

E-CIGARETTES: Policy Guidance

The introduction of e-cigarettes (also known as Electronic Nicotine Delivery Systems (ENDS)) in countries around the world poses challenges to governments wanting to protect youth and reduce tobacco use and nicotine addiction. E-cigarettes are addictive nicotine products whose use carries health risks to individuals in the short term, and the health effects of long-term use remain unknown.^{1,2,3} E-cigarettes are heavily marketed to young people as lifestyle products⁴

Although e-cigarettes may have health benefits to individual smokers if they help those smokers quit smoking completely,⁵ their availability is harmful to public health if they:

- Lead to more young people or non-users initiating nicotine and/or tobacco use,
- Renormalize tobacco use,
- Promote dual use, or
- Discourage smokers from quitting.

Any assessment of the health risks of e-cigarettes must consider the impact on the population as a whole, not only on individual smokers.

In the absence of effective government regulation, e-cigarettes could create a new generation of nicotine and tobacco users and undermine the progress made in combating the tobacco epidemic.

Governments should select and effectively enforce one of three regulatory options:

- Ban the sale of e-cigarettes entirely
- Regulate e-cigarettes as medicinal/pharmaceutical products
- Regulate e-cigarettes by strictly applying measures that align with the WHO Framework Convention on Tobacco Control (WHO FCTC)

E-Cigarettes and the WHO FCTC

The World Health Organization (WHO) has concluded that e-cigarettes are “harmful” and that countries that have not banned the sale of e-cigarettes should ensure that “their tobacco control laws and regulations are comprehensive enough to regulate all forms of novel and emerging nicotine and tobacco products.”⁴ This is consistent with the general obligations of the WHO FCTC, which require Parties to the Convention to implement measures for preventing and reducing nicotine addiction, in accordance with their capabilities.⁶

This resource sets out a three-step process to assist governments in determining which regulatory option fits their country circumstances while prioritizing public health considerations:

1 PURSUE PUBLIC HEALTH POLICY GOALS

The public health policy goals for any government regulating e-cigarettes should be to:

- 1.1 Prevent e-cigarette use, particularly among youth and non-tobacco and/or nicotine users
- 1.2 Minimize potential health risks to e-cigarette users and non-users
- 1.3 Prevent e-cigarettes from undermining progress in preventing and reducing tobacco consumption and nicotine addiction
- 1.4 Protect public health policy from the commercial interests of the tobacco and e-cigarette industries
- 1.5 Assist smokers to quit and avoid use of multiple tobacco and nicotine products

2 ASSESS COUNTRY-SPECIFIC CIRCUMSTANCES

- 2.1 Existing product market
- 2.2 Existing tobacco control measures
- 2.3 Trends in smoking rates
- 2.4 Government capacity and resources, including regulatory infrastructure

3 SELECT REGULATORY OPTION

- 3.1 Complete sales ban
- 3.2 Regulate as medicinal/pharmaceutical products
- 3.3 Regulate strictly applying measures that align with the WHO FCTC

1. Pursue Public Health Policy Goals

The reasons and evidence supporting the public health policy goals are set out below. For more details on the evidence, see [E-Cigarettes: Evidence and Health Harms](#).

1.1 Prevent e-cigarette use by non-smokers, particularly youth

Children and young people are using e-cigarettes at high rates.

- According to WHO, national school-based surveys estimate that at least 15 million children aged 13–15 years use e-cigarettes, and that prevalence estimates from countries with survey data indicate that children are on average nine times more likely to use e-cigarettes than adults.⁷
- Many countries, including the United States, Canada, England, and several European countries, have also experienced high levels of e-cigarette use by young people.^{8–12} In the United States and Canada, e-cigarettes are the most commonly used tobacco or nicotine product among youth aged 16–19.¹² In Canada, 5.8% of youth aged 12–17 reported using an e-cigarette in the past 30 days in 2024 compared to 7.2% in 2023.¹³ In the UK, current e-cigarette use has increased from 2021 to 2024 among youth aged 16–17 (5.9%, 14%) and aged 18 (9.5%, 17%).¹⁴

E-cigarette use by non-smokers is associated with subsequent tobacco use.

- Across nine countries/jurisdictions, including the United Kingdom, the United States, and Canada, there is concerning evidence that shows non-smokers who use e-cigarettes are three times as likely to go on to smoke conventional cigarettes.³

Marketing and sales practices target youth and non-tobacco and nicotine users.

- Youth use of e-cigarettes is impacted by several factors, including industry marketing, product design, nicotine delivery, flavorings, and the nature and extent of government regulation.
- E-cigarette marketing follows the tobacco industry's playbook to reach young people, including promotions via music festivals and social media channels.^{4,15,16}
- Despite claiming to market e-cigarettes to adult smokers only, tobacco companies use a set of strategies designed to maximize the reach of their e-cigarette marketing on social media, which reaches young people and non-users of tobacco and nicotine products.¹⁷
- Market trends show an increase in the sale of e-cigarettes that deliver high levels of nicotine more efficiently and with less irritation, making it easier for young people to begin using them and become addicted.²
- The industry targets youth with sweet and fruit-flavored products. Research shows adolescents consider flavor as an important factor when trying e-cigarettes and are more likely to initiate e-cigarette use with flavored products.^{4,18}

1.2 Minimize potential health risks to e-cigarette users and non-users

E-cigarette use carries health risks.²

- Although e-cigarette emissions have been shown to contain markedly lower levels of harmful constituents as compared to conventional cigarette smoke,¹ emissions still can contain toxins such as acrolein and diethylene glycol, acetaldehyde and formaldehyde (known carcinogens), and heavy metals such as nickel, tin, and lead.¹⁹
- Use of e-cigarettes may increase the heart rate, increase blood pressure, and harm lung health.⁴
- Short-term use of e-cigarettes is associated

with health harms such as addiction, dual use with cigarette smoking, acute nicotine toxicity, an increase in heart rate and blood pressure, and damage to DNA and the respiratory system.^{1,3}

- E-cigarettes are evolving rapidly, and a wide variety of products are currently available with differing nicotine concentrations, e-liquid contents, and device features, which makes it difficult to assess health harms across the entire category of e-cigarettes.²⁰
- The long-term health impacts of e-cigarette use are not yet clear.³

E-cigarettes release nicotine and other chemicals into the air.

- Although the health effects from exposure to secondhand emissions from e-cigarettes are not fully understood, the levels of particulate matter and potential carcinogens in second-hand aerosols exceed the maximum levels set out by the WHO daily mean standards for air quality.^{4,21}

1.3 Prevent e-cigarettes from undermining progress in preventing and reducing tobacco consumption and nicotine addiction

The availability of e-cigarettes will impact:

Youth initiation

- At a time when many countries are seeing significant reductions in youth tobacco use, e-cigarettes are creating a new generation of nicotine-dependent young people and undermining progress in reducing overall youth tobacco use. In countries like Canada, England, and the United States, e-cigarette use remains a serious public health concern given the uncertain long-term health effects of use and concerns between e-cigarette use and subsequent use of conventional cigarettes.^{9,11,12,24}
- There is concern that e-cigarette use increases the risk of conventional cigarette smoking initiation among youth and non-smokers.^{1,3,25}

Nicotine in any form is harmful and addictive for young people.

- Youth use of nicotine in any form, including e-cigarettes, is unsafe. Nicotine is a highly addictive drug and can harm adolescent brain development, particularly the parts of the brain responsible for attention, memory, and learning.^{22,23}

Renormalization of smoking behavior

- Public health researchers have raised concerns that e-cigarette use will renormalize smoking behaviors.^{26,27}
- Industry marketing practices explicitly include renormalizing nicotine consumption and depicting recreational use of e-cigarettes, including use in indoor venues.²⁸

Relapse of former smokers and discouraging quit attempts

- The use of e-cigarettes is associated with a significant increased risk of cigarette smoking relapse among former smokers who have successfully quit.²⁹
- E-cigarettes may discourage smokers from fully quitting smoking and prolong dual use of conventional cigarettes and e-cigarettes.³⁰

1.4 Protect public health policy from the commercial interests of the tobacco and e-cigarette industries

The industry has a profit motive.

- E-cigarette manufacturers have a profit motive, not a public health motive. Their primary goal is to sell as many products as possible and maintain or grow their customer base.

E-cigarettes are part of the tobacco industry's new global strategy.

- Multinational tobacco companies have made significant investments in the global e-cigarette market.^{31,32} These investments can be interpreted as a strategic business decision to compensate for a shrinking customer base — global cigarette consumption steadily declined from 2012 until around 2020.

While recent projections indicate cigarette consumption may resume increasing over the next five years, tobacco companies will likely remain invested in the global e-cigarette market as the potential growth appears gradual and will not approach historical levels in the near future.³³

- Tobacco industry investments in the e-cigarette market raise serious concerns given the industry's history of targeting youth, deceiving the public about the deadly consequences of using tobacco products and the addictiveness of nicotine, and fighting against proven tobacco control measures.³⁴

- In promoting their e-cigarettes, the largest publicly traded global cigarette makers have made claims that they want a ‘smoke-free future’ (PMI)³⁵ or ‘a better tomorrow’ (BAT)³⁶ despite continuing to sell billions of conventional cigarettes worldwide, which makes up most of their net revenues.^{37,38}

The industry lobbies governments and policymakers to seek favorable e-cigarette regulation.

- E-cigarette manufacturers, including the major tobacco companies, are spending millions of

dollars on lobbying lawmakers and regulators in countries around the world to seek favorable e-cigarette regulation.^{39,40,41}

Research reaches different conclusions depending on funding.

- Like research funded by cigarette companies, research funded by e-cigarette interests favors their products, whereas studies not funded by e-cigarette interests found potentially harmful effects of e-cigarettes.⁴²

1.5 Assist smokers to quit and avoid use of multiple tobacco and nicotine products

There is inadequate evidence on the use of e-cigarettes as smoking cessation aids.

- In 2023, WHO reported that, “e-cigarettes as used in the real-world, have not been proven to be effective for smoking cessation at the population level.”¹⁸
- According to a 2020 US Surgeon General report, use of e-cigarettes could have potential benefits to current adult smokers who transition completely, but the continually changing and diverse nature of e-cigarettes makes it difficult to generalize about the efficacy of cessation based on clinical trials of specific products.²
- While some individual studies and reviews, including Cochrane reviews,⁴³ have found e-cigarettes may help smokers switch from conventional cigarettes, comprehensive reviews by leading health authorities have found the overall evidence inconclusive.
- The US Surgeon General’s Report on Cessation,² the WHO’s Report on the Global Tobacco Epidemic,⁴ and the European Union’s Scientific Committee on Health, Environmental and Emerging Risks⁴⁴ have concluded that there is inadequate evidence to infer that using e-cigarettes increases the success of smoking cessation.
- The Australian National University’s National Centre for Epidemiology and Population Health (NCEPH) also concluded there is limited evidence that e-cigarettes are an effective aid for cessation. Use of such products by smokers trying to quit is more likely to lead to greater long-term exposure to nicotine, compared to other cessation measures.^{3,24}

- To date, there is no e-cigarette on the market anywhere in the world that has been medically licensed and sold as a smoking cessation product.

Dual use of e-cigarettes and conventional cigarettes is common and a concerning pattern among users.

- Smokers who continue to smoke, even if they smoke fewer conventional cigarettes per day, and also use e-cigarettes (dual use) do not reduce their exposure to harmful toxicants¹³ and will increase their individual risk if this delays or prevents cessation.⁴⁵
- Several countries report a high level of dual use of e-cigarettes and conventional cigarettes.^{46,47,48} The NCEPH states that “[t]he most common pattern of e-cigarette use in many countries, including Australia, is dual tobacco smoking and e-cigarette use.”³
- Data from Global Youth Tobacco Surveys from 2014-2019 indicate that dual use of e-cigarettes and conventional cigarettes among youth was greater than 5% in 15 countries and highest in Poland (14%), Italy (10%), Latvia (8.6%), and Indonesia (8.5%).^{49,50}

2. Assess Country-Specific Circumstances

Several factors should be considered by governments when determining the best way to regulate e-cigarettes given the unique situation in each country. *However, no single factor will dictate the best regulatory option. Instead, the circumstances must be considered together to determine the soundest policy approach.*

2.1 Existing product market

Whether there is an existing market for e-cigarettes is a factor in determining how to regulate these products.

Limited or small market in e-cigarettes:

Governments should consider banning their sale or regulating them as medicinal products before the products become established in the population. If a government chooses to go this route, it must act quickly to enforce its measures, as a ban may no longer be feasible once a market is established.

Significant or well-established legal adult market in e-cigarettes:

Governments should consider strict regulation and enforcement using supply and demand reduction measures that align with the WHO FCTC rather than a sales ban or medicinal regulation. If there is already a well-established legal adult market for e-cigarettes, a ban might be impractical and potentially raise concerns about creating an illicit market.

2.2 Existing tobacco control measures

Fully implementing WHO FCTC measures and giving them time to produce results is the most effective approach for preventing and reducing tobacco use and nicotine addiction. These proven policies encourage and assist people to quit tobacco use while also preventing initiation of the use of tobacco and/or nicotine products.

Comprehensive WHO FCTC measures regulating tobacco products have not yet been fully implemented, or more time is needed for measures to take effect:

Governments should consider banning e-cigarettes or regulating them as medicinal products. This would allow time to maximize the number of people who quit tobacco use completely while avoiding the risk of creating a new generation addicted to nicotine and preventing the other health risks associated with e-cigarette use. In addition, if e-cigarettes were allowed onto the market and subsequently regulated under the less-than-comprehensive WHO FCTC measures in place for tobacco products, the industry would be able to market e-cigarettes in a way that is attractive to non-tobacco and/or nicotine users, particularly youth.

Comprehensive WHO FCTC measures have been fully implemented for tobacco products, with time given for them to take effect:

Governments could consider strictly regulating e-cigarettes using effective tobacco control measures. This approach would allow e-cigarettes to be available to those adult smokers who are nicotine dependent while minimizing the risk of non-tobacco and/or nicotine users, particularly youth, being attracted to them via marketing, product design, or social norms.

2.3 Trends in smoking rates

Trends in smoking rates should be taken into account to prevent e-cigarettes from undermining progress in preventing and reducing tobacco consumption and nicotine addiction.

Smoking rates are falling as a result of comprehensive WHO FCTC measures: Governments should consider a ban on e-cigarettes to allow as many people as possible to quit as a result of evidence-based tobacco control strategies. Allowing e-cigarettes onto the market may undermine that progress. Alternatively, governments could consider regulating them as medicinal products, which would make approved products available to adult smokers who cannot otherwise quit while keeping them out of the hands of young people and non-tobacco and/or nicotine users.

Smoking rates have declined in all segments of the population (e.g., youth, vulnerable communities) following the implementation of comprehensive WHO FCTC measures, but the decline

has stalled: If there are indications that e-cigarettes would assist the remaining adult smokers to quit, governments could consider allowing the sale of e-cigarettes, strictly regulated using effective tobacco control measures. However, the benefit to adult smokers who may quit smoking using e-cigarettes would need to be weighed against concerns that young people and non-tobacco and/or nicotine users may be attracted to and begin to use e-cigarettes, and that existing adult smokers may start to use e-cigarettes as well and delay quit attempts.

In addition to the above, it is important to understand tobacco and nicotine use prevalence broadly and, in particular, youth use.

2.4 Government capacity and resources, including regulatory infrastructure

Effective regulation of tobacco and nicotine products requires the responsible health agency to have the authority, capacity, and resources for:

- Effective enforcement of rules for the manufacture, sale, and marketing of tobacco and nicotine products;
- Effective surveillance of population use patterns (including youth initiation and dual/poly use), marketing of, and consumer attitudes towards e-cigarettes; and
- Government-led messaging around the health risks and harms of e-cigarette use.^{51,52}

Limited capacity and resources devoted to enforcement, surveillance, and messaging

Governments should consider prohibiting the sale of e-cigarettes at least until the appropriate infrastructure is in place and ensure that the relevant enforcement authorities are adequately resourced to implement, monitor, and enforce this measure.

Sufficient capacity and resources devoted to enforcement, surveillance, and messaging

Governments could consider allowing e-cigarettes onto the market and strictly regulating them using supply and demand reduction measures that align with the WHO FCTC. Devoting sufficient resources as described above will help governments minimize the initiation of e-cigarette use by young people and non-tobacco and/or nicotine users.

Robust medicinal/pharmaceutical approval process

Governments that have concluded that e-cigarettes hold significant potential as smoking cessation aids could consider regulating e-cigarettes

under their medicinal/pharmaceutical regime if a robust approval process is in place. This is consistent with WHO guidance that countries pursuing a smoking cessation strategy utilizing e-cigarettes “control the conditions under which the products are accessed to ensure appropriate clinical conditions and regulate the products as medicines (including requiring marketing authorization as medicines).”¹⁸

Health authorities should have sufficient expertise and resources to conduct pre-market approval and post-market surveillance and undertake case-by-case product assessments considering the variety of e-liquids and devices and the different toxic emissions of e-cigarettes. Technical guidance on medicinal/pharmaceutical regulation of e-cigarettes is outside the scope of this resource. However, the United Kingdom's Guidance for Licensing Electronic Cigarettes and Other Inhaled Nicotine-Containing Products as Medicines is an example of the enhanced regulatory capacity and expertise needed to license e-cigarettes as medicines/pharmaceuticals.⁵³

3. Select Regulatory Option

Taking into account the public health policy goals and country-specific circumstances, the following regulatory options should be considered:

3.1 Complete sales ban

E-cigarettes may not be sold.

Factors that favor this option:

- Strong WHO FCTC measures are not yet in place, OR strong WHO FCTC measures are in place, smoking rates are steadily falling as a result, and these measures should be given more time to take effect.
- The existing e-cigarette market is sufficiently small to make effective enforcement of a ban feasible.
- The government has limited capacity and resources to implement, monitor, and enforce the strict regulation of e-cigarettes using effective tobacco control measures or under a medicinal regulatory regime and provide strong public messages about the appropriate use of e-cigarettes.
- The precautionary principle is applied: there is significant scientific uncertainty about the overall risks and potential benefits of e-cigarette use, although there is certainty that nicotine in any form is harmful to youth. Therefore, a sales ban could be justified until more research and information are available.

At least 47 countries/ jurisdictions ban the sale of e-cigarettes. Many of these countries also ban their manufacture and importation.

In addition to a ban on sale, several of these countries prohibit the use of e-cigarettes in public and their advertising, promotion, and sponsorship. This is advisable to remove any uncertainty as to whether their use and promotion are permitted.

3.2 Regulate as medicinal/pharmaceutical products

Specific e-cigarettes are only allowed for sale if the individual product has been approved under a country's established medicinal/pharmaceutical regime.

Factors that favor this option:

- The existing e-cigarette market is sufficiently small — regulating them as medicinal/pharmaceutical products would remove all existing products from the market unless or until any are granted a medicinal license.
- Smoking rates are steadily declining as a result of implementing strong tobacco control measures.
- A robust medicinal/pharmaceutical approval process and post-market surveillance capacity exist.
- The government has sufficient resources to undertake case-by-case product assessments taking into account the variety of e-liquids and devices, and the different toxic emissions of e-cigarettes.
- The government has concluded that evidence shows certain e-cigarettes hold significant potential as smoking cessation aids.
- WHO has called on governments that decide to include e-cigarettes in their smoking cessation strategies to regulate the products as medicines.¹⁸

At least two countries/ jurisdictions permit the sale of e-cigarettes only under a medicinal or pharmaceutical product license or as a pharmacist-only medicine.

To date, there is no e-cigarette on the market anywhere in the world that has been medically licensed and sold as a smoking cessation product.

3.3 Regulate strictly applying measures that align with the WHO FCTC

E-cigarettes are subject to requirements that are consistent with the supply and demand reduction measures contained in the WHO FCTC, such as prohibiting use in public, banning advertising, promotion, and sponsorship, and requiring large pictorial health warnings on packaging.

Factors that favor this option:

- There is a well-established existing legal market in e-cigarettes, making effective enforcement of a ban difficult.
- Strong WHO FCTC measures are in place, have had time to take effect, and the effects are being monitored.
- Declines in smoking rates have stalled and prevalence remains at an unacceptable level.
- The government has concluded that e-cigarettes hold significant potential to help its remaining adult smokers quit conventional cigarette use, and this potential benefit outweighs concerns of uptake by youth and non-users of tobacco and/or nicotine products, delayed quit attempts, and dual/poly use.
- The government has sufficient capacity and resources to implement, monitor, and enforce the strict regulation of e-cigarettes using measures that align with the WHO FCTC, and a strong commitment to government-led messaging about the health risks and harms of e-cigarette use.

At least 109 countries/ jurisdictions regulate e-cigarettes using tobacco control measures.

Optional: Some of these countries require manufacturers to apply for approval to sell a particular e-cigarette as a medicinal/ pharmaceutical product if:

- A manufacturer wants to make a claim that the e-cigarette could be used as a cessation aid; or
- An e-cigarette or e-liquid has a nicotine concentration above a certain threshold.

This option should only be considered if a robust medicinal/pharmaceutical approval process exists. There is currently no e-cigarette on the market that has been medically licensed and is being sold as a smoking cessation product.

For more information, see:

[E-Cigarettes: Global Regulation and Recommended Measures](#)

Further details on countries' existing laws regulating e-cigarettes are available at:

www.tobaccocontrolaws.org

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