, restrict sales to underage, a guideline on product ingredients, which will ensure it does not contain prohibited or harmful substances as well as discourage non-smokers from accessing the products.

## EMBRACE VAPING AS A FORM OF HARM REDUCTION

10.2

In a paper published by ASH<sup>[64]</sup> dated June 2021, it was found that as in previous years, the main reason given by ex-smokers for vaping is:



Nearly two-thirds of current vapers are ex-smokers (64.6%), and the proportion continues to grow, while the proportion who also smoke (known as dual users) has fallen to 30.5% in 2021.

The proportion of adult smokers who have never tried vape is continuing to decline slowly to 30.1% in 2021, while the proportion of smokers who are current users has been stable. Fewer than 1% of those who were never smokers are currently vapers and this translates to 4.9% of all vapers.

The statistics from the UK showed that vaping can be used to promote quit smoking campaigns instead of mere “SAY NO TO SMOKING” campaigns. In this way, the government can get a buy-in among smokers to attempt to quit smoking or at least to reduce the number of cigarettes smoked per day. Vape has also proven to provide a remedy for smokers who have a relapse of their habit, and this too can be used to ensure that smokers do not go back to their old smoking habits. According to the MoH’s National Health and Morbidity Survey 2019<sup>[65]</sup>, the prevalence of smokers in Malaysia stood at 21.3%, translating to 4.9 million Malaysians. The report further estimated that more than 27,200 Malaysian deaths annually are related to smoking.

According to Addiction Medicine Association of Malaysia (AMAM), 50% of current smokers in Malaysia are keen to quit<sup>[66]</sup>. Hence, with the demand to kick the habit being high on the list, what better way to address it than recommending vaping as a way out. In other words, the government should take the incentive to expand on adopting the THR stands for vaping to be promoted to help smokers quit smoking.

Two examples of this are the campaign in New Zealand named QUIT STRONG<sup>[67]</sup> and the UK’s move to introduce STOPTOBER. Both of these campaigns are positioned for vaping to be a way to quit smoking as well as an awareness programme. QUIT STRONG shows the strategy in driving smokers towards quitting by focusing on two key strategies - one is to reach out to a Quit Coach and the second is to switch to vaping. The website also discusses seven ways to Stay Quit. In the UK STOPTOBER<sup>[68]</sup> campaign, smokers are encouraged to quit the habit in a structured manner. The first is to download an app that will basically track a person’s progress, how much they are saving, and to reach out for support over a 28-day stop smoking challenge. A smoker can also obtain a customised personal quit plan, reach out to stop smoking service as well as read up on stop smoking aids, which include among others NRT and e-cigarettes.

<sup>[64]</sup> Action on Smoking and Health (ASH). Use of e-cigarettes (vapes) among adults in Great Britain. 2021

<sup>[65]</sup> National Health and Morbidity Survey 2019 (Ministry of Health, 2019)

<sup>[66]</sup> 11th National Conference on Addiction Medicine (May 31, 2021)

<sup>[67]</sup> <https://quitstrong.nz>

<sup>[68]</sup> <https://www.nhs.uk/better-health/quit-smoking/>



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## REGULATE VAPING

10.3

It can be an easy approach to apply the same laws that are applicable to cigarettes onto less harmful nicotine products. But it begs the question of whether less harmful nicotine products such as vape should be regulated in the same way as cigarettes. Quite simply, judging from the scientific evidences showing the benefits of less harmful products and that they are not the same as cigarettes, regulations should make sense for these less harmful products. It needs to be risk-proportionate with the aim of conveying the right messages and incentivising smokers to switch to these less harmful products and quit smoking whilst preventing youth uptake by enforcing stricter penalties for sales to minors, requiring warning labels and ingredients listings. At the same time, there should also be regulations to ensure consumers access to products that meets quality and safety standards. This way, helping smokers to quit while protecting youth with smart regulations, is the balance approach that needs to be taken.

## RISK-PROPORTIONATE TAXATION FRAMEWORK

10.4

We all know that direct tobacco smoking is harmful and hence the government uses high excise duties as a form of deterrent for consumers, either to kick the habit or to cut down on their consumption or to prevent others from picking up the habit. If we have a THR strategy and policy, the issue of type and rate of tax to be imposed would be hotly debated. According to a global public health activist and a THR advocate, policymakers should consider a risk-proportionate regulation<sup>[69]</sup> strategy to regulate nicotine products such as vape. In this way, regulators impose restrictions in proportion to the risk to health posed by the product. This can be further elaborated with an example using the current warning signals. For example, traditional cigarettes would have bold graphic warnings, but vaping products should have more subtle messages about the value of switching. Hence, for a similar reason, as vaping has proven to be less harmful, the proportionate taxes that are assigned to vaping must be much lower than those that are imposed on traditional tobacco products. Less harmful products need to be separate from current tobacco products, the approach taken by the government in imposing taxes too should be differentiated based on the risk proportionality principle. In other words, products with high-risk factors like tobacco should attract higher taxation while less harmful products should have lower taxes. In Budget 2022<sup>[70]</sup>, the Malaysian government has now extended the scope of excise duties to cover all liquid or gels containing nicotine or without nicotine used in vape and vape devices. The excise duty levied is now at RM1.20 per milliliter effective January 1, 2022. While the move is welcome and provide a level playing field, the excise duty levied now is three times the rate that it was first introduced a year ago for liquid and gels without nicotine used in vape and vape devices. That is excessive and not proportionate to the lower risk profile of vape, either with or without nicotine. Hence, by applying the risk-proportionate principle, the excise duty that is levied on e-liquids ought to be lower.

## PROVIDE VAPE AT ZERO COST AT HEALTH FACILITIES

10.4

According to a 2018 report<sup>[71]</sup> there may be a value in smoking cessation services and other services ensuring that smokers are provided with vape at zero or minimal costs for at least a short period. Malaysia could also introduce a policy to embrace vape by making them available easily. In fact, in the UK, one of the methods used by health professionals is to advise their patients who are smokers to switch to vape and this is even made widely available in hospitals and clinics.

<sup>[69]</sup> The Sun Daily - <https://www.thesundaily.my/home/risk-proportionate-regulation-key-in-vape-industry-regulation-KJ7931369> (April 6, 2021)

<sup>[70]</sup> The Budget 2022 speech - <https://budget.mof.gov.my/pdf/2022/ucapan/bs22.pdf>

<sup>[71]</sup> McKeganey, et al. The Value of Providing Smokers with Free E-Cigarettes: Smoking Reduction and Cessation Associated with the Three-Month Provision to Smokers of a Refillable Tank-Style E-Cigarette. *Int J Environ Res Public Health*. 2018 Sep 3;15(9):1914

# SUMMARY

Globally, THR strategies have been recognised to be effective in addressing the key issue related to direct tobacco smoking and its effect on mankind. Within less harmful products, vaping has been proven to be effective and 95% less harmful. In addition, it has also been proven that vaping takes only six months to be effective. Malaysia should consider introducing a THR policy or strategy as the benefits far outweigh the cost. By promoting vaping as a tool for smoking cessation, Malaysia can potentially gain as much as RM1.33 billion in savings from smoking-related health costs as some 881,564 new vapers are likely to switch from smoking to vaping, using the UK model over the next four years. With over half of Malaysians being aware of THR public health strategies, the majority of Malaysians (80%) believe that the adoption of a THR strategy in Malaysia will help smokers to quit cigarettes for a less harmful alternative.

Overall, Malaysians can see the potential benefits of an effective THR policy. An overwhelming 98% of Malaysians are in favour of the adoption of a THR policy if the THR alternative products to cigarettes in Malaysia were proven to be effective in reducing smoking levels among Malaysians. These are significant study results that show Malaysians want the government to adopt a THR policy or strategy. The local vape industry is set to expand rapidly if the government provides the right regulatory and taxation framework to be in place. If the industry is given due attention, there will also be more business opportunities which will lead to an increase in job opportunities. In addition, as the current size of the market is said to be valued at about RM2.27 billion in 2020, it will not come as a surprise that as smoking prevalence drops and vaping offtake increases, the industry is poised to expand at a rapid pace. Assuming the industry reaches a market penetration rate of about 20% within the next five years, the industry would have a staggering size of RM10 billion by 2026-2027.







