



Challenges and prospects in implementing the Generational Endgame policy: Malaysia and global perspectives

Picholas Kian Ann Phoa ¹, Lei Hum Wee,^{1,2,3} Yin How Wong,^{1,3} Ching Sin Siau ², Caryn Mei Hsien Chan,² Chrisminder Dain,⁴ Mohamad Haniki Nik Mohamed⁵

¹School of Medicine, Faculty of Health and Medical Sciences, Taylor's University, Subang Jaya, Malaysia

²Center for Community Health Studies (ReaCH), Faculty of Health Sciences, Universiti Kebangsaan Malaysia Fakulti Sains Kesihatan, Kuala Lumpur, Malaysia

³Digital Health and Innovations Impact Lab, Taylor's University, Subang Jaya, Malaysia

⁴School of Biosciences, Faculty of Health & Medical Sciences, Taylor's University, Subang Jaya, Malaysia

⁵Pharmacy Practice Department, International Islamic University Malaysia Kuliyah of Pharmacy, Kuantan, Malaysia

Correspondence to

Professor Lei Hum Wee;
LeiHum.We@taylors.edu.my

Received 13 June 2024

Accepted 9 December 2024

ABSTRACT

In Malaysia, tobacco smoking continues to be one of the leading public health concerns; hence, the tobacco control community aims to see a generation free of tobacco use by 2040. Drafted and presented to the parliament, the Malaysian Control of Smoking Products for Public Health Bill 2022 highlighted the Generational Endgame (GEG) policy, which forbids the use and sale of tobacco products and smoking substances to individuals born on or after 1 January 2007. Stakeholders, including government and non-governmental organisations, policymakers, healthcare professionals, tobacco industry representatives and retailers, have expressed differing opinions indicating non-support of the policy. The Attorney General Chamber deemed the policy as 'unconstitutional' for discriminating against those within the implementation age range, which prompted its omission from the revised Control of Smoking Products for Public Health 2023 Bill. This paper discusses the obstacles and possible implications of the GEG policy implementation in Malaysia and details its implementation in other countries. This paper also proposes several recommendations for future directions in tackling the obstacles mentioned more effectively.

INTRODUCTION

Tobacco use remains a major public health concern in Malaysia, contributing to approximately 29 000 deaths annually.¹ This situation has escalated with the increasing prevalence of electronic cigarette (e-cigarette) use among Malaysian adolescents.² The National Health and Morbidity Survey (NHMS)² reported that 14.9% of adolescents between the age of 13 and 17 use e-cigarettes, three times the rate of adolescents using conventional cigarettes (5.4%), and nearly double the rate reported in the NHMS 2017 (9.8%).^{2,3} Additionally, the NHMS 2023 reported that 5.0% of the adult population are e-cigarette users.³

Malaysia is committed to achieving a smoke-free generation, as recommended by the WHO by 2040.⁴ The smoke-free generation proposal advocates the prohibition of the sale and supply of tobacco to individuals born after a specific year.⁵ This approach aligns with the broader tobacco endgame strategy, which seeks to reduce smoking prevalence to less than 5% by a target year.⁶ Although definitions of the tobacco endgame vary, its overarching goal remains the elimination of tobacco-related harm.⁶ The Generational Endgame (GEG) policy was one of the strategies to achieve this target.

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ The Generational Endgame (GEG) policy was excluded from the revised Control of Smoking Products for Public Health 2023 Bill in Malaysia.
- ⇒ Internationally, the reception toward the GEG policy remains ambivalent and has achieved minimal success in its implementation.

WHAT THIS PAPER ADDS

- ⇒ This paper provides an overview of the GEG policy from various perspectives and presents empirical evidence and case studies both locally and internationally.

HOW THIS PAPER MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ This paper lays a foundation for future research on the intersection of public health policies and constitutional law to address the concerns identified.
- ⇒ Although the GEG policy has faced rejection, the recommendations aim to advocate ongoing dialogue with a renewed focus on demonstrating its adoptability and implementation via research and policy appraisal.

In Malaysia, this policy was a section of the Control of Tobacco Products and Smoking Bill 2022, tabled by the former Minister of Health (2021–2022), to legislate anti-smoking law that bans individuals born in 2007 onwards from smoking or purchasing smoking products. However, the policy was deemed 'unconstitutional' by the Attorney General Chamber (AGC) and thus excluded from the revised bill. The former Minister of Health claimed that the decision to drop the GEG was influenced by strong lobbying from tobacco industries in Malaysia than by legal arguments regarding its unconstitutionality.⁷ The tobacco industry used various strategies that undermined the GEG and impeded progress toward Sustainable Development Goal 3 (SDG 3). Thus, the barriers to GEG policy execution in Malaysia and details of implementation strategies applied in other countries on GEG-like policy are discussed in this special communication. Subsequently, potential strategies for better addressing the barriers are proposed.



© Author(s) (or their employer(s)) 2025. No commercial re-use. See rights and permissions. Published by BMJ Group.

To cite: Phoa PKA, Wee LH, Wong YH, et al. *Tob Control* Epub ahead of print: [please include Day Month Year]. doi:10.1136/tc-2024-058874

GEG POLICY

Malaysia ratified the WHO Framework Convention on Tobacco Control (WHO FCTC) treaty in 2005, which outlined eight core demand reduction provisions (articles 6–14) and three supply-reduction provisions (articles 15–17).⁸ A technical package, MPOWER, encompassing six areas was introduced: ‘monitoring tobacco use and prevention policies’, ‘protect people from tobacco smoke’, ‘offer help to quit tobacco use’, ‘warn about dangers of tobacco’, ‘enforce bands on tobacco advertising, promotion and sponsorship’ and ‘raise taxes on tobacco’.⁹

Malaysia’s first National Strategic Plan (NSP) for Tobacco Control 2015–2020 was structured in line with the MPOWER strategy, forming the basis for multidisciplinary agencies to control tobacco products in Malaysia.¹⁰ The second edition, the NSP for the Control of Tobacco and Smoking Products 2021–2030, was structured in parallel with the Non-Communicable Diseases Global Target by 2025, which comprises the key targets of reducing premature mortality, promoting healthy lifestyle and reducing risk factors, including tobacco use.⁴

The experts’ consensus of the Endgame for Tobacco and Tobacco Products by 2040 defines four main components of the tobacco endgame, which are smoking prevalence <5%, ending the commercial sale of tobacco products, de-normalising smoking culture and zero exposure to tobacco use to children.⁴ The first NSP implemented various strategies to prevent smoking initiation among children born in 2009 onwards.¹¹ A radical approach is planned for the second NSP, including the

gazettement and enforcement of the new Control of Tobacco and Smoking Act.⁴ Therefore, the Control of Smoking Products for Public Health Bill 2022 was tabled to parliament. The GEG policy prohibits the sale of tobacco products and smoking substances to persons born on 1 January 2007, onwards.

In Malaysia, bills will be drafted and vetted by the AGC before introducing to the parliament. In the parliament, the bill will undergo three readings. The first reading is a formal submission, followed by a detailed debate in the second reading. The bill then returns to the House of Representatives for the third reading and voting. If passed, it moves to the Senate, concludes with Royal Assent by the King, and is enforced on publication in the Government Gazette.⁸ On 30 November 2023, the revised Control of Smoking Products for Public Health Bill 2023, presented by the then Minister of Health (2022–2023), was passed by the parliament. In the bill, Clause 13 prohibits the sale or providing services of any tobacco products, smoking substance or substitute tobacco product to a minor. Clause 17 also prohibits any manners of consumption of tobacco products among minors. This was a compromise to the birth year cut-off proposed in the previous drafts of the GEG policy. The weakening of the clause was mainly due to the AGC’s statement that the GEG was ‘unconstitutional’ based on equal protection claims by allowing unequal treatment of those born pre- and post-1 January 2007.⁹ Those born post-1 January 2007 will thus be discriminated against, as only older people would still have access to

Timeline of the Generational End Game Policy in Malaysia

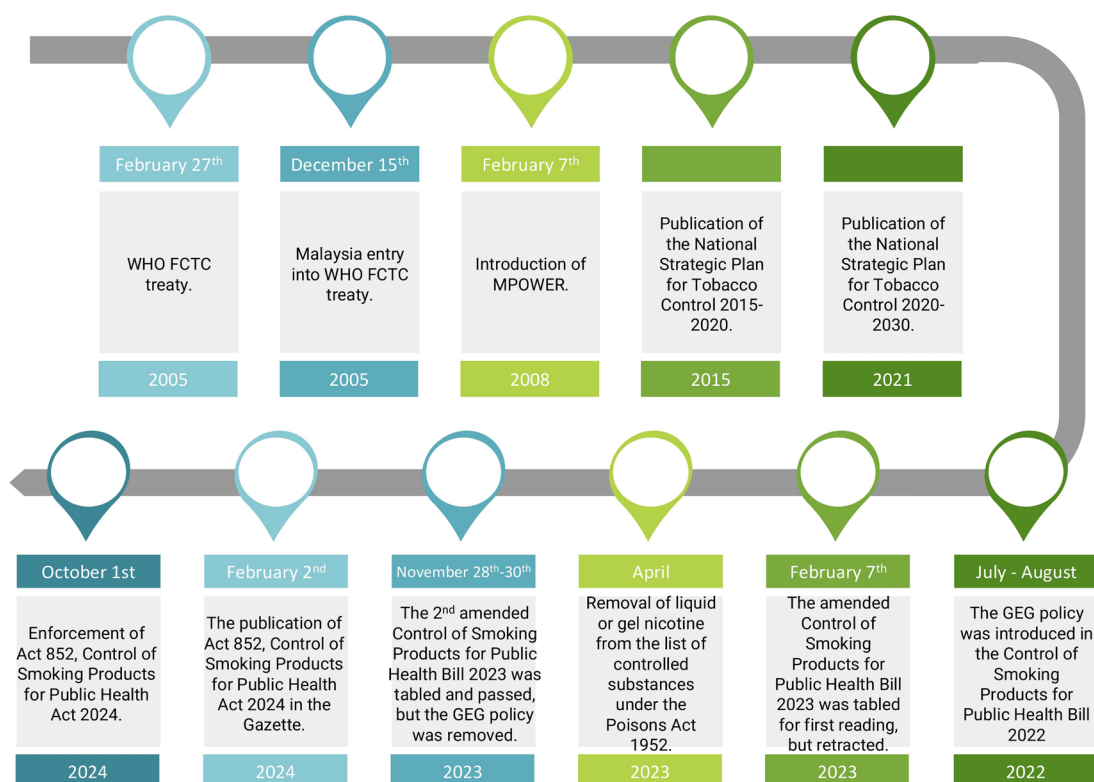


Figure 1 Chronology of the GEG policy in Malaysia. The timeline outlines significant milestones in Malaysia’s engagement with the WHO FCTC treaty, starting from its accession in 2005, the implementation of MPOWER in 2008, and the release of National Strategic Plans for Tobacco Control in 2015 and 2021. This is followed by the introduction of the GEG policy in the Control of Smoking Products for Public Health Bill 2022 and the subsequent changes made to the bill in 2023, including its retraction and revision. Malaysia’s strategic efforts in tobacco control and public health policy are shown by this trajectory. FCTC, Framework Convention on Tobacco Control; GEG, Generational Endgame.

tobacco products. **Figure 1** summarises the GEG policy timeline in Malaysia.

CHALLENGES IN THE IMPLEMENTATION OF THE GEG POLICY IN MALAYSIA

Proponents of the tobacco industry and affiliated front groups have raised several arguments against the GEG policy. They have challenged regulations through legal actions, exploited loopholes and funded biased research to sway policies, thus shifting public opinion.¹⁰ The following are some arguments put forward by the industry.

Net loss of tax revenue

The GEG policy could result in a net loss of tax revenue as it gradually reduces the number of users. Currently, Malaysia has not achieved a minimum 75% tobacco tax on the retail price recommended by the WHO.¹² Since 2015, the tobacco excise tax has remained at 0.40 Malaysian Ringgit (MYR) per stick. This is followed by the amendment of the Control of Tobacco Product Regulations 2004 to the minimum price of 12MYR for 20 sticks of cigarettes in 2020.¹³ Currently, the price of branded cigarettes can reach up to 17–18MYR. Malaysia's tobacco tax revenue approximately doubled in less than a decade, from US\$0.893 billion (2005) to US\$1.646 billion (2011).^{14 15}

In an interview, the former Minister of Health claimed the GEG policy may minimise three major smoking-related illnesses, saving an annual public healthcare cost of 8.8 billion MYR by 2030.¹⁵ However, Oxford Economics, funded by the British American Tobacco (Malaysia) Berhad (BATM), disputed this statement as misleading, claiming that (1) the policy will only address legal cigarette sales; (2) the age cohort accounts for a minority of the adults (about 11% by 2030 and 26% by 2040); (3) smoking-related health costs are skewed to older adults.¹⁶ By 2040, Malaysia is projected to suffer losses in gross domestic products (346 million MYR) and annual tax receipts (1.2 billion MYR) on the GEG implementation.¹⁶ Additionally, the Global Action to End Smoking Malaysia, funded by Phillip Morris International (PMI), reported a lower annual healthcare cost of 2.92 billion MYR for the three major smoking-related illnesses.¹⁴

The perception of the economic losses brought about by the GEG caused various government sectors to pull back from endorsing this policy based on the fear of the short-term loss in government revenue, as opposed to the long-term gain from protecting the health and well-being of Malaysian citizens.

Affects legal retailers, employees and business opportunities

The tobacco industry argued that the GEG may impact legal retailers by reducing the demand for tobacco products, leading to decreased sales, job losses and regression in the tobacco retail sector. They predict that the global e-cigarette market size will grow at a compound annual growth rate of 30.6% and potentially reach US\$182.84 billion by 2023.¹⁷ Oxford Economics, funded by BATM, alleged that the GEG might potentially hinder 'Bumiputera-owned businesses' (ie, the Malay and Indigenous people), as the e-cigarette businesses mainly involve Bumiputera entrepreneurs and employees.¹⁶ In 2040, approximately 2700 jobs will be affected in the formal economy.¹⁶ The three largest companies: BATM (62%), Japan Tobacco International (JTI) (22%) and PMI (13%), provide over 6000 employments. Following the popularity of e-cigarettes, JTI and BATM launched e-cigarette devices. According to The Malaysian Vape Chamber of Commerce, the Malaysian e-cigarette industry's retail value rose about 53%, from 2.27 billion MYR (2019) to

3.48 billion MYR (2023).¹⁸ The report also indicated a twofold increase in the workforce related to the e-cigarette industry, whereby 31 500 employees were employed, as compared with 15 000 in 2019.¹⁸

The Federation of Malaysian Manufacturers warned that the GEG may create a 'domino effect' toward the nation's economy, from unemployment, operational and legal business constraints, and ultimately deterring investors, as Malaysia's economic landscape will be perceived as 'restrictive'. The GEG establishes a precedent that may be applied to other industries for similar reasons.¹⁹ This argument will pose a challenge for the GEG through the perception that the GEG will create a loss for the tobacco industry and other industries built around it (ie, logistics, advertising and agricultural sectors). Therefore, stakeholders from the economic and financial sectors will actively oppose the GEG implementation for fear of their future survival.

However, the contribution of the tobacco industry towards employment is misleading. Their share in the total employment in Malaysia is insignificant at less than 1%.¹⁴ The industry's overly optimistic outlook and its claims of steady growth evidenced by the increasing value, number of businesses, demands and employees should be scrutinised. Even with a robust oversight mechanism to create a responsible marketplace for tobacco products, these products remain a substantial threat to public health.

Prohibition is ineffective against pleasure consumption

The policy brief by a commercial think-tank and consulting firm, The Center for Market Education, outlines strategies for harm reduction for 'pleasurable consumptions'.²⁰ In this brief, prohibition is arguably ineffective in curbing tobacco smoking, further comparing the GEG with the United States (US) Volstead Act (1919) to ban the manufacturing and sale of alcoholic beverages. Organised crime flourished, and illegal drinking establishments doubled compared with the saloons prior to the Volstead Act. Three-quarters of Americans consumed bootlegged alcohol because of the 10-fold price increase.²⁰

Despite the large number of organised crimes during the Prohibition era, historians reasoned that Prohibition was not responsible for its appearance. Within 10 years, the National Prohibition showed promising outcomes by nearly wiping out the breweries. Moreover, the production of 'near beer' used significantly lower amounts of malt, rice, hops and corn. In the late 1910s, death rates from cirrhosis, alcoholism, alcoholic psychosis and drunkenness arrests all declined. The flattening effect on per capita consumption continued even after the Eighteenth Amendment was repealed in 1933.²¹

Although the GEG does not recommend a ban on tobacco products, opponents of the policy have publicly promoted the misperception that it entails a blanket ban, which they argue would be ineffective against the public's preference for pleasure-driven tobacco consumption. This poses a significant challenge to the GEG implementation, as individuals determined to continue using tobacco products may resort to illicit markets driven by high domestic taxes, lax border enforcement and supply constraints, which diminish the benefits of trade openness.²² Due to the historical ambiguity, the potential outcomes of tobacco product prohibition remain debatable. Therefore, before prohibiting any substances, manufacturing conditions, illegal market values, potential for concealment, and impacts on users and society should be examined.²¹

Worsening the illegal tobacco trade

GEG may worsen the illegal tobacco trade by driving demand for cheaper alternatives as legal products become restricted. Malaysia has an extensive battle with the illicit tobacco market, which the tobacco industry estimated to be worsened due to tax increments. This threatens support for the GEG as its ineffectiveness may be compounded by a higher burden on law enforcement against the illicit tobacco trade. Malaysia imposes an excise rate of 0.40MYR/stick, with an additional 10% sales and service tax, and import tariffs of 0.20MYR/stick, amounting to 58.6% tax burden in percentage of retail price.¹³ Although it is lower than neighbouring countries, Nielsen reported that 55.3% of cigarettes gathered from a litter survey found in 2023 were illegal. This figure has remained consistent between 55.1% and 63.8% since 2018, despite ongoing anti-smuggling efforts and no tax increase on tobacco since 2015.²³

The tobacco industry is concerned that the GEG policy will push more individuals who smoke to buy illegal cigarettes, as it only targets the legal market. As a result, the policy may fail to address the needs of more than half of illicit cigarette consumers and a ban could worsen the crisis without reducing overall cigarette consumption.²⁴ If the illegal trade continues unchecked, about 1.2 billion illicit cigarettes could be sold annually in Malaysia by 2030.¹⁶

However, an independent study suggests that the Malaysian government's tax policies cannot be directly linked to the increasing levels of illicit tobacco trade, as the industry claims.²⁵ They proposed that the tax policies should be maintained while enhancing measures to combat illicit tobacco trade, including ratifying the Protocol to Eliminate Illicit Trade in Tobacco Products.²⁵ The protocol is a treaty aimed at eradicating illicit tobacco trade through international cooperation, including measures focused on licensing, tracking and tracing mechanisms.²⁶ However, Malaysia has not ratified the protocol, preventing its efforts to reduce the impact of tobacco on public health and strengthen regulatory frameworks against illicit trade.²⁷

GENERATIONAL BAN OF TOBACCO IN OTHER COUNTRIES

We examined case studies of GEG implementation in different nations, summarising the distinct strategies, obstacles, and results encountered. The subsections are arranged chronologically to provide a historical context of the policy's adoption and development (table 1).

WAY FORWARD

The GEG experienced limited implementation success internationally. In this section, the authors return our focus to the Malaysian setting by providing several justifications and recommendations to facilitate the implementation of the GEG in Malaysia, drawing from international experiences. While the arguments raised are specific to Malaysia, they hold broader applicability and serve as a case study for other countries facing similar challenges.

Constitutional compatibility

The notion of GEG being unconstitutional was rebuked by an AGC officer and legal advisor of the Ministry of Health Malaysia.²⁸ In the Hansard of a proceeding on 19 August 2022, he argued that the freedom to smoke is a personal choice rather than a constitutional right. The definition of 'life', as set forth in the constitution itself, is manifestly in contradiction with the detrimental effects of smoking. He defined 'life' as all facets that contribute to life's quality, encompassing the right to live

in a reasonably healthy and pollution-free environment. The GEG supports the principles of Article 5 (1) of the Federal Constitution.²⁹

He further reiterated that Article 8 of the Federal Constitution essentially requires that the same law should apply to individuals or groups in similar circumstances rather than requiring the law to apply uniformly to all individuals in all situations. In managing complex issues, the legislative body has the authority to make a 'reasonable classification' to establish that the law can be made for a specific group and that law should receive the same treatment for that specific group.²⁹ Thus, the authors stand by the statement that the GEG does not violate the individual's right to life, right to personal liberty and the right to equality, as guaranteed by Article 5 (1) and Article 8 of the Federal Constitution.

Policy appraisal and research

There is a need to conduct a comprehensive policy appraisal. The appraisal of social values evaluates the costs, benefits, risks and overall social welfare efficiency, but not limited to economic market efficiency. This helps to recognise the prospective effects, trade-offs and overall societal impact of the policy.³⁰ Policy's health impacts span between the quality and quantity of life, cost of health resources, risks and uncertainties.³¹

Furthermore, research and simulation modelling can also provide useful insights for health reform legislation by forecasting the potential effects of health reform proposals. In New Zealand, a study using the Markov model found that implementing retail tobacco de-nicotinisation, reduction of tobacco retail outlets and generational tobacco ban is projected to achieve <5% smoking prevalence by 2025 and 2027 for non-Māori and Māori individuals.³² Using an open-cohort microsimulation model, Singapore is expected to achieve an endgame target in about 20–39 years by implementing a very low nicotine cap with tobacco flavours ban.³³ Data from a simulation model of the Malaysians population may provide strong evidence to support the legislation of the generational tobacco ban and act as a precursor for the establishment of a data-driven monitoring and evaluation system of the GEG implementation.

Review of existing tobacco law

The authors advocate a comprehensive review of tobacco control laws and regulations to establish a robust legal foundation for the implementation of GEG. This entails steps to counteract interference from the tobacco industry, higher penalties for non-compliance and tougher enforcement procedures. Measures to control the illegal trafficking and smuggling of tobacco products must be intensified by ratifying the Protocol to Eliminate Illicit Trade in Tobacco Products by WHO, which promotes collaboration with law enforcement organisations, improving border controls and fostering international cooperation.²⁶ Strict actions must be taken to track and trace illegal tobacco products and penalise offenders for disrupting supply chains.

With hope for the future, the current Health Minister announced the enforcement of the Control of Smoking Products for Public Health Act 2024 (Act 852) in response to the surge in e-cigarette consumption in Malaysia. The Act, gazetted in February 2024, officially came into force on 1 October 2024. Prior to this, nicotinic e-cigarette products remained legal for sale to minors, following the removal of liquid or gel nicotine from the list of controlled substances under the Poisons Act 1952 by his predecessor.

Regulation of substitute nicotine goods

The demand for substitute nicotine goods, including e-cigarettes or heated tobacco products, is expected to rise due to the GEG

Table 1 Generational ban of tobacco in other countries

Country	Status (until October 2024)	Description
The Kingdom of Bhutan	Repealed in 2020	The Penal Code of Bhutan Act of 2004 banned the use of tobacco products in public areas and prohibited all sales of tobacco products, apart from imported tobacco products, only for personal use by individuals aged 18 and above. ³⁹ Although there is a marked decrease in the smoking prevalence after 5 years of enforcement, tobacco smuggling activities increased significantly. ⁴⁰ Amidst the COVID-19 pandemic, the act was repealed in fear of virus spread by tobacco smugglers. ⁴¹
The Republic of Philippines	Repealed in 2017	A popular case study for tobacco prohibition involved a city in the Philippines—Balanga City. ⁴² The initiative successfully banned tobacco products in all public areas and transportation in 2008, followed by various tobacco-free programmes. In 2010, the city council approved the Comprehensive No-Smoking Ordinance (CNSO) to classify existing anti-tobacco policies. Balanga City was also the first to introduce a generational ban on tobacco for those born after 2000 via the Tobacco-Free Generation campaign. In 2016, the city council expanded the smoking ban to cover a further 3 km radius, and the Smoke-Free Task Force was established to enforce the law and prosecute violators. ⁴² In response, in the year 2017, the Philippine Tobacco Institute (PTI), a trade association representing various tobacco companies in the Philippines, brought the Balanga City to court in view of the CNSO going beyond the provisions of the Philippines' 2003 Tobacco Act, age discrimination and interference to the industries' business. The court ruled in favour of PTI, and a further appeal was denied. ⁴²
Australia	Under consideration for South Australia in 2024	In 2012, The Tobacco Free Generation (TFG) policy was introduced in Tasmania by Hon Ivan Dean, an independent member of the Legislative Council, who proposed the motion to prevent tobacco sales to individuals born after the year 2000 and phase out tobacco sales while not penalising those who use tobacco products. The policy was referred to the Children's Commissioner for further evaluation. ⁴³ However, a change in government from Labour/Green government to the conservative Liberal Party in May 2014 halted the initial momentum. Additionally, the Children's Commissioner's report was released after the election; thus, the idea was sidelined. In November 2014, Hon Ivan Dean introduced the TFG policy as a Private Member's Bill. Yet, the TFG faced strong opposition from the tobacco industry, which criticised it as 'prohibition' and raised concerns about illicit markets. ⁴⁴ The TFG bill was referred to a Parliamentary Committee in 2015 and published its findings in 2016. The Committee concluded that although the bill posed no significant legal barriers, it raised concerns about its implications for age discrimination, online sales and tourism. The Liberal Party proposed instead to raise the legal smoking age to 21 or 25. However, there was minimal new tobacco control action from the government during its tenure. ⁴⁵ The 2018 bill to phase in and increase the minimum legal age of e-cigarettes and tobacco to 21 years was rejected by the Tasmanian Legislative Council on 23 March 2021. ⁴⁶ Building from the foundation set by Tasmania's earlier advocacy, South Australia recently introduced the Tobacco and E-Cigarette Products (Miscellaneous) Amendment Bill 2024 to prohibit the sale of tobacco to individuals born after 1 January 2007. While Tasmania's effort was hindered by political challenges, South Australia's approach shows the policy's potential to reduce smoking rates and health inequities, supported by evidence from Aotearoa/New Zealand. ⁴⁷
The Russian Federation	No updates available	Russia proposed a generational ban on tobacco products in 2017. The ban will be imposed among Russian citizens born after 2014. The measure was described as logical and gradual since it will be imposed on people who do not smoke rather than existing users. ⁴⁸ No updates are available on the proposal
New Zealand	Amended in February 2024	The Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Act 2022 made three prominent changes: (1) limiting the number of retail outlets allowed to sell tobacco products; (2) reducing nicotine level in tobacco products; and (3) outlawing the sale of tobacco products to those born on 1 January 2009 or later. ⁴⁹ The bill was passed in December 2022, marking it as the first national annual rising legal smoking age internationally. ⁵⁰ However, on 27 February 2024, the new coalition government introduced an Amendment Bill to repeal the prior legislation arguing that the previous government's decision to override the existing smoking cessation initiatives with an unverified regime via a prohibitionist approach may be detrimental. ⁵¹ During the first reading of the Smokefree Environments and Regulated Products Amendment Bill, the past interventions were projected to achieve the headline smoke-free goal and reduce the percentage of people who smoke daily to below 5% by 2025 without additional measures. A continuation of effective, targeted smoking cessation services and marketing campaigns, while using e-cigarettes as a cessation tool for harm reduction was proposed. ⁵²
UK	Shelved since April 2024	In October 2023, the GEG was introduced which will criminalise individuals selling tobacco products if they are born after 1 January 2009. Additionally, the bill proposed restrictions on the sales of e-cigarettes and regulation of their packaging and flavouring. ⁵³ On 16 April 2024, UK lawmakers approved the progressive restriction on tobacco sales to individuals born after 1 January 2009, raising the legal age of tobacco purchase annually. Before a final legislative vote, the proposed legislation will now be reviewed by a committee and amended as necessary to be put to a final vote in the House of Lords. ⁵⁴ However, on the announcement of a general election scheduled for 4 July 2024, the bill was not included in the legislative measures expedited prior to the parliament dissolution and has been shelved for the current being. ⁵⁵

Continued

Table 1 Continued

Country	Status (until October 2024)	Description
USA	Remain enforced since March 2024	On 8 March 2024, the Massachusetts Supreme Judicial Court upheld the Tobacco-Free Generation (TFG) law in Brookline which bans the sale of tobacco products to anyone born 1 January 2000, onwards. The TFG law forbids only commercial sales, not the purchase, possession or use of tobacco; hence, smoking itself is not criminalised. ⁵⁶ The generational ban limits sales to individuals born in this century but allows sales to those born earlier. Tobacco retailers are the focus of Brookline's efforts to decrease teenage smoking role models and de-normalise smoking. ⁵⁷ The TFG law was first passed on 17 November 2020. Despite the state attorney general's consent, several Brookline tobacco dealers filed a lawsuit claiming that the law is pre-empted by state law and it discriminates against anyone born after 1 January 2000, thus violating the equal protection clause of the Massachusetts Constitution. However, the Town dismissed the complaint and implemented the TFG law, remaining in force during litigation ⁵⁷

implementation. This is evident by the inverse trend of conventional and e-cigarette use.^{2 3} Regulating these alternatives is urgent to avoid these alternatives being used as a gateway to tobacco and other illicit drug consumption.³⁴

Currently, e-cigarettes are also promoted as a harm-reduction strategy to minimise the negative health impacts of tobacco smoking. Australia adopted a harm reduction strategy, a prescription-only regulatory model for nicotine vaping products (NVPs), in October 2021. With this model, NVPs that fulfil a product standard can be accessed by individuals struggling with nicotine addiction without needing to be approved as therapeutic goods. Nonetheless, there is still lacking evidence of the feasibility of this regulatory model, necessitating continued research.³⁵ Therefore, the authors underscore the need for cautious and gradual regulation of substitute nicotine goods rather than endorsement as a harm reduction tool. Ultimately, our goal should be to reduce nicotine addiction and dependency, ensuring that future generations are protected from the harm of any smoking products.

Multisectoral collaboration and support

The implementation of the GEG to establish a smoke-free generation should be a shared goal among politicians, non-governmental organisations, health activists, healthcare providers, communities and relevant stakeholders rather than being treated as a partisan agenda. The challenges faced during the GEG implementation in Malaysia, New Zealand and the UK demonstrated the consequences of a fragmented approach whereby political differences lead to inconsistencies in policy adoption.

Additionally, public awareness efforts are necessary to inform the community about the dangers of tobacco use, the advantages of a smoke-free society and the specific provisions of the GEG. Studies on local stakeholders' support are crucial in the policy implementation. An online survey by CodeBlue-Galen found that 95% of respondents supported the implementation of generational tobacco ban in Malaysia. Among the 676 respondents, 90.3% of respondents who smoke cigarettes (n=103) and 92.3% using e-cigarettes (n=142) supported this idea. Adolescents (n=43) constituted 21% who smoke daily and 35% who use e-cigarettes fully supported the GEG.³⁶

Additionally, New Zealand investigated the support among Māori individuals who smoke cigarettes or have recently quit on the Smokefree New Zealand 2025 goals and measures, which revealed immense support. Roughly 78% of respondents strongly support the proposal of an annual increase in the minimum age of purchase for tobacco products, leading to tobacco-free generation.³⁷ Another national survey in Aotearoa/New Zealand involving youths found that the majority were aware of the smoke-free generation policy, receiving strong support, with 79% of participants in

favour, including nearly two-thirds of youth and three-quarters of young adults who smoke, indicating positive reception.³⁸ By fostering shared commitment between the stakeholders and the community, the GEG may be effectively executed and maintained through shifting political dynamics.

CONCLUSION

The success of the GEG hinges on several recommendations. First, clarifying constitutional compatibility is essential. Before implementation, comprehensive policy appraisal coupled with research using simulation models by independent entities, with no interference from tobacco industries, can provide insights into health reform proposals. A thorough review of existing tobacco laws is crucial to establish a robust legal framework to support the implementation of the GEG. Following the emergence of new smoking products, gradual regulation is necessary. But the goal remains similar, which is the prohibition of all smoking products. The GEG relies on the seamless collaboration between stakeholders and the tobacco control community, per the WHO FCTC, to ensure its sustainability. Moving forward, these recommendations may lead to a successful implementation of the GEG, achieving the tobacco endgame aspiration via the smoke-free generation, thus upholding SDG 3.

X Picholas Kian Ann Phoa @pkaphoa

Collaborators Not applicable.

Contributors Conceptualisation: LHW, YHW; writing – original draft: PKAP; writing – review and editing: LHW, YHW, SSC, MHCC, HNMM, CD; visualisation: PKAP; funding acquisition: LHW, YHW, CD. AI used: ChatGPT by OpenAI. Reason for use: 1. To enhance clarity and coherence. 2. To improve grammatical accuracy. Tasks Performed: 1. Paraphrasing text. 2. Suggesting alternative phrasings and vocabulary. The outputs generated by ChatGPT were thoroughly reviewed and edited by the authors to ensure accuracy and alignment with the research objectives and ethical standards of the journal.

Funding This study was funded by the Fundamental Research Grant Scheme (Grant no.: FRGS/1/2023/SKK06/TAYLOR/01/2) by the Ministry of Higher Education Malaysia.

Disclaimer The authors alone are accountable for the content which does not necessarily reflect the official view of any of the affiliated institutions.

Competing interests No, there are no competing interests.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

ORCID iDs

Picholas Kian Ann Phoa <http://orcid.org/0000-0002-6538-379X>
Ching Sin Siau <http://orcid.org/0000-0001-7612-6839>

REFERENCES

- 1 The tobacco atlas. 2024.

- 2 Institute for public health. In: *Technical Report National Health and Morbidity Survey (NHMS) 2022: Adolescent Health Survey*. Malaysia: Shah Alam, 2022.
- 3 Institute for public health. In: *National Health and Morbidity Survey (NHMS) 2023: Non-Communicable Diseases and Healthcare Demand*. Selangor, 2024.
- 4 Ministry of Health Malaysia. National strategic plan for the control of tobacco & smoking products 2021–2030. 2021.
- 5 Berrick AJ. The tobacco-free generation proposal. *Tob Control* 2013;22 Suppl 1:i22–6.
- 6 McDaniel PA, Smith EA, Malone RE. The tobacco endgame: a qualitative review and synthesis. *Tob Control* 2016;25:594–604.
- 7 Bunyan J. Khairy says 'congratulations' to big tobacco, vape industry after health ministry tables anti-smoking law minus geg clause. 2023. Available: <https://www.malaymail.com/news/malaysia/2023/11/28/khairy-says-congratulations-to-big-tobacco-vape-industry-after-health-ministry-tables-anti-smoking-law-minus-geg-clause/104648>
- 8 Nachmany M, Fankhauser S, Davidová J, et al. The 2015 global climate legislation study: a review of climate change legislation in 99 countries: summary for policy-makers. 2015.
- 9 Attorney General's Chambers. Attorney General's Chambers Malaysia. Press statement - menjawab kenyataan media yang dikeluarkan oleh khairy jamaluddin yang disiarkan dalam portal codeblue bertarikh. dan Portal New Straits Times Beritak; 2023. Available: <https://agc.gov.my/agcportal/frontend/web/index.php?r=portal%2Flist-artic&menu=eHE4K2hHeDRKS3RQWXRnVUwWGYzZ09&page=18&per-page=10>
- 10 Southeast Asia Tobacco Control Alliance. Tobacco industry front groups, think tanks, and lobby groups. n.d. Available: <https://timonitor.seatca.org/front-groups-think-tanks-and-lobby-groups/>
- 11 Ministry of Health Malaysia. Pelan strategik kebangsaan bagi kawalan tembakau 2015 - 2020. 2015. Available: https://www.moh.gov.my/moh/resources/Penerbitan/Rujukan/NSP_Tobacco_buku_bind_24oct2015.pdf
- 12 World Health Organization. WHO report on the global tobacco epidemic, 2019: offer help to quit tobacco use. 2019.
- 13 Southeast Asia Tobacco Control Alliance. SEATCA tobacco tax index: implementation of who framework convention of tobacco control article 6 in asean countries. Bangkok, 2021.
- 14 The Foundation for a Smoke-Free World Inc. Malaysia country report. 2022.
- 15 Povera A, New Straits Times Press (M) Bhd. Two million will die if geg bill not passed. 2022. Available: <https://www.nst.com.my/news/nation/2022/07/817863/two-million-will-die-if-geg-bill-not-passed>
- 16 Oxford Economics. *An Assessment of Malaysia's "Generational Endgame" Policy: An Independent Report by Oxford Economics*. 2023.
- 17 Grand View Research. E-cigarette and vape market size, share & trends analysis report by distribution channel, by product (disposable, rechargeable, modular devices), by category, by region, and segment forecasts, 2024 - 2030. California, 2023.
- 18 Malaysian Vape Chamber of Commerce. The Malaysian vape industry study 2023. 2023.
- 19 Federation of Malaysian Manufacturer. FMM warns of 'domino effect' of geg bill. 2022. Available: https://www.fmm.org.my/FMM_In-The_News-@FMM_warns_of_'domino_effect-apos-_of_GEG_bill.aspx
- 20 Carmelo Ferlito. Toward a science-based strategy to harm reduction: a theoretical introduction. 2023.
- 21 Blocker JS. Did prohibition really work? Alcohol prohibition as a public health innovation. *Am J Public Health* 2006;96:233–43.
- 22 Amirullah A, Fazira A, Salman A. *Illicit Trade in Malaysia: Causes & Consequences*. Kuala Lumpur, 2017.
- 23 Nielsen O. Illicit cigarettes study (ics) in malaysia, may 2023 report. 2023.
- 24 Kang SL, The Edge Communications Sdn. Bhd. Big win' for big tobacco as geg goes up in smoke; new law regulating vape products introduced. 2023. Available: <https://theedgemaalaysia.com/node/692675>
- 25 Koya RK, Branstion JR, Gallagher AWA. Measuring Malaysia's Illicit Tobacco Trade: An Excise Tax Gap Analysis. *J Illicit Econ Dev* 2022;4:58.
- 26 World Health Organization. Protocol to eliminate illicit trade in tobacco products. Geneva, 2013.
- 27 United Nations Treaty Collection. Status of treaties: chapter ix health, 4.a protocol to eliminate illicit trade in tobacco products. 2024. Available: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtsg_no=IX-4-a&chapter=9&clang=_en
- 28 CodeBlue. With hansard, khairy proves agc affirmed tobacco geg is constitutional. 2023. Available: <https://codeblue.galencentre.org/2023/11/21/with-hansard-khairy-proves-agc-affirmed-tobacco-geg-is-constitutional/>
- 29 The Parliament of Malaysia. Jawatankuasa pilihan khas menimbang rang undang-undang kawalan produk tembakau dan merokok. 2022. Available: <https://www.parlimen.gov.my/ipms/eps/2022-10-05/DR.16.2022%20-%20DR%2016.2022.pdf>
- 30 His majesty's treasury. In: *The Green Book: Central Government Guidance on Appraisal and Evaluation*. London: Open Government License, 2022.
- 31 Department of health. In: *Policy Appraisal and Health*. 2004.
- 32 Ouakrim DA, Wilson T, Waa A, et al. Tobacco endgame intervention impacts on health gains and māori:non-māori health inequity: a simulation study of the aotearoa-new zealand tobacco action plan. *Public and Global Health* [Preprint] 2023.
- 33 Zeng Z, Cook AR, van der Eijk Y. What measures are needed to achieve a tobacco endgame target? A Singapore-based simulation study. *Tob Control* 2024;33:745–51.
- 34 Chen G, Rahman S, Lutfy K. E-cigarettes may serve as a gateway to conventional cigarettes and other addictive drugs. *Adv Drug Alcohol Res* 2023;3:11345.
- 35 Morphet K, Holland A, Ward S, et al. Evaluating the implementation of a prescription only regulatory model for nicotine vaping products: A qualitative study on the experiences and views of healthcare professionals. *Int J Drug Policy* 2024;125:104353.
- 36 Zainuddin A, CodeBlue. Survey: 95% support generation smoking ban, including smokers. 2022. Available: <https://codeblue.galencentre.org/2022/02/25/survey-95-support-generation-smoking-ban-including-smokers/#:~:text=By%20Alifah%20Zainuddin%20%7C%20%25%20February%202022&text=KUALA%20LUMPUR%2C%20Feb%20%25%20-%20A,generation%20smoking%20ban%2C%20including%20smokers>
- 37 Edwards R, Johnson E, Stanley J, et al. Support for New Zealand's Smokefree 2025 goal and key measures to achieve it: findings from the ITC New Zealand Survey. *Aust N Z J Public Health* 2021;45:554–61.
- 38 Hammond D, Reid JL, Ball J, et al. Support and perceived impact of key smokefree policies in aotearoa/new zealand: findings from the itc youth & young adult survey. 2023.
- 39 Tobacco Control Laws. Legislation by country/jurisdiction: bhutan. 2020. Available: <https://www.tobaccocontrolaws.org/legislation/bhutan>
- 40 Givel MS. History of Bhutan's prohibition of cigarettes: implications for neo-prohibitionists and their critics. *Int J Drug Policy* 2011;22:306–10.
- 41 Dyer O. New Zealand's new government says it will repeal groundbreaking anti-smoking law. *BMJ* 2023;p2814.
- 42 World Health Organization. Creating a smoke-free city - balanga city, the philippines. 2021. Available: <https://www.who.int/news-room/feature-stories/detail/creating-a-smoke-free-city-balanga-city-the-philippines>
- 43 Barnsley K, BMJ. Tobacco Control. Tasmania: leading the way towards an endgame for smoking. 2012. Available: <https://blogs.bmj.com/tc/2012/09/28/tasmania-leading-the-way-towards-an-endgame/>
- 44 Barnsley K, BMJ Blogs. Tobacco Control. Tasmania: legislation drafted to implement a tobacco free generation. 2014. Available: <https://blogs.bmj.com/tc/2014/11/04/tasmania-legislation-drafted-to-implement-a-tobacco-free-generation/>
- 45 Barnsley K, BMJ Blogs. Tobacco Control. Australia: progress on tasmania's tobacco free generation legislation. 2016. Available: <https://blogs.bmj.com/tc/2016/07/15/australia-progress-on-tasmanias-tobacco-free-generation-legislation/>
- 46 Barnsley K, BMJ Blogs. Tobacco Control. Australia: big tobacco wins in defeat of t21 age bill. 2021. Available: <https://blogs.bmj.com/tc/2021/04/02/australia-big-tobacco-wins-in-defeat-of-t21-age-bill/>
- 47 Evans-Reeves K, BMJ Blogs. Tobacco Control. 'Lifeline for a young, healthy generation': south australia considers tobacco-free generation age restrictions on product sales. 2024. Available: <https://blogs.bmj.com/tc/2024/10/02/lifeline-for-a-young-healthy-generation-south-australia-considers-tobacco-free-generation-age-restrictions-on-product-sales/>
- 48 Dyer O. Russia plans to ban tobacco sales to all citizens born after 2014. *BMJ* 2017;j252.
- 49 Ministry of Health New Zealand. Smokefree environments and regulated products (smoked tobacco) amendment regulations. 2024. Available: <https://www.health.govt.nz/our-work/regulation-health-and-disability-system/smoked-tobacco-products/smokefree-environments-and-regulated-products-smoked-tobacco-amendment-act>
- 50 McClure T. New Zealand to ban smoking for next generation in bid to outlaw habit by 2025. Available: <https://www.theguardian.com/world/2021/dec/09/new-zealand-to-ban-smoking-for-next-generation-in-bid-to-outlaw-habit-by-2025>
- 51 Costello C, Beehive.govt.nz. Smokefree amendment bill introduced. 2024. Available: <https://www.beehive.govt.nz/release/smokefree-amendment-bill-introduced>
- 52 New Zealand Parliament. Smokefree environments and regulated products amendment bill - first reading. 2024. Available: https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb_20240227_20240228_16
- 53 Department of Health & Social Care United Kingdom. Policy paper: stopping the start: our new plan to create a smokefree generation. n.d. Available: <https://www.gov.uk/government/publications/stopping-the-start-our-new-plan-to-create-a-smokefree-generation/stopping-the-start-our-new-plan-to-create-a-smokefree-generation>
- 54 Stawiska Z, Health Policy Watch. United kingdom pushes ahead with 'smoke-free generation' tobacco law. 2024. Available: <https://healthpolicy-watch.news/uk-pushes-ahead-with-smoke-free-generation-tobacco-regulations/>
- 55 Tobacco Tactics. University of Bath. Tobacco industry interference with endgame policies. 2024. Available: <https://www.tobaccotactics.org/article/tobacco-industry-interference-with-endgame-policies/>
- 56 Manning M, Action on Smoking & Health. Massachusetts supreme judicial court upholds tobacco-free generation law. 2024. Available: <https://ash.org/massachusetts-supreme-court-upholds-tobacco-free-generation-law/>
- 57 Berrick J, Bostic C, Chou M, et al. Brookline introduces tobacco-free generation law. 2022. Available: <https://blogs.bmj.com/tc/2022/01/29/brookline-introduces-tobacco-free-generation-law/>