

# E-CIGARETTES

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21 September 2020

## Overview of health issues and regulatory options around vaping, from a public health perspective

### Key Points

- E-cigarettes are used by both adults and children. Recent surveys found that 5% of adults and 9% of children (aged 12-17) reported using them 'in the last 30 days'. A large minority (38%) of smokers trying to quit use e-cigarettes as part of their attempts.
- Both smoking and vaping have negative health impacts. While smoking kills half of all smokers, vaping is known to increase the risk of lung and heart disorders - however, its long-term effects are uncertain. A number of authoritative sources have stated that vaping is much safer than smoking.
- Public policy reactions to vaping differ greatly across jurisdictions – with some taking a 'harm reduction' approach - encouraging smokers to switch to vaping. While other jurisdictions, given the unknowns around vaping impacts, are taking a more cautious approach, regulating or even banning e-cigarettes.
- A challenge for policy-makers is to strike a balance between the potential benefits of e-cigarettes for adult smokers who are trying to quit, with the risks that more non-smokers, especially children and young people would start vaping.
- In Ireland, proposed regulatory measures for e-cigarettes have included banning sales to and by minors and introducing a licensing system for sales (which would also apply to traditional cigarettes). Further restrictions on advertising and banning flavours thought to appeal to younger users have also been discussed.



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## Introduction

Issues around e-cigarettes and vaping are increasingly part of public health debates and their pros and cons are highly contested. Coming from a public health perspective, this *L&RS Note* seeks to inform this debate, asking what do we know about vaping? And should legislators intervene to protect citizens, or are e-cigarettes a tool in the fight against smoking?

## What are e-cigarettes?

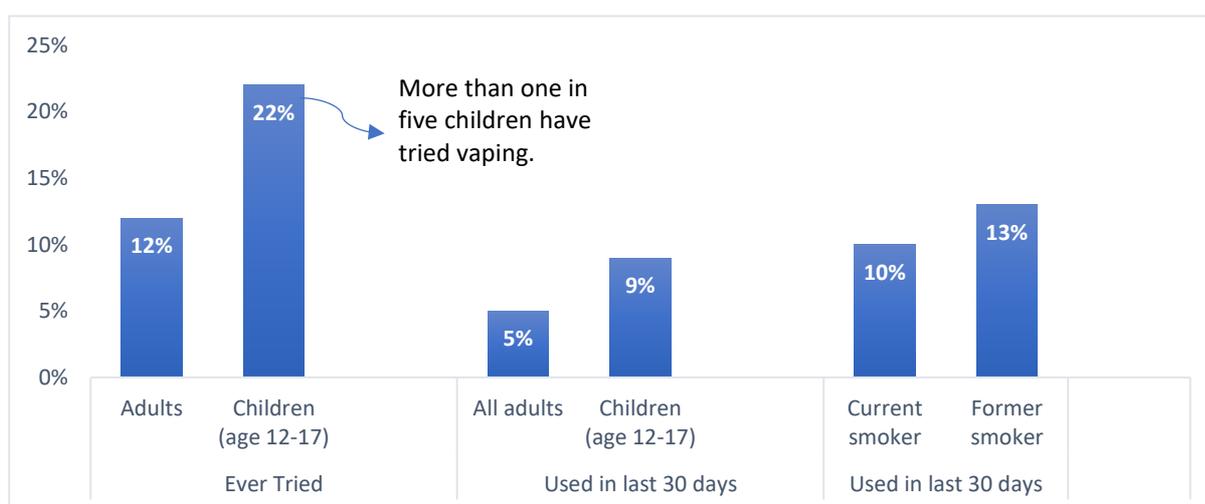
Early e-cigarettes looked like tobacco cigarettes, but a wider range of products is now available. Traditional cigarettes burn tobacco, whereas e-cigarettes – the most common type of electronic nicotine delivery systems (ENDS) – vaporise liquid that contains nicotine so that it can be inhaled/vaped.<sup>1</sup>

## How many people are vaping in Ireland?

More children than adults have tried e-cigarettes and more have reported recent vaping (see Figure 1). More than one in five children aged 12-17 years (22%)<sup>2</sup> and more than one in ten adults (12%) have tried vaping.<sup>3</sup> Data from 2018/2019 show that almost one in ten children (9%) in the same age group and one in twenty adults (5%) had vaped “in the last 30 days”.<sup>4,5</sup> Of the children, older children and boys were more likely to have vaped.<sup>6</sup>

Vaping is more common among smokers and ex-smokers than in the general population.<sup>7</sup>

**Figure 1: Proportion of adults, children (12-17 years) and smokers/former smokers who have ever tried e-cigarettes or used in last 30 days (2018/2019)**



**Source:** L&RS using data from [Healthy Ireland Survey 2018/2019](#) and [Health Behaviours of School Aged Children 2018](#).

## Low(er)-risk alternative for smokers or addictive, damaging habit?

The health effects of tobacco are well known – it kills half of long-term smokers, resulting in almost 6,000 deaths each year in Ireland.<sup>8</sup> Policy responses to vaping will most likely hinge on the question of what harm it poses, specifically in comparison with smoking.

The World Health Organization (WHO) says it is difficult to generalise about the risks of e-cigarettes versus conventional cigarettes/tobacco products, as there are so many different products on the market, and their impact may depend on frequency of use and other factors.<sup>9</sup>

Some of the known effects of ENDS (such as e-cigarettes) set out by the WHO are<sup>10</sup>:

- E-cigarette emissions typically contain nicotine and other toxic substances that are harmful to users, and non-users who are exposed to them.
- They increase the risk of lung disorders and heart disease.
- Exposure of children and adolescents to nicotine can have long-lasting, damaging effects on brain development. Further, nicotine is highly addictive.
- There is a growing body of evidence, in some settings, that children who have never smoked but who use ENDS at least double their chance of smoking later in life.

In all, the WHO says these products are harmful to health. However, it finds that it is too early to provide a clear answer on their long-term health impact.<sup>11</sup>

In relation to Covid-19, the WHO has stated that there is no clear evidence yet on the impact of vaping on the risk or severity of illness.<sup>12</sup> In relation to smoking it has said that “*evidence reveals that smokers are more likely than non-smokers to have severe outcomes from COVID-19*”.<sup>13</sup> More generally, the WHO has expressed concern about the potential negative impacts of both smoking and vaping as they both involve a hand-to-mouth action (that may increase the chance of infection), and cause damage to the lungs, which may be important as Covid-19 affects the respiratory tract.<sup>14</sup> Research in this area is developing at a frantic pace, and further emerging findings are likely to be of great interest.

## What about harm reduction?

In 2019, a *New England Journal of Medicine* editorial stated that “*a consensus has emerged that e-cigarettes are safer than traditional combustible cigarettes*”<sup>15</sup>. It has been argued that ‘harm reduction’ approaches should be used, encouraging smokers to switch to e-cigarettes.

A large minority (38%) of smokers trying to quit in Ireland already use e-cigarettes as part of their attempts.<sup>16</sup> It is argued that restrictive regulation could deter smokers from a ‘less harmful’ alternative and useful quitting tool.<sup>17</sup> Some contend that failure to implement harm-reduction measures may mean fewer smokers giving up and, therefore, result in a missed opportunity to save lives.<sup>18</sup> Others urge caution, mostly due to the unknown long-term impacts of vaping.<sup>19</sup>

For policy-makers, a confusing aspect of the debate may be that public health experts disagree about the best approach to e-cigarettes.<sup>20</sup> This has influenced legislators. England<sup>21</sup> and New

Zealand are taking a harm-reduction approach, encouraging or supporting smokers to switch to vaping.<sup>22</sup> Other jurisdictions, such as Brazil, Mexico and Singapore, have banned e-cigarettes altogether.<sup>23</sup> Some US jurisdictions are implementing an outright ban on sales (including online) or on certain flavours (such as fruit and candyfloss) that are believed to attract young people to vaping.<sup>24</sup>

## Current regulation and policy in Ireland

There is a wide range of legislative measures in place in Ireland intended to reduce tobacco smoking. These include high taxes, age restrictions on sales, the workplace smoking ban, advertising bans, and plain packaging rules.

E-cigarettes face fewer restrictions, as they are considered consumer products. The EU *Tobacco Products Directive* regulates some aspects of e-cigarettes, including<sup>25</sup>:

- minimum standards of safety and quality;
- notification of ingredients;
- packaging and labelling, including health warnings; and
- a ban on advertising in print, broadcast, online and other electronic media (though outdoor advertising is allowed, for example on buses/billboards).

The Health Information and Quality Authority (HIQA) has said that there is ‘promising’ evidence of e-cigarettes being a cost-effective quitting tool.<sup>26</sup> Nonetheless, the Health Service Executive (HSE) says:

“E-cigarettes are still fairly new, so we don't yet know how safe they are or if they help people stop smoking. Because of this, we don't recommend e-cigarettes...”<sup>27</sup>

Instead, the HSE promotes nicotine replacement therapy (NRT) and prescription treatments, as it says they are safe and increase a person's chance of quitting.<sup>28</sup>

## Options for future e-cigarette regulation

Regulatory policies are likely to try to strike a balance between the potential benefit of e-cigarettes for adult smokers who are trying to quit or want to switch, with the risks that more children and young people would start vaping.<sup>29</sup>

Though vaping may not always be cheaper<sup>30</sup>, a WHO Bulletin article has stated that lower costs (and health reasons) seem to be important motivators for people switching from smoking to vaping.<sup>31</sup> It has been suggested that tax policy could be a good lever for encouraging smokers to switch to e-cigarettes – by ensuring traditional cigarettes are more expensive than e-cigarettes.<sup>32</sup> However, lower-priced e-cigarettes may raise issues about access for children and young people.

There are concerns that vaping in public places could lead to the re-normalisation of smoking<sup>33</sup> – leading some to recommend that vaping be banned anywhere indoors that smoking is not allowed.<sup>34</sup>

The current Government plans to increase taxes on and regulation of e-cigarettes (see box below).<sup>35</sup>

**Box 1: The [Programme for Government](#) commitments on e-cigarettes**

- A targeted taxation regime to specifically discourage 'vaping' and e-cigarettes.
- To ban the sale of nicotine-inhaling products, including e-cigarettes, to people under 18 years, introduce a licensing system for the retail sale of nicotine-inhaling products and restrict the types of retailers who can sell these products.
- To curb the advertising of nicotine-inhaling products near schools, on public transport and in cinemas.

The ban on sales of e-cigarettes to minors and the sales licensing system were measures also proposed by the previous government.<sup>36</sup> The last Minister for Health also discussed banning e-cigarette flavours that are believed to appeal to children/young people.<sup>37</sup>

Ongoing research should assist policy-making in this area and help to inform the public on the potential harms of vaping relative to smoking.<sup>38</sup> It is likely that post-legislative scrutiny would be valuable to monitor the proportionality, health, and business impact of any new regulatory regime.

**This L&RS Note may be cited as:**

Houses of the Oireachtas Library & Research Service, 2020, *L&RS Note: E-Cigarettes – Health issues and regulatory options*

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## Endnotes

<sup>1</sup> WHO <https://www.who.int/news-room/q-a-detail/e-cigarettes-how-risky-are-they>

<sup>2</sup> Andras Költő et al., "The Irish Health Behaviour in School-Aged Children (HBSC) Study 2018" (Department of Health, Healthy Ireland, NUI Galway, 2020), <https://www.gov.ie/en/publication/dc26c4-irish-health-behaviour-in-school-aged-children-study-2018/>. This 2018 study surveyed 15,557 children aged from 8 to 18 years old from a representative sample of primary and post-primary schools across the country.

<sup>3</sup> Healthy Ireland (2019) Summary Report.

<https://assets.gov.ie/41141/e5d6fea3a59a4720b081893e11fe299e.pdf>. The Healthy Ireland study collected data from a national representative sample of people aged 15 years and over between September 2018 and September 2019.

<sup>4</sup> Költő et al., "The Irish Health Behaviour in School-Aged Children (HBSC) Study 2018."

<sup>5</sup> Healthy Ireland (2019) Summary Report (as before).

<sup>6</sup> Költő et al., "The Irish Health Behaviour in School-Aged Children (HBSC) Study 2018."

<sup>7</sup> HSE website: <https://www.hse.ie/eng/about/who/tobaccocontrol/e-cigarettes/> [accessed 12/02/2020].

<sup>8</sup> <https://www.hse.ie/eng/about/who/tobaccocontrol/kf/>

<sup>9</sup> <https://www.who.int/westernpacific/news/q-a-detail/e-cigarettes-how-risky-are-they>

<sup>10</sup> WHO <https://www.who.int/news-room/q-a-detail/e-cigarettes-how-risky-are-they> [abridged]

<sup>11</sup> <https://www.who.int/westernpacific/news/q-a-detail/e-cigarettes-how-risky-are-they>

<sup>12</sup> World Health Organization, [Q&A: Tobacco and Covid-19](#). [accessed 1 September 2020].

- <sup>13</sup> World Health Organization Newsroom, '[WHO and partners to help more than 1 billion people quit tobacco to reduce risk of COVID-19](#)', 10 July 2020.
- <sup>14</sup> World Health Organization, [Q&A: Tobacco and Covid-19](#). [accessed 1 September 2020].
- <sup>15</sup> Belinda Borrelli and George T. O'Connor, "E-Cigarettes to Assist with Smoking Cessation," *New England Journal of Medicine* 380, no. 7 (February 14, 2019): 678–79, <https://doi.org/10.1056/NEJMe1816406>.
- <sup>16</sup> <https://assets.gov.ie/41141/e5d6fea3a59a4720b081893e11fe299e.pdf>
- <sup>17</sup> Buckley, J (2017) 'An updated guide on FDA's position on vaping', Vape Magazine, 20 September 2017 [updated 17 April 2018].
- <sup>18</sup> See for example, Norman Lamb, "E-Cigarettes," *The Lancet* 393, no. 10174 (March 2019): 876, [https://doi.org/10.1016/S0140-6736\(18\)33196-9](https://doi.org/10.1016/S0140-6736(18)33196-9).
- <sup>19</sup> For example, this is the stance of the World Health Organization and the Health Service Executive.
- <sup>20</sup> Amy Lauren Fairchild, Ronald Bayer, and Ju Sung Lee, "The E-Cigarette Debate: What Counts as Evidence?," *American Journal of Public Health* 109, no. 7 (July 2019): 1000–1006, <https://doi.org/10.2105/AJPH.2019.305107>.
- <sup>21</sup> <https://www.nhs.uk/smokefree/help-and-advice/e-cigarettes>
- <sup>22</sup> See New Zealand Ministry of Health 'Position Statement on Vaping', <https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/vaping-smokefree-environments-and-regulated-products/position-statement-vaping>, UK NHS advice and Public Health England (2019) Vaping in England: evidence update summary - February 2019. <https://www.gov.uk/government/publications/vaping-in-england-an-evidence-update-february-2019/vaping-in-england-evidence-update-summary-february-2019>
- <sup>23</sup> See Thi Thanh Tra Doan et al., "Evaluating Smoking Control Policies in the E-Cigarette Era: A Modelling Study," *Tobacco Control*, September 4, 2019, tobaccocontrol-2019-054951, <https://doi.org/10.1136/tobaccocontrol-2019-054951>, and MarketResearch.com, 'Latin America E cigarettes Market Growth, Trends and Forecasts (2020 - 2025)', June 2020.
- <sup>24</sup> See US Food and Drug Administration statement on enforcement of a ban of certain flavours: <https://www.fda.gov/news-events/press-announcements/fda-finalizes-enforcement-policy-unauthorized-flavored-cartridge-based-e-cigarettes-appeal-children>; and Howard K. Koh, MD, MPH; Clifford E. Douglas, JD (2019) [The San Francisco Ban and the Future of e-Cigarettes](#), JAMA October 22/29, 2019 Volume 322, Number 16.
- <sup>25</sup> [HSE webpage on e-cigarettes](#) [accessed 26/02/20] and <https://www.nhs.uk/smokefree/help-and-advice/e-cigarettes>
- <sup>26</sup> Health Information and Quality Authority (2017) [Health Technology Assessment of Smoking Cessation Interventions](#).
- <sup>27</sup> <https://www.hse.ie/eng/about/who/tobaccocontrol/e-cigarettes/>
- <sup>28</sup> <https://www2.hse.ie/wellbeing/quit-smoking/vaping-using-e-cigarettes.html>
- <sup>29</sup> Krysten W. Bold and Suchitra Krishnan-Sarin, "E-Cigarettes: Tobacco Policy and Regulation," *Current Addiction Reports* 6, no. 2 (June 2019): 75–85, <https://doi.org/10.1007/s40429-019-00243-5>.
- <sup>30</sup> Alex C Liber, Jeffrey M Drope, and Michal Stoklosa, "Combustible Cigarettes Cost Less to Use than E-Cigarettes: Global Evidence and Tax Policy Implications," *Tobacco Control* 26, no. 2 (March 2017): 158–63, <https://doi.org/10.1136/tobaccocontrol-2015-052874>.
- <sup>31</sup> Nick Wilson et al., "Should E-Cigarette Use Be Included in Indoor Smoking Bans?," *Bulletin of the World Health Organization* 95, no. 7 (July 1, 2017): 540–41, <https://doi.org/10.2471/BLT.16.186536>.
- <sup>32</sup> Wilson et al. (as before).
- <sup>33</sup> Wilson et al. (as before).
- <sup>34</sup> For example see Irish Heart Foundation, ASH Ireland, Irish Cancer Society (2019) [E-cigarettes and Heated Tobacco Products: An evidence review by the Irish Heart Foundation and Irish Cancer Society](#).
- <sup>35</sup> See [Programme for Government - Our Shared Future](#) (2020).
- <sup>36</sup> The last government's legislative programme indicated their intent to bring forward a Public Health (Tobacco Products and Nicotine Inhaling Products) Bill to provide for these policies.
- <sup>37</sup> The Journal.ie (2019) 'We're on to you': Harris says flavoured e-cigarettes target children and he wants them banned, <https://jrnl.ie/4924407>
- <sup>38</sup> Fiona Fleck, "Countries Vindicate Cautious Stance on E-Cigarettes," *Bulletin of the World Health Organization* 92, no. 12 (December 1, 2014): 856–57, <https://doi.org/10.2471/BLT.14.031214>.

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