

The **State of Tobacco Control in Ireland**

HSE Tobacco Free Ireland Programme

2022

Second Report



TFI Programme

Foreword

Each year in Ireland, over 4,500 people die because of smoking. Each day across our hospitals in Ireland, one-in-five people with respiratory disease, one-in-eight people with cancer and one-in-10 people with circulatory disease have been admitted because of smoking-related harm. People who smoke are almost twice as likely to have a long-standing illness compared to those who don't smoke, and each day require support from our primary and community care services.

The numbers set out in this report are a stark reminder to us that Ireland is still deep in a continuing epidemic of smoking-related harm. And behind these numbers are our many loved ones who experience disease, disability, and sadly die prematurely because of smoking. The suffering caused by smoking is completely avoidable and is due by a commercial product which profits the tobacco industry while it kills one-in-two users.

Thankfully, this report also documents continuing progress. Smoking is now less common than it was in the past. We have all worked hard collectively to build a society where smoking is no longer the norm. The benefits of this can be seen in the fewer number of younger people who smoke, which is a positive sign for the future.

While our health services are there for us when we are sick, the report demonstrates the central role which they also play in preventing disease and maintaining good health. Each day, our Environmental Health Service builds and ensures compliance with tobacco control legislation; our Communications warn people about the harms of smoking and signpost available supports; our healthcare professionals and stop smoking services provide safe, effective and clinical sound care to people who want to stop smoking. As we continue our work to deliver the vision of Sláintecare, our good work in tobacco control is a blueprint for how we lead services into the future to focus as much on health as on sickness.

That vision for the future is an Ireland which is free from the harm caused by smoking. It is clear from this report that we cannot rest on past success and realising that ambition requires us to double-down on our efforts. It is also clear that these efforts must increasingly focus on the needs of our most vulnerable groups. The unequal burden of smoking across our population is unfair and the widening of the gap in smoking across the social gradient documented in this report is unacceptable. Our renewed planning to deliver government's *Tobacco Free Ireland* policy must centre on tackling smoking-related inequalities to ensure we leave nobody behind.

I would like to thank my colleagues in the HSE *Tobacco Free Ireland* Programme for their continuing efforts on this health service priority. This is a shared agenda. I would also like to acknowledge the policy leadership from government and the Department of Health and recognise the collective leadership across the wide range of partners we work with, especially the public. As we continue to work together to deliver our ambition of an Ireland free from the harm caused by smoking, let's build on these partnerships to ensure this is a reality shared by everyone.



Dr. Philip Crowley

National Director, HSE Strategy and Research.

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List of Abbreviations

aOR	Adjusted Odds Ratio
BA	Brief Advice
BI	Brief Intervention
CHN	Community Healthcare Network
χ^2	Chi-square
CI	Confidence Interval
ECC	Enhanced Community Care
EHS	Environmental Health Service
EU	European Union
FCTC	Framework Convention on Tobacco Control
GHW	Graphic Health Warning
HI	Healthy Ireland
HSE	Health Service Executive
MECC	Making Every Contact Count
NRT	Nicotine Replacement Therapy
NTCO	National Tobacco Control Office
OR	Odds Ratio
PCRS	Primary Care Reimbursement Service
RR	Risk Ratio
RYO	Roll Your Own
SI	Statutory Instruments
SSA	Stop Smoking Advisor
TAPS	Tobacco Advertising, Promotion and Sponsorship
TFI	Tobacco Free Ireland
TFIP	Tobacco Free Ireland Programme
TAD	Tobacco Advertising Directive
TPD	Tobacco Products Directive
WHO	World Health Organization

Definitions of Smoker Type:

Term	Healthy Ireland Surveys	Smoking Prevalence Tracker
Current Smoker	Somebody who currently smokes tobacco products daily or occasionally.	Somebody who smokes one or more cigarettes each week, whether packaged or roll your own.
Ex-smoker	Somebody who smoked tobacco products daily or occasionally, in the past.	Somebody who smoked one or more cigarettes each week, whether packaged or roll your own, in the past.
Never Smoker	Somebody who never smoked tobacco products.	Somebody who never smoked cigarettes.
Recent Smoker	Somebody who previously used tobacco products, but stopped using them in the 12 months prior to survey.	N/A

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Executive Summary

This is the second *State of Tobacco Control Report in Ireland*, aiming to monitor and review recent efforts in tackling smoking-related harm in Ireland, and to inform development of the new HSE *Tobacco Free Ireland* Programme Plan, which is published in conjunction with this report. That Programme Plan ends in 2025, the year set by government in 2013 for Ireland to be tobacco-free. What does the State of Tobacco Control in Ireland tell us about delivery of this goal?

Still deep in an epidemic of smoking-related harm

While this report documents continuing progress, it also illustrates how Ireland is still deep in a continuing epidemic of smoking-related harm.

Overall, the proportion of people aged 15 years and older who reported they currently smoke reduced from 23% in 2015 to 18% in 2021 (5% period reduction; 0.8% per annum across the 6 year period 2015-2021). Smoking prevalence has, however, increased from 17% in 2019 to 18% in 2021. This may reflect changing methods for data collection, and short-term impacts from the COVID-19 pandemic on smoking behaviour in Ireland. However, in conjunction with recent finding in European Schools Project on Alcohol and Other Drugs of increased smoking prevalence among teenagers in Ireland following a period of historic decline, recent trends underscore the need for continuing focus on smoking as a leading cause of preventable disease, disability and premature mortality in Ireland. The goal of a *Tobacco Free Ireland* is increasingly unachievable by 2025.

A changing epidemic presenting new challenges

This report examines recent trends in smoking detail, and summaries these in Key Indicators.

Gender

Smoking prevalence continues to be higher among men than women, and while recent trends in decline are similar, over a longer period it appears that there has been a greater relative decline in smoking among women than men. However, women are at an earlier stage of the epidemic than men and are continuing to experience significant harm. Smoking-related harm needs to be viewed through a gender lens and a gender-sensitive approach to the response adopted. Given the scale of the problem, gender-responsive actions should feature more prominently in actions plans for women's and men's health in Ireland.

Age groups

The age-patterning of smoking in Ireland is changing. While, in 2015, smoking prevalence was highest in the younger adult age group (15-34 years) for men and women, large relative reductions across the period to 2021 (25% reduction in males and 42% reduction in females) were observed, and smoking prevalence is now highest in middle age groups, especially the 45-54 year age group (24% overall; 24% for males and 23% for women). While declining smoking prevalence in younger age group is positive, the group still have significant, emerging and increasingly complex needs in the area of tobacco-product use.

Behaviour and product-use type

The nature of smoking behaviour, and the type of tobacco and nicotine product use, are also changing. Against a trend of declining smoking prevalence, the likelihood that someone who smokes using the product occasionally rather than daily has increased. 'Roll Your Own' product use increased steeply in the last decade, and, as illustrated in this report, while smoking prevalence has declined overall, the prevalence of RYO product use has remained stable and the share of smoking it represents has increased. E-cigarette use trends are evolving, albeit in recent years the prevalence of e-cigarette use appears to have stabilised. Across population groups, use of e-cigarettes is comparatively high among younger people and those in lower socio-economic groups, and increasing in these groups: for example, among those 15-24 years old, use increased from 1% to 4% between 2015 and 2021. This is consistent with the recent results of the European Schools Project on Alcohol and Other Drugs which found that e-cigarette use among teenagers in Ireland is increasing. Use of e-cigarettes among those who have never smoked is very low; and while use of e-cigarettes among people who currently smoke remains stable, between 2015 and 2021 the use of e-cigarettes among those who previously smoked increased from 6% to 10%.

Quitting

This report has identified a small decline in the proportion of people who smoke reporting positive intention to quit over the period 2015 to 2021 (64% versus 57%); and a small decline in the proportion of people who recently or currently smoke reporting at least one quit attempt was also noted (53% 2015 versus 46% 2021). These declines were more pronounced among people who smoke in middle age groups, in lower socioeconomic groups, and among those who smoke daily. However, analysis across EU-27 (and UK) countries shows that a comparatively high proportion of people who smoke in Ireland continue to be interested in quitting and using support to stop.

A widening gap in smoking across population groups

There is a stark gradient in health across socio-economic groups in Ireland: compared to people in the least deprived areas, men in the most deprived areas on average die 5 years earlier and women in these areas live 4.5 years less. The causes of and solutions to health inequalities are multiple and complex; however, over half of the health gap across society is due to smoking.

While a socio-economic gradient in smoking was clear in 2015 (16% versus 29%, comparing the highest and lowest socio-economic groups), in 2021 this gradient not only persists, but it has widened (11% versus 31%, comparing the highest and lowest socio-economic groups). There is also variation in positive intention to quit, quitting behaviour and quit success across socio-economic groups. And, while variation across socio-economic groups in smoking among children and young people was not previously a feature, there is evidence of a new gap emerging.

The burden of smoking in Ireland is unequal and unfair – and the widening of the gap in smoking is unacceptable.

Rest on success or double-down?

While the trends described in this report points to continuing progress in tackling smoking-related harm in Ireland, it also underlines the need for continued urgency and to “double-down” if, as planned, the epidemic is to be brought to an end in Ireland.

A gap in implementation or innovation?

Are the next steps in tackling the harm caused by smoking in Ireland closing the gap in implementation of what we know works, or does the situation demand new ideas and approaches?

This report highlights that there is scope to better implement what we know works in tobacco policy and to ensure that interventions impact everyone across the population.

Public health legislation

Robust, evidence-based and enforced public health legislation has been the foundation of tobacco control in Ireland. It is important that this programme continues, that enforcement is fully resourced, and the impacts are monitored and evaluated. There is scope to review and improve existing legislation. For example, while the landmark smoke-free legislation introduced in Ireland in the 2000s has been a “runaway success”, recommended action almost a decade ago in the *Tobacco Free Ireland* policy to extend the benefits of smoke-free legislation more widely remains stalled, and some groups, such as people in prison settings and mental health care settings continue to be excluded. Recommended action in the *Tobacco Free Ireland* policy to modernise and strengthen the regulatory system provided through legislation so these are more proportionate to the risk of tobacco products has finally led to a Public Health (Tobacco and Nicotine Inhaling Products) Bill, which is now at early stages in the legislative process in Ireland. The improvements it will provide for are overdue. Lack of legal prohibition on retail of e-cigarettes to minors makes Ireland a global outlier. The Bill includes plans to close a gap. The trends in e-cigarette use set out in this report combined with findings of an evidence review by the Health Research Board linking e-cigarette use with smoking initiation make enactment of this measure an urgency. While the measures in this Bill are important, are they enough? For example, in the decade since the US Institute of Medicine reported on the benefits of so called “Tobacco 21” laws, many countries are already raising the minimum legal age prohibiting retail of tobacco products above 18, and New Zealand captured global attention with announcement of its plans for a “tobacco free generation”. Ireland is being left behind and this Bill is an opportunity to keep up.

Tobacco tax policy

The evidence base for the impact of price as a tobacco control measure is overwhelming and, furthermore, it is a measure which is clearly identified as a way to “level-up” socio-economic group gradients in smoking. While tobacco price increase is often seen as a budget-time “old reliable”, there are serious questions about just how reliably price is being applied in Ireland as a tobacco control measure. Pricing was a deficit in Ireland’s performance in the recent WHO Report On The Global Tobacco Epidemic, the Tobacco Control Scale 2019 in Europe, and the recent Tobacconomics Cigarette Tax Scorecard awarded Ireland a score of 3.38, placing it in second-tier countries behind global leaders like New Zealand, Canada and United Kingdom. Affordability changes have been a point of criticism, and while well-known distortions affecting Ireland’s GDP complicate international comparisons, public documents on tobacco taxation policy do not provide sufficient transparency and assurance that affordability of tobacco products in Ireland is being tackled in year-on-year budgets. Action through the recently established Commission on Taxation and Welfare should provide assurance that Ireland is robustly applying well-established tobacco tax reform practices of proven effectiveness and is adequately protecting tobacco tax policy against well-worn, tobacco-industry fuelled tactics based on false concerns regarding smuggling, illicit trade and revenue reduction. The recent WHO Tobacco Tax Reform Checklist should be used to assess and guide tobacco tax policy-making in Ireland.

Public communication

Albeit findings in this report regarding trends of positive intention to quit and quitting behaviour point to the requirement for continuing focus, international benchmarking and internal monitoring demonstrate the effective role which public communications play in protecting people against smoking-related harm in Ireland. This report highlights how communications as part of the HSE *Tobacco Free Ireland* Programme responds to the challenge of ensuring continuing reach and impact in the context of a changing media landscape. The increasing concentration of smoking in special groups will require increased investment in public communication as well as new approaches.

Stop smoking care

Good stop smoking care saves lives. Yet this report describes the gap in care experienced by many people who smoke when they use health services in Ireland. The publication by the Department of Health of Ireland's first *National Stop Smoking Clinical Guidelines* developed by the HSE *Tobacco Free Ireland* Programme is a step towards improving stop smoking care. At the same time, as described in this report, the HSE *Tobacco Free Ireland* Programme is scaling-up and strengthening stop smoking services, including a special focus on Maternity Services and on new Sláintecare Healthy Community Programme Areas. Ensuring there is fidelity to the core components of safe, effective and clinically sound stop smoking care while flexing delivery to work with and respond to the contexts of high smoking prevalence groups across the population will be a focus for the new HSE *Tobacco Free Ireland Programme Plan*. A special review by the Institute of Public Health on capacity of and access to stop smoking services across population groups will help.

Smoke-free environments

Legislation for smoke-free environments stands out as a milestone in tobacco policy in Ireland. Work continues to support smoke-free environments in healthcare in Ireland, and there is more to do in settings like secondary mental health care. This report also profiles leadership shown in places like the Irish Prison Service and Limerick to extend the scope of smoke-free legislation on a voluntary basis. Legislation to support these efforts needs serious consideration.

Tobacco endgame – time to listen to the public and match big ambition with bold action

Better implementation of what we know works in tackling the harms caused by smoking will need to be complemented with new ideas if Ireland is to achieve its big ambition of becoming smoke-free.

While smoking itself has become increasingly de-normalised in Ireland, we have been deeply immersed in the harm it causes for so long that it still seems like a normal part of life. But the burden of smoking-related disease, disability and premature mortality – and the suffering for so many people and their families, especially in our most vulnerable population groups – is caused by a commercial product that is manufactured and marketed by an industry, and then sold on forecourts, street-corners and towns across the country, which kills more than 1-in-2 users when consumed exactly as intended. There is profit in pain. It is unfair, unjust – but is it still acceptable?

It may seem impossible to imagine an Ireland free from the harm caused by smoking. But it is time to ask if the goal of simply “controlling” tobacco use in Ireland is still enough. Or whether we want to bring the continuing epidemic of smoking-related harm to an end, for once and for all – and for everyone.

“Tobacco endgame” has been described as the introduction of policy measures designed to “change permanently the structural, political and social dynamics that sustain the (tobacco) epidemic, in order to end it by a specific time.” In preparation for a new Programme Plan, the HSE *Tobacco Free Ireland* Programme asked the public their views on “tobacco endgame” generally, and specifically to indicate their support or otherwise for component tactics.

There is a strong reservoir of public support for “tobacco endgame” in Ireland, which is seen as achievable. This is the first time the Irish public were presented with the big, bold measures which may be required to make this a reality. While these may seem impossible, in fact the public support for many of these measures was very high. A key feature of public support is an interest in ensuring that action to deliver “tobacco endgame” in Ireland includes efforts to support people who are currently addicted to tobacco products so nobody is left behind.

A Tobacco-Free Ireland, Leaving Nobody Behind

Sadly, this report documents the continuing toll caused by smoking on the health of the public in Ireland. People who smoke are almost two times more likely to report poor health and long-standing illness. Each year, smoking causes over 4,500 deaths.

Despite progress, the end of the epidemic of smoking-related harm in Ireland is not yet in sight. Our work in tobacco control is not done. And our planning for the bold actions required to deliver a *Tobacco Free Ireland* needs serious attention.

Understandably, our focus in health in recent years has been on the COVID-19 pandemic. However, smoking, and the chronic ill-health it causes, exacerbated the impact for many, especially in our poorest groups. Ensuring we continue to focus on the epidemic of smoking-related harm is not just an opportunity to protect the public's health from the impact of a future pandemic, it also allows us to “build back fairer” for a society where everyone enjoys the opportunity to live dignified lives in good health.

The reality set out in this report is that our progress towards a *Tobacco-Free Ireland* is increasingly uneven and risks leaving our most vulnerable population groups behind.

Urgent action, including policy action through political leadership, is needed to bring the epidemic of smoking-related harm to an end in Ireland. The public have shown that their views are well-ahead of current policy discussion and plans, and they want a *Tobacco-Free Ireland* for the next generation. They want the seemingly impossible done. Now is the time for action, leaving nobody behind.

Key Indicators for the HSE Tobacco Free Ireland Programme

Population prevalence and rate of decline	2015*	2021**
Smoking prevalence adults, aged 15 years and older, all	22%	18%
Absolute smoking prevalence reduction to be a <i>Tobacco Free Ireland</i>	17%	13%
Population groups		
Smoking prevalence, aged 15 years and older, males	24%	20%
Smoking prevalence, aged 15 years and older, females	21%	17%
Smoking prevalence adults (age-group with highest prevalence)	25-34 years 32%	45-54 years 24%
Smoking prevalence, aged 15 years and older, SEG (Highest)	16%	11%
Smoking prevalence, aged 15 years and older, SEG (Lowest)	29%	31%
Ever smoking prevalence children, aged 10-17 years	16%	11%
Current smoking prevalence children, aged 10-17 years	8%	5%
Use of e-cigarettes current smokers	6%	6%
Use of e-cigarettes ex- smokers	6%	10%
Use of e-cigarettes never smokers	0%	<1%
Health impact		
Number of deaths attributable to smoking	4,820	4,512
Number of hospitalisations attributable to smoking	42,183	44,081
Building and enforcing legislative compliance***		
Number of registered tobacco retail outlets	20,885	12,474
Number of tobacco legislation compliance complaints handled	162	16
Number of tobacco legislation inspections conducted (compliance %)	15,054 (80%)	7,458 (88%)
Number of minor tobacco test purchases conducted (compliance %)	429 (90%)	58 (97%)
Convictions under Public Health (Tobacco) Act 2002	17	6
Quitting and support		
% of smokers who made at least 1 attempt to quit in last 12 months	53%	46%
Proportion of unsupported quit attempts	57%	62%
Number of QUIT website sessions per 1,000 people who smoke	300	570
Number entered in intensive smoking cessation support per 1,000 people who smoke	14	12
Number receiving medication support per 1,000 people who smoke (medical card only)	105	84
% entering intensive smoking cessation support quit at 1 month	50%	56%

* All indicators 2015 data, or nearest available year

** All indicators 2021 data, or nearest available year

*** Some activity continued to be impacted by COVID-19 in 2021

1 Introduction

1.1 Continuing efforts to tackle the smoking-related harm epidemic in Ireland

Efforts to tackle the epidemic of smoking-related harm continue in Ireland, guided by over 60 recommendations set out in *Tobacco Free Ireland*, the 2013 report of the Tobacco Policy Review Group.¹

Building on a strong track record, there have been many key recent milestones in tobacco control in Ireland, see below. As illustrated in Figure 1, in terms of policy and legislative developments, a General Scheme for the proposed Public Health (Tobacco and Nicotine Inhaling Products) Bill progressed to scrutiny by the Joint Committee on Health in 2021, following approval to draft that Scheme in 2019;² and within the HSE Tobacco Free Ireland Programme, following on from the success of 'I Will Survive' mass media campaign from 2017, a new campaign entitled '*The Last Stop*' was launched in 2020, and key enablers to drive improvement of stop smoking care across the health services have been put in place with the deployment of QUITManager from 2019 and, more recently, the launch of Ireland's first National Stop Smoking Guidelines in 2022.

Recent Highlights

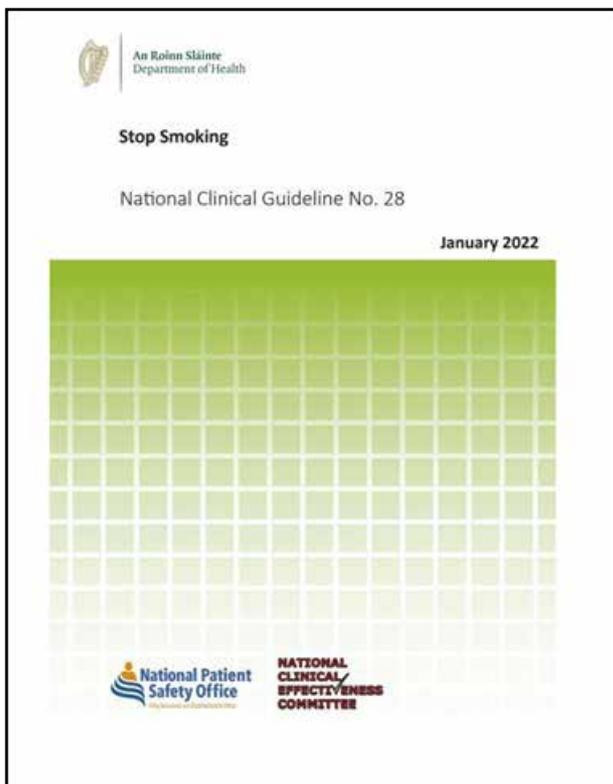
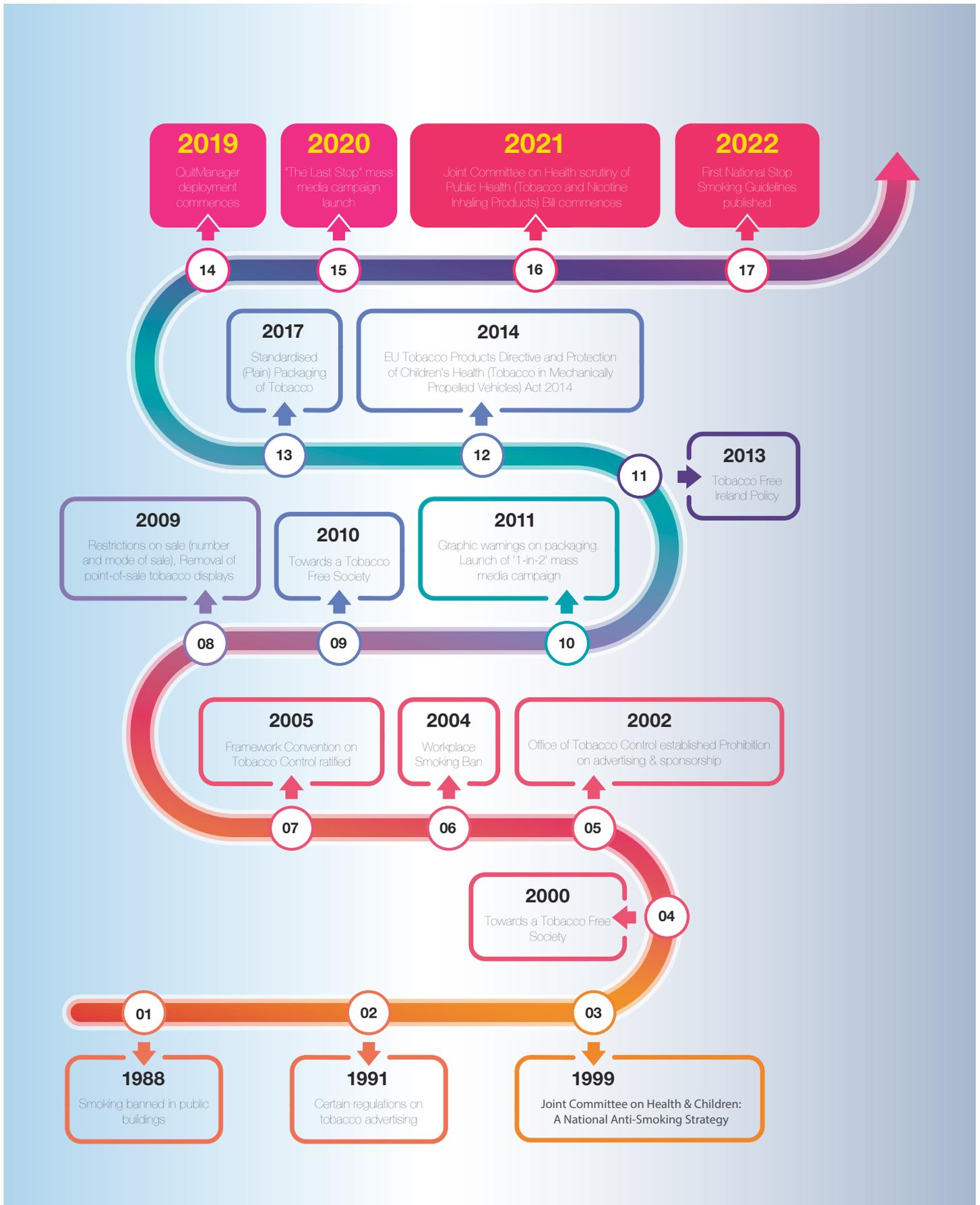


Figure 1: Key milestones in tobacco control in Ireland, 1988 to 2022



SPOTLIGHT

Importance of public health legislation – assessing the impact of plain packaging

Good public health legislation underpins effective action to protect the public from the harms caused by smoking. A programme of evidence-based legislative measures, with adequate enforcement, has driven tobacco control in Ireland and will be essential to continuing progress. Tobacco product packaging has been the most recent target for tobacco control legislation in Ireland (Figure 2).

Figure 2: Image of how cigarette packaging has changed in Ireland, 1970's to present



Sources: Various sources used. Details available from authors.

Why target tobacco product packaging?

The effectiveness of tobacco advertising, promotion and sponsorship (TAPS) in sustaining the epidemic of smoking-related harms has been progressively shut off through legislation by governments around the world, supported by the World Health Organization Framework Convention. Countries with well-structured TAPS regulations are referred to as 'dark' markets by the tobacco industry, where it is difficult to make smoking appear attractive, to hide the serious harm caused by tobacco and to undermine health warnings.^{3,4} However, packaging has remained a way for the tobacco industry to promote their products even in 'dark markets,' specifically targeting young people and women through packaging that is used to communicate novelty, value for money and attractive brand imagery.^{5,6} By impacting how people think and behave in relation to tobacco products, plain packaging has the potential to further disrupt TAPS and reduce smoking.⁷

What's happened globally with product packaging?

In 2012 Australia became the first country to implement plain packaging and to demonstrate its effectiveness on a national scale.⁸ Ireland followed in 2017, as have other countries.⁹ Evaluation of the policy in Australia demonstrated the real world effectiveness of plain packaging. It reduced pack appeal, particularly among young adults, increased the prominence of health warnings and reduced the number of consumers who were misled about the harms of tobacco use. The Australian findings have since been corroborated by evaluations in the UK, Canada, France, and New Zealand.^{10, 11, 12, 13}

What was the impact of plain packaging in Ireland?

Plain packaging legislation was enacted in 2015, and a commencement order was signed on 28th March 2017.¹⁴ Plain packaging regulations came into force for manufacturers on 30th September 2017 with retailers given 1 year (until 30th September, 2018) to sell off stock in older packaging. The impact of plain packaging legislation in Ireland was evaluated across three domains: decreased appeal of tobacco products; increased effectiveness of graphic health warnings (GHW); changes in perceptions of the harmful effects of smoking. These domains are proven links in the chain of events between the use of plain packaging and reduced amounts of smoking. Questions on policy approval and thirteen established plain packaging consumer response targets across the three domains were included in consecutive Healthy Ireland Surveys (2018-2019). An uncontrolled before-and-after study evaluated change in these measures pre (2018) versus post (2019) implementation of plain packaging.

Policy approval increased significantly from 73.0% of the general population in the transition period to 78.9% in the post-implementation period (OR 1.38 (1.28 - 1.5), $p < 0.0001$), with highest approval levels in ex-smokers. Positive and statistically significant impacts were observed across Appeal and Health Warning domains (e.g. the likelihood of disliking the look of packaging and of attributing pack health warnings to quit motivation increased [OR 1.21 (1.04 - 1.42), $p < 0.05$ and OR 1.41 (1.06 to 1.87) $p < 0.02$ respectively]). However, targets in the Harm Perception domain, which were already high before the implementation of plain packaging, were unchanged.

Experience in Ireland has provided further robust demonstration of the effectiveness of plain packaging in diminishing the power of a key marketing tool for the tobacco industry, and adds to the international body of evidence that will enable other countries to further tackle the epidemic of harm caused by smoking through targeting tobacco industry advertising, promotion and sponsorship. This evaluation underlines the importance of a continuing programme of evidence-based legislative measures, with adequate enforcement, to progress tobacco control in Ireland.

Tobacco and nicotine control features high in the current Government Programme plans in health, with the following specific commitments cited:¹⁵

- “Increase the excise duty on tobacco in the years ahead to further discourage smoking;
- Bring in a targeted taxation regime to specifically discourage ‘vaping’ and e-cigarettes;
- 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 that can sell these products;
- Curb the advertising of nicotine-inhaling products near schools, on public transport, and in cinemas.”

1.2 Ireland's efforts in a global context

Ireland's efforts to tackle the epidemic of smoking-related harm have a global context. *Tobacco Free Ireland* actions are framed around evidence-based measures recommended by the World Health Organization through its MPOWER model (Figure 3).¹⁶ Ireland contributes to coordinated global action on tobacco as a signatory since 2005 to the World Health Organization Framework Convention on Tobacco Control (WHO FCTC), a legally binding international treaty, which aims to ensure national governments put in place consistent, coordinated and effective measures to protect the public's health.¹⁷

Figure 3: World Health Organization's MPOWER



Source: World health Organization

In addition to regular, structured reporting on tobacco control through the WHO FCTC, the World Health Organization published its eighth *Report On The Global Tobacco Epidemic* in 2021.¹⁸ Tobacco use continues to be one of the world's largest preventable causes of premature death, accounting for more than 8 million deaths and costing the global economy US\$ 1.4 trillion each year; this burden of harm and costs disproportionately affects people in low- and middle-income countries. Encouraging global progress is noted: 75% of countries and 5.3 billion people are protected by at least one tobacco control measure at best-practice level and 50% by at least two measures; and globally, smoking prevalence among people aged over 15 years has fallen from 22.7% to 17.5%. However, the report underscored a need to safeguard hard won gains and urged member states to exercise vigilance to the challenges posed by new products such as electronic nicotine delivery systems and heated tobacco products.

As a member of the European Union (EU), a revised Tobacco Products Directive has been transposed into law in Ireland with new rules governing the manufacture, presentation and sale of tobacco and related products.¹⁹ The Directive is acknowledged to have enabled the implementation of strengthened EU wide tobacco control policies, increasing consumer and regulator information on tobacco product additives, banning characterising flavours in cigarettes, progressing regulation of e-cigarettes, implementing graphic health warning labels and setting the stage for plain packaging implementation in some European countries.²⁰ Over the course of Directive implementation, there was a 3% absolute reduction in smoking prevalence (among those aged 15 years and older it fell from 26% in 2014 to 23% in 2020), which surpassed the 2% target set as its goal. However, the Directive has been criticised for failing to keep pace with the changing product landscape of innovative and novel tobacco and nicotine products. In 2021, at the request of the European Commission, the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) published a final opinion on e-cigarettes, to feed into a review of the Directive.²¹ The recently launched *Europe's Beating Cancer Plan* placed a new focus on tackling smoking-related harm across member states and set a bold aim of ensuring less than 5% of the population uses tobacco products by 2040, which will likely frame any revision of the Directive.²²

Ireland's efforts in tackling the smoking-related harm epidemic is commended as a 'best practice' country across many areas of its MPOWER model in the World Health Organization published eighth *Report On The Global Tobacco Epidemic*. However, it identified a key weakness in Ireland, reporting that it was one of a small number of countries where cigarettes have become more affordable, based on a finding that the trend in per capita Gross Domestic Product (GDP) needed to buy cigarettes decreased since 2010 at a rate over 1.45% per year. Regulation of e-cigarettes was also noted as weak.

These findings are echoed in the 2019 Tobacco Control Scale (Figure 4).²³ While it ranked Ireland third across 26 European countries in terms of the strength of various tobacco control efforts assessed (73 out of a potential maximum score of 100), Ireland had slipped down one position from second place in 2016, having being in first position when the Tobacco Control Scale was first measured in 2005. Ireland scores well in domains of public place bans, advertising bans, health warning and stop smoking care. It was, however, rated as weak in the area of pricing, given data indicating increasing affordability of tobacco products; it was also rated as weak in relation to its tobacco control budget, spending only €0.36/person.

Figure 4: Results of the Tobacco Control Scale 2019 in Europe

Ranking 2019 (ranking 2016)	Country	Price (30)	Public place bans (22)	Budget (10)	Ad bans (13)	Health warning (10)	Treatment (10)	Illicit trade (3)	Art 5.3 (2)	Total (100)
1 (1)	– United Kingdom	25	22	0	12	9	9	2	1	80
2 (4)	▲ France	22	18	4	11	9	7	2	1	74
3 (2)	▼ Ireland	18	22	1	13	9	8	1	1	73
4 (3)	▼ Iceland	23	17	9	13	4	4	0	0	70
5 (5)	– Norway	22	17	1	13	8	4	1	0	66
6 (6)	– Finland	18	18	2	13	5	5	1	0	62
7 (new)	Israel	27	15	1	11	1	6	0	0	61
8 (28)	▲ Slovenia	12	16	2	13	9	6	1	0	59
8 (9)	▲ Hungary	15	21	0	11	5	6	1	–	59
10 (8)	▼ Spain	15	21	1	9	5	5	2	0	58
10 (17)	▲ Belgium	16	16	1	8	9	6	2	0	58
12 (7)	▼ Romania	16	21	0	8	5	6	1	0	57
13 (31)	▲ Greece	18	20	–	7	5	3	1	0	54
14 (9)	▼ Netherlands	14	15	1	9	5	7	1	1	53
15 (9)	▼ Sweden	14	15	0	9	5	7	2	0	52
15 (13)	▼ Italy	15	16	0	9	5	6	1	0	52
17 (9)	▼ Turkey	10	15	0	8	10	6	2	0	51
17 (13)	▼ Malta	16	12	0	11	5	5	2	–	51
17 (23)	▲ Croatia	16	11	0	12	5	5	2	–	51
20 (15)	▼ Portugal	18	11	–	10	5	4	2	0	50
20 (35)	▲ Austria	11	20	0	7	5	5	2	0	50
20 (17)	▼ Ukraine	17	15	–	11	4	3	0	0	50
23 (15)	▼ Poland	14	11	0	11	5	7	1	0	49
23 (26)	▲ Latvia	14	12	2	10	5	4	2	0	49
23 (31)	▲ Czechia	12	15	0	8	5	7	2	0	49
23 (21)	▼ Estonia	13	14	1	11	5	3	2	0	49
27 (19)	▼ Bulgaria	15	11	–	11	5	5	1	0	48
27 (26)	▼ Cyprus	15	10	0	11	5	5	2	–	48
29 (17)	▼ Russian Fed.	8	15	0	13	4	6	1	–	47
29 (28)	▼ Lithuania	12	13	1	10	5	4	2	0	47
29 (23)	▼ Denmark	13	11	2	8	5	7	1	0	47
32 (30)	▼ Slovakia	12	12	–	9	5	6	2	0	46
33 (23)	▼ Serbia	19	11	0	9	1	4	1	0	45
34 (33)	▼ Luxembourg	5	16	0	9	5	7	2	0	44
35 (21)	▼ Switzerland (-1)	13	11	4	2	5	7	0	0	41
36 (33)	▼ Germany	14	11	0	4	5	4	2	0	40

“–” means no information is available, “0” means insufficient to obtain one point.

-1: Switzerland is the only country in this survey which has not ratified the WHO Framework Convention on Tobacco Control (FCTC): minus one point.

1.3 Leading the health service response - HSE Tobacco Free Ireland Programme

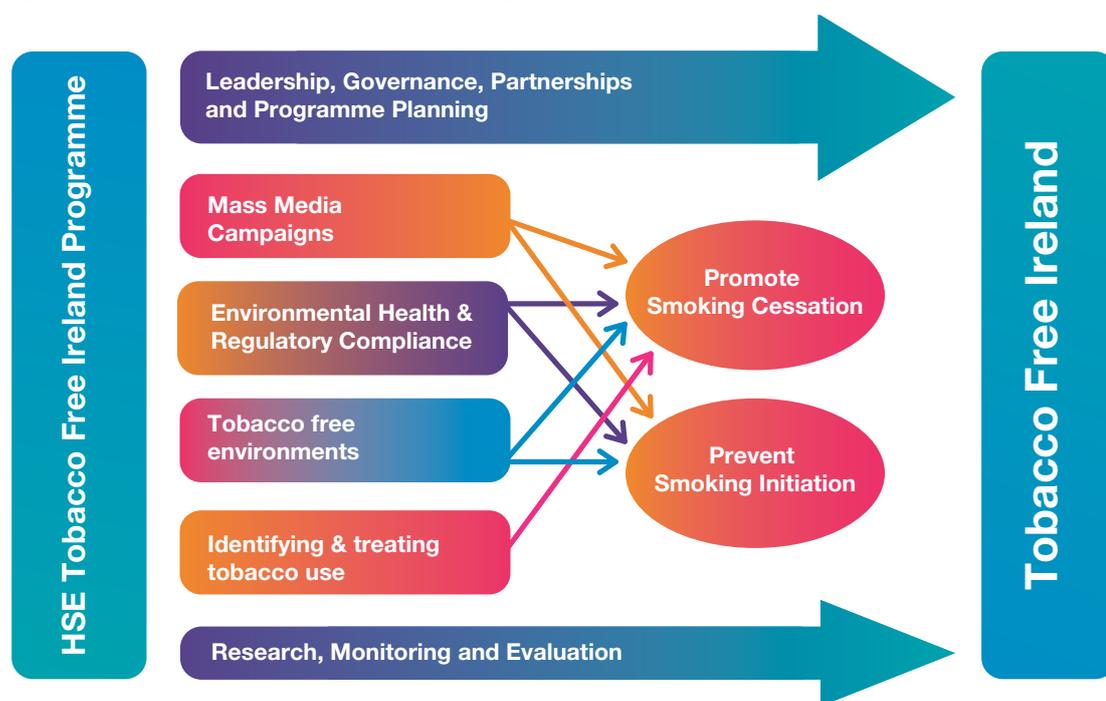
The Department of Health leads the implementation of *Tobacco Free Ireland*, specifically in drafting legislation, coordinating the role of government departments and agencies, monitoring tobacco use and prevalence, working with the relevant parts of government to ensure robust and effective taxation policies are in place, and developing and leveraging national and international partnerships for tobacco control.²⁴ The Department of Health ensures accountability for tobacco control through annual publication of *Tobacco Free Ireland* action plans and reports. A commitment to review *Tobacco Free Ireland* was set out in the *Healthy Ireland Strategic Action Plan 2021-2025*.²⁵

The Health Service Executive (HSE) leads on key action areas:

- Warning about the dangers of tobacco products through developing and delivering mass media;
- Building compliance and enforcing tobacco control legislation to protect people from tobacco smoke and to regulate advertising and the retailing of tobacco products;
- De-normalising tobacco use through implementation of the HSE Tobacco Free Campus Policy;
- Helping people to quit using tobacco products through delivering cessation services.

A HSE *Tobacco Free Ireland* Programme (Figure 5) provides leadership, governance, programme planning and a focus for partnerships with other organisations for tobacco control; its role is underpinned by research, monitoring and evaluation. In turn, this is integrated with the HSE response to *Healthy Ireland* across a range of priority areas for the health service, which is currently being updated.²⁶ A second HSE *Tobacco Free Ireland* Programme Plan has been developed describing priorities for its role and its approach to these areas of action to 2025.²⁷

Figure 5: The HSE Tobacco Free Ireland Programme Model



1.4 Aim and objectives of this report

This is the second State of Tobacco Control report produced by the HSE *Tobacco Free Ireland* Programme.²⁸

The overall aim of this report is to better inform the HSE *Tobacco Free Ireland* Programme planning 2022-2025, through describing the current state of tobacco control in Ireland, in order to understand where progress has been made and to identify challenges where focus is now required.

The objectives were to:

- assess health needs through describing the trends in use of tobacco products and comparing those trends across population groups;
- quantify the impact of tobacco use on health and wellbeing in Ireland;
- describe trends in HSE tobacco control activities, including reach and impact;
- propose key metrics and recommendations for the HSE *Tobacco Free* Programme planning 2022-2025.

1.5 Data sources and analyses

The following key tobacco related datasets were identified and analysed to meet the objectives of this report:

Trends in use of tobacco products presents information on prevalence and trends in smoking by adults and children in Ireland, from the following main sources:

Dataset	Years	How was data collected?	Source
Healthy Ireland Survey	2015 to 2019 & 2021 <i>research microfile (rmf)</i>	Definitive source of population-based information on smoking prevalence. Interviewer-administered survey. Face-to-face interviews with persons aged 15+ years (for years 2015 – 2019) and telephone-based survey for 2021. <i>(No survey in 2020 due to COVID-19 emergency)</i>	RMF Reference No: 2022_HI_001 with Department of Health, Dublin 2.
HSE Smoking Prevalence Tracker	2005 to 2021	Supplementary source of population-based information on smoking prevalence, useful for tracking trends but small sample makes it less definitive than Healthy Ireland Survey. Quarterly telephone survey of smoking prevalence among a nationally representative random sample of 1,000 people aged 15+ years.	Environmental Health Service, National Tobacco Control Office, HSE.

Impact of tobacco use on health and wellbeing presents information on the health of people who smoke, and estimates the number of hospital admissions and deaths attributable to smoking.

Dataset	Years	How was data collected?	Source
Healthy Ireland Survey	2015 to 2019 & 2021 <i>Research microfile (rmf)</i>	Interviewer-administered survey. Face-to-face interviews with persons aged 15+ years (for years 2015 – 2019) and telephone-based survey for 2021. <i>(No survey in 2020 due to COVID-19 emergency)</i>	RMF Reference No:2022_HI_001 with Department of Health, Dublin 2.
Hospital Inpatient Enquiry System (HIPE)	2011 – 2019	HIPE is the only source of morbidity statistics available nationally for acute hospital services in Ireland. All acute public hospitals participate in HIPE.	Healthcare Pricing Office, HSE
Vital Statistics, Central Statistics Office (CSO) – Deaths	2011-2019 (final)	CSO collects information on mortality in Ireland, including date and place of death, cause of death, age at death and gender of the deceased.	Vital Statistics Unit, Central Statistics Office

Trends in HSE tobacco control activities provide information on HSE tobacco control activities from a number of in-house sources of information. These include information from HSE Environmental Health Service, HSE Communications, and the HSE Tobacco Free Ireland Programme.

See **Annex 1** for all details of data sourcing and data analysis.

1.6 A note on comparability of Healthy Ireland Surveys across time

A key feature and value of this State of Tobacco Control Report series is the assessment of trends across time. The key data source for this purpose is the Healthy Ireland Survey. In 2021, in response to the COVID-19 pandemic, the mode of administration of this survey changed from face-to-face to telephone interviewer. The mode of survey administration can potentially impact responses.²⁹ Telephone interviewing can reach population groups in a different way to face-to-face interviewing, which affects the sample; to some extent, the post-hoc weighting of responses applied to the Healthy Ireland Survey can address this. Since both face-to-face and telephone administration is by interviewer, social desirability bias, ‘yes-saying’ bias and interviewer bias can arise, albeit these factors are a function of the interviewer-administration rather than the technical model of administration and operate to similar extents between face-to-face and telephone surveys led by an interviewer. However, some studies have reported that smoking prevalence is lower when measured with a telephone interview versus face-to-face.^{30,31}

The completeness of some variables has also changed in 2021. An important example is socio-economic grouping. Some caution should be taken with 2021 data as a high proportion (36% not classified) of respondents had no socio-economic grouping assigned to them compared to 2015 (13% not classified).

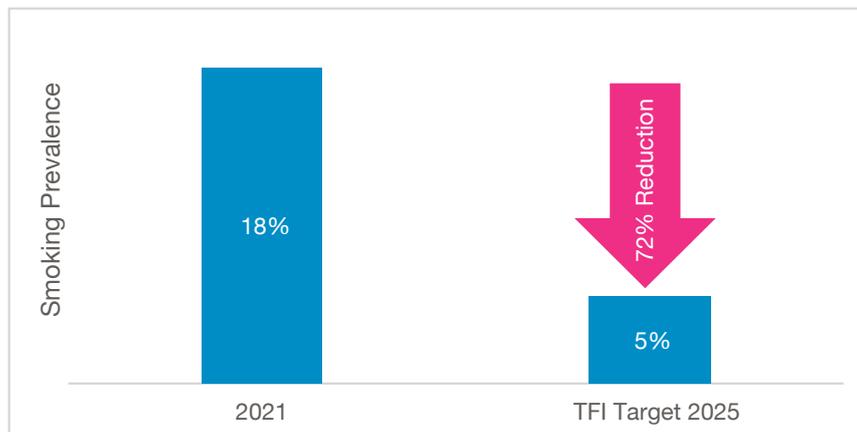
In summary, some caution is required when interpreting comparisons between the 2021 Healthy Ireland responses and responses in previous years.

2. Tobacco use – prevalence and trends

2.1 Current prevalence of smoking

The most recent Healthy Ireland Survey (2021) reported that 18% of people aged 15 years and older currently smoke; 16% smoked daily and 2% smoked occasionally (Figure 6). *Tobacco Free Ireland* sets a target that less than 5% of the population who currently smoke will do so by 2025. Based on current prevalence, an absolute reduction of more than 13 percentage points (72% reduction relative to current prevalence) will be required to meet this target.

Figure 6: Prevalence of smoking in Ireland, 2021 and comparison with TFI target



In terms of population numbers, using CSO population estimates for 2021, and the Healthy Ireland Survey smoking prevalence in 2021, an estimated 717,600 people were current smokers. Using CSO population projections for 2026 (the nearest available year using M2F2 scenario), if the TFI target of a smoking prevalence of <5% is to be achieved in 2025, there is a requirement to reduce the number of smokers in the population by almost 460,000 compared to 2021.

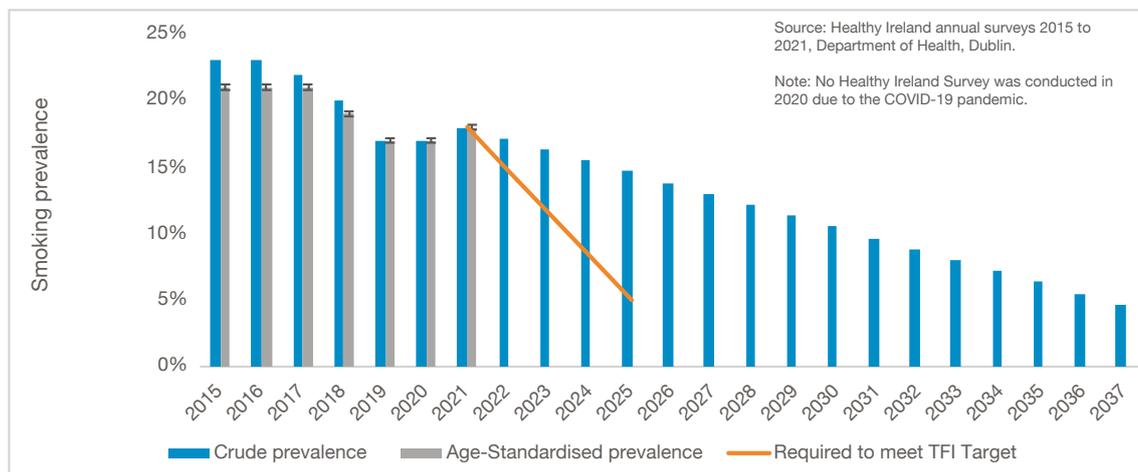
2.2 Trends in prevalence over time

Figure 7 presents the trend in crude prevalence of smoking measured by the Healthy Ireland Surveys since 2015. Overall, the proportion of people aged 15 and older who reported they smoke reduced from 23% in 2015 to 18% in 2021 (5% period reduction; 0.8% per annum across the 6-year period 2015-2021).

Across the period 2015 to 2021, while year on year reduction in smoking prevalence was observed 2016 to 2019, smoking prevalence increased from 17% in 2019 to 18% in 2021.

Given the change in age structure of the population across the period of comparison, direct age-standardised prevalence (Standard European population) was calculated with 95% Confidence Intervals (Poisson approximation); there was a 4% reduction in the age-standardised prevalence from 2015 (21.3%, 95% CI 21.1%-21.5%) to 2021 (17.7%, 95% CI 17.5%-17.8%), a 0.6% per annum decrease across the 6-year period, which is less than the 0.8% per annum decrease observed in the crude prevalence trend.

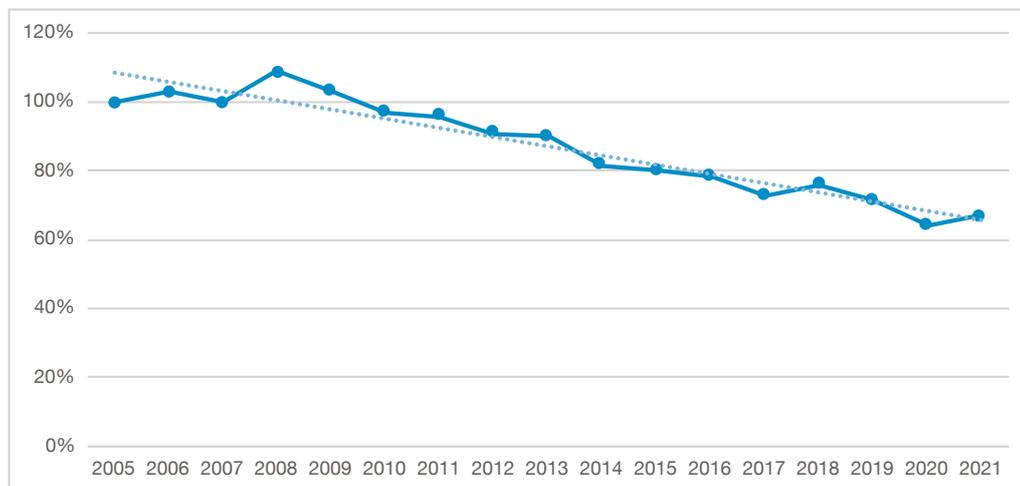
Figure 7: Trend in crude prevalence of smoking 2015 to 2021 as reported by annual Healthy Ireland Surveys, age-standardised smoking prevalence, and projected trend to 2037, with 2025 target



Assuming current trends continue, and all other factors remain constant (including population age structure), Ireland can expect to be tobacco free (population prevalence of tobacco use less than 5%) by 2037.

The HSE Smoking Prevalence Tracker Survey has followed population prevalence of smoking since 2005; its smaller sample means it is a less definitive measure of smoking prevalence than the Healthy Ireland Survey, but it provides a useful historical insight into longer term trends in smoking prevalence in Ireland. As illustrated in Figure 8, compared with 2005, in 2021, there has been a relative reduction of 32.8% in the crude prevalence of smoking.

Figure 8: Trend in crude smoking prevalence to 2021, relative to 2005



Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Service

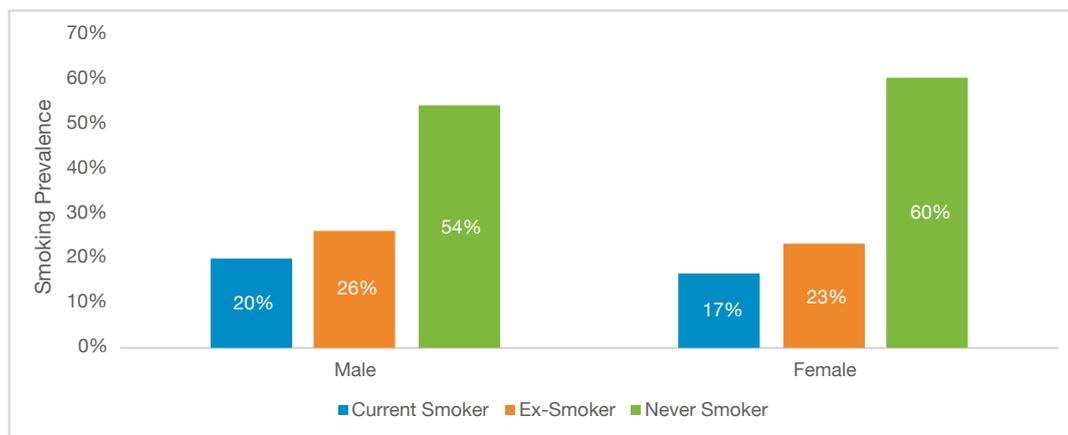
2.3 Different patterns of smoking across population groups

The Healthy Ireland Surveys point to important differences in the pattern of smoking across the population.

2.3.1 Gender

Smoking continues to be more prevalent among men than women. In Ireland in 2021 almost 1-in-2 (46%) males aged 15 years and older smoked at some time in their life, compared to 40% of females; more males (20%) are current smokers than females (17%) ($\chi^2 = 32.4$, $p < 0.0001$; see Figure 9).

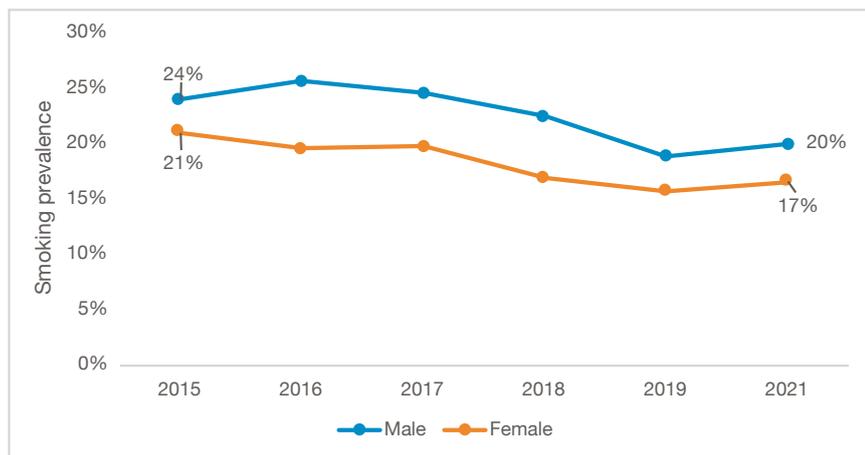
Figure 9: Prevalence of smoking by gender 2021



Source: Healthy Ireland annual survey 2021, Department of Health, Dublin.

Figure 10 details smoking prevalence by gender, as reported by the annual Healthy Ireland surveys from 2015 to 2021; smoking prevalence has decreased by four percentage points, among both males and females, between 2015 and 2021. At both time points there is a difference of three percentage points in smoking prevalence between males and females.

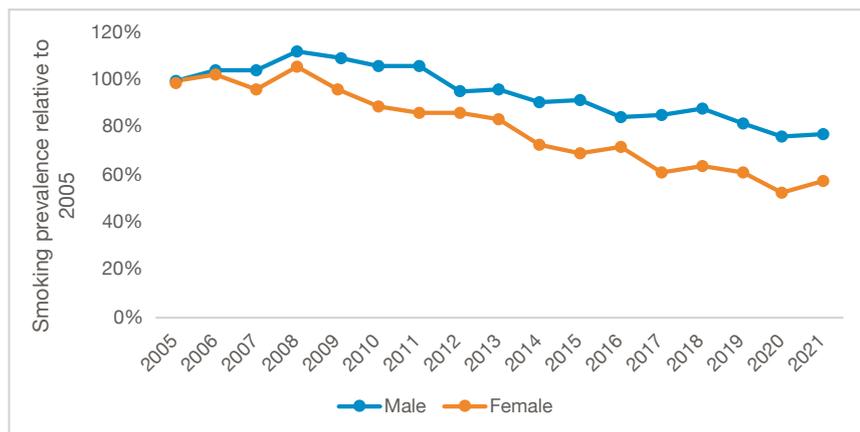
Figure 10: Prevalence of smoking by gender, 2015 to 2021



Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

While more recent trends in reduction in smoking prevalence show similar relative improvement for males and females, longer term trends are different. Figure 11 presents data from the HSE Smoking Prevalence Tracker Survey and shows that the relative decrease in crude prevalence of smoking in the period 2005 to 2021 has been greater for females than males (relative decrease of 43% versus 22% respectively from 2005 to 2021).

Figure 11: Changes in crude smoking prevalence as at 2021, relative to 2005, by gender

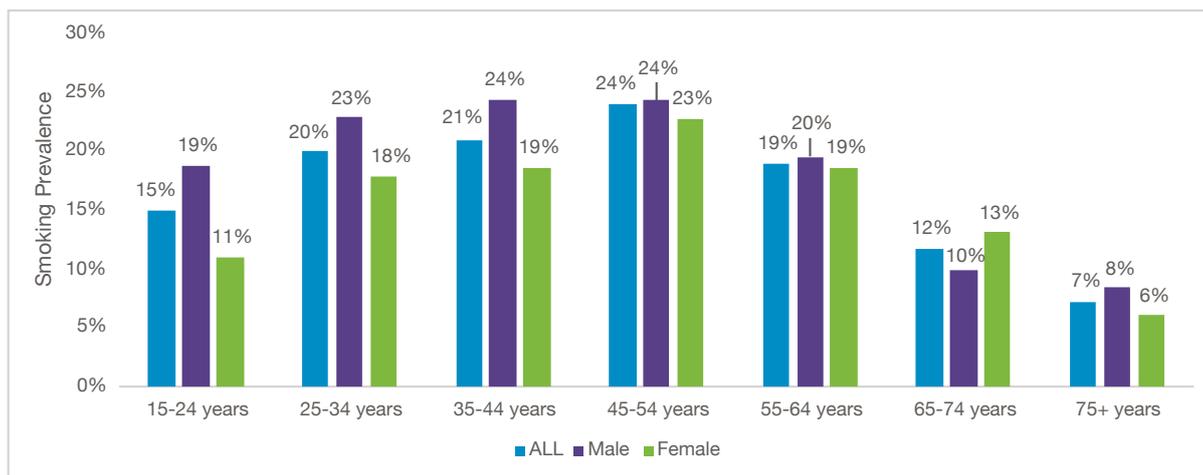


Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service

2.3.2 Age groups

In 2021 the average age of people who currently smoked in Ireland was 43 years (an increase from 41 years in 2015). For both genders smoking prevalence rises across age groups, peaks in middle age groups, and then declines in older age groups, with smoking prevalence highest among the 45-54 year old age groups (24% for both genders (Figure 12)). Smoking is more common among males than females in all age groups, with the exception of those aged 65-74 years.

Figure 12: Prevalence of smoking, by age group and gender, 2021



Source: Healthy Ireland annual survey 2021, Department of Health, Dublin.

Table 1 illustrates the annual prevalence of smoking across 2015-2021, disaggregated by age group and gender strata; this allows for the trend in smoking prevalence to be examined by age group for males and females. These data are also presented in Figure 13, and it is important to note some points when interpreting them. First, Health Ireland Survey sample size in some of the age-gender strata are small, which means that some year-on-year variation would be expected simply by random chance. Secondly, these are repeated cross-sectional measures of prevalence derived from different sequential population samples over time, and the variation in prevalence over time will reflect complex and interacting age, period and cohort effects.³² These changes may relate to trends in smoking initiation, smoking cessation and in smoking-related mortality over the time period, which may operate differently for different age groups, effect all ages at a specific period or effect a specific age cohort; furthermore these effects may be patterned by gender.

Table 1: Annual prevalence of smoking, by age group and gender, 2015-2021

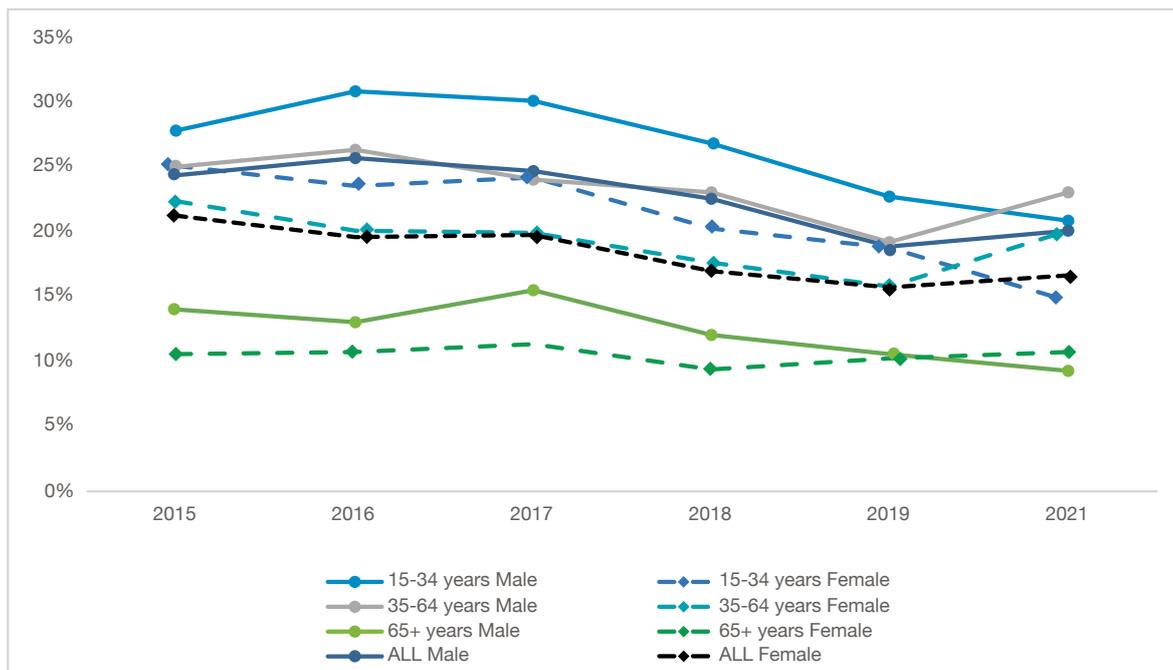
Age groups	Gender	2015	2016	2017	2018	2019	2021	Absolute Period-Change	Relative Period Change
15-34 years	Male	28%	31%	30%	27%	23%	21%	-7%**	-25%
	Female	25%	24%	24%	20%	19%	15%	-10%**	-42%
35-64 years	Male	25%	26%	24%	23%	19%	23%	-2%**	-8%
	Female	22%	20%	20%	18%	16%	20%	-2%**	-10%
65+ years	Male	14%	13%	16%	12%	11%	9%	-5%*	-34%
	Female	11%	11%	11%	9%	10%	11%	0%	1%
ALL	Male	24%	26%	25%	22%	19%	20%	-4%**	-17%
	Female	21%	20%	20%	17%	16%	17%	-5%**	-22%

Source: Healthy Ireland annual survey 2015-2021, Department of Health, Dublin.

*p<0.05, **p<0.001 - χ^2 test comparing 2015 versus 2021 prevalence in each gender-age stratum

As illustrated in Table 1 and Figure 13, there has been a reduction in smoking prevalence for males and females across the period, which is of similar absolute scale; however, this represents a smaller relative change for males since smoking prevalence was higher for males than females at the start of the period. Large reductions in smoking prevalence were observed in the younger (less than 35 years) age groups, with greater absolute and relative reductions in smoking prevalence observed among young females than among young males. In the age groups between 35 and 64 years, decreases in smoking prevalence were observed for both genders, however not as large as in the younger groups and, in addition, there has been a recent increase in smoking prevalence for both genders. Overall, there was no significant change in female smoking prevalence among older age groups (65+ years), however, there was a significant reduction in male smoking prevalence in the same age groups.

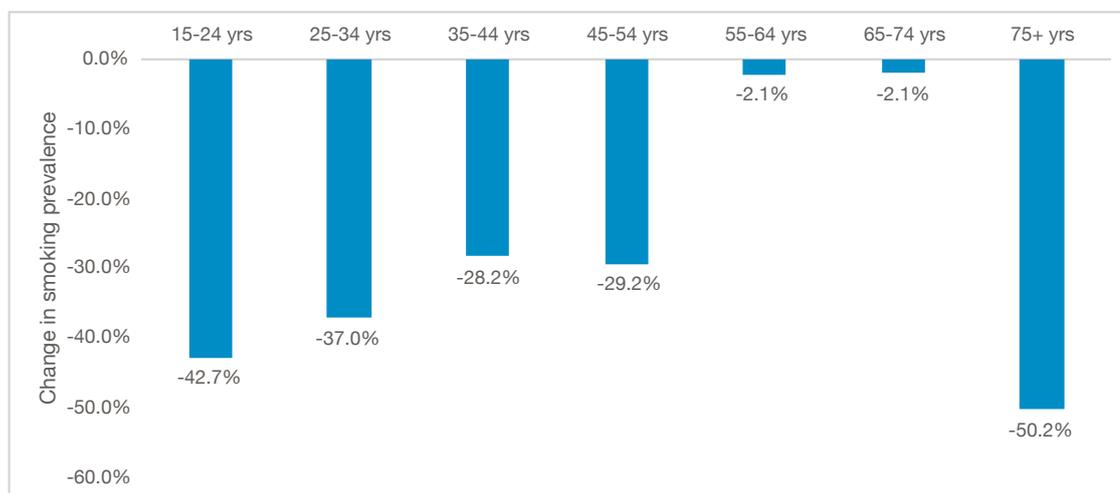
Figure 13: Trends in smoking prevalence by age & gender, 2015 to 2021



Source: Healthy Ireland annual survey 2015-2021, Department of Health, Dublin.

Again, the HSE Smoking Prevalence Tracker Survey allows for longer term trends to be assessed. Figure 14 presents changes in smoking prevalence in 2021 compared to 2005 by age group, as reported by the HSE Smoking Prevalence Tracker Survey. There has been a relative decrease in prevalence in all age groups in 2021 versus 2005. Greatest relative reductions were observed in the oldest age group (75+ years) and the youngest age group (15-24 years). Among those aged 25 to 74 relative reductions in smoking prevalence decreased with increasing age, with just 2% relative change in prevalence among those aged 55 to 74 years. Again, these age group specific changes may relate to trends in smoking initiation, smoking cessation and in smoking-related mortality over the time period.

Figure 14: Relative changes in smoking prevalence, 2021 versus 2005, by age group



Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service

Figure 15 presents the relative changes 2021 versus 2015 in smoking prevalence by age group, stratified by gender. Among males, relative decreases in smoking have been observed in all age groups except those aged 55-64, where prevalence has relatively increased; among females, relative decreases in prevalence have occurred in all age groups, with the exception of the 65-74 year olds. The relative reduction in smoking prevalence, among those aged less than 65 years, has been greater for females than males.

Figure 15: Relative changes in smoking prevalence, 2021 versus 2005, by age group stratified by gender



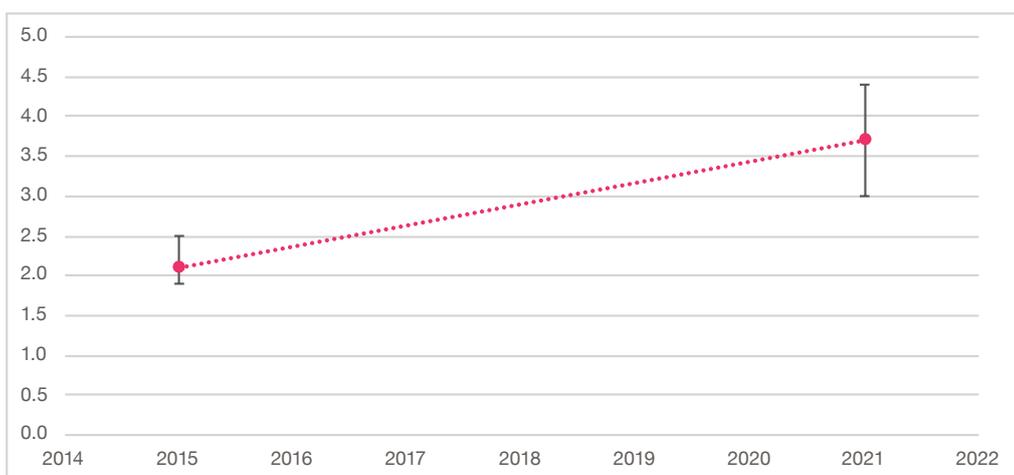
Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service.

2.3.3 Social Class

Healthy Ireland Survey data confirms the well-established relationship between smoking prevalence and social class, as measured by socioeconomic grouping, with the greatest burden of smoking falling on lower groups. In 2021 a social gradient in smoking is again clear, with variation in smoking prevalence across groups; for example, smoking is less prevalent among those from higher managerial, administrative & professional occupations (11% in 2021) compared to those intermediate occupations (17% in 2021) and routine & manual occupations (31% in 2021), ($\chi^2 = 235.5$, $p < 0.0001$). While smoking persists in lower compared to higher groups, the gap in smoking has widened across groups in the period (Figure 16): in 2015, compared to those in the higher socioeconomic group, those in lower socioeconomic groups were 2.1 times more likely to currently smoke (aOR 2.1, 95% CI 1.9–2.5, $P < 0.0001$), adjusting for age and gender differences; in 2021, compared to the higher socioeconomic group, those in lower socio-economic groups were 3.7 times more likely to currently smoke (aOR 3.7, 95% CI 3.0–4.4, $P < 0.0001$), again adjusting for age and gender differences.

Table 2 presents current smoking prevalence 2015 and 2021 in each socioeconomic group, and the likelihood of current smoking in each group in 2021 compared to 2015, taking account of differences in age and gender (with aOR < 1 signalling a reduction in smoking in that group across the period 2015-2021, aOR=1 signalling no change, and aOR > 1 signalling an increase in smoking). The gap in absolute smoking prevalence across socioeconomic groups was 12.5% in 2015; the gap increased to 20.1% in 2021. After taking account of differences in age and gender, there were statistically significant decreases in smoking prevalence among those from higher managerial, administrative & professional occupations; while non significant increases were observed in the other two groups.

Figure 16: Likelihood of current smoking in lower socioeconomic groups relative to higher socioeconomic groups, 2015 to 2021.



Source: Healthy Ireland annual survey 2015-2021, Department of Health, Dublin.

Note: Error bars display 95% Confidence Intervals for aORs, adjusted for age and gender

Table 2: Likelihood of current smoking by socioeconomic group in 2021 compared with 2015

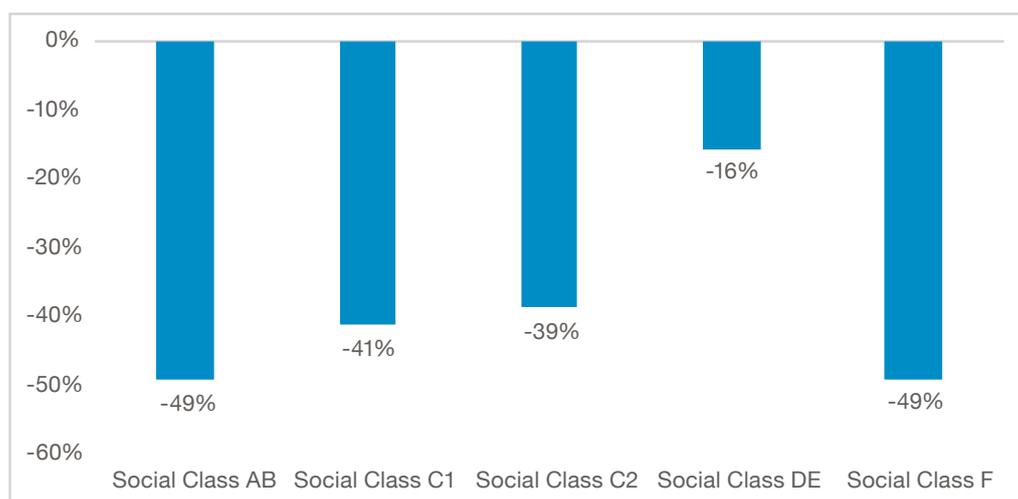
Socioeconomic Group (SEG)	2015	2021	aOR	95% CI	p-value
Higher managerial, administrative & professional occupations	16.2%	10.6%	0.58	0.48 – 0.71	<0.0001*
Intermediate occupations	15.2%	16.6%	1.07	0.87 – 1.32	0.517
Routine & manual occupations	28.7%	30.7%	1.00	0.87 – 1.15	0.973
Gap	12.5%	20.1%			

Source: Healthy Ireland annual survey 2015 and 2021, Department of Health, Dublin.

Note: Odds have been adjusted by age and gender. Gap refers to difference between higher managerial, administrative & professional occupations versus routine & manual occupations

Regarding longer term trends, Figure 17 presents changes in crude smoking prevalence by social class across the period 2005 to 2021, as measured by the HSE Smoking Prevalence Tracker. In the period 2005 to 2021, decreases in smoking prevalence were observed across all social classes but the decreases were uneven: decreases were greatest among those from social classes AB (49%) and F (49%) and lowest among those from social classes DE (16%).

Figure 17: Changes in crude smoking prevalence as at 2021, relative to 2005, by social class



Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service.

2.3.4 Marital Status

Table 3 details current smoking prevalence by marital status in 2021. Those who described themselves as married or in a civil relationship were less likely to describe themselves as current smokers, compared to those with other marital status (including single, widowed, separated & divorced), (13.8% versus 22.6% respectively, ($\chi^2 = 97.2$, $p < 0.0001$). In both 2021 and 2015, the likelihood of smoking for those not currently married/in a civil relationship was greater than for those who were currently married/in civil relationship (2015 aOR 2.0, 95% CI 1.7–2.2, $P < 0.0001$; 2021 aOR 2.1, 95% CI 1.8–2.4, $P < 0.0001$, adjusting for age and gender).

Table 3: Smoking prevalence by marital status, 2021

Marital Status	2021
Widowed or with civil partnership that ended with death of partner	34.4%
Separated (including deserted)	26.9%
Single, never married and never in a civil partnership	22.3%
Divorced or with civil partnership that was legally dissolved	14.2%
Married or in a civil partnership	13.8%
Marital status unknown	29.7%

2.3.5 Current work situation

Table 4 details smoking status by various work status, as reported in the Healthy Ireland surveys 2015 and 2021. Where data can be compared, in 2021 smoking prevalence was highest among those currently unemployed (having lost a previous job, or as a result of COVID-19 in the 2021 survey), and among those who were unable to work due to illness & disability, as well as those who were looking for their first job ($\chi^2 = 243$, $p < 0.0001$). The profile was similar in 2015. Comparing 2021 to 2015, the likelihood of smoking for those not currently in employment/unable to work due to permanent sickness/disability compared to other groups was similar (2015 aOR 2.6, 95% CI 2.2–3.1, $P < 0.0001$; 2021 aOR 2.8, 95% CI 2.4–3.3, $P < 0.0001$, adjusting for age and gender).

Table 4: Smoking prevalence by current work status

Current situation re work	2015	2021
Actively looking for work after voluntary interruption of working life	46.7%	N/A
Engaged on home duties	24.7%	21.3%
Looking for 1st regular job	40.5%	35.5%
Other	38.8%	8.5%
Retired from employment	12.5%	12.1%
Student or pupil	12.1%	10.0%
Unable to work due to permanent sickness or disability	39.1%	35.9%
Unemployed	43.3%	38.2%
Working for payment or profit	22.5%	17.8%

Source: Healthy Ireland annual surveys 2015 & 2021, Department of Health, Dublin.

Note: Unemployed category in 2021 includes those temporarily out of work as a result of COVID-19 restrictions

2.3.6 Demographic factors associated with smoking

The previous sections have described the demographic factors associated with current smoking among Irish adults in 2021. However, many of these factors are inter-related so logistic regression modelling was used to examine the factors independently associated with smoking. The findings are presented in Table 5.

In summary, the demographic characteristics of those most likely to smoke in Ireland in 2021 are those in occupational groups other than higher managerial/administrative/professional occupations, those not currently married/in a civil relationship, those currently unemployed (having lost their previous job, or as a result of the COVID-19 pandemic) or unable to work due to ill-health, as well as those aged 35–64 years.

Compared to 2015, gender (specifically being male) is no longer a significant independent factor associated with being a current smoker, and age 35–64 years is now a more significant independent factor in current smoking than in 2015. Looking at analysis by socioeconomic grouping, as highlighted previously, the likelihood of smoking in those in lower socioeconomic groups is not only greater than those in higher socioeconomic groups, but this gap has widened across the period, taking into account other demographic factors associated with smoking.

Table 5: Independent demographic factors associated with current smoking in Ireland among adults aged 15+ years, 2015 & 2021

Variable	2015				2021			
	Smoking	aOR	95% CI	P	Smoking	aOR	95% CI	P
Gender								
- Female	21.3%	1.0			16.6%	1.0		
- Male	24.3%	1.13	1.01 – 1.26	<0.05	20.0%	1.12	0.99 – 1.28	0.054
Age								
- 15 to 34 years	26.5%	1.0			17.8%	1.0		
- 35 to 64 years	23.7%	1.06	0.92 – 1.22	0.39	21.5%	1.56	1.34 – 1.83	<0.0001
- 65+ years	12.2%	0.49	0.39 – 0.60	<0.0001	10.1%	0.80	0.63 – 1.01	0.072

Variable	2015				2021			
	Smoking	aOR	95% CI	P	Smoking	aOR	95% CI	P
Social Class								
Higher managerial, administrative & professional occupations	16.2%	1.0			10.6%	1.0		
Intermediate occupations	15.2%	0.94	0.79 – 1.12	0.52	16.6%	1.61	1.28 – 2.02	<0.0001
Routine & manual occupations	28.7%	1.99	1.71 – 2.32	<0.0001	30.7%	3.14	2.58 – 3.82	<0.0001
Marital Status								
- Currently married or in civil relationship	19.1%	1.0			14.8%	1.0		
- Not currently married or in civil relationship	29.1%	1.53	1.34 – 1.75	<0.0001	22.8%	1.70	1.47 – 1.97	<0.0001
Current Work Status								
- Other work status	20.9%	1.0			16.0%	1.0		
-Unemployed/ Unable to work due to ill-health	41.5%	1.85	1.56 – 2.21	<0.0001	37.1%	2.29	1.95 – 2.71	<0.0001

Source: Healthy Ireland annual survey 2021, Department of Health, Dublin.

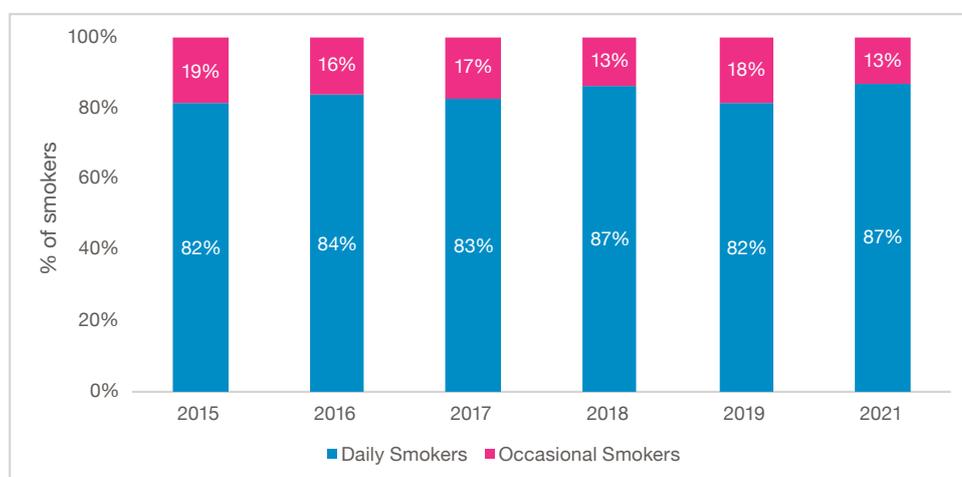
Note: The logistic regression analysis presented in this table is fully adjusted for all the factors displayed.

2.4 Types of Smoking Behaviours

2.4.1 Daily and occasional smoking

People who currently smoke may do so daily or occasionally. Figure 18 details the proportion of people who report they are daily smokers versus occasional smokers, for years 2015 to 2021, based on the Healthy Ireland survey. Against a context of declining smoking prevalence across the population, overall, in 2021, 13% of smokers describe themselves as occasional smokers and 87% describe themselves as daily smokers; this compared with 19% occasional and 81% daily in 2015, and, after taking account of differences in age, gender and socioeconomic group, the likelihood of someone who currently smokes doing so daily (compared to occasionally) increased compared to 2015, (aOR = 1.76, 95% CI: 1.37 – 2.25, p<0.0001). However, as illustrated in Figure 18, the proportion of people who smoke who report they do so daily has fluctuated year-on-year.

Figure 18: Breakdown of smokers as daily smokers or occasional smokers, 2015 to 2021



Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

Table 6 illustrates that the socio-demographic profile of people who smoke daily and occasionally are different. While any smoking behaviour is more prevalent among males than females, occasional smoking is similarly prevalent across males and females. The average age of a person who smokes daily has increased slightly (46 in 2021 versus 43 years in 2015, t-ratio = 2.1, p <0.05), while the average age of a person who smokes occasionally has increased and is now 42 years (compared with 35 years in 2015, t-ratio=3.0, p <0.005).

The majority of people who smoke in all age groups do so daily. However, occasional smoking accounts for a significantly greater share of smoking behaviour among younger people who smoke (testing distribution of age groups 2021, $\chi^2=33.3$, p<0.001; particularly those aged 15-24 years (29% in 2021).

While the majority of people who smoke in all social classes do so daily, there have been reductions in the proportion of smokers who reported smoking occasionally across all groups. In 2021, a high proportion of people who smoke in higher managerial, administrative and professional occupations report occasional smoking (15.3%, testing distribution of social class groups 2021 $\chi^2=7.7$, p<0.05).

Table 6: Profile of people who currently smoke who report smoking occasionally, 2015 versus 2021

Characteristic	2015			2021			Chi Sq	P-value
	Daily smoker	Occasional Smoker	Non-Smoker	Daily	Occasional Smoker	Non-smoker		
Gender								
Male	19.9%	4.5%	75.7%	17.3%	2.8%	80.0%	25.5	<0.0001*
Female	17.3%	4.0%	78.8%	14.5%	2.1%	83.4%	35.6	<0.0001*
Age groups								
15-24 years	13.2%	5.7%	81.1%	10.7%	4.2%	85.1%	6.5	<0.05*
25-34 years	23.6%	8.6%	67.8%	17.8%	2.5%	79.7%	70.1	<0.0001*
35-44 years	22.4%	4.1%	73.6%	19.0%	2.4%	78.6%	12.9	0.005*
45-54 years	21.7%	3.4%	74.9%	21.0%	2.6%	76.4%	1.4	0.487
55-64 years	16.3%	1.6%	82.1%	17.2%	1.9%	80.9%	0.6	0.745
65-74 years	14.3%	1.0%	84.7%	10.6%	1.0%	88.4%	5.0	0.082
75+ years	6.5%	<1.0%	92.9%	6.2%	<1%	92.8%	0.6	0.746
Social Class								
Higher managerial, administrative & professional occupations	11.0%	5.2%	83.8%	9.0%	1.6%	89.4%	40.7	<0.0001*
Intermediate Occupations	11.7%	3.5%	84.8%	14.9%	1.7%	83.4%	13.3	<0.005*
Routine & manual occupations	24.3%	4.4%	71.3%	27.4%	3.3%	69.3%	7.5	<0.05*

Note: Non-smoker is a derived variable for those who never smoked and those who smoked in the past but do not currently smoke.

Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.4.2 Product types and amounts

Table 7 presents the type of products and the amounts used by daily smokers in 2021 in comparison to 2015. Manufactured cigarettes are still the most popular product used in 2021 (77% in 2021 v 78% in 2015). Hand-rolled cigarettes are the second most popular product in 2021, with almost one-in-four daily smokers using them (25% in 2021 v 24% in 2015). For all products listed, the average amount of product used per day by daily smokers in 2021 is similar when compared to 2015 (See Table 7), with the exception of those using pipes of tobacco (small numbers).

Table 7: Profile of type & amount of tobacco products used by daily smokers, 2021 and 2015

Products	% currently using this product		Average per day (median)	
	2015	2021	2015	2021
Manufactured cigarettes	78%	77%	12.5	12
Hand-rolled cigarettes	24%	25%	10	10
Pipes full of tobacco	1.3%	<1%	2	6.5
Cigars	<1%	<1%	3	3

Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

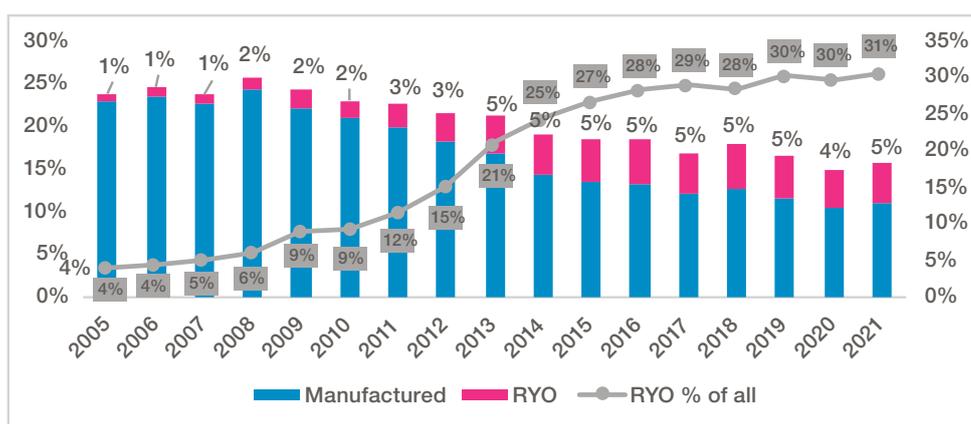
Note: Daily smokers can use more than 1 product, hence sum of products>100%

2.4.3 'Roll-your-own' tobacco consumption

The growing trend of 'roll-your-own' (RYO) tobacco use was highlighted in a recent special report by the HSE *Tobacco Free Ireland* Programme in conjunction with the HSE Environmental Health Service.³³ Figure 19 details the population prevalence of RYO cigarette smoking and manufactured cigarette smoking since 2005, as well as the proportion of current smokers using RYO products. Population prevalence of RYO use has remained at 5% since 2013, however, as overall smoking prevalence decreased, the proportion of current smokers using RYO products has increased steadily and is reported as 31% in 2021.

This more recent period 2013 to 2021 is explored in greater detail in Table 8. In 2021 compared to 2013 a higher proportion of current smokers reported using RYO products (21.2% in 2013 versus 30.7% in 2021, $\chi^2=24.5$ p <0.0001). Increases in the proportion of people who currently smoke who use RYO were observed across both genders and all age groups, with large increases observed among females, those aged 25-34 and those aged 55-64 years. By social class, there were increases in the proportion of current smokers using RYO among those from social classes C1 and C2.

Figure 19: Population prevalence of RYO & manufactured cigarette smoking and proportion of current smokers using RYO products, 2005 to 2021



Source: HSE Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service

Table 8: Profile of those using RYO and manufactured cigarette smoking, 2013 & 2021

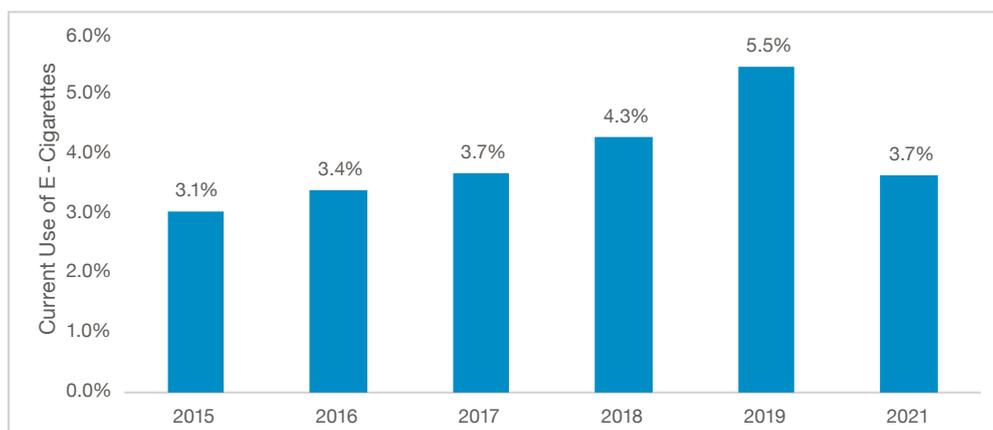
Characteristic	2013		2021		Chi Sq	P-value
	Manufactured Cigs Smoker	RYO Cigs Smoker	Manufactured Cigs Smoker	RYO Cigs Smoker		
All	78.8%	21.2%	69.3%	30.7%	24.5	<0.0001*
Gender						
Male	71.5%	28.5%	66.0%	34.0%	4.0	<0.05
Female	86.8%	13.2%	73.6%	26.4%	26.4	<0.0001*
Age-group						
18-24 years	66.4%	33.6%	54.2%	45.8%	4.7	<0.05*
25-34 years	83.2%	16.8%	63.4%	36.3%	21.7	<0.0001*
35-44 years	81.7%	18.3%	71.9%	28.1%	6.2	<0.05*
45-54 years	80.1%	19.9%	69.9%	30.1%	5.0	<0.05*
55-64 years	85.2%	14.8%	65.2%	34.8%	14.8	<0.0001*
65+ years	84.4%	15.6%	93.2%	6.8%	3.7	0.052
Social Class						
Social Class AB	85.6%	14.4%	79.9%	20.1%	0.9	0.34
Social Class C1	79.6%	20.4%	68.7%	31.3%	8.2	<0.005*
Social Class C2	82.2%	17.8%	67.2%	32.8%	14.5	<0.0001*
Social Class DE	73.7%	26.3%	68.0%	32.0%	3.2	0.073
Social Class F	85.1%	14.9%	82.0%	18.0%	0.2	0.731

Source: Smoking Prevalence Tracker, National Tobacco Control Office, HSE Environmental Health Service

2.4.4 Use of Electronic Cigarettes

Electronic cigarettes (e-cigarettes) are nicotine-containing products, their use by adults (aged 15+ years) measured through the annual Healthy Ireland surveys. Figure 20 details the current use of e-cigarettes for the years 2015 to 2021: use increased year-on-year from 2015 (3.1%) to 2019 (5.5%), but has decreased to 3.7% in 2021, (comparison of proportions across period, $\chi^2=69.5$, $p<0.0001$).

Figure 20: Reported current use of E-Cigarettes, 2015 to 2021



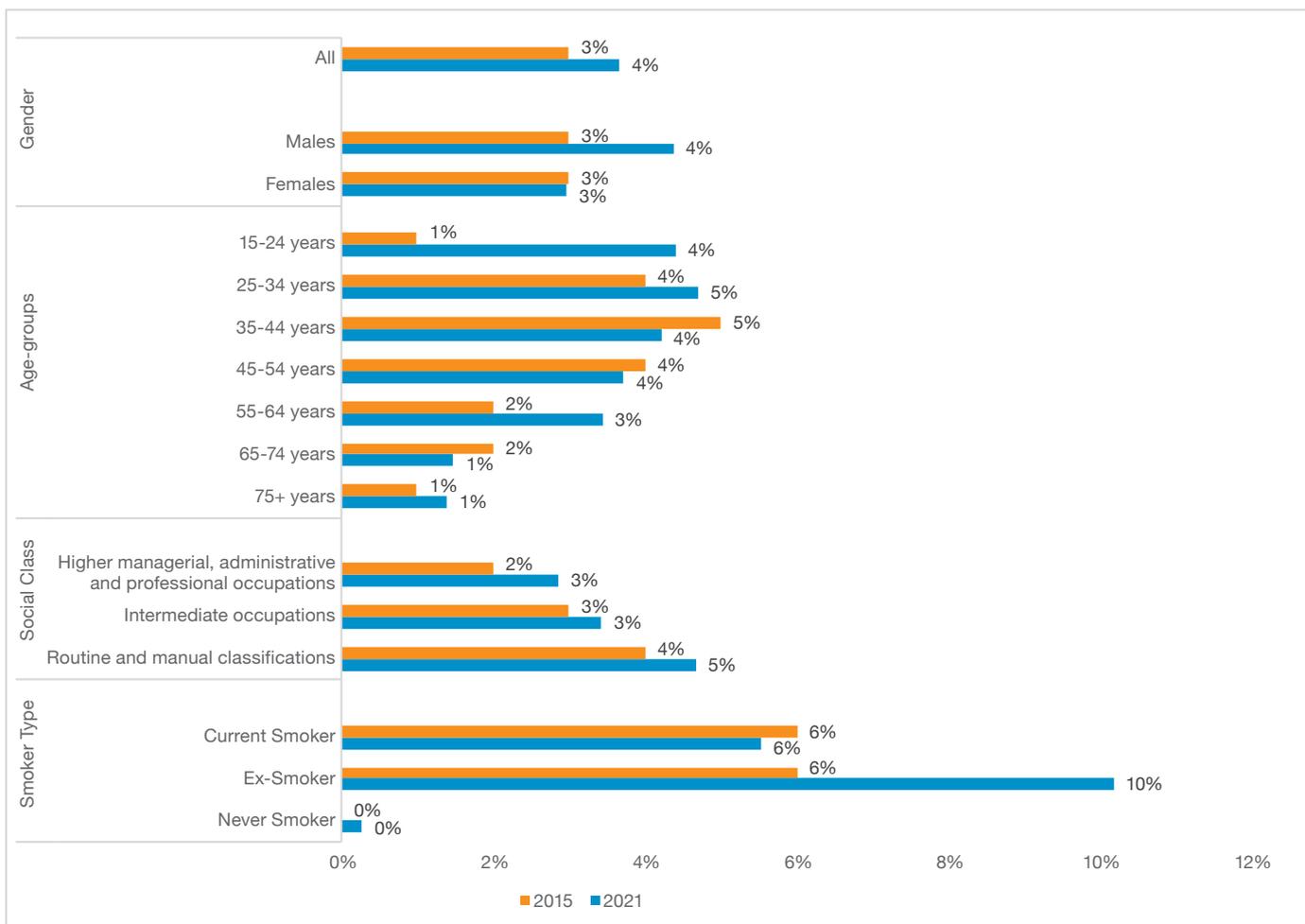
Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

Figure 21 presents the socio-demographic profile of people reporting current use of e-cigarettes in 2021, with comparison to 2015.

While 3% of females used e-cigarettes in both 2015 and 2021, the prevalence of e-cigarette use in males increased from 3% in 2015 to 4% in 2021 ($\chi^2=7.2$, $p<0.01$). An age pattern of e-cigarette use is evident in 2015 and 2021; however, the pattern has changed. E-cigarette use increased across the period in the 15-24 year age group (1% to 4%, ($\chi^2=28.7$, $p<0.0001$)) and the 55-64 year age group (2% to 3%, ($\chi^2=4.5$, $p<0.05$)). While there has been a small increase in the prevalence of e-cigarette use in each social class group, the increases are not statistically significant; the prevalence of e-cigarette use remains highest in the poorest social group in both 2015 (4%) and 2021 (5%).

There has been a change in the prevalence of e-cigarette use by smoking status. In 2015 the prevalence of e-cigarette use was similar among people who currently (6%) and formerly smoked (6%); however, in 2021, this pattern has changed with the prevalence of e-cigarette use remaining similar among current smokers (6%) and the prevalence of e-cigarette use increasing among former smokers to 10% ($\chi^2=21.2$, $p<0.0001$). There has been a small increase in e-cigarette use among never smokers (but still remains <1%).

Figure 21: Profile of current use of e-cigarettes, 2015 and 2021



Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

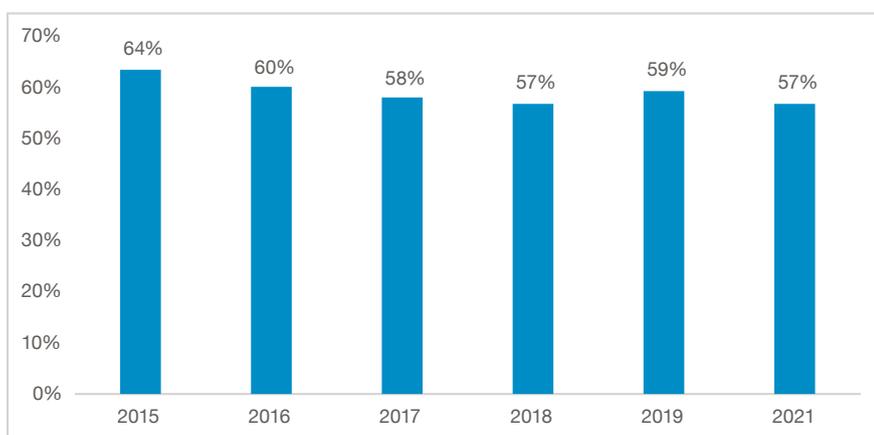
In order to look at the demographic factors associated with current e-cigarette use among Irish adults in 2015 & 2021, further analysis using logistic regression statistical methods was undertaken to identify those factors that were independently associated with current e-cigarette use. On both occasions, younger age-groups (<65 years) and a history of smoking (current smoking or past smoking) were the two main predictors of current use. Comparing 2021 to 2015, the likelihood of current e-cigarette use by those aged 15-34 years compared to those aged 65+ years increased from being 2.2 times more likely to currently use e-cigarettes in 2015 (aOR 2.2, 95% CI 1.3–3.7, $P<0.005$), to 6.2 times more likely to currently use e-cigarettes in 2021 (aOR 6.2, 95% CI 3.7–10.3, $P<0.0001$), while those aged 35-64 years compared to those aged 65+ years increased from being 2.3 times more likely to currently use e-cigarettes in 2015 (aOR 2.3, 95% CI 1.4–3.7, $P<0.001$), to 3.4 times more likely to currently use e-cigarettes in 2021 (aOR 3.4, 95% CI 2.0–5.5, $P<0.0001$), independent of gender, social class and smoking status. Finally, comparing 2021 to 2015, current e-cigarette use for past smokers compared to current smokers increased from being 1.2 times more likely in 2015 (aOR 1.2, 95% CI 0.92–1.61, $P=0.176$), to being 2.5 times more likely (aOR 2.5, 95% CI 1.86–3.29, $P<0.0001$) in 2022, independent of age, gender & social class.

2.5 Quitting intention and behaviour

2.5.1 Intention to quit

When asked in the Healthy Ireland survey what changes they would like to make to improve their health & wellbeing, almost half (49%) of people who smoke answered 'to cut down smoking' or to 'stop smoking.' As shown in Figure 22, in 2021 57% of current smokers reported to be at least thinking about quitting smoking, this compares to 64% of current smokers in 2015, ($\chi^2=21.6$, $p<0.001$).

Figure 22: Positive Intention to Quit among Smokers, 2015 to 2021



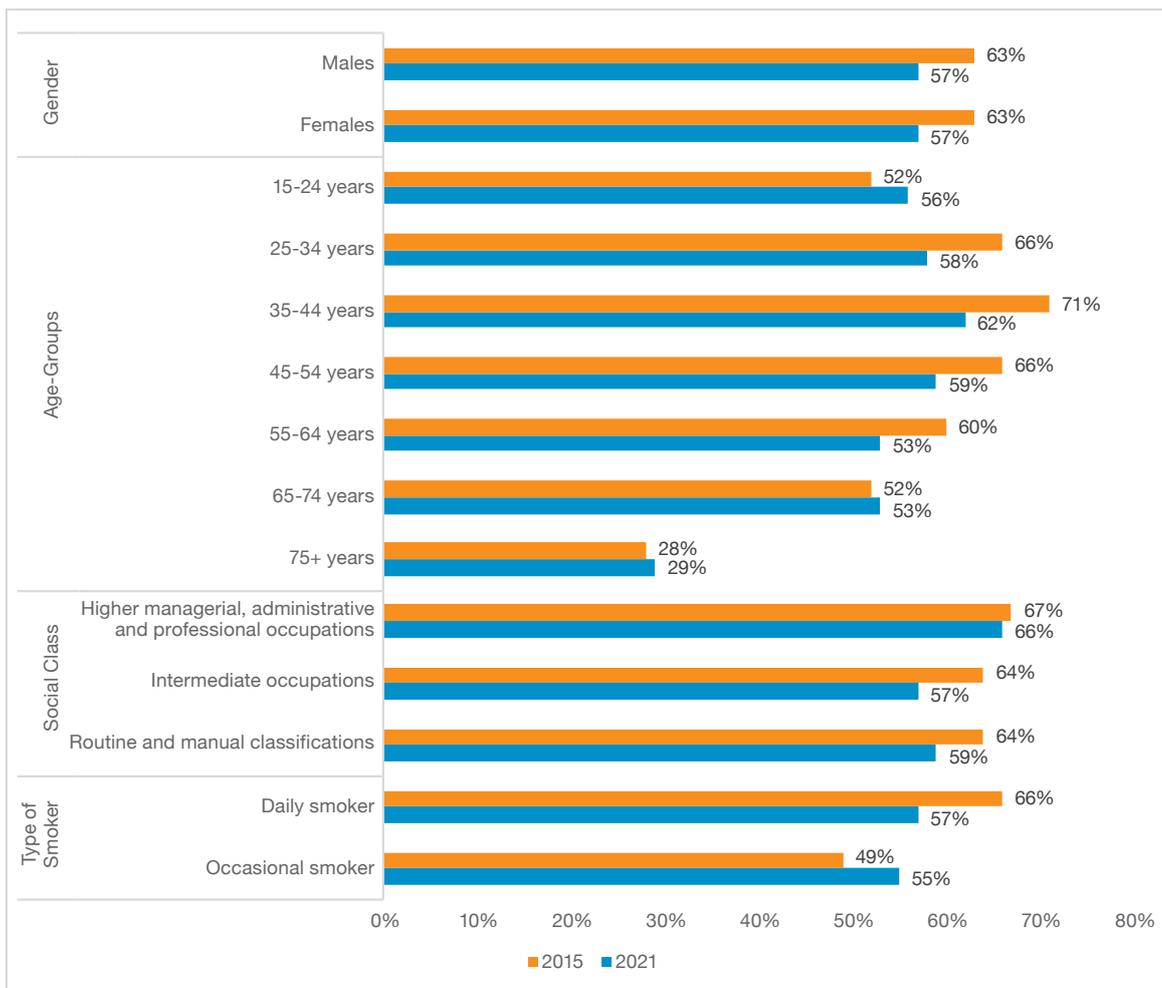
Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

The profile of people who smoke with a positive intention to quit (those who are thinking about quitting, actively planning to quit and trying to quit) is illustrated in Figure 23, and 2015 and 2021 are compared. Positive intention to quit was similar across males and females in both 2015 and 2021, albeit a significant reduction was observed from 2015 to 2021 for both groups (males: 64% v 57%, $\chi^2=7.3$, $p<0.01$; females: 63% v 57%, $\chi^2=6.6$, $p<0.01$). A similar age patterning of positive intention to quit was observed in both 2015 and 2021, with a declining prevalence of positive intention observed in older age groups. There was a significant reduction in positive intention to quit across the 25 to 34 year age group (66% v 58%, $\chi^2=5.2$, $p<0.05$) and the 35 to 44 year age-group (71% v 61%, $\chi^2=7.4$, $p<0.01$).

A social class gradient was also observed in 2021: people who smoke in the higher managerial, administrative and professional class more commonly reported a positive intention to quit (66%) than people who smoke in lower social classes (57% for people who smoke in intermediate occupational and 59% for people who smoke in routine/manual occupational classes, $\chi^2=11.4$, $p<0.01$). There was a similar social class gradient in 2015. However, while positive intention to quit has remained similar in the higher managerial, administrative and professional class (67% v 66%, $\chi^2=0.07$, $P=0.79$), there has been a reduction for people who smoke in intermediate occupational (65% v 57%, $\chi^2=2.8$, $P=0.09$) and a significant reduction in positive intention to quit among those from routine/manual occupational classes (65% v 59%, $\chi^2=4.0$, $p<0.05$).

There has also been a change in the prevalence of positive intention to quit across people who smoke daily versus occasional smokers. Positive intention to quit increased from 2015 to 2021 among people who smoke occasionally (49% v 55%, $\chi^2=0.95$, $p=0.33$), while it decreased significantly among people who smoke daily (66% v 57%, $\chi^2=23.5$, $p<0.0001$). See Figure 23.

Figure 23: Profile of people who currently smoke with positive intention to quit, 2015 & 2021

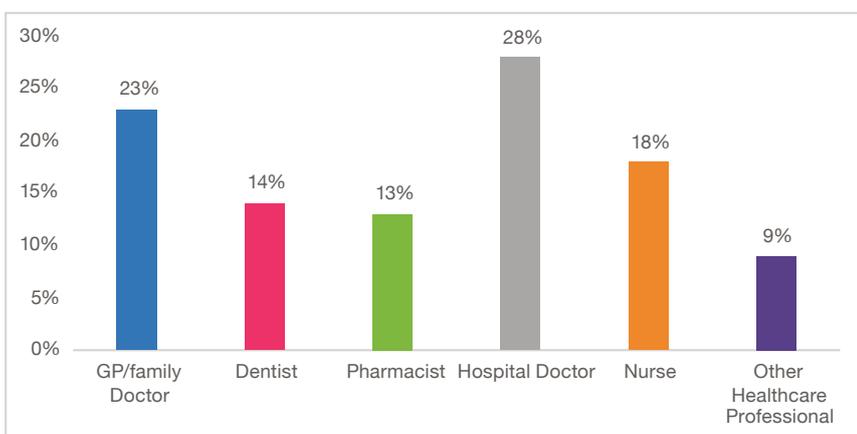


Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.5.2 Discussing Quitting with Health Professionals

In Healthy Ireland survey 2021 people who smoked were first asked if they had visited a number of healthcare professionals in the previous 12 months and, secondly, if they had discussed ways of quitting smoking with them during that health visit. Figure 24 details the % of smokers who discussed quitting smoking with healthcare professionals on their most recent visit; with the patients most likely to discuss quitting smoking with hospital doctors (28%) or GP/family doctors (23%).

Figure 24: Discussed quitting with health professionals during recent visit, 2021

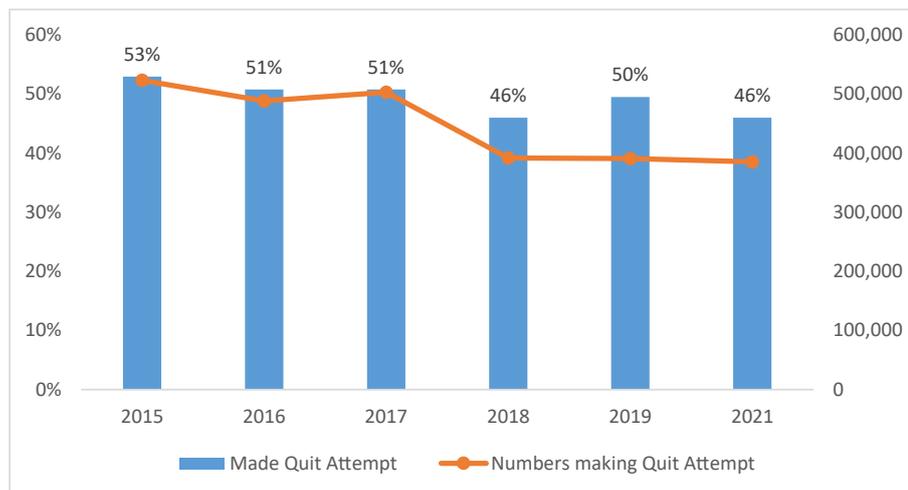


Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.5.3 Attempts to Quit

Figure 25 details the prevalence of quit attempts among recent smokers (current smokers and those who smoked within the 12 months prior to survey). Overall, there was a reduction in the prevalence of recent smokers making a quit attempt in the last 12 months between 2015 and 2021 (53% to 46% $\chi^2=197.8$, $p<0.0001$). In terms of an estimate of the numbers attempting to quit (using population estimates 2015 to 2021),³⁴ in 2015 an estimated 520,000 people attempted to quit smoking compared to 385,000 in 2021.

Figure 25: Prevalence of making a quit attempt among recent smokers and estimate of numbers attempting to quit, 2015 to 2021



Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

Not all quit attempts are successful however; of those who smoked in the past twelve months, in 2020-21 of those who attempted to quit smoking 27% actually succeeded during this time.

It is estimated that in the period 2020/2021:

- 843,000 adults were current or recent smokers (had smoked in the last 12 months)
- 385,000 adults attempted to quit smoking (during the last 12 months)
- 114,000 adults have successfully quit smoking (during the last 12 months).

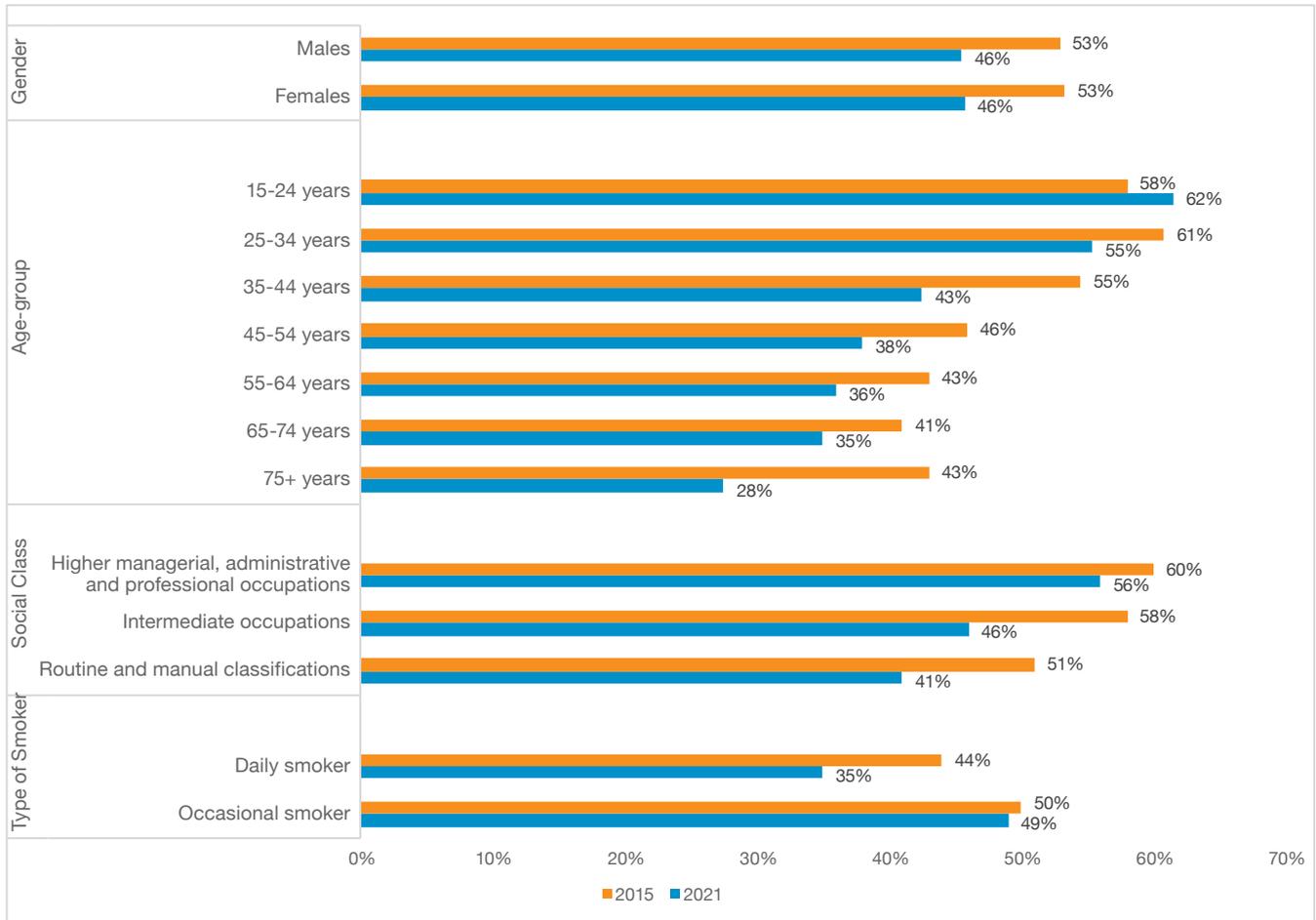
Figure 26 profiles people, current smokers & recent smokers (quit in last 12 months), who made a quit attempt in the last 12 months, comparing 2015 and 2021. Prevalence of making a quit attempt was similar among males and females in both 2015 and 2021, albeit there was a significant reduction between 2015 and 2021 for both males (53% v 46%, $\chi^2=16.6$, $p<0.01$) and females (53% v 46%, $\chi^2=15.5$, $p<0.01$).

In 2021, across age groups, making a quit attempt was more common among younger people ($\chi^2=52.7$, $p<0.0001$); for example, in 2021, 62% of those aged 15-24 years had made a quit attempt compared with 36% of those aged 55-64 years. Comparing 2015 and 2021, there was a significant reduction in the prevalence of making a quit attempt in the 35 to 44 year age group (55% v 43%, $\chi^2=18.9$, $p<0.01$, and the 45 to 54 year age-group (46% v 38%, $\chi^2=13.5$, $p<0.05$). There was no significant change in the other age groups.

Social class is also an important factor. In 2021 a greater proportion of those in higher managerial, administrative and professionals occupational groups and intermediate occupational groups reported making a quit attempt in the last 12 months than those in routine and manual occupational groups (56% and 46% versus 41% respectively ($\chi^2=17.5$, $p<0.01$)). Again, comparing 2015 and 2021, there was a significant reduction in the prevalence of making a quit attempt among those from routine and manual occupations (51% v 41%, $\chi^2=22.2$, $p<0.0001$, and those from intermediate occupations (58% v 46%, $\chi^2=15.2$, $p<0.001$); however, there was no significant change among the highest social class.

Finally, compared with people who smoke occasionally, daily smokers were significantly less likely to report making a quit attempt in 2021 (49% versus 35%, $\chi^2=17.4$, $p<0.001$). Since 2015 there has been a significant reduction in making a quit attempt among daily smokers (44% v 35%, $\chi^2=27.8$, $p<0.0001$), whereas quit attempts among occasional smokers have remained unchanged (50% v 49%, $\chi^2=10.7$, $p=0.06$).

Figure 26: Profile of people who smoke (recent and current) who made an attempt to quit in the 12 months prior to survey, 2015 and 2021

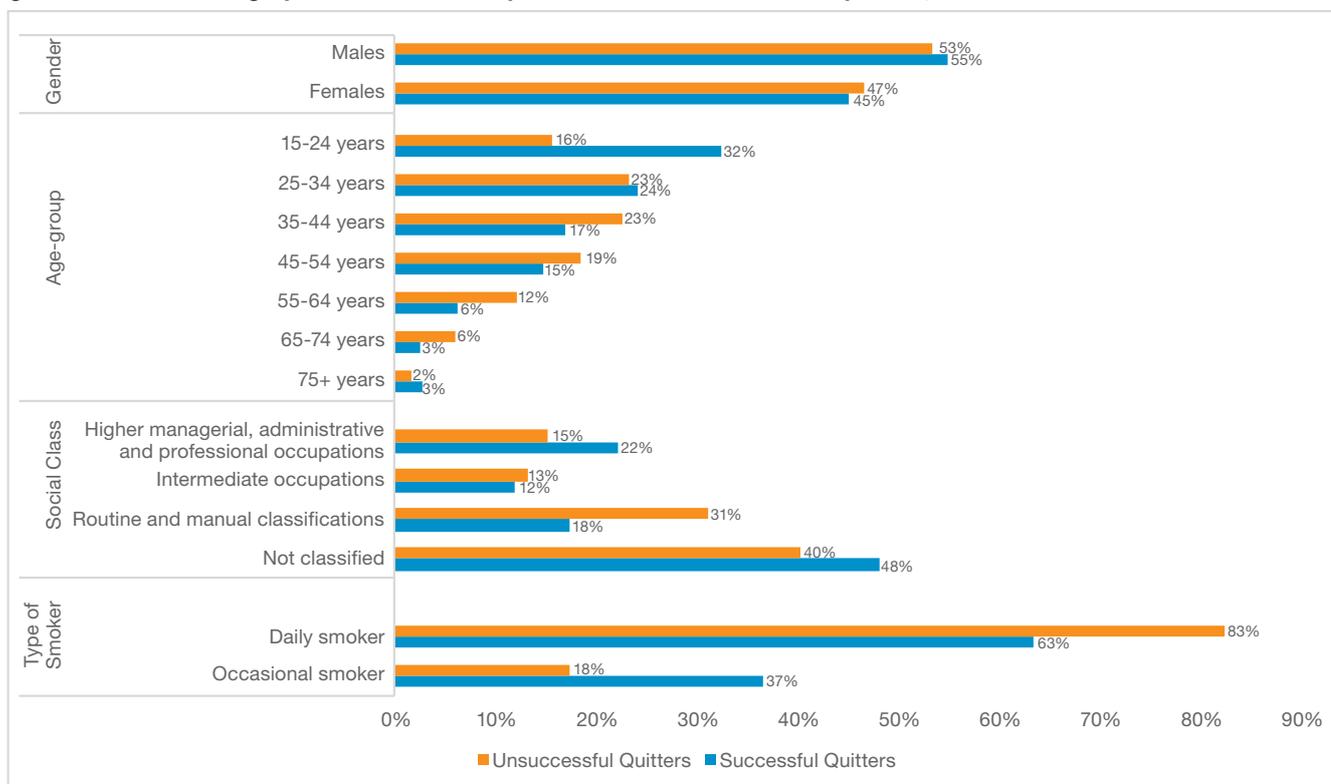


Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.5.4 Profile of Successful Quitters compared to Unsuccessful Quitters:

Figure 27 details a socio-demographic profile of successful quitters in 2021, compared to unsuccessful quitters. There was no difference in gender breakdown, however successful quitters were significantly more likely to be younger (aged <35 years), ($\chi^2=29.1$, $p<0.0001$). Excluding those with no social classification, the majority of quitters were from the highest social class (43%, $\chi^2=17.5$, $p<0.001$). Finally, those who were unsuccessful at quitting on this occasion were more likely to be daily smokers (82%, $\chi^2=29.1$, $p<0.0001$).

Figure 27: Socio-demographic of successful quitters versus unsuccessful quitters, 2021



Source: Healthy Ireland annual survey 2021, Department of Health, Dublin.

2.5.5 Use of supports

Table 9 presents the types of aids/supports used by people when they attempted to quit smoking in 2015 and 2021. The majority of people attempting to quit still choose the least effective way, by using no supports to assist them. In 2021 62% of those attempting to quit, tried to do so using willpower alone; this increased from 2015 (50%, $\chi^2=40.8$, $p<0.0001$).

The proportion of people who smoke making a quit attempt using HSE endorsed or provided supports decreased from 2015 to 2021 (21% versus 15%, $\chi^2=8.6$, $p<0.005$); this was mainly as a result of a reduction in the numbers using NRT support and stop smoking medications. There could be various reasons for this, for example: access to some of these HSE endorsed or provided supports were impacted by COVID-19; Varenicline, a powerful stop smoking medicine available on prescription, has been temporarily withdrawn from the market in Ireland by the manufacturers owing to issues with its production; changes in medical card eligibility and dispensing rules.

The proportion of people who smoke making a quit attempt with e-cigarettes decreased from 29% in 2015 to 18% in 2021 ($\chi^2=25.8$, $p<0.0001$).

Table 9: Support used by those attempting to quit smoking, 2015 & 2021

Support Used in Recent Quit Attempts	2015	2021
No help used - willpower only	50%	62%
HSE provided or recommended supports (NRT, Quitline, Quit.ie, HSE Quit facebook, Prescribed stop smoking medications)	21%	15%
e-cigarettes	29%	18%
Other aids/supports	3.6%	3.4%

Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.6 Tobacco use in special groups

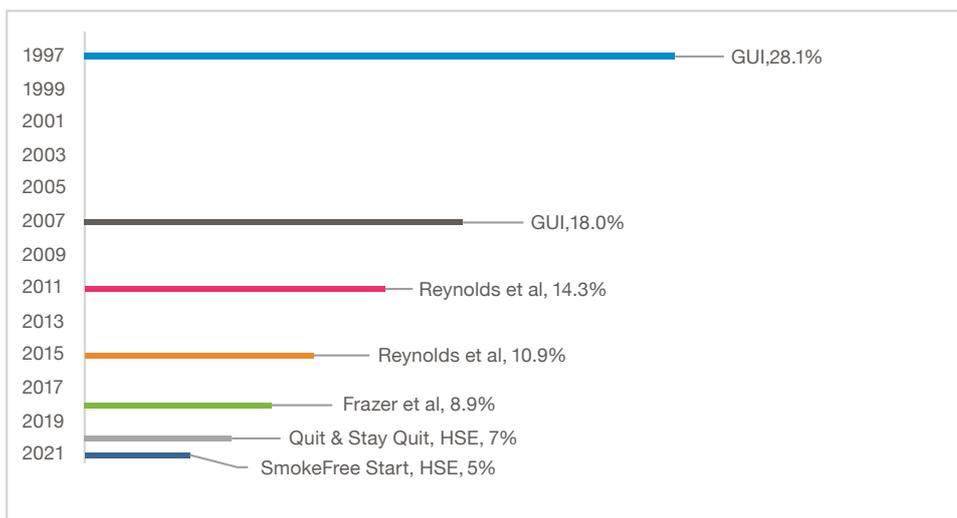
2.6.1 Smoking and pregnancy

Smoking complicates pregnancy and leads to poor outcomes including impaired foetal growth and development, pre-term delivery, birth defects and sudden infant death; health impacts continue past childhood and into later life, since children born to mothers who smoke have an increased likelihood of developing chronic disease as adults.³⁵ For these reasons, smoking in pregnancy merits special attention and therefore identification and treatment of smoking in pregnancy is prioritised in new *National Stop Smoking Clinical Guidelines*³⁴, published in Ireland in January 2022.

There continues to be no national system for the recording of maternal smoking in Ireland. Some older surveys and local studies provide some useful insights (Figure 28). According to the *Growing Up in Ireland* study, smoking in pregnancy reduced from 28% of mothers of children born in 1997/1998 smoking to 18% for mothers of children born in 2007/2008; a 35.7% relative decrease in smoking rates in that decade.³⁶ The Coombe Women and Infants Hospital reported that between 2011 and 2015 the prevalence of maternal smoking decreased from 14% to 11%, a 21.4% relative reduction ($P < 0.001$).³⁷ In 2018 a study by Frazer et al³⁸ reported a smoking prevalence of 8.9% among study participants at a large maternity hospital in Dublin. In 2020 the HSE received Sláintecare Integration Funding to establish two maternity-specific stop smoking programmes (*Quit & Stay Quit* and *SmokeFree Start*); results from the first year of their establishment estimated prevalence rates in their catchments of 7% and 5%, respectively; both are most likely an under-estimate, given both services were established during the COVID-19 pandemic and associated restrictions. In addition, breath carbon monoxide testing was not able to be established in one project at all and only for a short period in the *Quit & Stay Quit* project.

In summary, while the true estimate of maternal smoking in Ireland is still unclear, there appears to be a reduction in prevalence over the last two decades, which is positive and generally in line with secular trends in smoking in Ireland.

Figure 28: Prevalence of smoking in pregnancy as reported by survey & local data, 1997/8 to 2021



Sources: Growing Up in Ireland, Reynolds et al, Frazer et al, HSE Quit & Stay Quit Pilot Study, HSE SmokeFree Start Pilot Study.

However, a key feature of smoking in pregnancy is that the prevalence is greatest in poorest and most disadvantaged groups. Both the GUI surveys and the Reynolds et al studies confirm social class patterning of smoking in pregnancy: mothers with lower educational attainment and lower income more commonly report smoking in pregnancy than mothers with higher educational attainment and higher income. The Coombe Women and Infants Hospital also found that smoking during pregnancy is strongly associated with younger maternal age, multiparity, unplanned pregnancy, a history of psychiatric problems, alcohol intake and illicit drug usage.

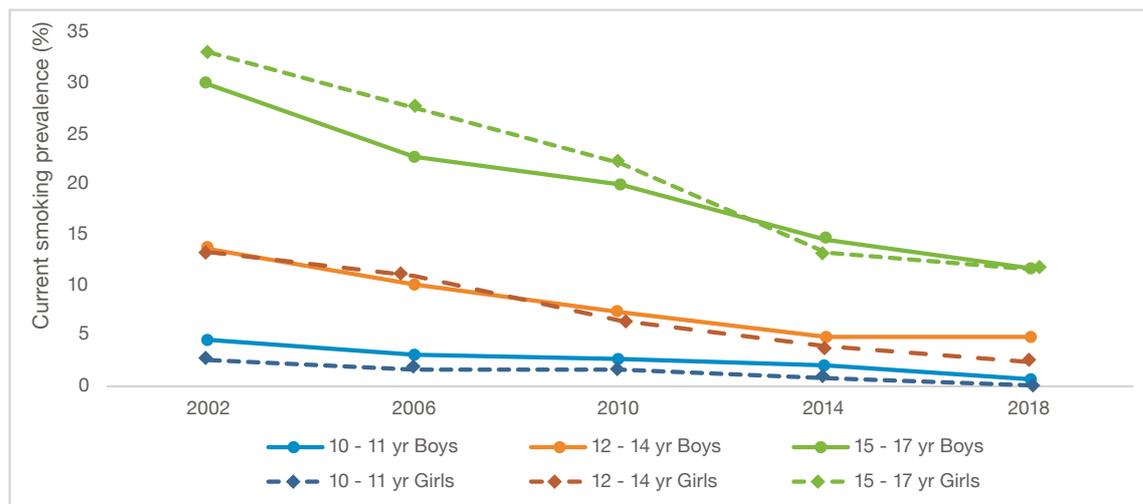
2.6.2 Smoking and children

The Health Behaviour of School-aged Children (HBSC) Survey measures tobacco use in children, aged 10-17 years, as part of a World Health Organization Collaborative Cross-National Study.³⁹ It confirms a trend of reducing smoking prevalence among children and young people in Ireland. In 2018, the most recent survey, 11% of 10-17 year olds reported having ever smoked tobacco; this compares to 16% in 2014. In addition, 5% of children (5% boys, 5% girls) reported current smoking; this compares to 8% in 2014.⁴⁰ While ever smoking increased across age groups, the 2018 HBSC study found no difference across gender and social class groups. Current smoking also increased across age groups and, while there was also no difference across gender, current-smoking was socially patterned among children and young people, with prevalence higher among those in lower social groups: for example, in the 15-17 year age group, there was a 4-5% gap in current-smoking for males and females. This social class gap was new for boys in 2018.

Between 1998 and 2018 there was a large decrease in the proportion of children who reported currently smoking (from 23% in 1998 to 5% in 2018, a 78.3% relative reduction). Current prevalence and the recent trend in current-smoking among children is illustrated in

Figure 29.

Figure 29: Trends in current smoking prevalence in children, 2002 to 2018



Sources: HBSC, Smoking behaviour among Irish schoolchildren, Research Factsheets, 2002, 2006, 2010, 2014, 2018

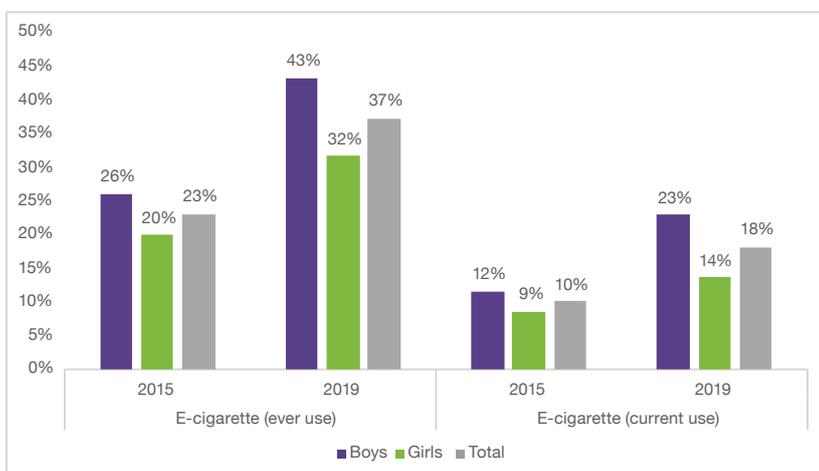
The European School Survey Project on Alcohol and Other Drugs (ESPAD) in Ireland examines smoking among older children, aged 15 to 17 years. In that group smoking prevalence declined from 41% in 1995 to 13% in 2015, a 68% relative reduction.⁴¹ However, in 2019 current smoking (smoked in the past 30 days) increased overall to 14.4%, with the increase being greater in boys than girls (16.2% vs 12.8%). Further research on the 2015 & 2019 datasets suggest that other associated factors did not deteriorate between 2015 and 2019, and access to cigarettes was perceived to have become more difficult during that period. However, findings highlight the need for vigilance regarding current teenage cigarette smoking in a context of increasing youth e-cigarette use.

2.6.3 E-Cigarette Use among Children

HBSC (2018) included for the first time questions on e-cigarette use asked to those aged 12 years and older⁴⁰ There were significant differences by gender and age group in ever use of e-cigarettes. Boys (26%) are more likely than girls (18%) to report that they have ever used electronic cigarettes. Older children are more likely to report ever using e-cigarettes than younger children. There are no statistically significant differences across social class groups. However, in terms of current use of e-cigarettes, as with ever use, there were statistically significant differences by gender and age group: boys (10%) are more likely than girls (7%) to report that they have used electronic cigarettes in the last 30 days; older children are more likely to report using electronic cigarettes than younger children. There are no statistically significant differences across social class groups.

ESPAD (2019) also reports on e-cigarette use among 16 year olds: almost four in 10 students (39%) had tried e-cigarettes (23% in 2015) and almost one in 5 (18%) were current users (10% in 2015), making both ever use and current use of e-cigarettes higher than use of combustible cigarettes (See Figure 30).⁴¹ When asked about their reasons for trying e-cigarettes, two-thirds (66%) said that it was 'out of curiosity' and 29% said that it was because their friends offered it. Only 3% said that it was 'to stop smoking cigarettes.' See Figure 30.

Figure 30: Ever & current use of e-cigarettes among 16 year old Irish children, 2015 & 2019



Source: Hanafin, J., Sunday, S. & Clancy, L. Friends and family matter most: a trend analysis of increasing e-cigarette use among Irish teenagers and socio-demographic, personal, peer and familial associations. BMC Public Health 21, 1888 (2021)

In addition, a cross-sectional analysis of the 2018 Planet Youth survey completed by 15–16 year olds in the West of Ireland in 2018 reported e-cigarette only use and dual-use are emerging behaviours among adolescents with 22.1% describing themselves as current nicotine product users, consisting of 5.1% e-cigarette only users, 7.7% conventional cigarette only users, and 9.3% dual-users.⁴²

For risk factors, the odds of association were weaker for e-cigarette only use compared to conventional cigarette and dual use. Participating in team sport four times/week or more significantly reduced the odds of conventional cigarette and dual use but had no association with e-cigarette only use (Cig: adjusted odds ratio (aOR) 0.63, 95% confidence interval (CI) 0.44–0.90; Dual-use: aOR 0.63, 95% CI 0.43–0.93). Similarly, having higher value for conventional social norms reduced the odds of conventional cigarette and dual use but not e-cigarette only use.

The study concluded that it was the first study to show, among a generalisable sample, that dual-use is the most prevalent behaviour among adolescent nicotine product users in Ireland. Risk factor profiles differ across categories of use and prevention initiatives must be cognisant of this.

A study conducted by the HSE Environmental Health Service found that adolescents can access e-cigarettes easily;⁴³ Social media was the most popular way to obtain them with children using ‘Snapchat’ and ‘Instagram’ to buy and sell products between themselves. They were also purchased in shops such as discount stores and vape shops, where any age restrictions were not difficult to overcome. Online purchase was less popular. Most participants had not discussed e-cigarettes with their parents. By contrast, most had discussed smoking with their parents. Similarly, their findings suggest that smoking, alcohol consumption, and use of e-cigarettes are interlinked.

2.6.4 Smoking and people with mental health problems

People with mental health problems are recognised as a high prevalence smoking population, and tobacco use significantly compounds poor physical and mental health experience for this group;⁴⁴ however, the relationship between mental health problems and smoking in Ireland is poorly described. Healthy Ireland 2021 used the ‘Energy & Vitality Index’ to measure positive mental health and the Mental Health Index-5 (MHI-5) to measure negative mental health. The MHI-5 survey involved respondents indicating the extent to which they have experienced indicators of more negative aspects of mental health such as being ‘a very nervous person,’ feeling ‘downhearted and blue,’ ‘worn out,’ ‘tired’ and ‘so down in the dumps that nothing cheers you up,’ in the four weeks before the survey.

Overall 15% of respondents to the Healthy Ireland survey 2021 had a score (56 or less) which indicates psychological distress of an extent that indicated a probable mental health problem; the corresponding figure in 2015 was 10%. Table 10 illustrates a significant variation in the prevalence of smoking by probable mental health problem status among adults, with greater prevalence of smoking among those with mental health problems (26% v 35%, $\chi^2=55.0$, $p<0.0001$)

Table 10: Prevalence smoking by probable mental health problem status, 2021 & 2015

Mental Health Problems	2021	2015	2021	2015	2021	2015
	Current Smoker		Past Smoker		Never Smoker	
Probable mental health problem	26%	35%	24%	24%	50%	41%
No mental health problem	17%	22%	25%	28%	59%	50%

Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

2.7 Impact of COVID-19 and associated restrictions on smoking

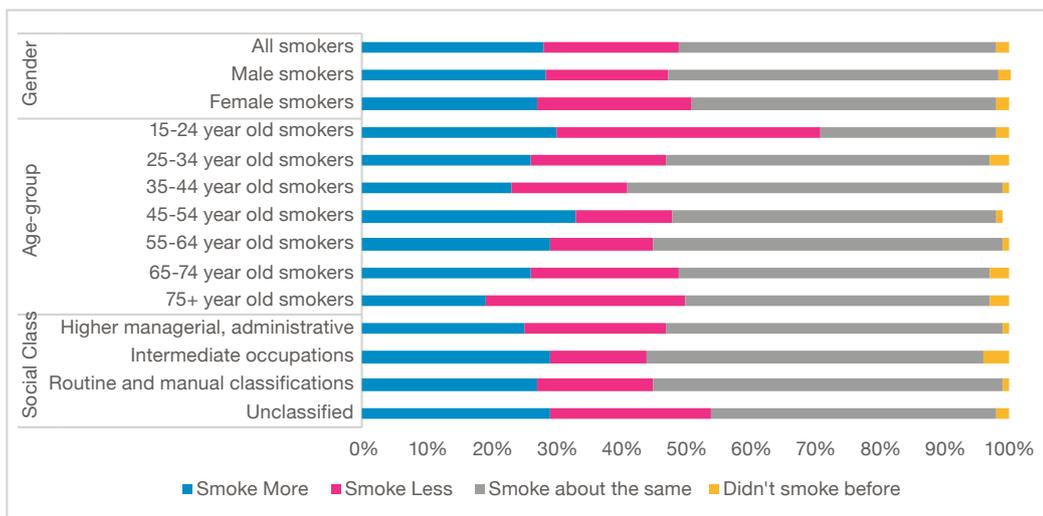
Besides the direct impact of SARS-CoV-2 infection, the COVID-19 pandemic and associated restrictions has wider impacts on population health and wellbeing, some of which have already presented but many of which may yet unfold for years to come.^{45,46,47} These wider impacts are mediated through a range of pathways including home isolation, social distancing, unemployment, school closures and the direct and indirect effects on mental health and wellbeing. It is anticipated that some of these wider impacts will fall heaviest on the most vulnerable and poorest groups, and include potential effects on smoking and quitting behaviours. To date, international studies in the area have been mixed:⁴⁸ some studies found smoking prevalence reduced, while others have found that current smokers increased consumption and findings in relation to quitting were diverse.

Consistent with this picture from international studies, a survey of the social impacts of COVID-19 conducted in April 2020 by the Central Statistics Office found that, among people who smoked, 30.5% said their consumption had increased, 8.6% said it had decreased and 60.9% said that their consumption had not changed since the introduction of COVID-19 restrictions. Further analysis of this data by the Institute of Public Health in Ireland found that increased tobacco product consumption was associated with feeling very nervous (aOR 2.2, 95% CI 1.2–4.0, $P=0.009$), feeling downhearted/depressed (aOR 2.4, 95% CI 1.3–4.4, $P=0.004$), being concerned about someone else’s health (aOR 2.0, 95% CI 1.1–3.9, $P=0.031$), working from home (aOR 2.3, 95% CI 1.0–5.3, $P=0.046$) and increases in alcohol consumption (aOR 3.6, 95% CI 1.7–7.7, $P=0.023$).⁵⁰

In Healthy Ireland Survey 2021 current smokers were asked to compare their smoking behaviour at the time of survey to at the start

of COVID-19 restrictions. Almost half (49%) reported smoking about the same, 28% reported smoking more now compared to then, 21% reported smoking less now compared to then, and 2% reported starting to smoke in the time since the beginning of COVID-19 restrictions.⁴⁹ This picture is consistent with the findings in other countries. Different effects were reported by different population groups. Occasional smokers were significantly more likely than daily smokers to have changed their smoking behaviour (60% versus 48%) and, in general, where a change was reported, a higher proportion of occasional smokers (50%) than current smokers (17%) reported smoking less than before COVID-19 restrictions ($\chi^2=106$, $p<0.0001$). There was no difference in smoking behaviours by gender, but there were significant differences in smoking behaviour by age groups: as displayed in Figure 31 with the youngest age group (15-24 years) most likely to have changed their smoking behaviour now, while the middle age groups (35-44 years, 45-54 years and 55-64 years) were least likely to have changed their smoking behaviours, ($\chi^2=84$, $p<0.0001$), albeit the direction of effect was mixed. Looking at social class, those from the highest were more likely to report smoking less (22%) compared to intermediate groups (15%) and routine/manual occupations (18%), ($\chi^2=29$, $p<0.01$).

Figure 31: Comparison of smoking behaviours at time of survey compared to start of COVID-19 restrictions by socio-demographic variables, 2021



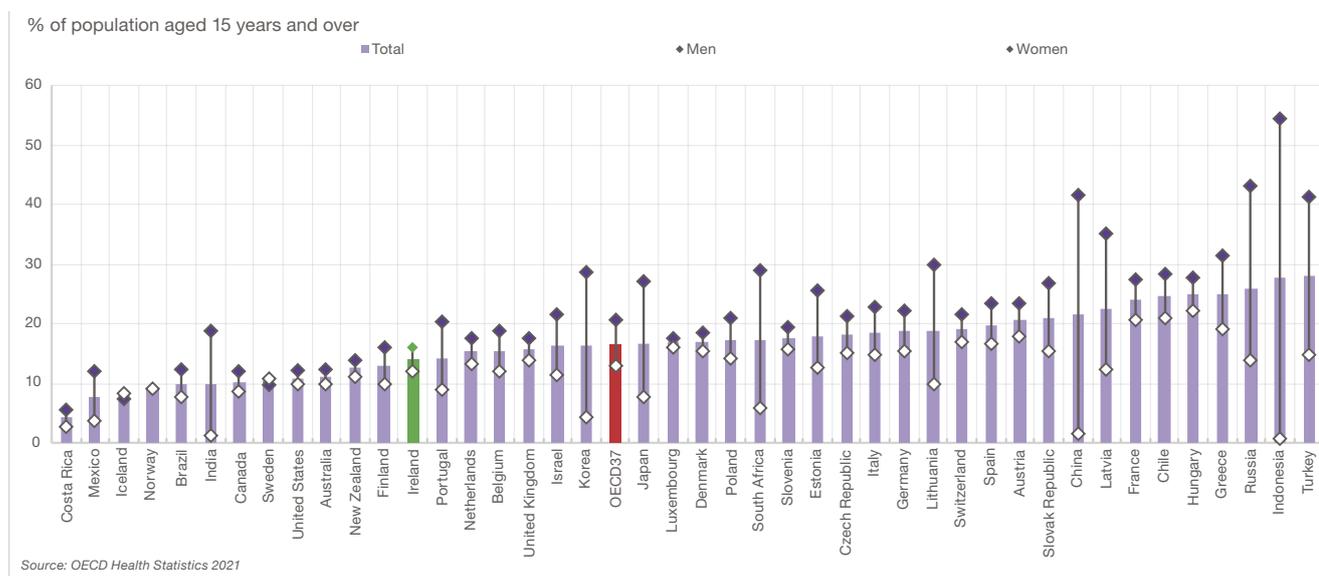
Source: Healthy Ireland annual survey 2021, Department of Health, Dublin.

2.8 International comparisons

2.8.1 Smoking among adults, Ireland versus other countries

Across OECD countries 16.5% of people aged 15 and over smoked tobacco daily in 2019 (Figure 32).⁵¹ The proportion of adults who smoke daily varies approximately threefold across countries. Tobacco consumption remains more common among men than women in all countries. Daily smoking rates decreased in most OECD countries over the last decade, from an average of 21.3% in 2009 to 16.5% in 2019 (Figure 33).

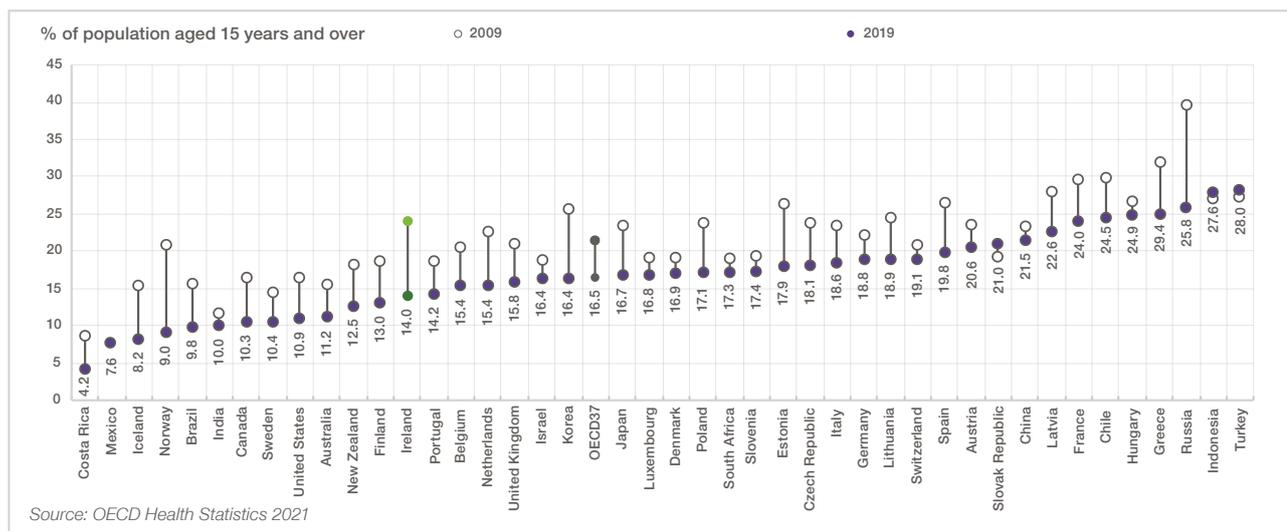
Figure 32: Prevalence of daily smoking, age 15 years and older, by gender, 2019 (or nearest year)



Source: OECD Health Statistics 2021

Source: OECD Health at a glance, 2021

Figure 33: Prevalence of daily smoking, age 15 years and older, 2009 and 2019 (or nearest year)

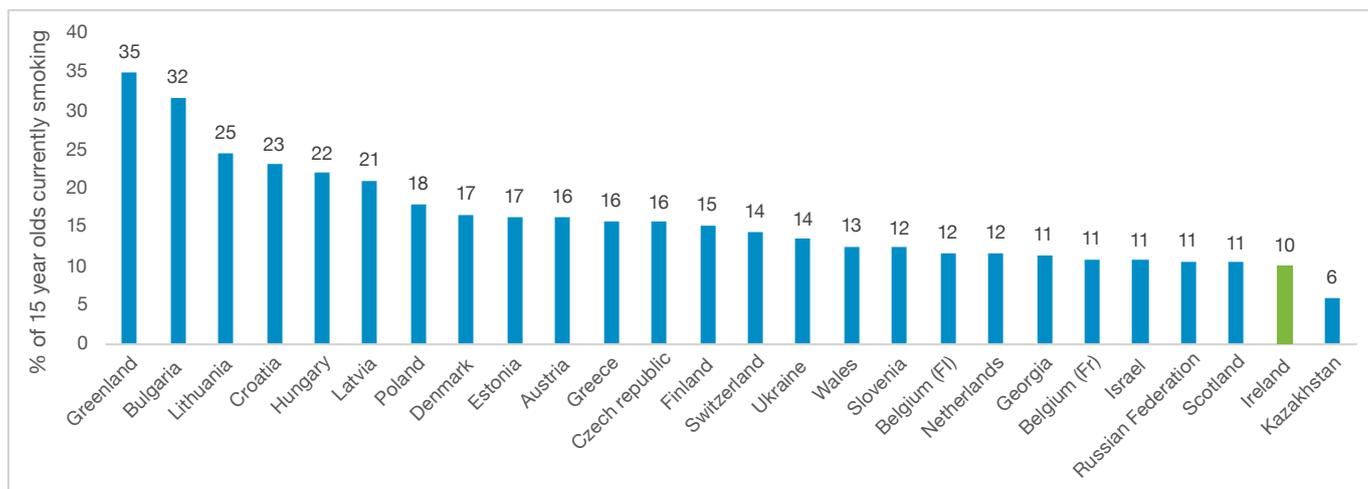


Source: OECD Health at a glance, 2021

2.8.2 Smoking among children, Ireland versus other countries

In 2018, as illustrated in Figure 34, fifteen year old schoolchildren in Ireland (boys and girls together) are ranked 26th among 27 countries in Europe with 10.1% reporting that they are current smokers. Ireland’s relative position in relation to the prevalence of smoking among children has improved: it ranked 12th in 1998, 20th in 2002, 13th in 2006, 23rd in 2010, 25th in 2014 and now 26th in 2018.⁴⁰

Figure 34: Prevalence of smoking among 15-year old children, international comparisons, 2018



Source: HBSC

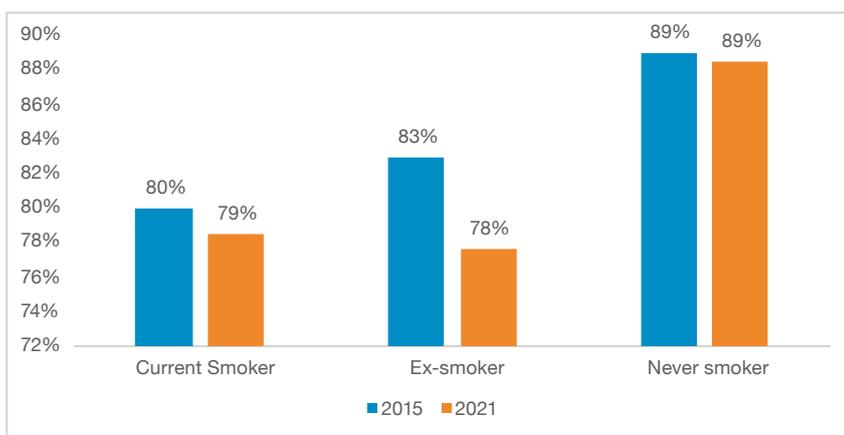
3. Tobacco Use – Impact on Health

3.1 Health status

The Healthy Ireland Survey collects information on reported health status as well as tobacco product use and can be used to explore the impact of smoking on health.

Figure 35 presents the prevalence of positive self-rated health among adults by smoking status. In 2021, compared with people who report never smoking, self-rated health is poorer among people who formerly smoked or currently smoke, with the prevalence of positive self-reported health 89% versus 78% and 79% respectively ($\chi^2 = 150.2$, $p < 0.0001$). For current smokers, overall self-rated health has slightly reduced compared to 2015, while for past smokers overall self-rated health has reduced significantly compared to 2015 ($\chi^2 = 150.2$, $p < 0.001$). The Healthy Ireland Survey population is diverse and includes many younger people who smoke who have yet to accumulate the significant lifetime exposure necessary to significantly impact health. To account for age, gender and social class differences, further analysis was undertaken which identified that in 2021 people who currently smoke were, independent of these factors, two times more likely to report poorer health, compared to people who never smoked, (aOR=2.0, 95%CI: 1.71, 2.40, $p < 0.0001$), while former smokers were 1.8 times more likely to report poorer health, compared to people who never smoked (aOR=1.8, 95%CI: 1.6, 2.2, $p < 0.001$), independent of these factors.

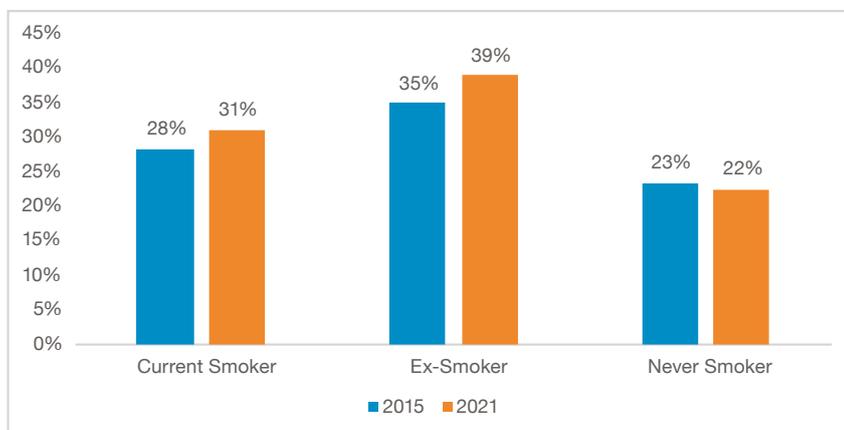
Figure 35: Prevalence of positive self-rated health among adults, by smoking status, 2015 & 2021



Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

Furthermore, as shown in Figure 36, current or ex-smokers also report a higher prevalence of long-standing illnesses, when compared with those who never smoked ($\chi^2 = 181.0$, $p < 0.0001$). In 2021 more current smokers (31% v 28%, $\chi^2 = 35.3$, $p < 0.001$) and past smokers (39% v 35%, $\chi^2 = 30.8$, $p < 0.001$) reported having long-term illness compared to 2015. Again, to account for age, gender and social class differences, further analysis was undertaken which identified that in 2021 people who currently smoke were, independent of these factors, 1.7 times more likely to report having a long-standing illness compared to people who never smoked, (aOR=1.65, 95%CI: 1.42, 1.91, $p < 0.0001$), while former smokers were 1.8 times more likely to report poorer health, compared to people who never smoked (aOR=1.85, 95%CI: 1.6, 2.1, $p < 0.001$), independent of these factors.

Figure 36: Prevalence of long-term illnesses, by smoking status, 2015 & 2021

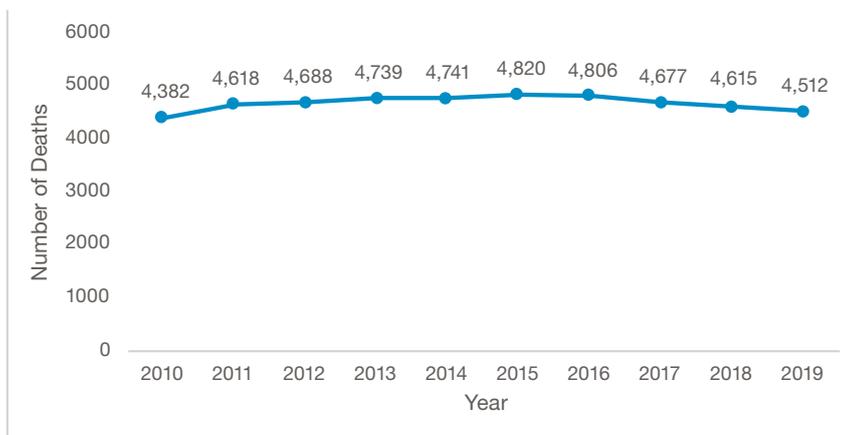


Source: Healthy Ireland annual surveys 2015 to 2021, Department of Health, Dublin.

3.2 Deaths due to smoking

Through linking epidemiological information on the risk of mortality from smoking attributable diseases with data on smoking in the population, deaths attributable to smoking in Ireland can be identified (additional information is available in Annex 2). The methodology used in this report is an update on that used in the previous State of Tobacco Control Report (2018); therefore a re-calculation of smoking attributable deaths from 2010 is included here. In 2019, as shown in Figure 37, there were estimated to be approximately 4,512 deaths attributable to smoking; an increase of approximately 3% since 2010.

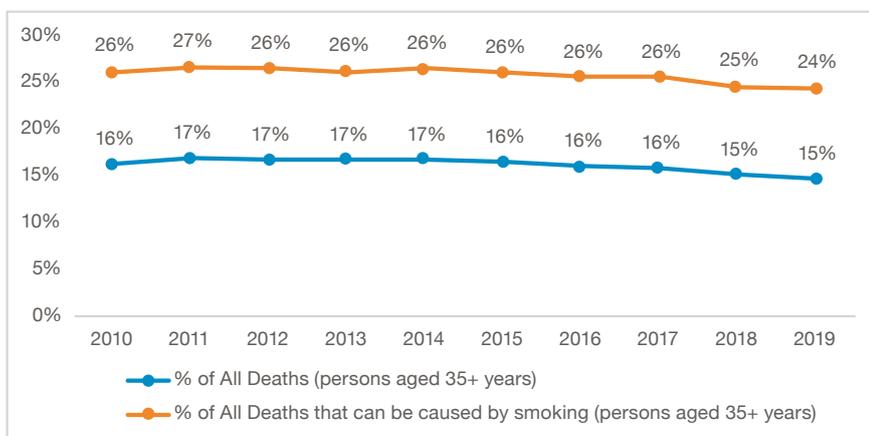
Figure 37: Trend in crude number of deaths estimated to be attributable to smoking, 2010 – 2019



Source: HSE calculations

In 2019, as shown in Figure 38, 24% of deaths (persons aged 35+) for conditions that can be caused by smoking were estimated to be attributable to smoking; overall, it was estimated that 15% of all deaths (persons aged 35+), from all causes, were attributable to smoking. Trends in these crude proportions remained relatively stable over the period 2010 to 2019.

Figure 38: Trends in crude proportion of deaths estimated to be attributable to smoking, 2010 – 2019



Source: HSE calculations

The overall burden of smoking attributable deaths is greater among men than women. As illustrated in Table 11, of deaths that can possibly be caused by smoking in 2019, 27% were due to smoking in males compared with 22% among females. In relation to deaths from any cause the burden of smoking related deaths is almost 25% higher in males than females (16% versus 13%, respectively).

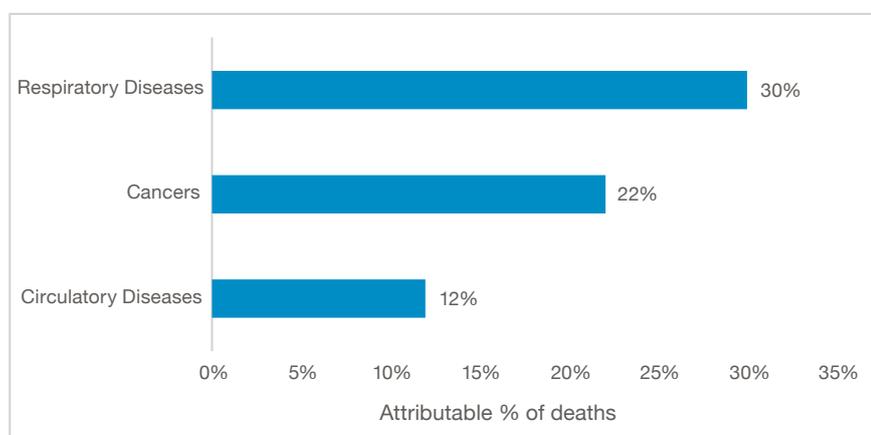
Table 11: Deaths estimated to be attributable to smoking, by gender, 2019

	Males	Females
% of deaths (aged 35+ years) than can be caused by smoking and estimated to be attributable to smoking	27%	22%
% of all deaths (aged 35+ years) estimated to be attributable to smoking	16%	13%

Source: HSE calculations

This smoking related burden of deaths (for persons aged 35+), in relation to all deaths, 30% of all deaths from respiratory diseases (all causes), 22% of all deaths from malignant cancers (all causes), and 12% of all deaths from circulatory diseases (all causes), in persons aged 35+ years, were estimated to be attributable to smoking. (See Figure 39).

Figure 39: Percent of deaths for all causes of these conditions (for persons aged 35+ years) that were estimated to be attributable to smoking, 2019



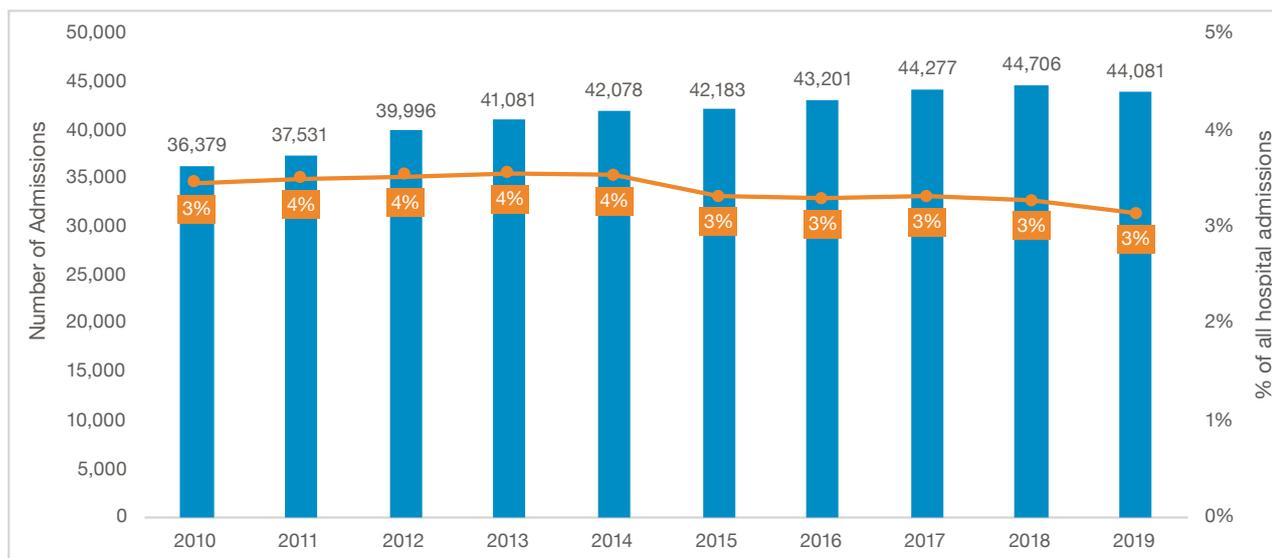
Source: HSE calculations

3.3 Hospitalisations due to smoking

Similarly, through linking epidemiological information on the risk of smoking attributable diseases with data on smoking in the population and hospital data, hospitalisations attributable to smoking in Ireland can be identified (additional information is available in Annex 2).

In 2019, as shown in Figure 40, there were estimated to be approximately 44,000 smoking related hospital discharges; this is an increase of approximately 21% since 2010, with increases in day case discharges the main contributor to this increase. To place this in context, nationally, across the period 2010 to 2019, hospital discharges increased from 1.44 million to 1.74 million (21% increase).⁵² Over the ten year period, smoking related hospitalisations account for 3.1% to 3.3% of all hospitalisations (for those aged 35+).

Figure 40: Trend in crude number and proportion of hospitalisations (inpatient and day case) estimated to be attributable to smoking, 2010-2019



Source: HSE calculations

The burden of smoking attributable hospitalisation is again greater among men than women. As illustrated in Table 12, of hospitalisations that can be caused by smoking, in 2019 20% of these were due to smoking among men compared with 17% among women. Relating this to hospitalisation due to any cause, the burden of smoking related hospitalisation among men was higher than the rate among women (4% versus 3% respectively).

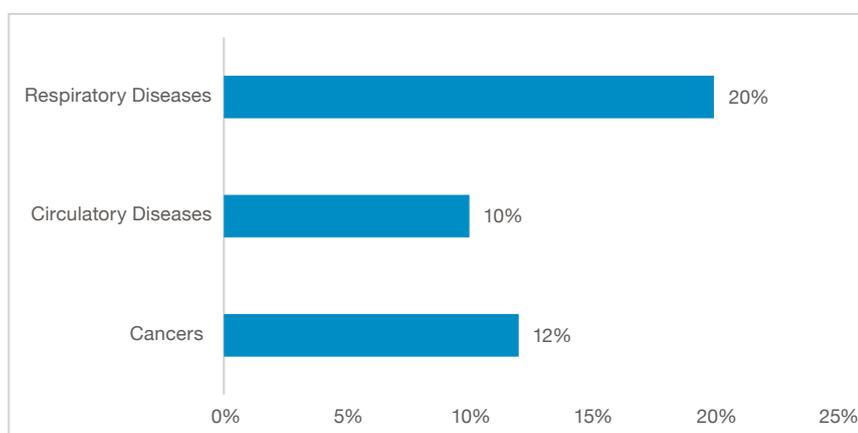
Table 12: Hospitalisations estimated to be attributable to smoking, by gender, 2019

	Males	Females
% of hospitalisations (aged 35+ years) that can be caused by smoking, estimated to be attributable to smoking	20%	17%
% of all hospitalisations (aged 35+ years), estimated to be attributable to smoking	4%	3%

Source: HSE calculations

This smoking related burden of hospitalisation was further examined by clinical grouping. In 2019, as illustrated in Figure 41, 20% of all hospitalisations for respiratory conditions, 12% of hospitalisations for cancers and 10% of all hospitalisations for circulatory diseases, are estimated to be attributable to smoking.

Figure 41: Percent of hospitalisations by main clinical grouping that were attributable to smoking among persons aged 35+ years, 2019



Source: HSE calculations

3.4 COVID-19 severity and smoking

It has been established that smoking compromises immunity and increases the risk of pulmonary infections, including pneumococcus, influenza and tuberculosis.^{53,54,55} Since the emergence of SARS-CoV-2 in 2020 there is a volume of evidence confirming that people who smoke infected with SARS-CoV-2 are at increased risk of severe COVID-19 disease progression.^{56,57,58,59,60} In 2020 the World Health Organization confirmed the increased risk and recommended the importance of tobacco control as part of a comprehensive approach to population health risk management in the context of the COVID-19 pandemic (Figure 42).⁶¹ In Ireland, consistent with international studies, the risk of severe COVID-19 was greater for people with underlying chronic conditions,^{62,63} many of which as highlighted in this section of the report are well-established health effects of smoking:⁶⁴ chronic heart disease, chronic respiratory disease and cancer.

Figure 42: World Health Organization advice on smoking and severe COVID-19 progression



Source: World Health Organization

4. Tobacco Control – the scale and impact of HSE activities

4.1 Compliance and enforcement of tobacco control legislation

The primary role of the Environmental Health Service (EHS) of the Health Service Executive (HSE) is as a regulatory inspectorate responsible for a broad range of statutory functions enacted to protect and promote the health of the population: alcohol, food safety, import control, cosmetic product safety, sunbed regulation, fluoridation of public water supplies, drinking and bathing water quality investigation, international health regulations, infectious diseases investigations, pest control, planning/environment and tobacco and related products control. These functions include activities such as surveillance, complaint investigation, inspection, import control, audit, sampling, enforcement, consultation and advice, education, research and advocacy.

The EHS is also one of the major enforcement inspectorates in Ireland for tobacco and related products. Tobacco control functions are delivered through its national, regional and local staffing structures under the oversight of the Assistant National Director for Environmental Health and Environmental Health Management Team.

4.1.1 Legislative context for the Environmental Health Service role in tobacco control

The EHS enforces a comprehensive set of tobacco control legislation for tobacco products, herbal products for smoking, electronic cigarettes, refill containers and novel tobacco products. This suite of legislation includes smoking in the workplace, registration of tobacco retailers, point of sale advertising, prohibition of the sale of tobacco products to persons under the age of 18 years, in addition to a wide range of responsibilities provided by the Tobacco Products Directive (TPD). The service has also been assigned new and enhanced market surveillance responsibilities and powers for tobacco and related products.

The Tobacco Products Directive 2014/40/EU (TPD) was transposed into Irish law by the following key legislative provisions, the European Union (Manufacture, Presentation and Sale of Tobacco and Related Products) Regulations 2016 (Statutory Instrument (S.I.) No. 271 of 2016) (the Regulations) and its subsequent amendments (S.I. 252 of 2017), (S.I. No. 132 of 2018) and (S.I. No. 365 of 2018). In addition to the Regulations certain sections of the Public Health (Standardised Packaging of Tobacco) Act 2015 transpose in part Articles 13 and 14 of TPD. The EHS is responsible for the enforcement of all provisions of the Regulations with the exception of Regulation 20 Traceability and Regulation 21 Security Features. S.I. No. 614 of 2021 is another amendment of the Regulations and gives effect to the new market surveillance Regulation (EU) 2019/1020 on the market surveillance and compliance of products.

It is the responsibility of the manufacturer and importer of electronic cigarettes, refill containers (e-liquids), tobacco products, novel tobacco products and herbal products for smoking, to ensure that they fully comply with all legislative requirements. Retailers must also ensure that all refill containers and electronic cigarettes they place on the market in the Republic of Ireland comply with the law. Furthermore, when manufacturers and importers notify electronic cigarettes and refill containers to the Health Service Executive via the EU Common Entry Gate, they must declare that the production process ensures conformity with all notification and quality and safety requirements. They must also declare that they bear full responsibility for the quality and safety of the product, when placed on the market and used under normal or reasonably foreseeable conditions.

The spotlight below highlights the key legal requirements for all persons involved in the manufacture, importation, distribution or sale of e-cigarettes and refill containers.

SPOTLIGHT

Responsibilities of manufacturers, importers, distributors and retailers of e-cigarettes and refill containers

Notification of electronic cigarettes and refill containers

Manufacturers and importers of electronic cigarettes and refill containers must ensure that these products have been notified to the Health Service Executive in Ireland via the EU Common Entry Gate six months prior to being placed on the Irish market. These notifications contain important information on ingredients, emissions, toxicological data and safety information.

Product safety

Manufacturers, importers, distributors and retailers placing products on the Irish market must ensure that:

- Disposable electronic cigarettes or cartridges containing nicotine containing liquid, do not exceed a volume of 2ml and that refill containers (e-liquid bottles) containing nicotine containing liquid do not exceed a volume of 10ml.
- Nicotine containing liquid does not exceed a nicotine concentration of 20mg/ml (2%). This includes refill containers, disposable electronic cigarettes, prefilled pods etc.
- Electronic cigarettes and refill containers must have an information leaflet. This leaflet must contain information as set out in the legislation to enable consumers to make safe choices regarding the use of these products. This important information must include: instructions for use and storage of the product, including a reference that the product is not recommended for use by young people and non-smokers; instructions for refilling, including diagrams; contra-indications; warnings for specific risk groups; possible adverse effects; addictiveness and toxicity; and contact details of the manufacturer or importer and a contact person within the European Union.

Collecting of Information on the suspected adverse effects on human health of electronic cigarettes and refill containers

Manufacturers, importers and distributors of electronic cigarettes and refill containers are legally responsible for establishing and maintaining a system for the collection of information about all of the suspected adverse effects on human health of electronic cigarettes and refill containers. Joint Action on Tobacco Control 1 (<https://jaotc.eu/>) developed an adverse effects form to assist economic operators* and competent authorities to collate information reported to them by consumers. This is also available on the HSE website at <https://www.hse.ie/eng/about/who/tobaccocontrol/tobaccoproductdirective/>

Product recalls

Manufacturers, importers and distributors of electronic cigarettes and refill containers are legally obliged to inform the HSE when they discover that a product in their possession is not safe or not of good quality or not in conformity with the Regulations. They shall immediately take the corrective action necessary to bring the product concerned into conformity with these Regulations and withdraw or recall it from the market, as appropriate.

Reporting safety concerns

Electronic cigarette and refill container (e-liquid) manufacturers, importers and distributors are legally obliged to inform the HSE if they have reason to believe that an electronic cigarette or refill container is unsafe, not of good quality or not in conformity with the Regulations. Details of the risk to human health and safety and any corrective action taken must also be provided.

**An 'economic operator' means the manufacturer, the authorised representative, the importer, the distributor, the fulfilment service provider or any other natural or legal person who is subject to obligations in relation to the manufacture of products, making them available on the market or putting them into service in accordance with the relevant Union harmonisation legislation; Regulation (EU) 2019/1020*

4.1.2 Market surveillance

The Health Service Executive has recently also been authorised as one of the market surveillance authorities responsible for the enforcement of Regulation (EU) 2019/1020 on the market surveillance and compliance of products; S.I. 614/2021 European Union (Manufacture, Presentation and Sale of Tobacco and Related Products, Amendment) gives effect to this Regulation.

The objective of this Regulation is to improve the functioning of the internal market by strengthening the market surveillance of products covered by the Union harmonisation legislation, with a view to ensuring that only compliant products that fulfil requirements providing a high level of protection of public interests, such as health and safety in general, health and safety in the workplace, the protection of consumers, the protection of the environment and public security and any other public interests protected by that legislation, are made available on the Union market. This Regulation lays down rules and procedures for economic operators regarding products subject to certain Union harmonisation legislation and establishes a framework for cooperation with economic operators. It also provides a framework for controls on products entering the Union market. These provisions allow for an enhanced level of market surveillance for tobacco and related products, in particular it allows for greater collaboration amongst member states.

The harmonised legislation enforced by the Health Service Executive referred to is the Tobacco Products Directive 2014/40/EU, in particular as it relates to electronic cigarettes and refill containers (e-liquids).

Safety Gate RAPEX

Safety Gate is the EU system that enables a quick exchange of information between 31 European countries and the European Commission about dangerous non-food products posing a risk to the health and safety of consumers.

Table 13 below summarises RAPEX alerts initiated by the HSE EHS in response to issues found in Ireland relating to disposable electronic cigarettes, nicotine containing cartridges and refill containers. This table also highlights the HSE EHS responses to product alerts received from other countries with a potential relevance to Ireland. Overall 23 of the 24 RAPEX Alerts initiated by the HSE in 2021 were due to serious breaches of the legislation identified for disposable electronic cigarettes. These products are single use devices which contain nicotine containing liquid.

Table 13: Electronic Cigarettes and Refill Containers RAPEX Alerts Activity, 2018-2021

RAPEX Alerts initiated by the EHS HSE			
Year	Product Type	High Risk Issue	Number
2018	Refill Container	No Information leaflet	4
2019	Refill Container	No Information leaflet	1
2020	Nicotine Containing Cartridges	No Information leaflet	1
	Refill Container	No Information leaflet	1
2021	Refill Container	No Information leaflet	1
	Disposable Electronic Cigarette	No Information Leaflet	17
	Disposable Electronic Cigarette	Nicotine Concentration Exceeding 20mg/ml, Volume Exceeding 2ml, No Information Leaflet	1
	Disposable Electronic Cigarette	Volume Exceeding 2ml, No Information Leaflet	5
RAPEX Alerts received by the EHS HSE from other Member States 2018-2021			
Year			Number
2018			4
2019			7
2020			9
2021			2

Source: HSE Environmental Health Service

During the course of inspections other sanctions have also been imposed to remove disposable electronic cigarettes from the market containing:

- Nicotine concentrations up to 60 mg/ml (6%) - exceeding the legal limit of 20mg/ml (2%) nicotine.
- Volumes greater than 6 ml - exceeding the legal limit of 2ml.

There have also been a large range of products which did not contain an information leaflet; this leaflet provides consumers with important safety information to ensure that they make informed choices regarding the correct and safe use of these products.

Notifications to the EU-CEG

Under Regulation 26 a manufacturer or importer of an electronic cigarette or refill container must submit a notification to the Health Service Executive of any such products he or she intends to place on the Irish market. The notification must be submitted through a European Union Common Entry Gate (EU-CEG) made available by the European Commission.

Table 14 below shows that by year end 2021 over 60,000 notifications were made for e-cigarettes and refill containers, compared to nearly 600 for tobacco products and approximately 100 for herbal and 30 for novel products (e.g. heated tobacco products). This does not mean that all these products subsequently arrived on the Irish market.

Table 14: Notification figures made to the HSE for the period 2018 to 2021

Notifications to EU-CEG	Total to 31 st December 2018	Total to 31 st December 2019	Total to 31 st December 2020	Total to 31 st December 2021
E-cigarettes and Refill Containers	36,902	44,463	54,359	61,860
Tobacco Products	811	701	628	591
Novel Products	32	29	13	27
Herbal Products	16	15	45	107

Source: HSE Environmental Health Service

Cross-Border Distance Sales

Cross-border distance sales refers to sales made directly to consumers who are not located in the same Member State as the retail outlet, e.g. internet sales. Those retailers who engage in cross-border distance sales of tobacco products or electronic cigarettes and refill containers are required to register with the HSE. The Department of Health has developed Guidance on Cross Border Distance Sales.⁶⁵

There are three categories of retailers who are required to register as cross-border distance sales retailers:

- Firstly, retailers **established in the Republic of Ireland** who intend to engage in cross-border distance sales of tobacco products or electronic cigarettes to consumers located in the European Union must register with the HSE and with the competent authority in the Member State where the actual or potential consumers are located.
- Those retailers who are **established outside the Republic of Ireland** but in another Member State who engage or intend to engage in cross-border distance sales of tobacco products or electronic cigarettes to actual or potential consumers located in the Republic of Ireland must register with the HSE.
- The third group who are required to register with the HSE are those retailers **established outside the European Union** who engage or intend to engage in cross-border distance sales of tobacco products or electronic cigarettes to actual or potential consumers located in the Republic of Ireland. Many of the retailers registered with the HSE are located in Great Britain and, subsequent to Brexit, have moved into this category. The Environmental Health Service communicated with these retailers in 2020 to inform them of this change to their registration status.

Currently, nine cross-border distance sales retailers of tobacco products and 65 cross-border distance sales retailers of electronic cigarettes and refill containers are registered. The list of registered cross-border distance sales retailers is published on the HSE website.⁶⁶ Requirements on cross-border distance sales retailers include:

- A retailer must not supply tobacco products, electronic cigarettes or refill containers by means of cross-border distance sales to consumers located in another EU country where such sales are prohibited under its national legislation.
- A retailer registered with the HSE for cross-border distance sales must inform the HSE in writing if a particular entered in the register in relation to him or her ceases to be correct as soon as practicable.
- Retailers must operate a system which will verify, at the time of the sale of tobacco products, that the consumer purchasing the product in the Republic of Ireland is over 18 years of age.

4.1.3 Registration of points of sale of tobacco products

The EHS National Tobacco Control Office (NTCO) has the legal responsibility to maintain and manage the National Register of Tobacco Retailers (NRTR) in accordance with the Public Health (Tobacco) Acts. All those who sell or intend to sell tobacco products by retail, whether over the counter or from a self-service vending machine, must register with the NTCO.

Table 15 details the registration activity undertaken by the NTCO during 2018 -2021. Note that the COVID-19 pandemic in 2020 and 2021 impacted on the number of registration applications received while the cyber-attack on the HSE in May 2021 affected access to the National Register of Retailers. Details of the number and type of tobacco retail outlets with counter sales and with vending machines in 2022 are set out in Table 16.

Table 15: Registration Activity, 2018-2021

Year	2018	2019	2020	2021	Total
Applications for Registration	566	559	262	164	1,551
Update Existing Applications	279	351	136	56	822
De-registration	570	576	676	328	2,150
Replacement registration number stickers	444	530	228	208	1,410

Source: HSE Environmental Health Service

Table 16: Number and Type of Retail Outlets with Counter Sales, 2022

Premises Type	Number of Premises
Convenience Store/Newsagent/Grocer	3,559
Hotels	633
Garage Forecourts	1,152
Licensed Premises	5,739
Restaurants	100
Registered Clubs/Nightclubs	151
Supermarkets	970
Other	170
Total	12,474

Source: HSE Environmental Health Service

Note: 4,644 licensed premises/ registered club outlined above operate a self-service vending machine.

The current tobacco retail registration system consists of a once off payment unlike the annual licensing system currently proposed in the Heads of Bill for the Public Health (Tobacco and Nicotine Inhaling Products) Bill 2019. Currently a retailer (registered to sell tobacco) who is convicted of an offence under the Public Health (Tobacco) Acts can be temporarily suspended from the register for a period of up to 3 months. The period of suspension is at the discretion of the court at the time of the conviction. Periods of suspension have ranged from 1 hour to 3 months. During the period of suspension the retailer is prohibited from selling tobacco. The Heads of Bill for the Public Health (Tobacco and Nicotine Inhaling Products) Bill 2019 is proposing minimum suspension periods depending on the conviction ranging from 7 days to 12 months.

4.1.4 Building and ensuring compliance

The EHS undertakes a comprehensive inspection programme every year as well as responding to alerts, complaints and queries, which builds and ensures compliance with tobacco control legislation. Table 17 outlines the number of tobacco inspections by type undertaken by the HSE EHS during 2018 -2021. The number of tobacco legislation inspections conducted in 2020 and 2021 was impacted by the COVID-19 pandemic, while the tobacco test purchase programme was suspended in March 2020.

In total 44,253 inspections were undertaken between 2018 -2021 as illustrated in Table 17. Of these 36,430 resulted in a satisfactory outcome, giving an overall compliance level of 82%. Table 18 outlines the number of tobacco inspections and percentage compliance per year.

Table 17: Type of Tobacco Inspections by outcome 2018 – 2021 (excluding tobacco test purchases)

Inspection Type	Satisfactory Outcome	Unsatisfactory Outcome	Total	% Compliant
TPD Inspections	46	182	228	20%
Tobacco control -Planned	28,872	5,646	34,518	84%
Tobacco control -Surveillance	6,111	1,110	7,221	85%
Tobacco control -Follow Up	785	733	1518	52%
Tobacco control -Complaint	61	91	152	40%
Tobacco control -Advisory	303	36	339	89%
Survey	252	25	277	91%
Total	36,430	7,823	44,253	82%

Source: HSE Environmental Health Service

Table 18: Tobacco Inspections 2018 -2021 by outcome

Year	Satisfactory Outcome	Unsatisfactory Outcome	Total	% Compliant
2018	11,100	3,204	14,304	78%
2019	12,288	2,709	14,997	82%
2020	6,495	999	7,494	87%
2021	6,547	911	7,458	88%
Total	36,430	7,823	44,253	82%

Source: HSE Environmental Health Service

As part of the overall inspection programme by the HSE EHS a minimum of 40 TPD inspections of e-cigarette and refill container manufacturers, importers, distributors and retailers are undertaken on an annual basis. The COVID-19 pandemic affected the inspection programme in 2020.

Table 19 outlines the type and number of inspections undertaken during the period 2018-2021. It is notable in Table 17 above that the outcome of these TPD inspections resulted in a greater level of non-compliance, in comparison with routine tobacco control inspections, i.e. planned, surveillance and follow up inspections. In response the HSE EHS will continue to build compliance with the sector taking enforcement action where necessary.

Table 19: Tobacco Product Directive Inspections (TPD) 2018 -2021, by type

TPD Inspection Type	2018	2019	2020	2021
TPD Planned	37	40	30	47
TPD Follow Up	22	5	4	7
TPD Market Surveillance	0	0	0	17
TPD Website	0	0	6	4
TPD Complaint	0	0	0	9
Total	59	45	40	84

Source: HSE Environmental Health Service

In 2021, 71 inspections/ follow up and market surveillance inspections of manufacturers, importers, distributors and retailers of e-cigarettes and refill containers were carried out by the National Tobacco Control Operational Unit (NTCOU). On 30 occasions non-compliant product was withdrawn from the market. In total, 24 RAPEX Alerts were initiated by the HSE relating to non-compliant refill containers (e-liquids)/disposable electronic cigarettes. This is also reflected in the actions taken by the EHS as indicated in Table 13 above.

Tobacco Test Purchases

The EHS has, with the consent and co-operation of parents and children, undertaken test purchase programmes over recent years. Test purchasing involves volunteer minors attempting to purchase tobacco products from retail outlets. Table 20 details the number of tobacco test purchases undertaken by the HSE EHS from 2018 to 2021.

During the period 2018 to 2021 there was a general trend of improved compliance, however, due to the COVID pandemic, the test purchase programme in 2020 was curtailed and was subsequently suspended in 2021.

Table 20: Test Purchase Inspections 2018 - 2021

Year	Satisfactory	Unsatisfactory	Total	% Compliance
2018	481	105	586	82%
2019	405	63	468	87%
2020	56	2	58	97%
2021	0	0	0	0

Source: HSE Environmental Health Service

Prosecutions and convictions

During the period 2018-2021 a total of 236 prosecutions were taken by the HSE EHS resulting in 104 convictions as outlined in Table 21. Convictions are at the discretion of the District Court. The HSE EHS publish tobacco control convictions on the HSE website.

Table 21: All prosecution cases and outcomes taken under the Public Health (Tobacco) Act 2002 as amended

Prosecution Outcome	Number
Conviction	104
Dismissed	13
Notice/ Order Withdrawn	4
Probation Act	28
Struck Out	74
Struck Out Costs Awarded	7
Taken Into Account	6
Total	236

Source: HSE Environmental Health Service

Table 22 below shows the majority of convictions continues to be in relation to sales of tobacco to minors and non-compliant smoking shelters. The figures for convictions in 2021 are reflective of reduced inspection numbers in 2020 due to the impact of the COVID pandemic.

Table 22: Tobacco Control Convictions published 2018 - 2021

Breach	2018	2019	2020	2021
S.43 Vending machine non-compliant	3	3	2	0
S.45 Sales to minors	11 (5 sold from vending machines)	25 (13 sold from vending machines)	7 (5 sold from vending machines)	1
S.46 Signage	1	0	2	0
S.47 Smoking/Non-Compliant Shelter	16	16	7	5
S.37 Registration	0	1	4	0
Total	31	45	22	6

Source: HSE Environmental Health Service

Complaints and queries

Priority is given by the EHS to the investigation of complaints and responses to queries in order to build and ensure compliance with the law. Complaints are received mainly via the Lo-Call Compliance Line at 1800 333 100 and via info.ntco@hse.ie. Table 23 outlines the tobacco legislation complaints received by the HSE EHS. A total of 315 complaints were made to the EHS in relation to tobacco legislation between 2018 and 2021. Overall, 44% of complaints made in 2018-2021 were in relation to smoking in a specified place; 23% of complaints were in relation to e-cigarettes/refill containers; and 15% of complaints were in relation to non-compliant smoking areas.

Table 23: Tobacco legislation complaints received by the HSE EHS 2018-2021

Type	2018	2019	2020	2021	Total
Advertising	4	3	1	0	8
E- Cigarettes / Refill Containers	42	18	8	9	77
Herbal Products For Smoking	0	0	1	0	1
Marketing Practices	4	0	2	0	6
Novel Tobacco Products	0	1	0	0	1
Outdoor Shelter	23	20	3	0	46
Sales To Minors	10	7	4	2	23
Signage	0	1	0	1	2
Smoking	54	64	17	3	138
Self Service Vending Machines	0	1	0	0	1
Tobacco Products	4	0	3	0	7
Tobacco Sales	5	0	0	0	5
Total	146	115	39	15	315

Source: HSE Environmental Health Service

In addition the NTCO receive queries by telephone, or to the following dedicated e-mail addresses - info.ntco@hse.ie (for general queries), info.tobaccoregister@hse.ie (for specific queries regarding registration) and info.tpd@hse.ie (for queries regarding the Tobacco Products Directive). The EHS may be contacted for advice through its network of local offices. Table 24 outlines the number of queries received by the NTCO between 2018 and 2021.

Table 24: Number of Queries received, 2018-2021

Year	Number
2018	1,584
2019	2,125
2020	1,337
2021	1,059
Total	6,105

Source: HSE Environmental Health Service

SPOTLIGHT

International Collaboration. Joint Action on Tobacco Control

The EHS works collaboratively with other regulatory and enforcement agencies nationally and internationally. This includes involvement in an initiative bringing together partners across Europe in a joint action to strengthen this cooperation. The so-called Joint Action on Tobacco Control 2 (JATC2) aims to support the implementation of the Tobacco Products Directive (TPD) and the Tobacco Advertising Directive (TAD) and to promote the activities consistent with the objectives of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC).

General Objectives of the Project

The general objective of this project is not only to support the implementation of the TPD and the TAD, but also to promote activities consistent with the objectives of the WHO FCTC. The JATC contributed to the implementation of the TPD in specific areas of laboratory capacity, testing methods for tobacco and related products, regulation of ingredients and developed data sharing agreements concerning the excessive amounts of data within EU-CEG. JATC2 programme builds on the results of the JATC and adds new pillars to its work within tobacco control.

Objective 1: To ensure an effective coordination with a strong focus on digital tools that ensures the sustainability and progression of the project even in a world of crisis such as a pandemic.

Objective 2: To support the dissemination of information to the public, regulators and researchers.

Objective 3: To integrate the outcomes into national policies and ensure that the results of the project will be sustainable even after its termination.

Objective 4: To facilitate the exchange of good practices between Member States in order to improve implementation of the TPD and related implementing and delegated acts in a number of areas of tobacco product and e-cigarette regulation, including laboratory capacity, analysis and assessment.

Objective 5: To ensure greater consistency in the application of the TPD to ensure a fair internal market for tobacco and related products, especially regarding market surveillance and enforcement.

Objective 6: To promote activities consistent with the objectives of the WHO FCTC to promote a better implementation of the objectives of the FCTC.

Objective 7: To identify and assess the current legislation regarding, but not limited to, tobacco advertising and advertising of emerging products.

Objective 8: To identify and develop best practices regarding tobacco endgame strategies and expanding smoke-free environments.

Expected outcomes and benefits of the JATC2

Policymakers and EU regulators are the main target groups followed by researchers and the public. The increased regulatory vigilance on tobacco product evolution and developments in advertising will protect European Public Health through the increased awareness of product related data, together with a more harmonised approach to market surveillance and enforcement of the applicable rules. This increased domain specific literacy will aid regulatory activities and set standards for a common interpretation of the applicable rules. It will enhance cooperation between EU Member States. The expected outcomes of this project, which benefit the main target groups, include the following:

- A more user-friendly interface of the EU-CEG database, which will enhance its utility for EU regulators;
- A sustainable plan for data sharing from the EU-CEG database, which will make valuable data available to a broader audience, especially researchers;
- A harmonised approach to market surveillance and enforcement of the TPD, which will enhance consumer protection and ensure a fair internal market;
- A recommendation to update the applicable rules on tobacco advertising, which will mean less exposure to unwanted commercial activities and hopefully diminish the number of new smokers and even decrease the prevalence of smoking;
- A harmonised approach to establishing smoke-free environments, which will decrease the exposure to second-hand smoke;
- A forward-looking tobacco endgame strategy leading to a smoke-free generation and decreasing the number of tobacco related illnesses and deaths.

JATC2 is an action between Member States that is co-funded by the European Commission under the Third Health programme.

4.2 Communication about the dangers of smoking and support to quit

Using mass media to warn people about the dangers of smoking and to signpost them to safe, effective and clinically sound stop smoking care is a cornerstone of a comprehensive national tobacco control programme.⁶⁷ Evidence demonstrates that mass media campaigns are not only effective and cost-effective ways to influence adult and youth tobacco use behaviours, but they can powerfully affect person-to-person discussions about smoking that shape social norms and help sustain smoking cessation and initiation prevention.⁶⁸ These direct and indirect effects complement and mutually re-enforce communication about the dangers of smoking with people who smoke through changes to packaging, including text and graphic health warnings, enhanced by the removal of branding.⁶⁹ The effectiveness and cost effectiveness of mass media campaigns in reducing smoking prevalence is well established.^{70,71,72,73} The first State of Tobacco Control Report clearly demonstrated the impact in Ireland: following the commencement of a HSE mass media campaign, there was a 56% increase in calls to the QUIT helpline, an 89% increase in sessions on the QUIT website and a 102% increase in QUIT Plan sign-ups compared with the preceding period.

The HSE QUIT campaign uses a mix of paid, earned and owned media. This includes TV, radio, press, Video on Demand, digital audio, media partnerships, social media, search and digital display advertising. Partnerships with media agencies are an integral part of the activity as they highlight how important support from the QUIT service is through QUIT Leaders - members of the public who quit with support from the service.

The campaign provides practical information on how to quit smoking with links to services which support people to quit. Quit.ie provides a variety of options for users to obtain free and personalised support. They include a QUIT plan, QUIT kit, a facility for live chat online, closed social media groups, a free phone number or free text number, and access to local stop smoking advisors. The QUIT social media community, with over 120,000 followers, provides online peer-to-peer support. This community is accessed through Facebook, as well as on Instagram and Twitter.

4.2.1 Focusing and refreshing the HSE QUIT mass media campaign

The HSE's QUIT campaign's purpose is for people who smoke to know that quitting smoking is the single best thing they can do for their health and that we are on their side. The QUIT campaign supports people who smoke to:

- Try to quit
- Quit using our evidence based support
- Try again and keep trying

Armed with the knowledge that they are:

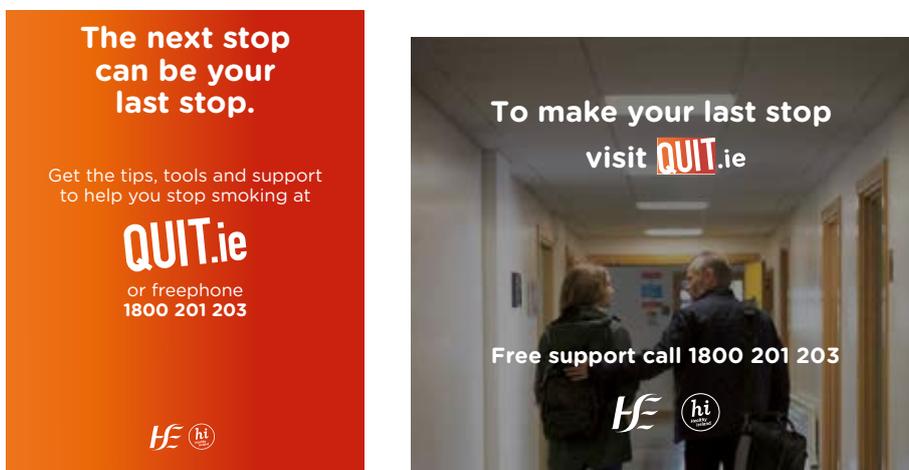
- Five times more likely to stay quit for good if they quit for 28 days;^{74,75}
- Up to four times as likely to quit with our help and NRT combined with stop smoking medications.⁷⁶

The HSE has successfully delivered a series of evidence based QUIT campaigns. The first of these was *'1 in every 2 smokers,'* which launched in 2011. It highlighted the significant risk of dying from a smoking-related illness facing people who smoke. Then in 2014 a new and multi-award winning phase began, centring on Gerry Collins, a former smoker, who spoke of his experience of cancer. This again highlighted the risks of smoking, underscoring the tragic and avoidable personal impact on people who smoke and their families.

By 2017, with more quitters than smokers in Ireland, the *'I will survive'* campaign leveraged the social momentum of the QUIT movement. The aim was to encourage those 3 in 5 people who smoked and who would like to stop to join those who have already successfully quit.

More recently in 2020 the *'Last Stop'* campaign informed the audience that, if they stopped smoking for 28 days, they are five times more likely to quit for good. Most people who smoke want to stop, but the step change from a lifetime of smoking to a new life being smoke-free can appear overwhelming. This campaign encouraged people who wanted to quit to break down the challenge into an achievable goal of initially quitting for 28 days. Research carried out in 2019 through the HSE with people who smoke demonstrated that audiences wanted straightforward advice regarding quitting, and that they wanted to hear more about the short term health benefits, because the longer term health improvements of quitting can appear remote. This is a well-recognised phenomenon known as *'time-discounting,'* which means that people will often place greater value on benefits that are more immediate and lower value on benefits that are more remote in the future; research finds consistent evidence that high time-discounting is a risk factor for smoking and unsuccessful cessation and it is important that tobacco control efforts include this in planning.⁷⁷ Those who decided to take on the 28-day challenge could do so during *'QUIT months,'* and they were encouraged to use evidence based supports to increase their likelihood of success. Throughout the *'QUIT months'* the campaign recruited real life QUIT leaders who shared their success and struggles throughout the month across different channels such as social media, video content, radio and press interviews. Figure 43 illustrates some highlights from the 2017 and 2020 QUIT mass media campaigns.

Figure 43: Highlights from 2017 and 2020 QUIT mass media campaigns

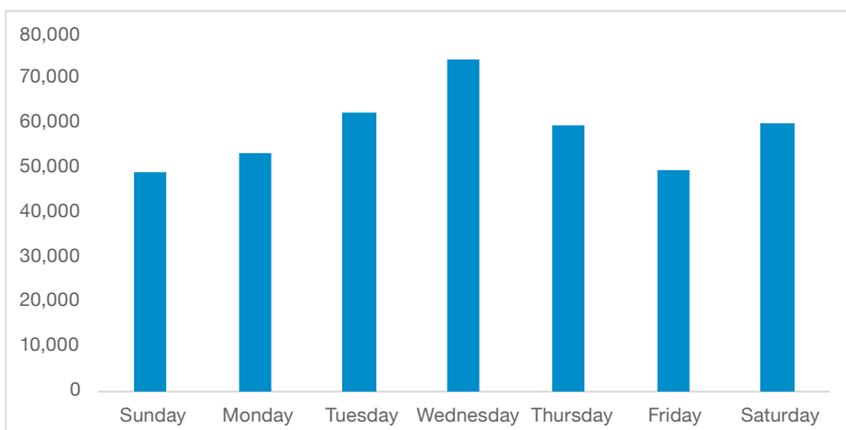


Source: HSE Communications

4.2.2 Demand for online stop smoking information and services

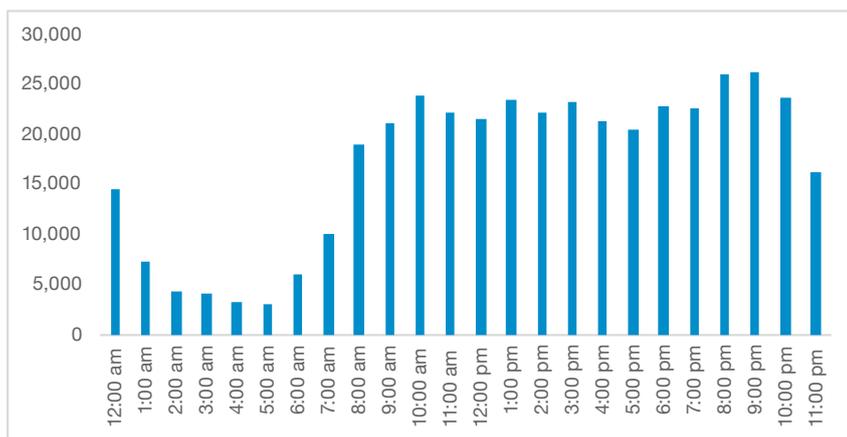
In conjunction with demand for face-to-face stop smoking services, website activity provides a useful indicator of the impact of mass media campaigns. Visits to the QUIT website have increased from 117,352 users in 2012 to 409,533 in 2021 (249% increase). Visitors can get information on reasons to quit, nicotine replacement therapy, benefits of quitting, ‘how to’ advice, blog articles and more on QUIT.ie. According to figures from 2021, the most popular day of the week on QUIT.ie is Wednesday and from 9am to 9pm there is a steady flow of traffic with no noticeable peak time (Figure 44). The average time spent on a page is 41 seconds.

Figure 44: QUIT.ie activity 2021, sessions by day of week and time of day



Source: HSE Communications

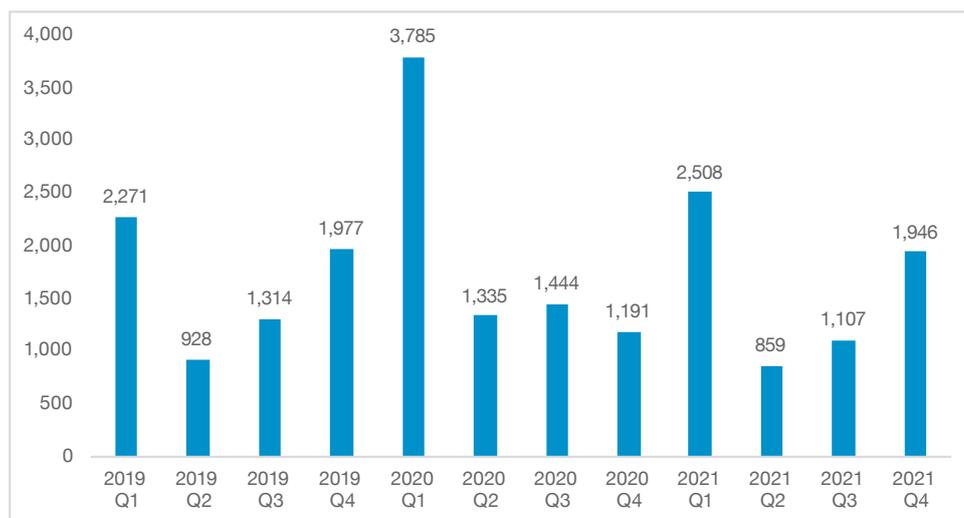
Figure 44: QUIT.ie activity 2021, sessions by day of week and time of day - continued



While visits to QUIT.ie are an important way in which people who smoke can access help to stop, sign-ups to a QUIT Plan through QUIT.ie are a critical indicator for the HSE since this signals high engagement and commitment on the part of the user compared to someone browsing for information. The user must share their information on QUIT.ie to sign-up for a QUIT plan, they can also decide if they want to receive daily email and text support or support over the phone. The user must verify their sign-up through a confirmation email sent from QUIT.ie. Once confirmed this is recorded as an activated QUIT plan sign-up.

When a new campaign is launched, in a cycle of three years, the first year usually experiences the highest amount of sign-ups and year three generally experiences the lowest amount in the cycle. This indicates the importance of launching a new campaign message frequently to increase cut through with the target audience. Figure 45 illustrates the annual activated QUIT Plan sign-ups from 2019 to 2021. The 'I Will Survive' campaign messaging was in year three of its cycle in 2019 and resulted in 6,490 sign ups. In January 2020 we launched 'The Last Stop' and the campaign captured 7,555 in total. Q1 alone captured 3,785 activated QUIT plans.

Figure 45: QUIT Plan sign-ups 2019- 2021



Source: HSE Communications

The media environment, and how people interact with media, is constantly evolving. Digital advertising has become increasingly important. This is illustrated in Figure 46. Traffic sources to QUIT.ie vary from social media platforms: Google search, digital display advertising, digital audio platforms, online media publishers and video content.

Figure 46: Examples of digital advertising creative



Source: HSE Communications

4.2.3 Confirming impact of recent mass media and QUIT months

Quit months have been an important recent development for the Quit campaign. This is linked with the messaging created around ‘The Last Stop’ and the target of remaining smoke-free for one month. It aims to give people who smoke an opportunity to pick a date that they will QUIT smoking on and a target of 28 days to be smoke free. Generally, two weeks before each ‘QUIT month,’ additional communication is undertaken with the audience that people across Ireland are coming together in (March or October) to make their ‘Last Stop’. Those who quit can come together on social media to offer support and advice on how their QUIT month journey is progressing. Since 2020, QUIT leaders have been recruited through media partners to share their own stories and to discuss the 28 days goal. Each leader follows their own personalised plan and they highlight the support the HSE offers.

Figure 47 illustrates the impact of this innovative approach to communicating with people who smoke in October 2021. It measures the impact of the October 2021 ‘The Last Stop’ mass media campaign, how QUIT.ie sessions and QUIT Plan sign-ups increased in October compared to September: average weekly QUIT.ie sessions and QUIT Plan sign-ups increased from 4,703 to 11,790 (151%) and 110 to 245 (123%) respectively.

Figure 47: Impact of October 2021 campaign



Source: HSE Communications

4.2.4 Leveraging social media to help people stop smoking

Social media is a central part of the campaign activity, and is typically responsible for around 30% of QUIT plan sign-ups each year. The campaign runs advertising and content across many platforms including Facebook, Instagram, LinkedIn, Twitter, Snapchat, Pinterest and Reddit.

Despite all the new social media platforms that have emerged in the last decade, Facebook is still the biggest and most successful with 3.6 million users in Ireland in 2021. Over the years changes across Facebook including how data is collected, algorithms and political influencing have affected how people use this platform. This requires constant iteration when it comes to audience targeting, the type of content shares and the creative look and feel. Despite the challenges and unpredictability of social media, the campaign will continue to adapt its messaging and monitor which emerging platforms will yield the best results in the future.

SPOTLIGHT

Using social groups to help people stop - 'The Quit Club'

The community spirit and peer-to-peer support offered on the Facebook page has remained constant since it was launched. When the page shares a testimonial from someone who has successfully quit smoking there are usually several messages of encouragement and congratulations from other members of the Facebook QUIT community. People like reading and sharing stories of quitting, including tips and advice. Most comments and engagement comes from people who have successfully quit smoking.

Evidence regarding the effectiveness of internet-based support for people to stop smoking is emerging, and points to the importance of interactivity and tailoring.⁷⁸ The potential role of social media based support has also been examined, and the feasibility, acceptability and preliminary effectiveness of social media interventions for helping people to stop smoking has been established, with the importance of promoting user engagement and retention underlined.^{79,80}

Therefore, in 2018 the HSE Tobacco Free Ireland Programme and HSE Communications piloted three closed Facebook groups that included 52 participants. The groups ran for a period of 12 weeks and members were encouraged to set the same quit date, to ask questions and to support each other within the closed group setting. A mixed method evaluation was conducted.⁸¹ Upon completion of the Quit Club we carried out a closing survey and some key conclusions included:

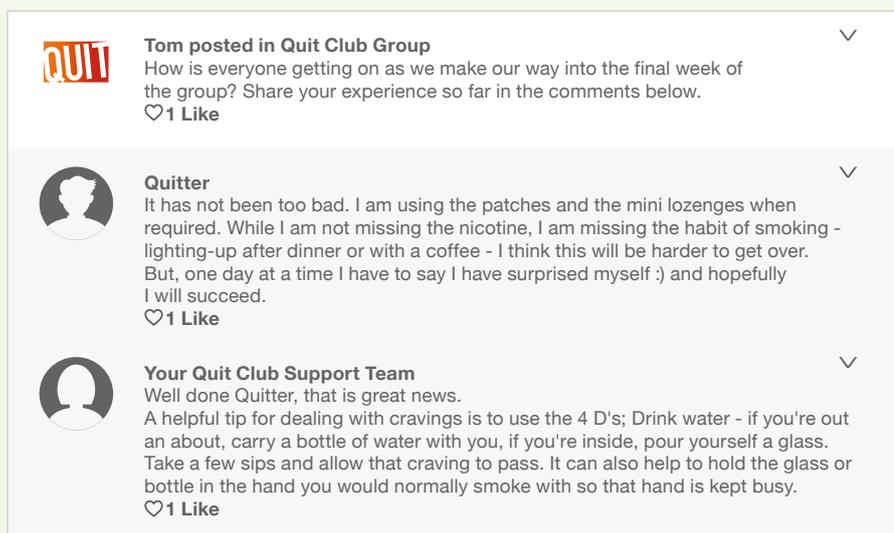
- 25.0% (95% CI, 14.0-39.0%) of participants reported 7-day point prevalence abstinence, which compared favourably with other HSE stop smoking supports;
- 60% agreed or strongly agreed that the group helped them to quit;
- 78% learned 'some helpful tips and advice;'
- Almost 50% felt like they were part of a community;
- Over 50% had someone in the group 'to turn to for advice;'
- 30% will keep in contact with someone from the group.

There were varying levels of interactivity and engagement across the three pilot groups, and participants in more interactive and engaged groups reported more positive experiences with the social media based support.

In-depth interviews with participants highlighted three over-arching themes: the importance of social interactions, the perception of health information and the appeal of online support. These themes corroborated and triangulated with key findings from the survey of participants.

Building on the learning from this pilot and evaluation, closed groups were launched on a new platform in 2021 called Open Social. This platform ensures that data is stored and managed safely and securely. The campaign continues to use this platform to provide free support to small groups of people who want to quit smoking through closed groups.

Example of Quit Club conversation on Open Social



QUIT Tom posted in Quit Club Group
How is everyone getting on as we make our way into the final week of the group? Share your experience so far in the comments below.
♡ 1 Like

Quitter
It has not been too bad. I am using the patches and the mini lozenges when required. While I am not missing the nicotine, I am missing the habit of smoking - lighting-up after dinner or with a coffee - I think this will be harder to get over. But, one day at a time I have to say I have surprised myself :) and hopefully I will succeed.
♡ 1 Like

Your Quit Club Support Team
Well done Quitter, that is great news.
A helpful tip for dealing with cravings is to use the 4 D's; Drink water - if you're out an about, carry a bottle of water with you, if you're inside, pour yourself a glass. Take a few sips and allow that craving to pass. It can also help to hold the glass or bottle in the hand you would normally smoke with so that hand is kept busy.
♡ 1 Like

4.2.5 Impact of QUIT mass media campaigns across population groups

The QUIT mass media campaigns are designed, developed, executed and monitored for impact across the population, with specific attention paid to age groups, gender and social class. In 2021 the monitoring of QUIT mass media campaigns was extended to include a focus on impact among non-Irish nationals. The sample for the QUIT mass media campaigns is small and, while overall findings are generally robust, sub-group findings need to be cautiously interpreted. However, some important findings emerge. Compared to other respondents, it was found that among non-Irish nationals:

- General awareness of advertising/public information on the health risk of smoking was similar, however, general awareness through television was lower (48% versus 32%);
- General awareness of supports to stop smoking was lower (91% versus 76%), as was awareness of some specific supports: QUIT.ie (66% versus 43%); NRT (64% versus 47%); and QUITline (21% versus 11%);
- Prompted awareness of specific QUIT mass media campaign executions was lower: ‘*Make Your Last Stop*’ TV advert (73% versus 37%); ‘*Make March Your Last Stop*’ TV advert (65% versus 34%);
- In general, positive intention to quit and self-report quit attempts were lower (68% versus 80% positive intention to quit and 48% versus 57% quit attempts);
- Self-reported attitude and behaviour change as a result of QUIT mass media campaign was lower (33% versus 24% no attitude change and 63% versus 51% no behaviour change).

Overall, taken together, these findings point to challenges in designing and delivering QUIT mass media campaigns with equal impact across the population.

4.3 Offering help to quit

4.3.1 Providing leadership for good stop smoking care through new national clinical guidelines

Offering people who smoke safe, effective and clinically sound help to stop is a key component of tobacco control. Article 14 of the WHO FCTC addresses demand reduction measures concerning tobacco dependence and cessation and it requires that “*each party shall develop and disseminate appropriate, comprehensive and integrated guidelines based on scientific evidence and best practices, taking into account national circumstances and priorities, and shall take effective measures to promote cessation of tobacco use and adequate treatment for tobacco dependence.*”⁸² A recent survey of 77 countries, signatories to the WHO FCTC, found that 61 (80%) had guidelines, and in general these guidelines recommended brief advice (BA) (100%), recording tobacco use in medical notes (82%), smoking cessation medications (98%), telephone support (61%), and intensive specialist support (87%).⁸³ While Ireland has had well developed services for helping people stop smoking for a number of years, it had been an outlier in not having in place a national clinical guideline dedicated to this priority health issue.

Ireland’s first National Stop Smoking Clinical Guideline (Guideline No.28) was published in January 2022.⁸⁴ This guideline, developed by the HSE Tobacco Free Ireland Programme, was prioritised and quality assured by the National Clinical Effectiveness Committee (NCEC), Department of Health, and recommended by the Minister of Health to become part of a suite of National Clinical Guidelines for implementation across the health services in Ireland. This National Clinical Guideline was prepared primarily for all healthcare professionals working in Health Service Executive (HSE) operated and funded health and social care settings, including primary care settings, secondary care settings, and community care settings. The guideline is also relevant to healthcare planners and managers. The guideline may also be used by healthcare professionals in other settings and by members of the public.

This guideline aims to achieve the following specific outcomes following implementation:

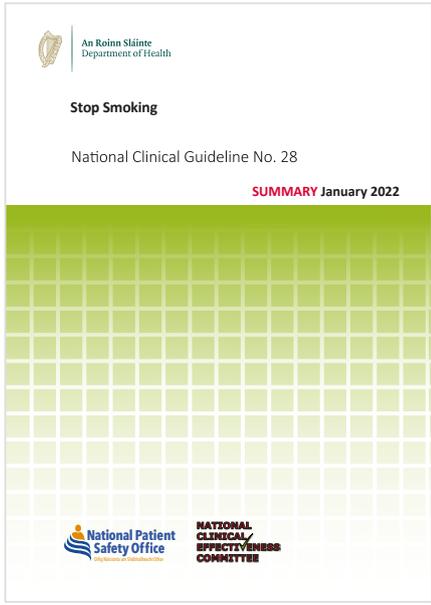
- The identification and treatment of smoking care needs embedded as a key element of healthcare culture in Ireland;
- Routine identification of people who smoke and delivery of stop smoking care in health services, with guidance fidelity and equity across population groups;
- Increased numbers accessing and using stop smoking supports, and improved client satisfaction with stop smoking services and supports;
- More effective care for patients who smoke with smoking-related illnesses;
- Reduced visibility of smoking and improved environments in all HSE sites and services;
- Increased quitting and increased effectiveness of quit attempts;
- Reduced smoking-related morbidity and mortality resulting in reductions in smoking-related hospital admissions and bed days, and reductions in post-operative complications;
- Improved health & wellbeing, and quality of life for clients, and
- Improved birth weights and other pregnancy outcomes.

A Health Information and Quality Authority Health Technology Assessment,⁸⁵ three Health Research Board Evidence Reviews,^{86,87,88} and

a comprehensive review of published international clinical guidelines were used to build the evidence base for the clinical guidelines.⁸⁹ Evidence-to-Decision Frameworks were used to explicitly combine evidence with judgements of the guideline development groups so as to formulate draft recommendations.⁹⁰ A comprehensive public consultation was conducted to ensure challenge and quality assurance on the draft guidelines; external expert peer review was also sought from two international leaders in the area of stop smoking care. The guidelines were then subject to a quality review by the National Clinical Effectiveness Committee before recommendation to the Minister for Health for endorsement. This process ensures that health care professionals and members of the public can have confidence that the recommendations set out are safe, effective and clinically sound.

Figure 48 sets out the recommendations on good stop smoking care for the general adult population organised around the well-known Three As model: Ask, Advise and Act;⁹¹ the clinical guidelines also set out recommendations applicable to care for women who are pregnant and for people who use secondary mental health services.

Figure 48: National Stop Smoking Guideline Recommendation for the General Adult Population

	ASK	<p>1. All healthcare professionals should ask about and document individuals' smoking behaviour. Ensure this is updated regularly.</p>
	ADVISE	<p>2.1 All healthcare professionals should advise all people who currently smoke about the harms of smoking for themselves and others and the benefits of quitting. Advise that help can be provided or arranged to support a quit attempt. Document the discussion and outcome.</p> <p>2.2 Where someone is interested in quitting, discuss their treatment needs and preferences. Healthcare professionals should advise that making an unsupported quit attempt is less effective than using recommended supports. Record the outcome and provide or arrange treatment.</p>
	ACT	<p>3.1 For people who are currently interested in quitting all healthcare professionals should recommend that behavioural support, either alone or in combination with pharmacological supports, increases the chances of successful quitting. Behavioural support options are:</p> <ul style="list-style-type: none"> • Brief intervention • Individual or Group Counselling • Telephone support • Text messaging support • Internet-based support <p>3.2 For people currently interested in quitting all healthcare professionals should recommend Varenicline, alone or in combination with nicotine replacement therapy (NRT) as first-line treatment in the absence of a contra-indication for those wishing to use pharmacological support.</p> <ul style="list-style-type: none"> • If Varenicline is not suitable, combination NRT treatment should be recommended. • NRT monotherapy, or bupropion (alone or in combination with NRT) or nortriptyline can also be recommended, but not as first-line.

Source: National Clinical Guidelines No. 28, Stop Smoking. Department of Health, 2022.

While the development and publication of new National Stop Smoking Clinical Guidelines is an important step, improving stop smoking care is dependent on effective implementation, which will commence in 2022 as part of the HSE Tobacco Free Ireland Programme Plan 2022-2025. A detailed Implementation Plan was published as part of the National Stop Smoking Clinical Guidelines, informed by an analysis of barriers and enablers and by feedback from healthcare professionals and members of the public collated through the consultation on draft guidelines. A National Clinical Leadership Forum for Good Stop Smoking Care will guide and support actions to implement, monitor and evaluate guideline recommendations.

4.3.2 Supporting Every Healthcare Professional in “Making Every Contact Count”

Ensuring healthcare professionals have the knowledge, skills and motivation to assess people’s stop smoking care needs, offer advice and provide or arrange care is critical if smoking is to be treated as a matter of good quality clinical care.

Making Every Contact Count (MECC) was established by the HSE in 2016 to support the implementation of *Healthy Ireland* in our health services and to help people to make healthier lifestyle choices.⁹² By *Making Every Contact Count* health professionals can encourage patients to make healthier lifestyle choices during routine contacts to help prevent and manage chronic diseases. The goal of these ‘contacts’ is to address risk factors for chronic disease through what is known as ‘brief advice’ and ‘brief intervention.’ The main risk factors health professionals will talk about are: tobacco use, alcohol and drug use, unhealthy eating and physical activity.

The *Making Every Contact Count* training programme is available to all healthcare professionals in Ireland. It was developed in consultation with healthcare professionals and patients in order to provide effective tools and knowledge to carry out a brief intervention with patients or service users. The eLearning training programme consists of six 30-minute modules. Following completion of the online module there is an opportunity to complete an ‘Enhancing your Brief Intervention Skills’ workshop.

There is comprehensive and robust evidence that health professionals working with people who smoke through brief interventions in the course of healthcare interactions increases the likelihood that a person who smokes will make a quit attempt and will be effective in becoming smoke-free.^{93,94} There is also good evidence that training health professionals in brief intervention has a measurable effect on the prevalence of smoking through developing the professional performance of key care processes which support people who smoke to quit.⁹⁵

Given that the new *National Stop Smoking Clinical Guidelines* have a particular focus on smoking in pregnancy, a maternity-specific resource was developed by the HSE Making Every Contact Count (MECC) Programme with the support of the following HSE Policy Priority Programmes – Alcohol, Healthy Eating, Active Living and Tobacco Free Ireland. Specific to smoking, the training resource aims to provide midwives and other healthcare professionals in maternity settings with the necessary skills to discuss smoking in pregnancy and to assist women to access the stop smoking services (Figure 49)

Figure 49: Supporting Healthcare Professionals in Maternity Settings improve Stop Smoking Care



4.3.3 Supporting every Healthcare Professional to easily refer to Stop Smoking Services

Following assessment of needs and advice about stop smoking care from a healthcare professional, some people who smoke will decide to seek support from specialist Stop Smoking Services provided by the HSE. This specialist care increases the chance that someone who smokes will successfully become smoke-free, so referral should be as easy and seamless as possible. To prepare for the new *National Stop Smoking Guidelines*, improvements in referral to specialist HSE Stop Smoking Services were implemented by the HSE Tobacco Free Ireland Programme.

There are a number of ways that healthcare professionals can refer to Stop Smoking Services. Health Care professionals can be set up with referrer only access on the Tobacco Free Ireland programmes’ QUITmanager patient management system and with a very minimal data set refer clients for intensive stop smoking support. GPs and Pharmacist with access to healthlink technology can also refer using this system. In addition Healthcare professionals can make a referral to QUIT services by completing a referral form,⁹⁶ then either emailing the completed form to QUIT@healthmail.ie or by emailing it to a local service.⁹⁷

SPOTLIGHT

HSE Stop Smoking Services – a world-class approach to care

In addition to the HSE QUIT website providing information to those interested in quitting, the HSE

offers people help to quit through a range of stop smoking services, often referred to as specialist or intensive services. These build on the brief advice and brief intervention which every healthcare professional can provide across the health services and provide support to someone who wants to stop smoking over a longer period of time using safe, effective and clinically sound behavioural change care, which can be combined with stop smoking medicines. These services are delivered by Stop Smoking Advisors who are specially trained to deliver more intensive and longitudinal support directly to people who smoke to help them quit, by adopting a client-centred approach. The Stop Smoking Advisor's role incorporates dedicated time to deliver intensive behavioural support which consists of advice, discussion, administration or referral for stop smoking medications and exercises to support a sustained quit attempt.

Intensive stop smoking support may be delivered in a variety of ways – face-to-face (individually or in a group), by telephone, online or a combination of these. An intensive intervention (a session) is a consultation which lasts in excess of 10 minutes. Interventions may be one-off or involve a number of structured consultations provided over a defined period of time following the HSE standard Tobacco Cessation Support Programme.

There are a range of Stop Smoking Service delivery methods, which offer flexible options for people who want to stop smoking:

- **One-to-one support:** Offers the opportunity to engage in the standard treatment programme by providing one-to-one support at a stop smoking clinic between a Stop Smoking Advisor and an individual who smokes tobacco. Some services also offer support to couples. This can be delivered face-to-face, on the phone, or virtually/remotely.
- **Group Support:** Offers support in a structured format to a closed group of people who smoke tobacco. Closed groups are those in which all members begin the group at the same time meaning new members cannot join at any time during the course. Groups are facilitated usually face-to-face but they can be done online or through a blended online and face-to-face model, by Stop Smoking Advisors and are held weekly for 1.5 hours (usually for 7 weeks).
- **Online Support:** Online support is defined as proactive or reactive support provided online (e.g. by email or through social media channels) by a Stop Smoking Advisor for people who want to quit tobacco.
- **'We Can Quit':** is a peer-led group stop smoking programme, delivered by Community Facilitators in a community setting. This model of community-based stop smoking services is based on the socio-ecological framework and developed using a Community-based Participatory Research approach, which initially targeted women living in socioeconomically disadvantaged (SED) areas of Ireland.⁹⁸ Groups are facilitated, usually face-to-face, but they can be done online and are held weekly (for 7 to 12 weeks depending on the type of group). Participants on the programme are provided with free stop smoking medications, available from the local community pharmacy. 'We Can Quit' documentation explains how the programme is delivered, and includes information and steps on how to get started, who is involved and why, training requirements, and all the resources required to deliver a successful programme. The HSE Tobacco Free Ireland Programme will be working with health services across the country to embed 'We Can Quit' as part of the health improvement service component in new Sláintecare Health Community Programme Areas.

In 2021 the World Health Organization's Regional Office for Europe chose to spotlight the HSE's 'world class' approach to stop smoking service delivery on World No Tobacco Day.⁹⁹

Quit smoking today with our help:



Sign up to the Quit plan



Freephone 1800 201 203



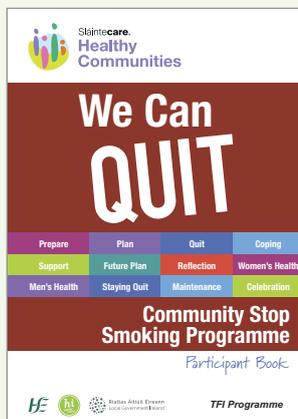
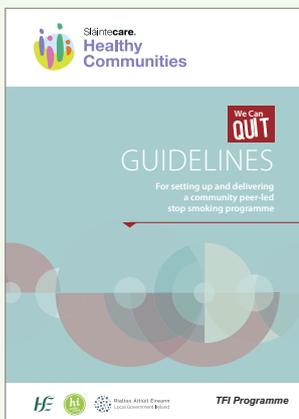
Free text Quit to 50100



Tweet us @HSEQuitTeam



Facebook.com/HSEquit



4.3.4 Supporting Stop Smoking Advisors to deliver Stop Smoking Service

The HSE funds and provides specialist stop smoking services across the country which are delivered by Stop Smoking Advisors (SSA). A number of developments were implemented to support SSA to deliver quality assured stop smoking services.

A new induction document for SSA was developed in 2021.¹⁰⁰ It sets out the benefits of stop smoking advisor training, the training components and the requirements for staff who are interested in training and registering as an HSE Stop Smoking Advisor (SSA).

The HSE provides an online training and assessment programme designed to develop the competencies (knowledge & skills) required by SSAs in conjunction with the National Centre for Smoking Cessation and Training (NCSCT) in the UK. The HSE Tobacco Free Ireland Programme will deliver this moving forward, as a number of local professionals have completed the 'Train the Trainer' component of the NCSCT. The training programme provides staff with a good understanding of the factors involved in smoking and quitting smoking and will link this theoretical understanding to professional practice. It includes the information required to pass the practitioner assessment and receive full HSE/NCSCT certification as a SSA.

Since September 2019, 226 staff have been trained as Stop Smoking Advisors (Figure 50). These training courses comprised of existing staff who required up-skilling and recertification and some new practitioners preparing for a new role as a Stop Smoking Advisor.

Figure 50: Irish Stop Smoking Advisors successfully complete specialist training and certification



4.3.5 Leading improvement in HSE Stop Smoking Services – new Quality Assurance Standards

In order to ensure consistency, quality assure and continually improve HSE funded and delivered stop smoking services in Ireland, new Quality Assurance Standards have been published (Figure 51).¹⁰¹ These quality assurance standards are essential to provide and guide service delivery and put key metrics in place to enable measurement for improvement. The Quality Assurance Standards encompass the HSE Standard Tobacco Cessation Support Programme,¹⁰² which consists of a minimum of six sessions, including a pre-quit assessment and weekly sessions until four weeks after the Quit Date.

- **Session 1:** Pre-quit Assessment (one or two weeks prior to Quit Date)
- **Session 2:** Quit Date
- **Session 3:** 1 week post Quit Date
- **Session 4:** 2 weeks post Quit Date
- **Session 5:** 3 weeks post Quit Date
- **Session 6:** 4 weeks post Quit Date (four week follow-up appointment)

There are also 12-week, 26-week & 52-week post quit-date follow ups.

A working group involving both national and local staff was established to develop these standards, and the first edition was launched in 2022. The standards apply to the national Tobacco Free Ireland Programme and to the service providers (Stop Smoking Advisors). These standards have been internationally peer-reviewed by colleagues in the World Health Organization (WHO) and the Director of the National Programme for Prevention of Smoking and Tobacco Control in Portugal.

A suite of Guidance Notes and Work Instructions have been developed to support implementation of these standards. Regular symposia and webinars are held biannually for all staff delivering a service including third party service providers. The outcomes of services are defined and measured using the internationally recognised Russell Standard.¹⁰³ QuitManager enables us to monitor service activity against these standards.

Figure 51: Quality Assurance Standards for the Delivery of Stop Smoking Services



4.3.6 Leveraging ICT to improve Stop Smoking Services - QUITManager

QUITManager, the National Health Behaviour Clinical Management System for stop smoking services, is a web-based patient management system used to record service and client activity and manage stop smoking services data in Ireland. The system was rolled out nationally to HSE sites in April 2019 following a pilot in three Community Health Organisation areas.

The system captures each individual quit attempt by recording a client's progress against the standard treatment programme. It generates call backs in line with the programme, it allows advisors to issue SMS messages to clients using prepopulated templates to help support and communicate clients in between scheduled appointments or calls and helps to reduce non-attendance by clients for pre scheduled appointments. It also has the capability for users to schedule out of programme call backs and compose personalised text messages.

The implementation of the *QUITManager* system has resulted in reduced paperwork, improved reporting and increased client confidentiality. Since its implementation it has been possible to quality assure data entry within client records, review and analyse the demographics of the clients accessing the service and has allowed timely generation of Key Performance Reports for stop smoking services, which then provide a basis to continuous improvement.

In 2021 an e-learning solutions company was commissioned to develop an e-learning module for *QuitManager*, the patient management system. This module supports new staff to train and complete simulations in a learning environment before they go out and deliver a stop smoking service. It also supports existing staff by providing a real time opportunity to refresh their knowledge of the system.

SPOTLIGHT

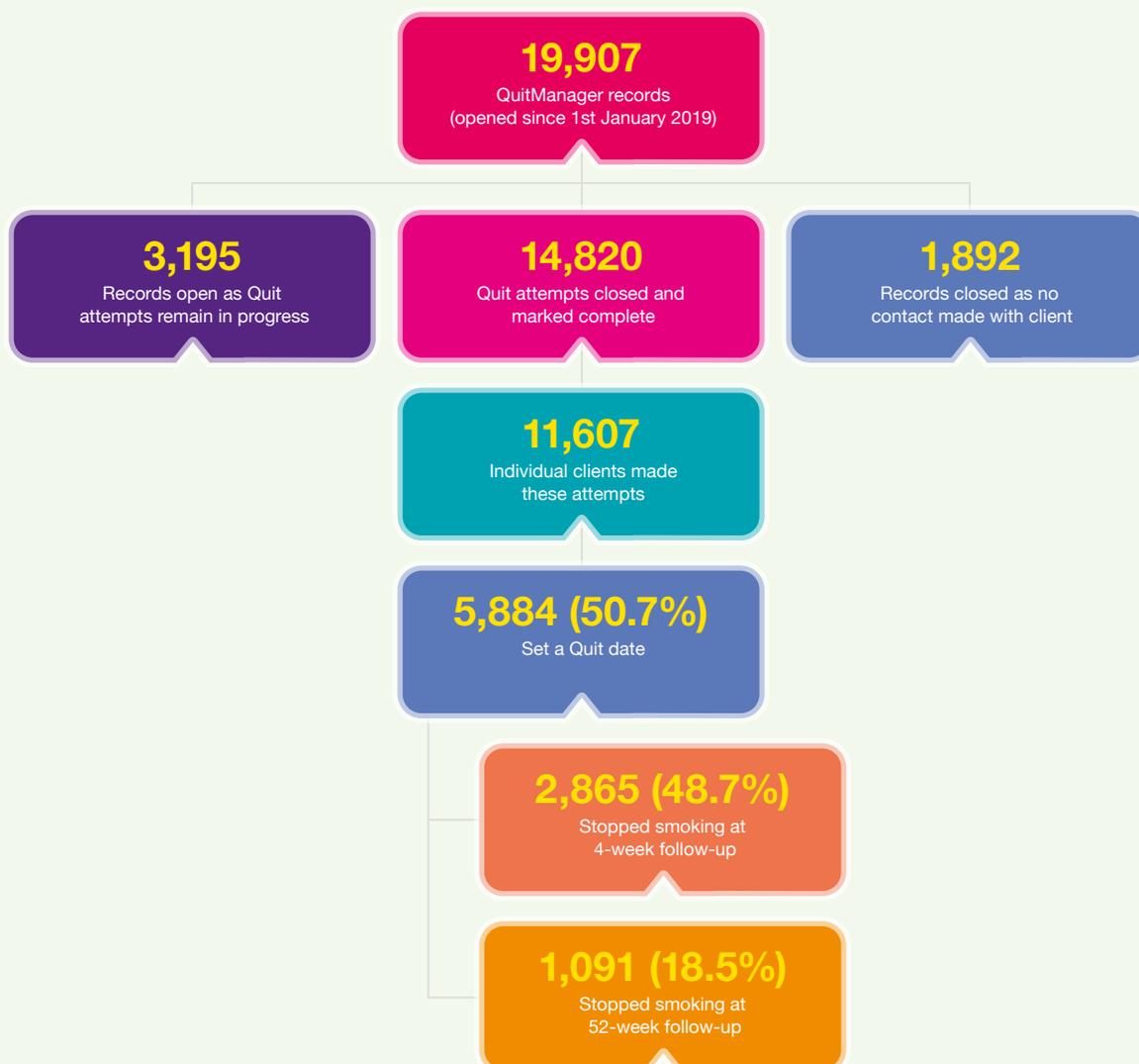
What can we learn about Stop Smoking Services from QUITManager?

Since its launch in 2019, the proportion of stop smoking care provided through HSE operated and funded stop smoking services recorded on QUITManager has progressively increased: 53% in 2019, 67% in 2020 and 74% in 2021. Data quality has been assessed and, as expected with the roll-out of a new system, this has improved year-on-year.

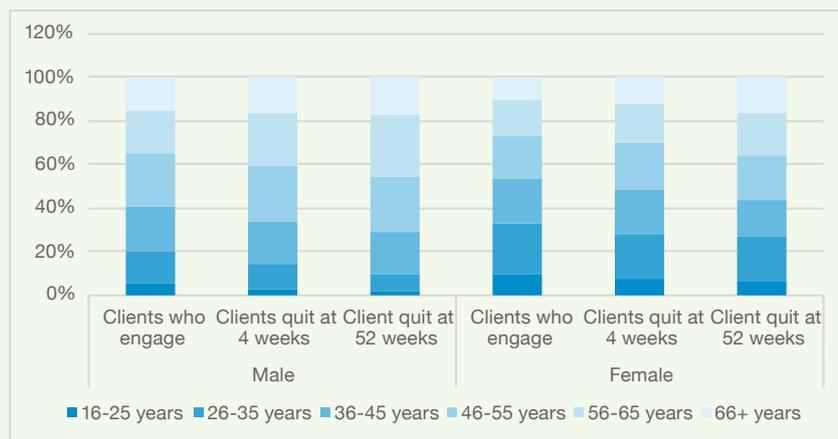
In total, 19,907 episodes of stop smoking care have been opened in QUITManager. Some are current ongoing quit attempts, leaving 14,820 episodes which have been 'closed,' either because a programme of stop smoking care was completed, or because the client relapsed or lost contact with the service; since people who smoke may complete or exit stop smoking care, and then decide to return to the service, these episodes relate to 11,607 individuals.

People who use HSE stop smoking services may use initial engagements to explore the care that can be provided, discuss their needs and preferences, and decide then if they want to proceed to make a supported stop smoking attempt by agreeing to set a QUIT date. When the most recent individual episode of stop smoking care was examined, it was found that 1-in-2 people who used the services (50.7%) set a QUIT date. Following these people up over time, 1-in-2 people who set a QUIT date were smoke-free at 4 weeks; at one year follow-up, some people are no longer contactable and good practice in stop smoking services is to assume that these people have relapsed so, taking this into account, 1-in-5 people (18.5%) who set a QUIT date are estimated to have been long term quit (>12 months). This compares favourably with similar support services internationally.

QUITManager will allow HSE Tobacco Free Ireland to work with stop smoking services to continuously improve the quality of care provided in line with national guidelines and quality assurance standards, ensuring that care is equitable and that individuals at greater risk of dropping out of services, being unsuccessful in their stop smoking attempt, or relapsing, are effectively supported. For example, initial analyses of QUITManager shows that males, older individuals and people who had previous attempts with QUIT services were more likely to proceed to set a QUIT date; older individuals and those who had used stop smoking medications, such as nicotine replacement therapy, are more likely to be successful in their stop smoking attempt at the 52-week follow-up.



SPOTLIGHT continued



4.3.7 Leading new initiatives in Stop Smoking Services

Focus Area – Maternity Services and Sláintecare

For women who smoke who are pregnant (or planning to become pregnant) and following childbirth, stopping smoking is the single most important thing they can do to protect their health and the health of their baby and families. However, it is important that women are supported to stop smoking at all stages during pregnancy, and in the postnatal period. In 2019, the HSE submitted two proposals to the Sláintecare Integration Fund to deliver dedicated stop smoking services for pregnant women.

Smoke Free Start is a dedicated stop smoking service for pregnant women, delivered onsite in two large maternity hospitals, namely Cork University Maternity Hospital and the National Maternity Hospital, Holles Street (Figure 52). This service is offered free to all pregnant women, who currently or recently smoked, and who want to quit smoking. The service is delivered by two Stop Smoking Midwives (CMM2), who work collaboratively with pregnant women in developing and implementing a plan to quit smoking.

The service was established in the National Maternity Hospital, Holles Street in July 2020, and in Cork University Maternity Hospital in September 2020. In order to create a referral pathway, members of the maternity multidisciplinary team were trained in 'Making Every Contact Count' and on the use of carbon monoxide monitoring. In particular, maternity teams were asked to utilise the '5 A's' (Ask, Advise, Assess, Assist, Arrange) model. During the first twelve months of implementation, 691 referrals were received with 540 unique clients engaging with the service (at least once). Overall, 160 quit dates (entering the Tobacco Cessation Standard Treatment Programme) were set, and over 70% of these women had still quit at 4 weeks (project target = 30%) and over 50% had quit at 12 weeks.

The service was extremely well received by the women, and they all spoke positively about their interactions with the Stop Smoking midwives. They described the midwives as 'non-judgmental,' 'understanding,' 'helpful,' 'supportive,' 'kind,' 'warm,' 'calm,' 'brilliant,' 'fantastic,' 'amazing' and 'lovely.' The women found the intensive ongoing support of the programme worked very well. The women felt that talking to the Stop Smoking Midwife on an ongoing basis supported them, reassured them, guided them, made them accountable to someone and reinforced the message of stopping smoking. And there was also much praise for the midwives who continued to deliver the service throughout COVID-19 restrictions.

Originally, the service planned to use breath carbon monoxide testing as part of the booking appointment for pregnant women, but given COVID-19 this was not possible. It is hoped that this element of the service can be implemented in the future.

Figure 52: Smoke-Free Start, National Maternity Hospital and Cork University Maternity Hospital



Supporting Pregnant Women to Quit and Stay Quit operates as a dedicated support for pregnant women, taking referrals across the four maternity hospitals and primary care and community services settings in the South East (counties Carlow, Kilkenny, South Tipperary, Waterford and Wexford) (Figure 53). Again, in order to create a referral pathway, members of the maternity multidisciplinary team were trained in Making Every Contact Count and on the use of carbon monoxide monitoring. In particular, maternity teams were asked to utilise the 5 As (Ask, Advise, Assess, Assist, Arrange) model.

Smoking cessation clinics were established in primary care centres in key areas (Tipperary Town, Kilkenny, Carrick-on-Suir, Wexford and Waterford) observing the Sláintecare vision of providing the right care, in the right place, at the right time. As the first line of contact for pregnant women is often the General Practitioner (GP)/Practice nurse and pharmacies, we enlisted their support by requesting that they refer into the service using promotional material.

The service was established in February 2020 with one Stop Smoking Advisor appointed, and the second advisor was appointed in June 2020.

During the first twelve months of implementation, 439 referrals were received with 340 unique clients (310 maternity & 30 family members) engaging with the service (at least once). Overall, 138 quit dates (entering the Tobacco Cessation Standard Treatment Programme) were set, and over 78% of pregnant women & 81% of their family members had still quit at 4 weeks (national target = 45%) and over 66% (of both groups) had still quit at 12 weeks. A leaflet for the service is displayed in Figure 53.

Figure 53: Leaflet outlining the ‘Quit and Stay Quit’ service in the Southeast



Priority Area: Sláintecare Healthy Communities Programme

In common with other countries, in Ireland there is wide variation in health status across socioeconomic groups, with the greatest burden of ill-health, disability and premature mortality borne by the poorest groups.¹⁰⁴ In 2021, following work between the Sláintecare Programme Implementation Office and Healthy Ireland at Department of Health, HSE Health and Wellbeing, and local authorities and community agencies, a €10 million Sláintecare Healthy Communities Programme was launched to improve health and wellbeing in 19 community areas across Ireland which experience severe deprivation (Figure 54).¹⁰⁵

Figure 54: Sláintecare Health Community Programme Areas



An evidenced based process identified these 19 community areas based on measures of area-based deprivation. Programmes commenced in 2022 and will be delivered by the health services with local communities and partners to help improve the health and wellbeing of people in those communities. The HSE, local authorities, partners and communities will also work together to focus on wider factors in these areas which influence health.

One of the key programmes which will be delivered by the HSE is stop smoking services. Initial investment has enabled 19 Stop Smoking Advisors to be recruited, 1 per area. These post holders will establish at least 4 new stop smoking services in each area targeting specific population groups and or services. Stop smoking services in the Sláintecare Healthy Community Programme Areas will leverage the 'We Can Quit' model. A dedicated budget has been provided for free stop smoking medication (Varenicline/Bupropion and nicotine replacement therapy). This sets up a unique situation where people accessing stop smoking services in a Sláintecare Health Community Programme Areas will face no financial barriers to accessing safe, effective and clinically sound stop smoking care. In addition 1 day of Stop Smoking Advisor time per week will be dedicated to the promotion of Tobacco Free Environments. This work will have an internal health service focus to support the extension and quality improvement of the HSE Tobacco Free Campus policy implementation. It will also have an external focus and will involve engagement with external community partners regarding the implementation of smoke-free policies e.g. parks, playgrounds, local authorities, sports groups and facilities.

Priority Area - Enhanced Community Care Programme and Chronic Diseases

The Integrated Care Programme for the Prevention and Management of Chronic Disease (ICPCD) focuses on improving the standard of care for four major chronic diseases that affect over one million people in Ireland: cardiovascular disease, type 2 diabetes, chronic obstructive pulmonary disease (COPD) and asthma.¹⁰⁶ The ICPCD is leading out on the development and implementation of a model of care for the Integrated Prevention and Management of Chronic Disease in Ireland.

The HSE has a corporate plan which will reduce risk factors for chronic disease, increase community services and support people to live independently in their own home or in the community, with improved access to tests and specialist appointments, closer to home;¹⁰⁷ a key enabler is its objective to enhance primary and community services and reduce the need for people to attend hospital, known as the Enhanced Community Care (ECC) Programme.¹⁰⁸ A key element of this plan is the organisation of 96 Community Healthcare Networks (CHNs), which provide a framework for the delivery of integrated care at the local level. CHNs are geographically-based units which serve an average population of 50,000 each. Specialist ambulatory care hubs for chronic disease are to be established, each serving approximately three CHNs or a population of approximately 150,000. An ambulatory care hub, which will be a clinical site identified outside a hospital setting, will support access to diagnostics, specialist services and specialist opinions in order to support early intervention and specialist care within the community, with a particular focus on chronic disease prevention and management. Within a CHN it is expected that there will be an estimated population of 11,000 people with a chronic disease, while within the area served by each hub there will be an estimated population of 34,000 people with a chronic disease. Chronic disease specialist teams will be established in each hub and will take a multidisciplinary approach to the management of individuals with chronic disease.

Smoking has been recognised as one of the key risk factors for chronic disease and the delivery of high-quality stop smoking care has been included as an essential component of these new services. In total, 30 new Stop Smoking Advisor posts have been approved (1 per Chronic Disease Hub) serving a population of approximately 150,000 people. As these services and chronic disease teams are

established it will be important that the wider multidisciplinary team is completing brief interventions, establishing smoking status and accessing a clear referral pathway to the new dedicated stop smoking services. Providing training and referral pathways is a key focus of the clinical guideline implementation plan.

Focus Area – Helping health service staff to stop smoking

The HSE is the largest employer in the state, with over 100,000 employees. The HSE Healthy Ireland Implementation Plan (Healthy Ireland in the Health Services National Implementation Plan 2015-2017) identified Staff Health & Wellbeing as one of its three key priority areas. The Staff Health and Wellbeing programme strives to improve the health and wellbeing of the workforce by supporting management in creating a healthy workplace for all staff in addition to nurturing workplace champions. The impacts of smoking in the workplace for the employee who smokes, for colleagues and for employers, is well established,¹⁰⁹ and offering support to people to stop smoking at the workplace is effective.¹¹⁰ Furthermore, smoking among health service staff is also important, since it can make it more difficult to build a smoke-free environment across health services, and health service staff who smoke may be less likely to feel comfortable and confident to raise the issue of smoking with the public.^{111,112}

An estimate of the current prevalence of smoking among HSE staff members is 10.6%,¹¹³ which equates to 11,204 HSE staff members. Smoking rates vary among staff groups; the highest rates are reported in general support staff at 19.5% and are lowest in the medical and dental staff group at 4.4%.

Many employers provide and fund support to staff who smoke who want to stop. Before 2020 some HSE settings provided funding for stop smoking medication for HSE staff as part of support programmes. However, allocation of funding for this support was not uniform, varying considerably across Community Health Organisation (CHO) areas and hospital groups. The HSE Heads of Health & Wellbeing sponsored a project to establish a consistent approach to the offer of free stop smoking service and free NRT/stop smoking medication for all HSE staff (Figure 55).

During the first 6 months (Sept 2020 to March 2021), 297 staff members engaged with their local stop smoking service. The clients were from 25 of the 32 counties in Ireland, with the highest numbers from counties Cork, Dublin & Donegal. The majority (80%) of clients were female and their average age was 44.8 years (range: 19 to 69 years). The vast majority of clients had smoked for at least 10 years, with the average score on the Fagerstrom nicotine dependency score being 3.6 (low to moderate). Overall, 281 staff members set a quit date, and 77% of them had still quit at 4 weeks. The offer of support was really well accepted by the staff members. They described the support they received from their Stop Smoking Advisor as ‘encouraging,’ ‘supportive,’ ‘non- judgemental,’ ‘friendly’ and ‘helpful.’. Almost 90% of respondents agreed that the offer of free stop smoking medications was a factor in them engaging with this initiative, and most reported they had used more stop smoking medications on this compared to previous attempts.

This initiative represented value for money with significant organisational benefits to be gained, given the evidence of increased absenteeism among staff who smoke.^{114,115} A decision was made to extend and mainstream the initiative.¹¹⁶

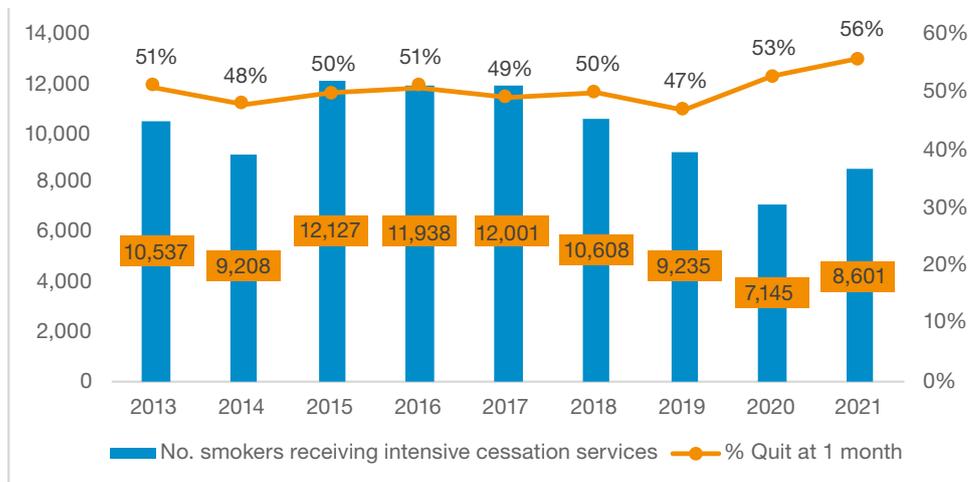
Figure 55: Helping health service staff to stop smoking



4.3.8 Trends in demand for Stop Smoking Services and QUIT Outcomes

Figure 56 shows the recent demand for HSE intensive smoking cessation services, delivered by telephone or face-to-face using the standard treatment programme, and the outcomes after one month. Across this period, the crude numbers of people across the population who smoke has decreased. The impact of COVID-19 is evident in relation to demand in 2020, when many face-to-face stop smoking services were unavailable. However, the situation has improved and in 2021, 8,601 people entered intensive smoking cessation services, equivalent to 12 per 1,000 people who smoke (which compared with 14/1,000 in 2017).

Figure 56: Trends in numbers of people receiving intensive stop smoking services and outcomes, 2013-2021



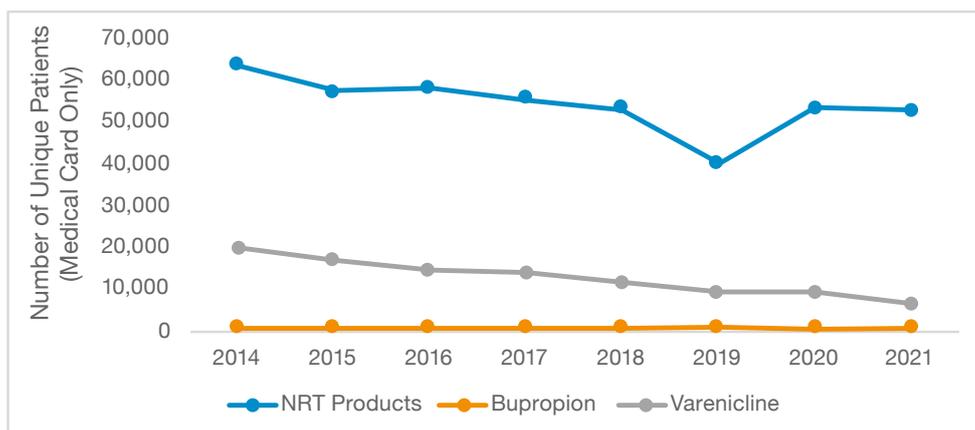
Source: HSE Tobacco Free Ireland Programme

In 2021 over half (56%) of those who entered the standard treatment programme with HSE services and set a quit date were smoke-free at one month; the national target is 45%. As displayed in Figure 56, the ‘Quit at 1 month’ rate has increased significantly since 2019; this increase in quit rates is most likely due to a decline in the number of Carbon Monoxide (CO) validations being carried out with clients to verify quit status, due to the onset of COVID-19 pandemic restrictions in March 2020. These CO verifications are usually done face-to-face with a Stop Smoking Advisor. In comparison, NHS Stop Smoking Services in England reported that 59% of people who set a quit date (April 2020 to March 2021) remained quit at 4 weeks; again, the majority of these were self-reported quit status, and the change of service delivery as a result of the COVID-19 pandemic is also cited as a reason for the sharp increase in 4 week quit rates.¹¹⁷

Through its Primary Care Reimbursement Service (PCRS), the HSE provides those with a medical card access to medications that are proven effective in helping them quit. A small co-payment is applicable to nicotine-replacement therapy medications, which are also subject to other prescribing controls. Furthermore, people who smoke with a medical or GP visit card benefit from free access to their primary care doctor for assessment and prescribing.

Figure 57 presents the recent trends in redemption of prescriptions for medication based smoking cessation support to medical card holders. In 2021, 52,643 patients with medical cards were provided with an NRT product and 7,641 were provided with Bupropion or Varenicline; this is equivalent to 73 (169 in 2017) and 11 (36) per 1,000 people who smoke (with full medical card), respectively. Over the period 2014-2021, dispensing of Bupropion and Varenicline remained low; Varenicline declined by 66% across the period. Dispensing of nicotine replacement products has also declined, but the relative decrease was 17%. NRT products remain the leading stop smoking medicines dispensed, accounting for 87% of products dispensed in 2021.

Figure 57: Trends in redemption of prescriptions for nicotine replacement therapy (NRT) and Stop Smoking Medications by Medical Card holders, 2014 to 2021



Source: HSE Primary Care Reimbursement Service (PCRS), March 2021 by request

While noting differences in relation to the supply of medicines through the English health services versus Ireland, this picture regarding use of stop smoking medicines is in some ways similar to that reported in England, but with key differences.¹¹⁸ In the same period (2014-2021) in England, NRT was also the most commonly prescribed stop smoking medicine, however, there was a 68% reduction in the volume of NRT prescription items dispensed; Varenicline was the next most commonly prescribed stop smoking medicine, and there was a 69% reduction in the volume of Varenicline prescriptions dispensed.

4.4 Protecting people from tobacco smoke

Smoke-free environments help protect people from the harmful effects of second-hand smoke.¹¹⁹ While Ireland has led the world in creating smoke-free environments through legislation, with well-established benefits to public health,^{120,121,122} institutional policies can extend the benefits to areas beyond spaces where smoking is legally prohibited. Institutional policies that prohibit smoking have been shown to be effective in hospitals and universities; for example, in hospitals, the prevalence of active smoking rates was significantly reduced in staff by almost 30% (risk ratio (RR) 0.71, 95% CI 0.64 to 0.78) and in patients by 15% (RR 0.86, 95% CI 0.76 to 0.98).¹²³

In addition to the work of the HSE Environmental Health Service in building and ensuring compliance with workplace smoking ban legislation, the HSE *Tobacco Free Ireland* Programme works with health services and wider partners to better protect people from the harms of second-hand smoke and enable people who smoke to stop through work on smoke-free environments.

4.4.1 Tobacco Free Campus in the HSE

The HSE, as the leading healthcare provider in Ireland, is committed to the protection and prevention of illness and disease through a reduction in the use of tobacco and its harmful effects. The HSE adopted an official corporate Tobacco Free Campus (TFC Policy) in 2012. The development of the policy benefitted from strong leadership commitment at the level of the HSE CEO and Leadership Team. A consultative process with staff was led by Human Resources to engage staff, assess their support and ensure legislative requirements for protecting staff health were observed.¹²⁴ A challenge to the policy based on concerns about interference with staff rights to smoke at work was unsuccessful in the Labour Court, affirming the importance of tobacco free campus policies in protecting the interests of staff and service users.

The policy is designed in line with international standards developed by the Global Network for Tobacco Free Healthcare Services,¹²⁵ and it has two clear aims:

1. To treat tobacco as a healthcare issue; and
2. To de-normalise tobacco use in all healthcare services and settings.

It assigns roles and responsibilities at every level throughout Health and Social Services and the procedures to be followed to achieve a tobacco free campus.

A further policy, Protecting HSE Staff from Second Hand Smoke in Domestic Setting Policy, was developed particularly for those working in the community and in Primary care. The purpose of the policy is to protect HSE staff who deliver services in users' homes from the harmful effects of second-hand smoke.

Both the Tobacco Free Campus and Second-Hand Smoke in Domestic Settings policies are currently under review and revised policies will be published in due course.

Tobacco Free Policy implementation requires a whole-organisation approach and the buy-in of all management, staff and service users. Successful implementation of policies requires good leadership and a systematic approach. During 2019 the HSE TFI Programme issued a survey to all Social Care (older persons and disability) and Mental Health services to assess policy implementation nationally. Primary care and Acute Hospital services had fully implemented the policy previously.

Survey results found that the policy was implemented in:

- 46% of Mental Health Approved Units (based on survey uptake rate of 68% of sites)
- 10% of Mental Health Residential Services (based on survey uptake rate of 15% of sites)
- 7% of Disability Residential Services (based on survey uptake rate of 10% of sites)
- 81% of Older Persons Residential Services (based on survey uptake rate of 53% of sites)

4.4.2 The Tobacco Free Campus Quality Improvement Initiative

The Tobacco Free Campus Quality Improvement initiative was conceived in 2019 using a new strategy to engage new services (and to reinvigorate previously engaged services) in the implementation of the policy. The Global Network for Tobacco Free Healthcare Quality Standards was used as a roadmap.^{126,127}

In an effort to foster creative thinking, build supportive processes and address compliance, this quality improvement initiative was launched under three headings: Sustainability, Innovation and Monitoring & Compliance Building. This was presented as an opportunity to avail of a €5,000 bursary for work that some services wanted to commence with the benefit of a supportive structure and an identified timeframe. Many Health Promotion & Improvement (HP&I) staff also used the bursary process to build relationships and engage new services in TFC policy implementation.

Services commenced with a baseline self-audit using the Global Network of Tobacco Free Health Services (GNTH) on-line self-audit tool. Local HP&I Tobacco Free Campus support staff partnered with service management to complete this process and this was the beginning of a new productive partnership in a lot of cases. Services developed a Quality Improvement Plan (QIP) using the Global Network of Tobacco Free Health Services (GNTH) QIP template, identifying actions that could be completed in a timeframe of six months. The link with other priority programmes was highlighted and a number of services incorporated commitments to other programmes in their QIP i.e. Making Every Contact Count training. In July 2019 all applicants completed a re-audit using the GNTH self-audit, completed and submitted an application form with an update on progress made in each identified action area on their QIP.

13 hospitals and 8 Mental Health Services completed the process and submitted applications in 2019. These 21 services were recognised at an event at the RCSI in September 2019.

Initial plans to repeat the process in 2020 were impacted by COVID-19 and in 2021 further funding was made available. A total of 44 services submitted completed applications using an online survey: 13 Acute Hospitals; 1 Disability Service; 24 Mental Health Services; 5 Older Persons Services; and 1 Primary Care Centre. The TFIP engaged an independent quality assurance provider (Quality Matters) to score the applications and to make recommendations regarding funding. All 44 services were recommended for funding to various degrees, with the amount recommended for allocation based on the score achieved by each individual service.

Figure 58: The HSE Tobacco Free Campus Quality Improvement initiative



4.4.3 Supporting wider partners to create smoke-free environments

The Irish Prison Service (IPS)

The disproportionately high prevalence of tobacco use among prisoners remains an important public health issue. While Ireland has well-established legislative bans on smoking in public places, these do not apply in prisons. In 2019, the HSE *Tobacco Free Ireland* Programme partnered with the Irish Prison Service to implement a multi-component tobacco control intervention in a medium security prison for adult males in Ireland (the Progression Unit in Mountjoy Prison in Dublin, Figure 59), delivering improved stop smoking care in a context of creating a smoke-free environment. This intervention, working with staff and prisoners, was designed, implemented, and evaluated with a before-and-after study.

Figure 59 : Mountjoy Prison Smoke-Free Environment Initiative spotlighted in Irish Prison Service Annual Report



Source: Irish Prison Service Annual Report, 2019

Pre-intervention, 44.3% (n = 58) of the study population were current smokers, consisting of 60.7% of prisoners (n = 51) and 15.9% of staff (n = 7). Post-intervention, 45.1% of prisoners (n = 23/51) and 100% of staff (n = 7/7) who identified as current smokers pre-intervention reported abstinence from smoking. Among non-smokers the proportion reporting being exposed to someone else's cigarette smoke while being a resident or working in the unit decreased from 69.4% (n = 50/72) pre-intervention to 27.8% (n = 20/72) post intervention; this was associated with improved self-reported health and a reduction in respiratory and sensory symptoms attributable to exposure to smoke. The findings of the evaluation were peer-reviewed and published.¹²⁹

This work demonstrated that, in the absence of legislative measures, smoking prevalence in prison settings can be successfully reduced through institutional measures using multicomponent interventions delivering improved stop smoking care in a context of creating a smoke-free environment. Importantly, besides benefiting prisoners and staff who smoke, the work demonstrated that these measures can reduce exposure to second-hand smoke, and the associated negative health impacts. Should a mandatory complete ban be introduced in prisons in future in Ireland, optimising stop smoking care through building on lessons learned from this intervention will provide a necessary platform for implementation. Engagement with prisoners and prison staff will also be required to enable change. Regardless of further policy, the potential to improve smoking cessation care identified in this study must be seized to better meet the complex health needs of this vulnerable population.

“Not Around Us” and Healthy Limerick

The HSE *Tobacco Free Ireland* Programme worked with Healthy Limerick to develop and implement a tobacco free spaces initiative entitled *Not Around Us*. This initiative launched to coincide with World No Tobacco Day 2019. *Not Around Us* promotes an environment where it is easier for those who smoke to quit and remain smoke-free and helps to de-normalise smoking for the next generation through shaping policy development, selecting appropriate areas for no-smoking signage, engaging on the effects of second hand smoking and raising awareness of the supports for those who wish to quit.

Not Around Us signage can be seen in areas where young people play and learn such as parks, playgrounds and schools. A series of animated videos with similar messaging was developed as part of the initiative. The videos can be viewed “<https://www.hse.ie/eng/about/who/tobaccocontrol/news/>”.

Not Around Us is another step Towards a Tobacco Free Limerick. This initiative is a HSE funded partnership with a range of stakeholders: HSE, Limerick Local Community Development Committee, Limerick Comhairle na nÓg, Limerick Children and Young People's Services Committee, Limerick Childcare Committee, Healthy Ireland and ASH Ireland, Council of the Irish Heart Foundation.

Limerick Comhairle na nÓg received a Gold Medal in the WHO World No Tobacco Day Awards for their work on the campaign (Figure 60). The *Not around Us* campaign has since been adopted in a number of other regions (e.g. Wexford, Galway, Clare) with the support of Local Authorities and HSE Health Promotion & Improvement.

Figure 60: Limerick Comhairle na nÓg and 'Not Around Us' win a Gold Medal in the WHO World No Tobacco Day Awards



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World No Tobacco Day 2020 awards: recognizing the tobacco control champions



28-05-2020

31 May marks World No Tobacco Day, and in 2020 the focus will be on "protecting youth from industry manipulation and preventing them from tobacco and nicotine use". In addition to raising awareness of and building support for tobacco control, World No Tobacco Day offers an opportunity to recognize the achievements of tobacco control champions from around the world.

WHO gives the World No Tobacco Day awards every year to carefully selected individuals and/or organizations in recognition of their accomplishments in tobacco control and in the implementation of the WHO Framework Convention on Tobacco Control (WHO FCTC).

The awards recognize international achievements in the fight against the global tobacco epidemic and in the promotion of tobacco control initiatives and policies. They are awarded to individuals and institutions selected for their long-term commitment and outstanding contribution to research, advocacy, health promotion, capacity-building and other activities that promote and enforce tobacco control.

The following individuals and organizations in the WHO European Region are the recipients of this year's World No Tobacco Day awards.

Armenia: Dr Arsen Torosyan, Minister of Health of Armenia

Dr Arsen Torosyan played a crucial role in coordinating the development of the new tobacco control law in Armenia and in overcoming obstacles in achieving its adoption. This achievement was attained despite criticism, existing legal barriers and a strong tobacco lobby. Dr Torosyan demonstrated persistent and courageous political leadership. This new law is a major step forward in protecting the health of people in Armenia, which currently has the second highest prevalence of tobacco smoking among adult males in the WHO European Region. The new law includes, among other measures: a ban on indoor smoking in all public places, workplaces and public transport; and a total ban on the advertisement and promotion of tobacco products.

Austria: VIVID - Institute for the Prevention of Addiction

VIVID - Institute for the Prevention of Addiction has played an important role at the national level: generating and sharing evidence, publishing opinion letters and attracting the attention of both policy-makers and the general public on the need to strengthen tobacco control measures in the country. The Institute's work and advocacy activities have contributed to the adoption of stronger regulatory tobacco control measures by the Austrian Government. Over the years, VIVID has implemented tobacco prevention programmes in the state of Styria, focusing activities on awareness



WHO

5 What have we learned about the State of Tobacco Control in Ireland and what next?

5.1 Still deep in an epidemic of smoking-related harm

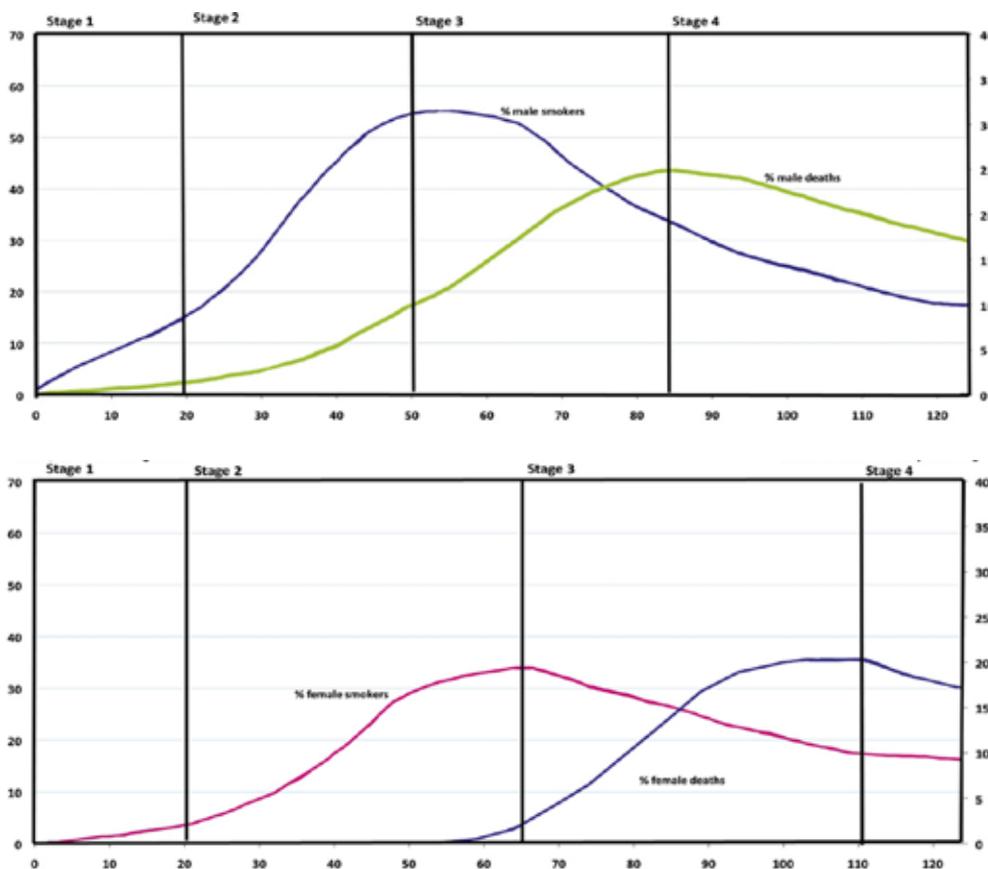
The exceptional events caused by the global emergence of SARS-CoV-2 since 2020 dramatically raised awareness of the concept of an “epidemic”. The term calls to mind an infectious agent moving quickly across a population causing disease and death on a large scale with widespread social consequences. While it may not capture public attention in the same way, the reality documented in this report is that Ireland is still deep in a continuing epidemic of smoking-related harm – caused by a man-made agent and sustained by a global industry.

In Ireland, and across the world, tobacco products are a leading preventable cause of disease, disability and premature mortality,¹³¹ killing over one-in-two persistent users.^{132,133,134,135,136,137} The advent of cigarette manufacturing technology in the late 1800’s and the establishment of tobacco corporations, led to the globalization of this industrialised epidemic.¹³⁸ The World Health Organization (WHO) has called attention the scale and nature of this problem through the *WHO Report On The Global Tobacco Epidemic* series.¹³⁹ Unfortunately, the historic establishment of smoking as a socially normative practice not only perpetuated the epidemic but also, reinforced by its slowly unfolding nature, has often allowed this epidemic to hide in plain sight and undermined a continuing sense of urgency.¹⁴⁰

Four stages to the epidemic of smoking related harm has been proposed, based on the trajectory of smoking prevalence for men and women, with the peak of smoking prevalence falling later for females than males, and the peak of smoking-related harm falling after the peak in smoking prevalence for both groups (Figure 61).^{141,142} For men, the definitions of four stages are (1) current prevalence <15%; (2) current prevalence now 15%–65% and never declined, or only declined by <10% points; (3) prevalence has declined by >10% points but is still >25%; (4) prevalence has declined by >10% points and is now <25%. For women, the definitions of four stages are (1) current prevalence <5%; (2) current prevalence now 5%–45% and never declined, or only declined by <5% points; (3) prevalence has declined by >5% points but is still >20%; (4) prevalence has declined by >5% points and is now <20%. A recent global study, aligned with analyses presented in this report indicate that Ireland epidemic is at Stage 4 for males and moving between Stage 3 and Stage 4 for females.¹⁴³

While Phase 4 in this model is characterised by lower smoking prevalence and smoking-related death, the model does not suggest that movement to this final phase of the epidemic will bring it to an end.

Figure 61: Schematic of the four stages tobacco epidemic, males and females



Note: Schematic illustrates the model with data from United States. Left vertical axis is smoking prevalence (%); right horizontal axis is proportion of deaths causes by smoking (%); horizontal axis is years since the tobacco epidemic became established.

Sources: Page 100, <https://tobaccocontrol.bmj.com/content/tobaccocontrol/21/2/96.full.pdf>

5.2 A changing epidemic presenting new challenges

In common with other countries, as the smoking-related harm epidemic in Ireland evolves, in common with other countries its nature changes.¹⁴⁴ This report delineates some of the new challenges which now present.

Taking a gender lens to the problem of smoking

This report illustrates that, and in common with other developed countries, the smoking-related harm epidemic is progressing differently for men and women in Ireland. Smoking prevalence continues to be higher among men than women, and while recent trends in decline are similar, over a longer period it appears that there has been a greater relative decline in smoking among women than men. However, women are at an earlier stage of the epidemic than men and are continuing to experience significant harm. An implication is that the problem needs to be viewed through a gender lens and a gender-sensitive approach to the response adopted.^{145,146} The WHO in Europe recently called for urgency in confronting tobacco use among women, highlighting tobacco industry attempts which specifically target women and girls to promote tobacco product use, and identifying a need for countries to put in place gender-transformative policies as a high priority.^{147,148}

In Ireland, there has been a recent increased focus on women's health, with the establishment of a Women's Health Taskforce by the Department of Health to improve women's health outcomes and experiences of healthcare in 2019 and the launch of a Women's Health Action Plan in 2022.¹⁴⁹ The impact of smoking on women's health in Ireland is clear: the National Cancer Registry of Ireland, for example, recently reported that lung cancer was the second most common incident invasive cancer (excluding non-melanoma skin cancer) and the leading cause of cancer death for women.¹⁵⁰ It reports that lung cancer incidence has been increasing quickly among women over the last two decades, and has only recently appeared to stabilise. While HSE work to achieve improved health and wellbeing for all in society, through strategies like *Tobacco Free Ireland*, is identified, this important Plan includes no specific actions on gender-transformative approach to the harm caused by tobacco to women in Ireland. Similarly, for men, while the recent National Men's Health Action Plan 2017-2021 sets out a general theme on contributing to the implementation of the priority programmes for Healthy Ireland, including *Tobacco Free Ireland*, it lacks specific action. Smoking-related harm health needs, and specific gender-sensitive approaches, should be addressed in subsequent action plans for women and men's health in Ireland.

Smoking across the life-course

The age-patterning of smoking in Ireland is changing. While, in 2015, smoking prevalence was highest in the younger adult age group (15-34 years) for men and women, large relative reductions across the period to 2021 (25% reduction in males and 42% reduction in females) were observed, and smoking prevalence is now highest in middle age groups, especially the 45-54 year age group (24% overall; 24% for males and 23% for women), where relative reductions across the period were more modest.

It is difficult from the serial cross-sectional nature of Healthy Ireland to unpack the relative contribution of initiation and quitting to observed annual smoking prevalence, especially within population sub-groups, so as to establish a clear view on smoking across the life-course for different cohorts in the population over time. Observed trends in younger adults is likely to reflect inflows to these age groups of young people among whom smoking initiation has been historically low, leading to reductions in smoking prevalence in that group over time. However, Healthy Ireland Surveys do not provide us with information on smoking initiation. Recent and more detailed population studies from other countries confirm that a proportion of young people who benefit from smoking initiation measures in adolescents are now starting to smoke as young adults,^{151,152} with significant life-transitions that occur in that period, such as moving out of home, starting college, new social setting, and entering the workplace introducing vulnerabilities.^{153,154,155,156}

Cannabis use is a feature of life for young people in Ireland, and a recent Eurobarometer survey found that self-reported cannabis use in the last 12 months was 17% in Ireland, the highest across countries studied, and especially high in younger age groups.¹⁵⁷ The relationship between cannabis use and tobacco product use is increasingly studied: tobacco use may mediate cannabis dependence,¹⁵⁸ while cannabis use associated with increased initiation, persistence, and relapse to cigarette smoking.^{159,160,161} While social acceptability and normalisation of smoking has changed, so have attitudes towards cannabis use, with new industries emerging and, unsurprisingly, evidence of tobacco company investment in the expansive market provided by cannabis sector.¹⁶²

The recent increases in smoking among teenagers in Ireland reported in the European School Survey Project on Alcohol and Other Drugs (ESPAD) underlines the need for continuing vigilance regarding young people and tobacco-product use.

In summary, while declining smoking prevalence in younger age group is a positive feature identified in this report, the group still have significant, emerging and increasingly complex needs in the area of tobacco-product use.

Emerging complexity of new behaviours and products

The nature of smoking behaviour, and the type of tobacco and nicotine product use is also changing.

Against a trend of declining smoking prevalence, the likelihood that someone who smokes using the product occasionally rather than daily has increased. While smoking prevalence is lowest among the youngest age group, a high proportion of those who do smoke in this group smoke occasionally. The Royal College of Physicians in Ireland's Tobacco Policy Group has highlighted the particular risks associated with this type of smoking behaviour, which still carries significant health impacts, will lead some people to daily smoking, and may be less susceptible to tobacco policy measures which tackle daily smoking.¹⁶³

RYO product use increased steeply in the last decade, and, as illustrated in this report, while smoking prevalence has decline overall,

the prevalence of RYO product use has remained stable and the share of smoking it represents has increased. The proportion of women who smoke using RYO products has doubled; and the proportion of people in younger age groups who smoke using RYO products has also doubled; RYO product use remains higher among people who smoke in lower socioeconomic groups. These are similar trends to those reported in, for example, Australia and other European countries, where price and false perceptions regarding reduced harm are contributory factors.^{164,165}

Trends regarding e-cigarette use are evolving, albeit in recent years the prevalence of e-cigarette use appears to have stabilised. Across population groups, use of e-cigarette is comparatively high among younger people and those in lower socio-economic groups, and increasing in these groups: for example, among those 15-24 years old, use increased from 1% to 4% between 2015 and 2021. This is consistent with the recent results of the European Schools Project on Alcohol and Other Drugs which found that e-cigarette use among teenagers in Ireland is increasing, Use of e-cigarettes among those who have never smoked is very low; and while use of e-cigarettes among people who currently smoke remains stable, between 2015 and 2021 the use of e-cigarettes among those who previously smoked increased from 6% to 10%.

E-cigarettes present a disruptive change in tobacco policy.^{166,167} As debate regarding e-cigarettes continues, countries adopt diverse positions regarding regulatory approaches and policies, and new products which are not routinely measured in Ireland through the Healthy Ireland Survey like heated-tobacco-products and oral nicotine products, emerge.^{168,169,170,171,172,173} The industry producing these novel products increasingly includes the tobacco industry itself, which continue the production and promotion of conventional combustible cigarettes, adding to the complexity of the debate.

The issues around e-cigarettes were recently examined by the Department of Health in Ireland through the Health Research Board, including a literature map on the harms and benefits of e-cigarettes and heat-not-burn tobacco products,¹⁷⁴ a systematic review on e-cigarette use and tobacco cigarette smoking initiation in adolescents,^{175,176} and a systematic review on e-cigarettes and smoking cessation.^{177,178} The Health Research Board documented acute effects include poisonings, burns, blast injuries, lung injury and asthmatic attacks; found some of the chemicals in e-cigarettes are thought to cause tissue and cell damage and some are agents that may cause cancer in the long-term; and noted that the long-term health effects beyond 24 months are not researched. In relation to adolescents, it found that those who had ever used an e-cigarette were between three and five times more likely to start smoking compared to those who never used e-cigarettes. Regarding smoking cessation, it found no clear evidence of a difference in effect between nicotine containing e-cigarettes and NRT on incidences of smoking cessation at 24-26 weeks, and that substantial uncertainty remains because of the quality of the studies conducted to-date.

These reports were considered by the HSE *Tobacco Free Ireland* Programme through a Guideline Development Group (GDG) it established to develop National Stop Smoking Clinical Guidelines, which were quality assured by the National Clinical Effectiveness Committee, and endorsed by the Minister for Health. That group did not recommend that e-cigarettes be recommended by healthcare professionals in Ireland as part of safe, effective and clinically sound stop smoking care, setting out its reasons as follows:¹⁷⁹

- “Confidence in effect estimates and stability of findings for e-cigarettes as a stop smoking support were much lower than and compared unfavourably with established pharmacological alternatives, noting as well that the HRB evidence was based on a network meta-analysis and introduces indirectness of evidence; lack of confidence into how effects from published research of specific e-cigarette products studied under specific conditions in specific populations would translate into practice, given that e-cigarettes are a very heterogeneous group of products which are not licensed as medicines. The GDG viewed a recommendation as speculative compared with well-established pharmacological support alternatives.
- Trade-offs at individual level are likely to be associated with a recommendation in relation to e-cigarettes, but there are still substantial uncertainties, in particular regarding the long-term health outcomes of e-cigarettes and broader public health implications, especially when compared with the well-established safety profile and public health impact of other treatment options.
- Recommendation and use of a regulated pharmacological support with established quality, safety and effectiveness profile versus a heterogeneous group of consumer products with unregulated quality, safety and effectiveness profile and with uncertain trade-offs are very different options for stop smoking support. The GDG viewed that individual reactions of people who smoke and healthcare professionals to these different options is likely to vary widely and there is relatively little local research evidence in this specific area.
- Ireland is committed to becoming tobacco-free and both protection of children and denormalisation of tobacco use are to be prioritised in all tobacco control measures. There is substantial uncertainty regarding potential trade-offs between individual-level and population-level efforts to tackle smoking associated with a recommendation and the GDG viewed this as speculative rather than precautionary. The GDG carefully examined the current national policy direction on tobacco control. In relation to e-cigarettes, it noted a need to identify, engage with and reconcile values and interests with due regard to scientific evidence, and that this is a role for the policy, based on public and political discourse, to find a position that best expresses a balance of social values and interests.

Albeit no recommendation was made, the need for advice to support people who smoke and healthcare professionals in relation to decision-making on e-cigarettes was recognised and a number of points of good practice were set out.

SPOTLIGHT

Good practice points in discussing e-cigarettes with someone who smokes.

When providing stop smoking care where someone is interested in quitting but does not wish to use recommended supports, healthcare professional should record this outcome, and consider the following:

- Explain that supports are recommended on the basis of effectiveness, safety and accessibility through the health services. Encourage them in their quit attempt and remind them that support is accessible through the health services to increase their chances of success.
- Some people may choose to use other supports, not funded, or provided by the HSE, in their quit attempt and may raise these with a healthcare professional. The following points can be used in discussion:
 - There is no evidence that Acupuncture or Hypnotherapy are effective in helping people quit.
 - Evidence on the effectiveness of the Allen Carr Method is mixed but it does not appear to be more effective than intensive support offered free of charge by specialist stop smoking services.
- Some people may choose to use an e-cigarette to support them in their quit attempt or may consider switching from smoking to using an e-cigarette. The following points can be used in discussion of this choice:
 - E-cigarettes are consumer products. There is some regulation in place to protect consumers of e-cigarettes but not the same quality and safety system as would be in place for a licensed drug or medical device.
 - People who do not smoke or use e-cigarettes should not start.
 - For people who smoke and want to quit, advise them that there are a range of recommended and accessible support options with well-established effectiveness and safety profiles.
 - Smoking tobacco is extremely dangerous and, compared to this, e-cigarettes are likely to be less harmful. They are not harm-free and there is some uncertainty at the moment regarding their health impact.
 - Evidence regarding the effectiveness and safety profile of e-cigarettes as a stop smoking support is evolving.
 - To reduce the harm from smoking, dual use of tobacco and e-cigarettes should be avoided.
 - HSE stop smoking services can provide support to those who wish to use an e-cigarette to make an attempt to quit smoking.

Regulation of e-cigarettes in Ireland is underpinned by the revised Tobacco Products Directive.¹⁸⁰ The provisions set out in the Directive have been challenged to keep up with the emerging and increasingly complex landscape of novel tobacco and nicotine products.¹⁸¹ It is under review and in 2021, at the request of the European Commission, the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) published a final opinion on e-cigarettes, to feed into a review of the Directive, which drew conclusions similar to those in the Health Research Board reports.¹⁸²

In the meantime, a key gap in regulatory arrangements for e-cigarettes in Ireland is the lack of a legal prohibition on retail of these products to people below a minimum age. Such mechanisms are in place in over 56 countries, setting minimum age at 18 years, 19 years and 21 years, making Ireland an outlier.¹⁸³ It is proposed to address this gap through the Public Health (Tobacco and Nicotine Inhaling Products) Bill.¹⁸⁴

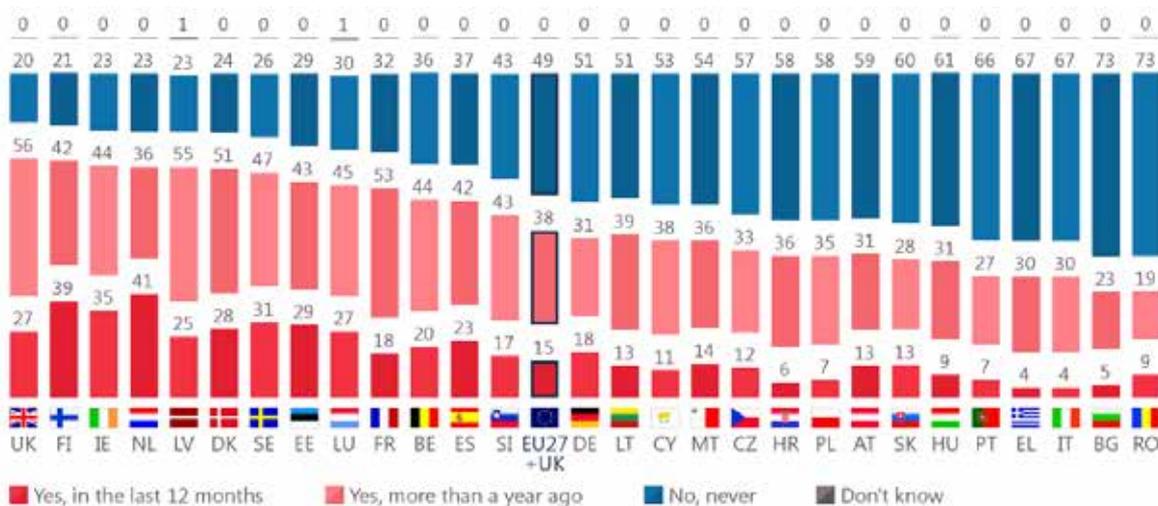
Is there “hardening of smokers” in Ireland?

This report has identified a small decline in the proportion of people who smoke reporting positive intention to quit over the period 2015 to 2021 (64% versus 57%); and a small decline in the proportion of people who recently or currently smoke reporting at least one quit attempt was also noted (53% 2015 versus 46% 2021). These declines were more pronounced among people who smoke in middle age groups, in lower socioeconomic groups, and among those who smoke daily. Is this a cause for concern?

As smoking prevalence declines in the later stages of the tobacco epidemic, concern has been raised that those people who continue to smoke may be less interested in or able to stop, so called “hardening of smokers” or the “hardening hypothesis”.¹⁸⁵ In turn, this has been a basis to argue in favour of greater focus on harm reduction approaches and/or more intensive stop smoking care approaches. A recent study which analysed population surveys across European countries over time, including Ireland, found no evidence to support the “hardening hypothesis”, and in fact found evidence to suggest the opposite is occurring, confirming that approaches to help people stop smoking remain suitable.¹⁸⁶ This is consistent with a recent review of the evidence across various studies in the area.¹⁸⁷

Concern is further offset by findings from the recent European Union Eurobarometer study:¹⁸⁸ among people who smoke, in Ireland 79% reported that they had tried to stop (35% in the last 12 months and 44% more than 12 months ago), compared to the EU-27 (plus UK) average of 52% (15% in the last 12 months and 38% more than 12 months ago), and this situation has improved among people who smoke in Ireland versus the last European Union Eurobarometer in 2017 (Figure 62); use of nicotine replacement therapy to help someone who smokes to stop was greater among Irish respondents than the EU-27 (plus UK) average (22% versus 13%), and had increased versus 2017.

Figure 62: Self-reported quit attempt behaviour by people who smoke, EU-27 (plus UK), %



Source: European Commission (2021)

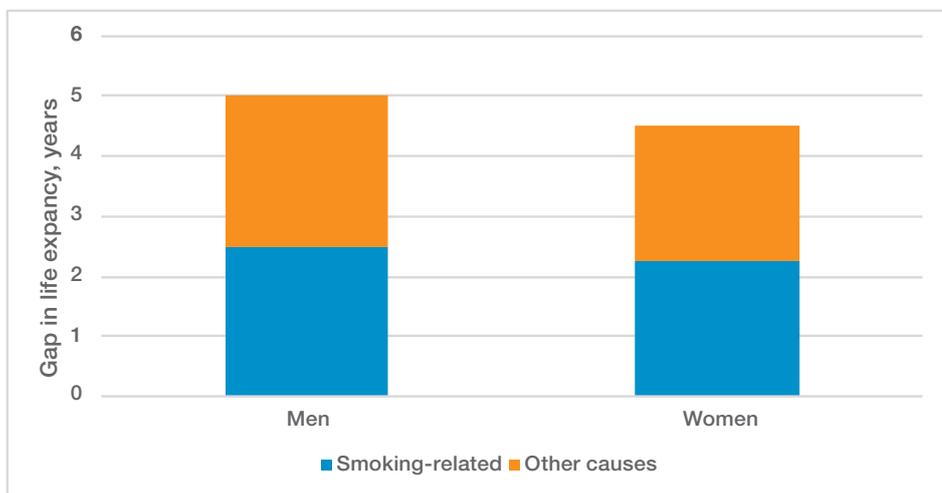
Greatest impacts on our most vulnerable groups

There is a stark gradient in health across socio-economic groups in Ireland, with the greatest burden of poor health borne by our most vulnerable groups. A recent study by the Central Statistics Office described the wide gap in life expectancy across society in Ireland: compared to people in the least deprived areas, men in the most deprived areas on average die 5 years earlier and women in these areas live 4.5 years less.¹⁸⁹

The causes of and solutions to health inequalities are multiple and complex,^{190,191,192,193,194} which can challenge policy, planning and action to ensure a fairer health.

However, over half of the health gap across society is due to smoking (Figure 63).¹⁹⁵

Figure 63: Gap in life expectancy between people living in the least and most deprived areas in Ireland, estimated contribution of smoking-related versus other causes



Sources: Central Statistics Office (2019) and Jha et al (2006)

This report sets out stark findings on smoking across socioeconomic groups in Ireland over recent years. While a socio-economic gradient in smoking was clear in 2015 (16% versus 29%, comparing the highest and lowest socio-economic groups), in 2021 this gradient not only persists, but it has widened (11% versus 31%, comparing the highest and lowest socio-economic groups); when the other main factors in smoking behaviour are taken into account, like age and gender, the two-fold gap in smoking across socio-economic groups in 2015 has widened to a three-fold gap (aOR 1.99 95% CI 1.71 – 2.32, p <0.0001 in 2015 versus aOR 3.14 95% CI 2.58 – 3.82 p <0.0001). There is also variation in position intention to quit, quitting behaviour and quit success across socio-economic groups. And, while variation across socio-economic groups in smoking among children and young people was not previously a feature, there is evidence of a new gap emerging.

The relationship between smoking and health inequalities is well-recognised; both the World Health Organization and the US Centres for Disease Control have highlighted the importance of focusing on socio-economic and other inequalities in smoking.^{196,197} In the UK, the recently established Office for Health Improvement and Disparities has, as an early priority, established a review of tobacco policy and health inequalities.¹⁹⁸

The evidence regarding the effectiveness of measures to tackle smoking-related harm across the population is generally well-established, and reflected in, for example, the World Health Organization's MPOWER model. While these measures work and must be progressed, there is a need to ensure that their design and implementation also takes account of the differential impact across population groups to ensure, at least, that these measures do not exacerbate widening gaps in smoking, and, ideally, that they have greatest impact in those groups bearing the heaviest burden of smoking-related harm. A recent review confirmed findings of previous studies in this area.¹⁹⁹ Evidence is strongest and clearest in relation to positive equity impact arising from price/taxation measures and stop smoking support, especially when targeted to special groups. Evidence on equity implications across other measures which have established effectiveness in tackling smoking is impacted by gaps and weakness in studies, pointing to the challenges that there are in this area. Measures which promote smoke-free environment, which typically centre on workplaces, including pubs and restaurants, may not reach population groups that are social excluded and have low participation in the workforce and these groups may not benefit from the same disruptive impact on social norms which sustain smoking.

In summary, the burden of smoking in Ireland is unequal and unfair – and the widening of the gap in smoking is unacceptable. There are two related consequences for health: smoking must be at the heart of any action to tackle health inequalities; action on smoking must ensure that nobody is left behind. There is also a wider consequence. At current prices, smoking one packet of twenty cigarettes each day costs just over €100 per week, which represents almost half of the net disposal weekly income in the poorest households in Ireland.²⁰⁰ Smoking contributes to the impoverishment of our most vulnerable groups and further deprives them of the opportunity to lead dignified lives.

Time to rest on success or double-down to bring the epidemic to an end?

While the trends described in this report points to continuing progress in tackling smoking-related harm in Ireland, it also underlines the need for continued urgency and to “double-down” if, as planned, the epidemic is to be brought to an end in Ireland.

The 2013 goal of a *Tobacco Free Ireland* has an ambition which is proportion to the scale of harm, recent trends in smoking prevalence reduction are well-off those required to achieve this by 2025. While the apparent stalling in reducing smoking prevalence observed in 2021 may not signal a trend, it underscores the lack of room for complacency, particular when considered with reference to the recently observed increase in smoking among teenagers.

Ireland has a comprehensive set of evidence-based measures in place to tackle smoking-related harm, ongoing monitoring, review and planning is required given the dynamic nature of the problem as described in this report. The landscape of tobacco and nicotine products is being disrupted and changing; however, the behaviours of people who smoke are also evolving.

And while these measures are delivering at population level, success across population groups is more limited and this report describes unacceptable variability.

5.3 A gap in implementation or innovation?

Are the next steps in tackling the harm caused by smoking in Ireland closing the gap in implementation of what we know works, or does the situation demand new ideas and approaches?

This report highlights that there is scope to better implement what we know works in tobacco policy and to ensure that interventions impact everyone across the population.

A continuing programme of robust, evidence-based and enforced tobacco legislation

Robust, evidence-based and enforced public health legislation has been the foundation of tobacco control in Ireland. The delivery of expected positive impacts through the most recent legislative measures on plain packaging illustrated in this report provides important feedback to policy-makers on the value of their policy leadership. This value rests not only in the impact of each legislative measure. A continuing programme of robust, evidence-based and enforced public health legislation tackling smoking-related harm has symbolic importance, sending a strong and clear message that this remains a policy priority in Ireland and that the harm caused by smoking is unacceptable.

It is important that this programme continues, that enforcement is fully resourced, and the impacts are monitored and evaluated.

There is scope to review and improve existing legislation.

While the impact of plain packaging legislation internationally has been positive, as the tobacco industry evolves, people who smoke can become desensitised if pack colour remain unchanged, and there is still scope to address other aspects of product presentation, like inclusion of pack inserts that include information on stop smoking care.^{201,202} While the landmark smoke-free legislation introduced in Ireland in the 2000s has been a “runaway success”,²⁰³ recommended action almost a decade ago in the *Tobacco Free Ireland* policy to extend the benefits of smoke-free environments more widely remains stalled, and some groups, such as people in prison settings and mental health care settings continue to be excluded.

Each day, across the country, a consumer product which kills over 1-in-2 of its users is available to purchases at thousands of locations including petrol forecourts, nightclubs and convenience stores. This report sets out the comprehensive programme of regulation which is led by the HSE Environmental Health Services to protect the public against the harm caused by these products. Recommended action almost a decade ago in the *Tobacco Free Ireland* policy to modernise and strengthen the regulatory tools provided through legislation so these are more proportionate to the risk of tobacco products has led to a Public Health (Tobacco and Nicotine Inhaling Products) Bill which is now at early stages in the legislative process in Ireland. The improvements it will provide for are overdue. Also overdue is an assessment of the huge scale of tobacco retail in Ireland which enables easy access to a product which, per the goal of *Tobacco Free Ireland*, will be used by less than 5% of the population by 2025. The Bill also sets out plans to close a gap, which makes Ireland an outlier, by providing for a legal prohibition on retail of e-cigarettes to minors; the trends in e-cigarette use set out in this report combined with findings of an evidence review by the Health Research Board linking e-cigarette use with smoking initiation make enactment of this measure an urgency. While the measures in this Bill are important, is it enough? For example, in the decade since the US Institute of Medicine reported on the benefits of so called “Tobacco 21” laws,²⁰⁴ many countries are already raising the minimum legal age prohibiting retail of tobacco products above 18, and New Zealand captured global attention with announcement of its plans for a “tobacco free generation”.²⁰⁵ Ireland is being left behind and this Bill is an opportunity to keep up.

Maximising the impact of price as a tobacco control measure

The evidence base for the impact of price as a tobacco control measure is overwhelming and, furthermore, it is a measure which is clearly identified as helping to “level-up” socio-economic group gradients in smoking.²⁰⁶ It must be leveraged to full effect, with a focus beyond tax to consider on price paid and affordability.²⁰⁷ Best practices have been identified (see SPOTLIGHT), and include a focus on protecting public health against tactics to undermine effective implementation of price as a measure to tackle smoking-related harms.²⁰⁸ For high-income countries like Ireland, closing off the persistence of lower-priced products through minimum pricing is identified as a particular area of focus, since this not only undermines measures on price, but since lower price products are disproportionately purchased by lower-income smokers, this also undermines pro-equity impacts.²⁰⁹

SPOTLIGHT

WHO best practice recommendations for tax policy

Tax policy

- Use excise tax increases to achieve the public health goal of reducing the death and diseases caused by tobacco use.
- Include significant tobacco excise tax increases as part of a comprehensive strategy to reduce tobacco use.
 - Involve the competent authority from the start when considering the revision of a tax policy.
 - Promote greater policy coherence across sectors such as agriculture, industry, trade, finance and labour.

Tax design

- Tax structure matters and simpler is better.
- Rely more on specific tobacco excises.
- Increase tobacco taxes significantly to reduce the affordability of tobacco products.
- Where revenue increases are a goal, rely on regular excise tax increases.
- Automatically adjust specific tobacco taxes for inflation and income growth.
- Pricing regulations cannot be considered an alternative to excise tax. However, in some specific contexts, pricing regulations could be used in conjunction with excise taxes.
- Implement non-tax policies affecting price levels, such as banning promotional discounts for tobacco products and the sale of single sticks of cigarettes.
- Do not allow concerns about the inflationary impact to deter tax increases.

Tax parity

- Tax all tobacco products in a comparable way.
- Strictly regulate new and emerging tobacco and nicotine products where they are not banned and impose an excise tax.
- Monitoring and evaluation
- Know your market.
- Assess the impact of your policies to design and implement the most effective tobacco excise tax policies.
- Adopt indicators that help you measure improvements in tax policy and its impact.

continued on next page

SPOTLIGHT *continued*

Tax administration

- Implement best practice approaches in general tax administration.
- Ensure compliance and accuracy of information on the tax compliance cycle.
- Ensure control and enforcement on the supply chain.
- Clearly define procedures to follow after detecting illicit trade of tobacco.
- Become a Party to and/or implement the WHO Framework Convention on Tobacco Control (FCTC) Protocol to Eliminate Illicit Trade in Tobacco Products.
- Implement, to extent possible, the same rules and regulations for tax administration and enforcement for all tobacco products, as well as new and emerging nicotine and tobacco products.

Implement broad policies for ensuring a good tax system that will trickle down to good tax administration of tobacco products.

Political economy

- Article 5.3 of the WHO FCTC, 'On the protection of public health policies with respect to tobacco control from commercial and other vested interests of the tobacco industry', and its guidelines provide useful guidance on how to address tobacco industry interference. All 181 countries that are Parties to the WHO FCTC have a legal obligation to implement the requirements of Article 5.3.
- Do not fall for SCARE tactics. For instance do not...

S: Smuggling and illicit trade ... allow concerns over the impact of increasing excise taxes on illicit trade in tobacco affect your decision to increase them. Rely on your own estimates of the level and nature of illicit trade and not on the industry's estimates.

C: Court and legal challenges ... let tobacco industry threats of legal challenges prevent you from improving your tax policy. Closely follow legal requirements for design, procedure and consultation to strengthen your legal position and minimise the possibility that any challenge will be raised.

A: Anti-poor rhetoric ... allow concerns about regressivity prevent tobacco tax increases.

R: Revenue reduction ... let fears of potential revenue reductions prevent you from increasing excise taxes.

E: Employment impact ... allow concerns about employment impact to prevent tobacco tax increases.

Earmarking

Consider earmarking tobacco tax revenues for health-focused programmes, especially if it helps advance tobacco control efforts and, efforts to implement large tobacco tax increases and tax reforms. This could have the additional benefit of funding health programmes where they are poorly funded or not prioritised.

Source: World Health Organization (2021).

While tobacco price increase is often seen as a budget time "old reliable", there are serious questions about just how reliably price is being applied in Ireland as a tobacco control measure?

Pricing was a deficit in Ireland's performance in the recent WHO Report On The Global Tobacco Epidemic,²¹⁰ the Tobacco Control Scale 2019 in Europe,²¹¹ and the recent Tobacconomics Cigarette Tax Scorecard awarded Ireland a score of 3.38, placing it in second-tier countries behind New Zealand, Canada and United Kingdom.²¹² Affordability changes have been a point of criticism, and while well-known distortions affecting Ireland's GDP complicate international comparisons,²¹³ public documents on tobacco taxation policy do not provide sufficient transparency and assurance that affordability of tobacco products in Ireland is being tackled in year-on-year budgets.²¹⁴

A 2015 research paper by the Statistics and Economic Research Branch at Revenue confirms that real price increases applied to tobacco products through taxation in Ireland reduces demand, which is in line with international evidence and experience; the discussion of the implications of this finding, however, notes that "a tobacco tax increase could lead to an overall reduction in the Exchequer receipts associated with cigarettes".²¹⁵ Recent discussion of tobacco product tax in the Department of Finance Tax Strategy Group General Excise Paper acknowledges the relationship between tax and public health policy.²¹⁶ While the analyses presented describe recent trends in price paid by the public for tobacco products, the issues of real price, incomes and affordability are not made transparent and are not adequately addressed. It is positive to note that minimum price is considered, with this measure having been increased in Ireland in 2019; however, continuing measures focused on minimum price are discounted on the basis of concern that poorer groups will consume illicit and non-Irish duty paid products. Smuggling and illicit trade concerns, along with fear of revenue reduction – well-recognised "SCARE" tactics sustained by the tobacco industry and used to undermine tobacco-product pricing measures to protect public health – feature highly in the Finance Tax Strategy Group General Excise Paper as counter-arguments. These points are counter to the data presented at the same time which evidences that illicit product consumption and seizures in Ireland remain steady and tax yields remain high.

A Commission on Taxation and Welfare has been established in Ireland to consider "how best the taxation and welfare system can support economic activity and income redistribution, whilst promoting increased employment and prosperity in a resilient inclusive and sustainable way and ensuring that there are sufficient resources available to meet the costs of public services and supports in the

medium and longer term” and “to examine how effectively good public health is promoted in Ireland, and present relevant reforms to advance and incentivise this goal”.²¹⁷ Action through the Commission should provide assurance that Ireland is robustly applying well-established tobacco tax reform practices of proven effectiveness to fully leverage tobacco product price so as to tackle smoking-related harm. Protecting tobacco tax policy against well-worn “SCARE” tactics is essential. The recent WHO tobacco tax reform checklist should be used for self-assessment and guide policy-making in Ireland.

Ensuring reach and impact in public communications

Albeit findings in this report regarding trends of positive intention to quit and quitting behaviour point to the requirement for continuing focus, international benchmarking and internal monitoring demonstrate the effective role which public communications play in protecting people against smoking-related harm in Ireland. Besides direct impacts for people who smoke, these public communications help sustain changes in social norms around smoking and support for ongoing action.

This report highlights how communications as part of the HSE *Tobacco Free Ireland* Programme responds to two key challenges:²¹⁸ ensuring continuing reach and impact in the context of a changing media landscape and the increasing concentration of smoking in special groups.

New channels and platforms are emerging, and new ways in which the public engage with communications are evolving. While memorable and high-impact television and radio-based mass media campaign continue to play a role, the approach design in this report illustrates the importance of a strategy which integrates traditional media with new digital and social media. The HSE *Tobacco Free Ireland* Programme has also innovated and taken advantage of the changing landscape with the development of social media-based stop smoking support.

As illustrated throughout this report, and illustrated through the recent evaluation of HSE *Tobacco Free Ireland* Programme mass media campaigns across different nationalities in Ireland, responsiveness to, reach into, and impact with the diverse range of high smoking prevalence groups across the population will require innovation and continuing investment.

Saving lives through good stop smoking care

Good stop smoking care saves lives.²¹⁹ Yet this report describes the gap in care experienced by many people who smoke when they use health services in Ireland. This issue is not unique to the health services in Ireland and the Royal College of Physicians in London recently reported on treatment of tobacco addiction as a basic quality of care problem “hiding in plain sight” in the National Health Service.²²⁰ Stop smoking care must be a priority and integral to health service delivery.²²¹

The publication by the Department of Health of Ireland’s first National Stop Smoking Clinical Guidelines developed by the HSE *Tobacco Free Ireland* Programme is a step towards improving stop smoking care. It provides clarity for people who smoke and for healthcare professional on the components of safe, effective and clinical sound stop smoking care. A number of supports and enablers, as described in this report, are already in place to enable implementation of recommendations set out in these guidelines. Progress with the implementation plan which was prepared in response to feedback through consultation as part of guideline development will be a central component of HSE *Tobacco Free Ireland* Programme.

At the same time, as described in this report, the HSE *Tobacco Free Ireland* Programme is scaling up and strengthening stop smoking services, including a special focus on Maternity Services and on new Sláintecare Healthy Community Programme Areas, where lessons from the “We Can QUIT2” trial will be implemented to ensure services are responsive to the needs of high smoking prevalence populations in areas of disadvantage.²²² There is good evidence that stop smoking services can have a positive impact on smoking-related health inequalities, but this require a focused and tailored response, similar to that explored in “We Can QUIT2”.

The HSE *Tobacco Free Ireland* Programme has recently initiated a study in collaboration with Trinity College Dublin Centre for Health Policy and Management to better understand how and why do financial incentives contribute to helping people stop smoking, using a realist review approach.²²³ There is good quality, systematic review level evidence that incentives can help people stop smoking,²²⁴ and this approach is being used to augment stop smoking services for special population groups in other countries. This work will help better explore the context and mechanisms involved, and explore how incentives might be piloted in Ireland.

Ensuring there is fidelity to the core components of safe, effective and clinically sound stop smoking care while flexing delivery to work with and respond to the contexts of high smoking prevalence groups across the population will be a focus for the new HSE *Tobacco Free Ireland* Programme Plan. A special review by the Institute of Public Health on capacity of and access to stop smoking services across population groups will help.

Building on the success of smoke-free environments

Legislation for smoke-free environments stands out as a milestone in tobacco policy in Ireland. It has protected everyone from the harms of second-hand smoke and saved lives. Work continues to support smoke-free environments in healthcare in Ireland, and there is more to do in setting like secondary mental health care. This report also profiles leadership shown in places like the Irish Prison Service and Limerick to extend the scope of smoke-free legislation on a voluntary basis.

Legislation to support these efforts needs serious consideration.

Tobacco endgame – time to listen to the public and match big ambition with bold action

Efforts to tackle the harm caused by smoking have traditionally been framed as “tobacco control”, with the goal of reducing the impact on health. Ireland has made good progress with “tobacco control”, showing strong leadership with bold measures like the workplace

smoking ban in the early part of this century. These efforts have translated into reduced smoking prevalence, and Ireland is now entering the late phases of the epidemic of smoking-related harm.

While smoking itself has become increasingly de-normalised in Ireland,²²⁵ we have been deeply immersed in the harm it causes for so long that it still seems like a normal part of life. But the burden of smoking-related disease, disability and premature mortality – and the suffering for so many people and their families, especially in our most vulnerable population groups – is caused by a commercial product that is manufactured and marketed by an industry, and then sold on forecourts, street-corners and towns across the country, which kills more than 1-in-2 users when consumed exactly as intended. There is profit in pain. It is unfair, unjust – but is it still acceptable?

It may seem impossible to imagine an Ireland free from the harm caused by smoking. But it is time to ask whether the goal of simply “controlling” tobacco use in Ireland is still enough. Or whether we want to bring the continuing epidemic of smoking-related harm to an end, for once and for all – and for everyone.

Through current government policy “Tobacco-Free Ireland” (TFI), in 2013 Ireland joined a small number of countries who have committed to leading the way in transitioning its efforts from “tobacco control” to “tobacco endgame”. A “Tobacco-Free Ireland” goal was set to reduce smoking prevalence to less than 5% by 2025. “Tobacco endgame” has been described as the introduction of policy measures designed to “change permanently the structural, political and social dynamics that sustain the (tobacco) epidemic, in order to end it by a specific time.”²²⁶ Fundamentally, this involves redirecting goals of tobacco policy towards ending the tobacco epidemic completely. Traditional “tobacco control” efforts have sometimes suffered from a characterisation as being “prohibitionist”, a framing crafted and exploited by the tobacco industry itself to invoke a moral crusade set upon interference with personal choice; “tobacco endgame” presents an “abolitionist” framing to emphasise the enhancement to human health, protection of rights and assertion of freedom offered by ending sales of this deadly consumer product.²²⁷ “Tobacco endgame” is not designed to divert attention and resources from “tobacco control” measures, but rather seeks to build on continued implementation on these pre-existent measures while complement these with policy innovation.²²⁸

“Tobacco endgame” tactics can be classified into four themes:²²⁹

- User-focused which target product affordability and access;
- Supply-focused which target availability and retailers;
- Product-focused which target product appeal and addictiveness of the product;
- Institutional structure-focused which include tactics directly targeting tobacco industry production.

In preparation for a new Programme Plan, the HSE *Tobacco Free Ireland* Programme asked the public their views on “tobacco endgame” generally, and specifically to indicate their support or otherwise for component tactics. The results of this work are published in conjunction with this report.

The public have answered the question: is simply “controlling” the harm caused by smoking a sufficient goal, or should we now aim to end it completely? There is a strong reservoir of public support for “tobacco endgame” in Ireland. This is the first time the Irish public were presented with the big, bold measures which may be required to make this a reality. While these may seem impossible, in fact the public support for many of these measures was very high. A key feature of public support is an interest in ensuring that action to deliver “tobacco endgame” in Ireland includes efforts to support people who are currently addicted to tobacco products so nobody is left behind.

As highlighted in this report, the *Tobacco Free Ireland* goal of a smoking prevalence less than 5% by 2025 appears increasingly unlikely to be delivered. The views of the public must re-focus efforts, since analysis of bold tobacco control innovations illustrates that public support can be a critical success factor.²³⁰

5.4 A Tobacco-Free Ireland, Leaving Nobody Behind

Sadly, this report documents the continuing toll caused by smoking on the health of the public in Ireland. People who smoke are almost two times more likely to report poor health and long-standing illness. Each year, smoking causes over 4,500 deaths.

Despite progress, the end of the epidemic of smoking-related harm in Ireland is not yet in sight. Our work in tobacco control is not done. And our planning for the bold actions required to deliver a *Tobacco Free Ireland* needs serious attention.

Understandably, our focus in health in recent years has been on the COVID-19 pandemic. However, smoking, and the chronic ill-health it causes, exacerbated the impact for many, especially in our poorest groups. Ensuring we continue to focus on the epidemic of smoking-related harm is not just an opportunity to protect the public’s health from the impact of a future pandemic, it also allows us to “build back fairer” for a society where everyone enjoys the opportunity to live dignified lives in good health.

The reality set out in this report is that our progress towards a *Tobacco-Free Ireland* is increasingly uneven and risks leaving our most vulnerable population groups behind.

Urgent action, including policy action through political leadership, is needed to bring the epidemic of smoking-related harm to an end in Ireland. The public have shown that their views are well-ahead of current policy discussion and plans, and they want a *Tobacco-Free Ireland* for the next generation. They want the seemingly impossible done. Now is the time for action, leaving nobody behind.

6 Annex

Annex 1 Sourcing of Data and Data Analysis

1. Healthy Ireland Survey:

Application was made to the Department of Health, Dublin for the research micro file (rmf) of the available Healthy Ireland Surveys, 2015 to 2019 and 2021. No Healthy Ireland Survey was completed in 2020 due to COVID-19 restrictions. Permission was granted and data obtained on 14th February, 2022 under agreement RMF Reference No. 2022_HI_001.

Population weighting was employed to bring the profile of respondents in line with the population profile. A more detailed description of the study sample, design and response rates of the individual surveys is available from the individual summary of findings reports.²³¹

2. HSE Smoking Prevalence Tracker Survey:

Application was made to Environmental Health Service, HSE, for permission to use the HSE Smoking Prevalence Tracker. Permission was granted from colleagues in Environmental Health Service, National Tobacco Control Office, HSE. Population weighting was employed to bring the profile of respondents in line with the population profile. Further information on the HSE Smoking Prevalence Tracker is available here: <https://www.hse.ie/eng/about/who/tobaccocontrol/research/>

3. QuitManager Data:

An anonymised data extract of all episodes of care created between 01/01/2019 and November-end 2021 were provided to Specialist Registrar for data analysis by the Programme Manager – QuitManager, Tobacco Free Ireland Programme HSE. For further information on QuitManager, contact hse@tfi.ie

Data Analysis:

All statistical analysis was carried out using JMP statistical package, SAS, version 16. Comparisons across groups within year and comparisons across years, overall and within groups (i.e. stratified comparisons) have been conducted with Chi-Square tests for categorical data and T-tests or Wilcoxon-tests for parametric and non-parametric continuous data; p-values are reported. In some cases, multiple statistical tests of comparison have been conducted and p-values should be interpreted with caution. Direct age-standardisation with the European Standard Population was used to examine the potential impact of changing population age structure on changing smoking prevalence. Logistic regression models were constructed to describe the likelihood of a binary outcome of interest (e.g. smoking versus not smoking) for each level of different factors (e.g. year, gender, age groups, socio-economic groups). This analysis provides the Adjusted Odds Ratio (aOR) with 95% Confidence Interval (95% CI) which presents the likelihood of the outcome of interest for one level of a factor relative to a comparator level of the same factor, having taken into account the potential effects of other factors included in the analysis. In some cases, separate Logistic regression models have been conducted for different levels of factor (e.g. 2015 (or other relevant year) and 2021) to explore the potential modification by that factor of effects of other factors under analysis.²³²

Annex 2 Estimating deaths and hospitalisations due to tobacco use

This section provides a detailed description of the methodology used to estimate the burden of smoking on health and care services. The methodology used on this occasion differs from that used in the State of Tobacco Control Report 2018; therefore a full recalculation of smoking-related hospitalisation and deaths from 2010 to 2019 is included in the main report.

In June 2018, the Royal College of Physicians (RCP) published a report *Hiding in plain sight: Treating tobacco dependency in the National Health Services (UK)*²³³ included a review of relative risks for smoking-related diseases, based on a meta-analysis of the most up-to-date literature available. In this analysis, the relative risks for smoking-related diseases from the RCP report were used in the calculation of smoking-attributable mortality and hospital admissions.

The following information was required:

1. Age- and gender-specific smoking rates for current and ex-smokers.
 - Source: Healthy Ireland RMF files 2015 – 2021.
 - HI File 2015 used for years 2010 to 2015. HI File 2016 used for 2016 etc.
2. Published relative risks for smoking-related diseases for current and ex-smokers (An Assessment of the economic cost of smoking in Ireland).
 - Source: RCP *Hiding in plain sight: Treating tobacco dependency in the NHS*²³³
3. Observed numbers of hospital admissions (inpatient and day case) caused by diseases which can be caused by smoking or exposure to second-hand smoke, for the years 2010-2019
 - Source: (Hospital Inpatient Enquiry system, Healthcare Pricing Office, via HIPE Online Portal).

4. Final numbers of deaths caused by diseases for the years 2010-2019,

- Source: Vital Statistics, Central Statistics Office using the following links <https://data.cso.ie/table/VSA08> and <https://data.cso.ie/table/VSA29>
- In addition, a specific request for a small number of diseases was forwarded to CSO.

Calculating deaths, hospital inpatient admissions and day cases caused by smoking

The number of deaths, hospital inpatient admissions and day cases caused by smoking were calculated for each condition separately. For each condition, the formula below was used:

$$a = \frac{[p_{cur}(r_{cur} - 1) + p_{ex}(r_{ex} - 1)]}{[1 + p_{cur}(r_{cur} - 1) + p_{ex}(r_{ex} - 1)]}$$

Where:

a = smoking attributable proportion for each disease;

p_{cur} = proportion of current smokers;

p_{ex} = proportion of ex-smokers;

r_{cur} = relative risk for current smokers; and

r_{ex} = relative risk for ex-smokers.

Once the smoking attributable proportion of each condition (list below) was established, this was multiplied by the total number of deaths, hospital inpatient admissions and day cases, to give the total number of deaths, hospital inpatient admissions and day cases that were attributable to smoking.

All calculations were completed in MS Excel.

Table A 1: List of Conditions with a causal relationship to Smoking included in calculations of smoking-related deaths and smoking-related hospitalisations, by age-group & gender²³³

Condition	ICD-10-AM Code	Age-group	Males	Females
Cancers				
Trachea, Bronchus, Lung	C33-C34	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oral and upper respiratory cancers	C10	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	C11, C30-C31,	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	C14	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oesophageal cancer	C15	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cancer of the larynx	C32	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stomach cancer	C16	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Kidney cancers	C64	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	C65 - C66	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cervical	C53	35+	N/A	<input checked="" type="checkbox"/>
Bladder	C67	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pancreatic cancer	C25	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Myeloid Leukaemia	C92	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Liver cancer	C22	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Colorectal cancer	C18-C20	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Breast	C50	35+	N/A	<input checked="" type="checkbox"/>
Malignant Melanoma	C43 to C44	50+	<input checked="" type="checkbox"/>	N/A

Cardiovascular Diseases				
Coronary heart disease	I20-I25	35-54	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coronary heart disease	I20-I25	55-64	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coronary heart disease	I20-I25	65-74	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coronary heart disease	I20-I25	75+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Venous Thrombolism	I26, I80-I82	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cerebrovascular Disease	I60-I67	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aortic Aneurysm	I71	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Peripheral Arterial Disease	I73.9	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Respiratory Diseases				
Chronic obstructive pulmonary disease	J40-44, J47	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Influenza - ,microbiologically confirmed	J09, J10	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Influenza - clinically diagnosed	J11	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pneumonia	J12-J18	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mycobacterium Tuberculosis	A15-A19	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Obstructive Sleep Apnoea	G47.3	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Adult Asthma	J45-J46	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Idiopathic Pulmonary fibrosis	J84.1	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mental Health Conditions				
Alzheimer's disease	G30	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vascular dementia	F01	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
All-cause dementia	F02, F03	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Depression	F32, F33	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Psychosis	F28, F29	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schizophrenia	F20-F25	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bulimia	F50.2	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Binge-eating disorder	F50.81	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table A 1 (contd.): List of Conditions with a causal relationship to Smoking included in calculations of smoking-related deaths and smoking-related hospitalisations, by age-group & gender (continued)²³³

Condition	ICD-10-AM Code	Age-group	Males	Females
Other Diseases				
Cataract	H25	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Age-related Macular degeneration	H35.3 - H52.4	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hearing Loss	H90, H91	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Barrett's Oesophagus	K22.7	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Psoriasis	L40	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Systemic lupus erythematosus	M32	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Low back pain	M54.5	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Chronic Kidney Disease	N18 (excl N18.5)	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
End-stage Renal Disease	N18.5	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hip #	S72.0-S72.2	35+	N/A	<input checked="" type="checkbox"/>
Diabetes (Type 2)	E11	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Rheumatoid arthritis	M05-M06	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Crohn's disease	K50	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surgical Site Infection	Y83, T81.4	35+	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Maternal & pregnancy outcomes				
Miscarriage	O03	35+	N/A	<input checked="" type="checkbox"/>
Placenta Previa	O44	35+	N/A	<input checked="" type="checkbox"/>
Placenta Abruption	O45	35+	N/A	<input checked="" type="checkbox"/>
Ectopic Pregnancy	O00	35+	N/A	<input checked="" type="checkbox"/>
Premature rupture of membranes	O42	35+	N/A	<input checked="" type="checkbox"/>

References

1. Tobacco Policy Review Group (2013). Tobacco Free Ireland. Available at <https://assets.gov.ie/7560/1f52a78190ba47e4b641d5faf886d4bc.pdf>
2. Department of Health (2019). GENERAL SCHEME OF A PUBLIC HEALTH (TOBACCO AND NICOTINE INHALING PRODUCTS) BILL 2019. Available at <https://assets.gov.ie/39086/884ae414fa434c2c9ff12447d50e2c21.pdf>
3. Moodie C, Angus K, Ford A. The importance of cigarette packaging in a 'dark' market: the 'Silk Cut' experience. *Tobacco Control*. 2014;23(3):274-278. doi:10.1136/TOBACCOCONTROL-2012-050681
4. Hastings GB, Moodie C. Death of a salesman. *Tobacco Control*. 2015;24(Suppl 2):ii1-ii2. doi:10.1136/TOBACCOCONTROL-2015-052285
5. National Cancer Institute, National Institutes of Health, US Department of Health and Human Services. *The Role of the Media in Promoting and Reducing Tobacco Use.*; 2008.
6. Ling PM, Glantz SA. Why and How the Tobacco Industry Sells Cigarettes to Young Adults: Evidence From Industry Documents. *American Journal of Public Health*. 2002;92(6):908. doi:10.2105/AJPH.92.6.908
7. Mcneill A, Gravely S, Hitchman SC, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use. *Cochrane Database of Systematic Reviews*. 2017;2017(4). doi:10.1002/14651858.CD011244
8. Wakefield M, Coomber K, Zacher M, Durkin S, Brennan E, Scollo M. Australian adult smokers' responses to plain packaging with larger graphic health warnings 1 year after implementation: Results from a national cross-sectional tracking survey. *Tobacco Control*. 2015;24(Suppl 2):ii17-ii25. doi:10.1136/TOBACCOCONTROL-2014-052050/-/DC1
9. World Health Organization. 2021 global progress report on implementation of the WHO Framework Convention on Tobacco Control. Published 2022. <https://fctc.who.int/publications/i/item/9789240041769>
10. Gravely, S., Chung-Hall, J., Craig, L. V., Fong, G. T., Cummings, K. M., Borland, R., Yong, H. H., Loewen, R., Martin, N., Quah, A., Hammond, D., Ouimet, J., Boudreau, C., Thompson, M. E., & Driezen, P. (2021). Evaluating the impact of plain packaging among Canadian smokers: findings from the 2018 and 2020 ITC Smoking and Vaping Surveys. *Tobacco control, tobaccocontrol-2021-056635*. Advance online publication. <https://doi.org/10.1136/tobaccocontrol-2021-056635>
11. Moodie C, Best C, Hitchman SC, et al. Impact of standardised packaging in the UK on warning salience, appeal, harm perceptions and cessation-related behaviours: a longitudinal online survey. *Tob Control*. Published online 2021. doi:10.1136/TOBACCOCONTROL-2021-056634
12. El-Khoury Lesueur F, Bolze C, Gomajee R, White V, Melchior M. Plain tobacco packaging, increased graphic health warnings and adolescents' perceptions and initiation of smoking: DePICT, a French nationwide study. *Tob Control*. 2019;28(e1):E31-E36. doi:10.1136/TOBACCOCONTROL-2018-054573
13. ITC Project. Standardised Packaging for Tobacco Products in New Zealand. Evidence of Policy Impact from the International Tobacco Control Policy Evaluation Project. Published online 2020. <https://www.otago.ac.nz/wellington/departments/publichealth/research/otago735056.pdf>
14. Public Health (Standardised Packaging of Tobacco) Act 2015. Oireachtas; 2015. Available at <https://www.irishstatutebook.ie/eli/2015/act/4/enacted/en/html>
15. Department of the Taoiseach (2020). Programme for Government: Our Shared Future. Available at <https://assets.gov.ie/130911/fe93e24e-dfe0-40ff-9934-def2b44b7b52.pdf>
16. World Health Organization. (2008). WHO Report on the Global Tobacco Epidemic, 2008: the MPOWER package. World Health Organization. <https://apps.who.int/iris/handle/10665/43818>
17. World Health Assembly, 56. (2003). WHO Framework Convention on Tobacco Control. World Health Organization. <https://apps.who.int/iris/handle/10665/78302>
18. World Health Organization. (2021). WHO report on the global tobacco epidemic, 2021: addressing new and emerging products. World Health Organization. <https://apps.who.int/iris/handle/10665/343287>
19. European Commission (2014). DIRECTIVE 2014/40/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products and repealing Directive 2001/37/EC. Official Journal of the European Union. 2014. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0040>
20. Vardavas C. European Tobacco Products Directive (TPD): current impact and future steps *Tobacco Control* 2022;31:198-201.
21. SCHEER (Scientific Committee on Health, Environmental and Emerging Risks) (2021). Scientific opinion on electronic cigarettes. Available at https://ec.europa.eu/health/system/files/2021-04/scheer_o_017_0.pdf
22. European Commission (2021). Europe's Beating Cancer Plan - Communication from the commission to the European Parliament and the Council. Available at https://ec.europa.eu/health/system/files/2022-02/eu_cancer-plan_en_0.pdf
23. Joossens L, Feliu A, Fernandez E. The Tobacco Control Scale 2019 in Europe. Brussels: Association of European Cancer Leagues, Catalan Institute of Oncology; 2020. Available from: <http://www.tobaccocontrolscale.org/TCS2019.pdf>
24. Department of Health (2015). Tobacco Free Ireland Action Plan. Available at <https://assets.gov.ie/15942/ebab88a03d8f42bca3498d-b35f900125.pdf>

25. Department of Health (2021). Healthy Ireland Strategic Action Plan 2021-2025. Available at <https://assets.gov.ie/134507/057dfa34-491f-4086-b16a-912cf1e3ad06.pdf>
26. Health Service Executive (2015). Healthy Ireland in the Health Services: National Implementation Plan 2015 – 2017. Available at <https://www.hse.ie/eng/about/who/healthwellbeing/healthy-ireland/healthy-ireland-in-the-health-services/healthy-ireland-in-the-health-services-implementation-plan-2015-2017.pdf>
27. Health Service Executive. HSE Tobacco Free Ireland Programme Implementation Plan 2022 – 2025. Dublin, 2022
28. HSE Tobacco Free Ireland Programme (2018). The State of Tobacco Control in Ireland. Available at <https://www.hse.ie/eng/about/who/tobaccocontrol/the-state-of-tobacco-control-in-ireland%E2%80%932018-report.pdf>
29. Bowling A. (2005). Mode of questionnaire administration can have serious effects on data quality. *Journal of Public Health (Oxford, England)*, 27(3), 281–291. <https://doi.org/10.1093/pubmed/fdi031>
30. Donovan, R. J., Holman, C. D., Corti, B., & Jalleh, G. (1997). Face-to-face household interviews versus telephone interviews for health surveys. *Australian and New Zealand Journal of Public Health*, 21(2), 134–140. <https://doi.org/10.1111/j.1467-842x.1997.tb01672.x>
31. Dal Grande, E., Chittleborough, C. R., Campostrini, S., & Taylor, A. W. (2016). Bias of health estimates obtained from chronic disease and risk factor surveillance systems using telephone population surveys in Australia: results from a representative face-to-face survey in Australia from 2010 to 2013. *BMC medical research methodology*, 16, 44. <https://doi.org/10.1186/s12874-016-0145-z>
32. Holford TR. Understanding the effects of age, period, and cohort on incidence and mortality rates. *Annu Rev Public Health*. 1991;12:425-457. doi:10.1146/annurev.pu.12.050191.002233
33. Evans D, O’Farrell A, Hickey P. Roll Your Own Cigarettes in Ireland – Key Trends and Patterns. Health Service Executive. 2017. <http://hse.ie/eng/about/Who/TobaccoControl/Roll-Your-Own-Report-2017.pdf>
34. Population and Migration Estimates, April 2021, CSO. <https://www.cso.ie/en/releasesandpublications/ep/p-pme/populationandmigrationestimatesapril2021/mainresults/>
35. U.S. Department of Health and Human Services. The health consequences of smoking – 50 years of progress: a report of the Surgeon General. – Atlanta, GA. : U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
36. Layte R, McCrory C. Maternal Health Behaviours and Child Growth in Infancy. Growing Up in Ireland National Longitudinal Study on Children. The Stationery Office, Dublin. 2014.
37. Reynolds CME, Egan B, McKeating A, Daly N, Sheehan NR, Turner MJ. Five year Trends in maternal smoking behaviour reported at the first prenatal appointment. *Irish Journal of Medical Science*. 2017, 186 (4): 971-979. <https://www.ncbi.nlm.nih.gov/pubmed/28190202>
38. Frazer K, Fitzpatrick P, Brosnan M, Dromey AM, Kelly S, Murphy M, O’Brien D, Kelleher CC, McAuliffe FM. Smoking Prevalence and Secondhand Smoke Exposure during Pregnancy and Postpartum—Establishing Risks to Health and Human Rights before Developing a Tailored Programme for Smoking Cessation. *International Journal of Environmental Research and Public Health*. 2020; 17(6):1838. <https://doi.org/10.3390/ijerph17061838>
39. Keane E, Gavin A, Perry C, Molcho M, Kelly C, Nic Gabhainn S. Trends in Health Behaviours, Health Outcomes and Contextual Factors between 1998-2014 : findings from the Irish Health Behaviour in School-aged Children Study. National University of Ireland, Galway. [http://www.nuigalway.ie/media/healthpromotionresearchcentre/hbscdocs/nationalreports/HBSC-Trends-Report-2017-\(web\).pdf](http://www.nuigalway.ie/media/healthpromotionresearchcentre/hbscdocs/nationalreports/HBSC-Trends-Report-2017-(web).pdf)
40. Költő, A., Gavin, A., Molcho, M., Kelly, C., Walker, L., & Nic Gabhainn, S. (2020). The Irish Health Behaviour in School-aged Children (HBSC) Study 2018. Dublin: Department of Health & Galway: Health Promotion Research Centre, National University of Ireland, Galway. <https://www.nuigalway.ie/media/healthpromotionresearchcentre/hbscdocs/nationalreports/2018-report---online-version-interactive---updated.pdf>
41. Sunday S, Hanafin J, Clancy L. Increased smoking and e-cigarette use among Irish teenagers: A new threat to Tobacco Free Ireland 2025. *ERJ Open Res* 2021; in press (<https://doi.org/10.1183/23120541.00438-2021>).
42. Bowe, A.K.; Doyle, F.; Stanistreet, D.; O’Connell, E.; Durcan, M.; Major, E.; O’Donovan, D.; Kavanagh, P. E-Cigarette-Only and Dual Use among Adolescents in Ireland: Emerging Behaviours with Different Risk Profiles. *Int. J. Environ. Res. Public Health* 2021, 18, 332. <https://doi.org/10.3390/ijerph18010332>
43. Evans, DS, Hickey P (2020). E-cigarette & Smoking Use among Adolescents in Ireland: A Focus Group Study. Report prepared on behalf of the Tobacco Control Operational Unit, HSE. <https://www.hse.ie/eng/about/who/tobaccocontrol/research/e-cigs-and-smoking-among-adolescents-fg-study.pdf>.
44. Royal College of Physicians, Royal College of Psychiatrists. Smoking and mental health. London: RCP, 2013.
45. Douglas M, Katikireddi S V, Taulbut M, McKee M, McCartney G. Mitigating the wider health effects of COVID-19 pandemic response *BMJ* 2020; 369 :m1557 doi:10.1136/bmj.m1557
46. Marmot M, Allen J, Goldblatt P, Herd E, Morrison J (2020). Build Back Fairer: The COVID-19 Marmot Review. The Pandemic, Socioeconomic and Health Inequalities in England. London: Institute of Health Equity. Available at <https://www.instituteofhealthequity.org/resources-reports/build-back-fairer-the-covid-19-marmot-review>
47. Suleman M, Sonthalia S, Webb C, Tinson A, Kane M, Bunbury S, Finch D, Bibby J (2021). Unequal pandemic, fairer recovery: The COVID-19 impact inquiry report. The Health Foundation. Available at <https://doi.org/10.37829/HF-2021-HL12>

48. Sarich P, Cabasag CJ, Liebermann E, et al. Tobacco smoking changes during the first pre-vaccination phases of the COVID-19 pandemic: A systematic review and meta-analysis [published online ahead of print, 2022 Apr 12]. *EClinicalMedicine*. 2022;101375. doi:10.1016/j.eclinm.2022.101375
49. Central Statistics Office (2020). Social Impact of COVID-19 Survey April 2020. Available at <https://www.cso.ie/en/releasesandpublications/ep/p-sic19/socialimpactofcovid-19surveyapril2020/>
50. Reynolds CME, Purdy J, Rodriguez L, McAvoy H. Factors associated with changes in consumption among smokers and alcohol drinkers during the COVID-19 'lockdown' period. *Eur J Public Health*. 2021;31(5):1084-1089. doi:10.1093/eurpub/ckab050
51. OECD (2021), *Health at a Glance 2021: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/ae3016b9-en>.
Inchley, J., Currie, D., Budisavljevic, S., Torsheim, T., Jåstad, A., Cosma, A., Kelly, C., Arnarsson, A.M., & Samdal, S. (2020). Spotlight on Adolescent Health and Well-being. Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. International report. Volume 1. Key findings. Copenhagen: WHO. DOI: 10665/332091
52. Health in Ireland: Key Trends 2021. <https://www.gov.ie/en/publication/350b7-health-in-ireland-key-trends-2021/>
53. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2014). *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Centers for Disease Control and Prevention (US).
54. Winnall, WR, Bellew, B, Greenhalgh, EM, & Winstanley, MH. 3.9 Increased susceptibility to infection in smokers. In Greenhalgh, EM, Scollo, MM and Winstanley, MH [editors]. *Tobacco in Australia: Facts and issues*. Melbourne: Cancer Council Victoria; 2021. Available from <http://www.tobaccoinustralia.org.au/3-9-increased-susceptibility-to-infection-in-smoke>
55. Arcavi L, Benowitz NL. Cigarette Smoking and Infection. *Arch Intern Med*. 2004;164(20):2206–2216. doi:10.1001/archinte.164.20.2206
56. Vardavas, C. I., & Nikitara, K. (2020). COVID-19 and smoking: A systematic review of the evidence. *Tobacco induced diseases*, 18, 20. <https://doi.org/10.18332/tid/119324>
57. Reddy, R. K., Charles, W. N., Sklavounos, A., Dutt, A., Seed, P. T., & Khajuria, A. (2021). The effect of smoking on COVID-19 severity: A systematic review and meta-analysis. *Journal of Medical Virology*, 93(2), 1045–1056. <https://doi.org/10.1002/jmv.26389>
58. Baker, J., Krishnan, N., Abroms, L. C., & Berg, C. J. (2022). The Impact of Tobacco Use on COVID-19 Outcomes: A Systematic Review. *Journal of Smoking Cessation*, 2022, 5474397. <https://doi.org/10.1155/2022/5474397>
59. Hou, H., Li, Y., Zhang, P., Wu, J., Shi, L., Xu, J., Diao, J., Wang, Y., & Yang, H. (2021). Smoking Is Independently associated with an Increased Risk for COVID-19 Mortality: A Systematic Review and Meta-analysis Based on Adjusted Effect Estimates. *Nicotine & tobacco research: official journal of the Society for Research on Nicotine and Tobacco*, 23(11), 1947–1951. <https://doi.org/10.1093/ntr/ntab112>
60. Clift, A. K., von Ende, A., Tan, P. S., Sallis, H. M., Lindson, N., Coupland, C., Munafò, M. R., Aveyard, P., Hippisley-Cox, J., & Hopewell, J. C. (2022). Smoking and COVID-19 outcomes: an observational and Mendelian randomisation study using the UK Biobank cohort. *Thorax*, 77(1), 65–73. <https://doi.org/10.1136/thoraxjnl-2021-217080>
61. World Health Organization. (2020). *Smoking and COVID-19: scientific brief*, 30 June 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/332895>. License: CC BY-NC-SA 3.0 IGO
62. Bennett, K. E., Mullooly, M., O'Loughlin, M., Fitzgerald, M., O'Donnell, J., O'Connor, L., Oza, A., & Cuddihy, J. (2021). Underlying conditions and risk of hospitalisation, ICU admission and mortality among those with COVID-19 in Ireland: A national surveillance study. *The Lancet regional health. Europe*, 5, 100097. <https://doi.org/10.1016/j.lanpe.2021.100097>
63. Beatty, K., & Kavanagh, P. M. (2021). A retrospective cohort study of outcomes in hospitalised COVID-19 patients during the first pandemic wave in Ireland. *Irish Journal of Medical Science*, 1–11. Advance online publication. <https://doi.org/10.1007/s11845-021-02753-6>
64. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2014). *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. Centers for Disease Control and Prevention (US).
65. See <https://www.hse.ie/eng/about/who/tobaccocontrol/tobaccoproductdirective/cbds-guidance-feb-2018.pdf>
66. See <https://www.hse.ie/eng/about/who/tobaccocontrol/tobaccoproductdirective/>
67. National Cancer Institute. *The Role of the Media in Promoting and Reducing Tobacco Use*. Tobacco Control Monograph No. 19. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute. NIH Pub. No. 07-6242, June 2008.
68. Durkin, S. J., Brennan, E., & Wakefield, M. A. (2022). Optimising tobacco control campaigns within a changing media landscape and among priority populations. *Tobacco control*, 31(2), 284–290. <https://doi.org/10.1136/tobaccocontrol-2021-056558>
69. McNeill A, Gravelly S, Hitchman SC, Bauld L, Hammond D, Hartmann-Boyce J. Tobacco packaging design for reducing tobacco use. *Cochrane Database of Systematic Reviews* 2017, Issue 4. Art. No.: CD011244. DOI: 10.1002/14651858.CD011244.pub2.
70. Durkin S, Brennan E, Wakefield M Mass media campaigns to promote smoking cessation among adults: an integrative review *Tobacco Control* 2012;21:127-138.
71. Bala MM, Strzeszynski L, Topor-Madry R. Mass media interventions for smoking cessation in adults. *Cochrane Database of Systematic Reviews* 2017, Issue 11. Art. No.: CD004704. DOI: 10.1002/14651858.CD004704.pub4.
72. Atusingwize E, Lewis S, Langley T Economic evaluations of tobacco control mass media campaigns: a systematic review *Tobacco Control* 2015;24:320-327.

73. Kuipers MAG, Beard E, West R, et al Associations between tobacco control mass media campaign expenditure and smoking prevalence and quitting in England: a time series analysis *Tobacco Control* Published Online First: 30 June 2017. doi: 10.1136/tobaccocontrol-2017-053662
74. Hughes, J. R., Keely, J., & Naud, S. (2004). Shape of the relapse curve and long-term abstinence among untreated smokers. *Addiction* (Abingdon, England), 99(1), 29–38. <https://doi.org/10.1111/j.1360-0443.2004.00540.x>
75. West R, Stapleton J (2008). Clinical and public health significance of treatments to aid smoking cessation. *European Respiratory Review* Dec 2008, 17 (110) 199-204; DOI: 10.1183/09059180.00011005
76. Health Information and Quality Authority (2017). Health technology assessment (HTA) of smoking cessation interventions. Available at <https://www.hiqa.ie/sites/default/files/2017-04/Smoking%20Cessation%20HTA.pdf>
77. Barlow, P., McKee, M., Reeves, A., Galea, G., & Stuckler, D. (2017). Time-discounting and tobacco smoking: a systematic review and network analysis. *International Journal of Epidemiology*, 46(3), 860–869. <https://doi.org/10.1093/ije/dyw233>
78. Taylor, G., Dalili, M. N., Semwal, M., Civljak, M., Sheikh, A., & Car, J. (2017). Internet-based interventions for smoking cessation. *The Cochrane database of systematic reviews*, 9(9), CD007078. <https://doi.org/10.1002/14651858.CD007078.pub5>
79. Naslund, J. A., Kim, S. J., Aschbrenner, K. A., McCulloch, L. J., Brunette, M. F., Dallery, J., Bartels, S. J., & Marsch, L. A. (2017). Systematic review of social media interventions for smoking cessation. *Addictive behaviors*, 73, 81–93. <https://doi.org/10.1016/j.addbeh.2017.05.002>
80. Luo, T., Li, M. S., Williams, D., Phillippi, S., Yu, Q., Kantrow, S., Kao, Y. H., Celestin, M., Lin, W. T., & Tseng, T. S. (2021). Using social media for smoking cessation interventions: a systematic review. *Perspectives in Public Health*, 141(1), 50–63. <https://doi.org/10.1177/1757913920906845>
81. Creswell J. A Concise Introduction to Mixed Methods Research. London: SAGE Publications, 2015.
82. World Health Assembly, 53. (2000). Framework convention on tobacco control. World Health Organization. <https://apps.who.int/iris/handle/10665/79082>
83. Nilan, K., McNeill, A., Murray, R. L., McKeever, T. M., & Raw, M. (2018). A survey of tobacco dependence treatment guidelines content in 61 countries. *Addiction* (Abingdon, England), 113(8), 1499–1506. <https://doi.org/10.1111/add.14204>
84. Department of Health (2022). Stop Smoking (NCEC National Clinical Guideline No. 28). Available at: <https://www.gov.ie/en/collection/c9fa9a-national-clinical-guidelines/>
85. Health Information and Quality Authority (2017). HTA of smoking cessation interventions. Available at <https://www.hiqa.ie/reports-and-publications/health-technology-assessment/hta-smoking-cessation-interventions>
86. McCarthy A, Lee C, O'Brien D, Long J (2020). Harms and benefits of e-cigarettes and heat-not-burn tobacco products: A literature map. Available at <https://www.hrb.ie/publications/publication/harms-and-benefits-of-e-cigarettes-and-heat-not-burn-tobacco-products-a-literature-map/>
87. Quigley J, Kennelly H, Lee C, O'Brien D, Williams M, McCarthy A, Long J (2020). Electronic cigarettes and smoking cessation: An evidence review. <https://www.hrb.ie/publications/publication/electronic-cigarette-and-smoking-cessation-an-evidence-review/>
88. O'Brien D, Long J, Lee C, McCarthy A, Quigley J (2020). Electronic cigarette use and tobacco cigarette smoking initiation in adolescents: An evidence review. Available at <https://www.hrb.ie/publications/publication/electronic-cigarette-use-and-tobacco-cigarette-smoking-initiation-in-adolescents-an-evidence-review/>
89. Quinyne, K. I., & Kavanagh, P. (2019). Appraisal of International Guidelines on Smoking Cessation using the AGREE II Assessment Tool. *Irish medical journal*, 112(2), 867.
90. Alonso-Coello, P., Schünemann, H. J., Moberg, J., Brignardello-Petersen, R., Akl, E. A., Davoli, M., Treweek, S., Mustafa, R. A., Rada, G., Rosenbaum, S., Morelli, A., Guyatt, G. H., Oxman, A. D., & GRADE Working Group (2016). GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 1: Introduction. *BMJ* (Clinical research ed.), 353, i2016. <https://doi.org/10.1136/bmj.i2016>
91. Papadakis, S., Cole, A. G., Reid, R. D., Coja, M., Aitken, D., Mullen, K. A., Gharib, M., & Pipe, A. L. (2016). Increasing Rates of Tobacco Treatment Delivery in Primary Care Practice: Evaluation of the Ottawa Model for Smoking Cessation. *Annals of Family Medicine*, 14(3), 235–243. <https://doi.org/10.1370/afm.1909>
92. Health Service Executive (2016). Making Every Contact Count - A Health Behaviour Change Framework and Implementation Plan for Health Professionals in the Irish Health Service. Available at <https://www.hse.ie/eng/about/who/healthwellbeing/making-every-contact-count/>
93. Rice V, Heath L, Livingstone-Banks J, Hartmann-Boyce J. Nursing interventions for smoking cessation. *Cochrane Database of Systematic Reviews* 2017, Issue 12. Art. No.: CD001188. DOI: 10.1002/14651858.CD001188.pub5
94. Stead LF, Buitrago D, Preciado N, Sanchez G, Hartmann-Boyce J, Lancaster T. Physician advice for smoking cessation. *Cochrane Database of Systematic Reviews* 2013, Issue 5. Art. No.: CD000165. DOI: 10.1002/14651858.CD000165.pub4
95. Carson KV, Verbiest MEA, Crone MR, Brinn MP, Esterman AJ, Assendelft WJJ, Smith BJ. Training health professionals in smoking cessation. *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD000214. DOI: 10.1002/14651858.CD000214.pub2
96. Available at <https://www.hse.ie/eng/about/who/tobaccocontrol/resources/tfi-f-1-rev-2-hse-stop-smoking-referral-form1.pdf>
97. Available at <https://www2.hse.ie/quit-smoking/support-services/>

98. Hayes, C. B., Patterson, J., Castello, S., Burke, E., O'Connell, N., Darker, C. D., Bauld, L., Vance, J., Ciblis, A., Dobbie, F., Loudon, K., Devane, D., & Dougall, N. (2022). Peer-Delivery of a Gender-Specific Smoking Cessation Intervention for Women Living in Disadvantaged Communities in Ireland We Can Quit (WCQ2)-A Pilot Cluster Randomized Controlled Trial. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 24(4), 564–573. <https://doi.org/10.1093/ntr/ntab242>
99. Available at <https://www.euro.who.int/en/countries/ireland/news2/news/2021/5/ireland-leads-the-way-on-tobacco-cessation-programmes>
100. Available at <https://www.hse.ie/eng/about/who/tobaccocontrol/resources/>
101. Health Service Executive (2022). Quality Assurance Standards for the Delivery of Stop Smoking Services. Available at: <https://www.hse.ie/eng/about/who/tobaccocontrol/resources/>
102. Health Service Executive (2013). Tobacco Cessation Support Programme. Available at <https://www.hse.ie/eng/about/who/tobaccocontrol/cessation/tobacco-cessation-support-programme.pdf>
103. West, R., Hajek, P., Stead, L., & Stapleton, J. (2005). Outcome criteria in smoking cessation trials: proposal for a common standard. *Addiction (Abingdon, England)*, 100(3), 299–303. <https://doi.org/10.1111/j.1360-0443.2004.00995.x>
104. Central Statistics Office . Mortality differentials in Ireland 2016–2017. Cork: Central Statistics Office; 2019.
105. Department of Health (2021). Healthy Ireland Strategic Action Plan 2021-2025. Available at <https://www.gov.ie/en/publication/441c8-healthy-ireland-strategic-action-plan-2021-2025/>
106. Health Service Executive (2022). National Framework for the Integrated Prevention and Management of Chronic Disease in Ireland 2020-2025. Available at <https://www.hse.ie/eng/about/who/cspd/icp/chronic-disease/documents/national-framework-integrated-care.pdf>
107. Health Service Executive (2021). HSE Corporate Plan 2021-2024. Available at <https://www.hse.ie/eng/services/publications/corporate/hse-corporate-plan-2021-24.pdf>
108. Health Service Executive (2022). HSE Service Plan 2022. Available at <https://www.hse.ie/eng/services/publications/serviceplans/hse-national-service-plan-2022.pdf>
109. Weng, S. F., Ali, S., & Leonardi-Bee, J. (2013). Smoking and absence from work: systematic review and meta-analysis of occupational studies. *Addiction (Abingdon, England)*, 108(2), 307–319. <https://doi.org/10.1111/add.12015>
110. Cahill, K., & Lancaster, T. (2014). Workplace interventions for smoking cessation. *The Cochrane database of systematic reviews*, (2), CD003440. <https://doi.org/10.1002/14651858.CD003440.pub4>
111. Tong, E. K., Strouse, R., Hall, J., Kovac, M., & Schroeder, S. A. (2010). National survey of U.S. health professionals' smoking prevalence, cessation practices, and beliefs. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 12(7), 724–733. <https://doi.org/10.1093/ntr/ntq071>
112. Pipe, A., Sorensen, M., & Reid, R. (2009). Physician smoking status, attitudes toward smoking, and cessation advice to patients: an international survey. *Patient Education and Counseling*, 74(1), 118–123. <https://doi.org/10.1016/j.pec.2008.07.042>
113. OhAiseadha, C., Killeen, M., Howell, F., & Saunders, J. (2014). An audit of smoking prevalence and awareness of HSE smoking cessation services among HSE staff. *Irish Medical Journal*, 107(4), 115–116.
114. Troelstra, S. A., Coenen, P., Boot, C. R., Harting, J., Kunst, A. E., & van der Beek, A. J. (2020). Smoking and sickness absence: a systematic review and meta-analysis. *Scandinavian Journal of Work, Environment & Health*, 46(1), 5–18. <https://doi.org/10.5271/sjweh.3848>
115. Weng, S. F., Ali, S., & Leonardi-Bee, J. (2013). Smoking and absence from work: systematic review and meta-analysis of occupational studies. *Addiction (Abingdon, England)*, 108(2), 307–319. <https://doi.org/10.1111/add.12015>
116. Further details are available at: <https://www.hse.ie/eng/about/who/tobaccocontrol/news/>
117. NHS Digital. Statistics on NHS Stop Smoking Services in England April 2020 to March 2021. <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2020-to-march-2021#summary>
118. NHS Digital (2021). Statistics on NHS Stop Smoking Services in England - April 2020 to March 2021. <https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-nhs-stop-smoking-services-in-england/april-2020-to-march-2021>
119. U.S. National Cancer Institute and World Health Organization. Health Effects of Exposure to Environmental Tobacco Smoke. National Cancer Institute Tobacco Control Monograph 10. NIH Publication 1999. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.
120. Frazer K, Callinan JE, McHugh J, van Baarsel S, Clarke A, Doherty K, Kelleher C. Legislative smoking bans for reducing harms from second-hand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database Syst Rev*. 2016 Feb 4;2:CD005992. doi: 10.1002/14651858.CD005992.pub3
121. Cronin EM, Kearney PM, Kearney PP, Sullivan P, Perry IJ; Coronary Heart Attack Ireland Registry (CHAIR) Working Group. Impact of a national smoking ban on hospital admission for acute coronary syndromes: a longitudinal study. *Clin Cardiol*. 2012 Apr;35(4):205-9.
122. Stallings-Smith S, Zeka A, Goodman P, Kabir Z, Clancy L (2013) Reductions in Cardiovascular, Cerebrovascular, and Respiratory Mortality following the National Irish Smoking Ban: Interrupted Time-Series Analysis. *PLoS ONE* 8(4): e62063. <https://doi.org/10.1371/journal.pone.0062063>
123. Frazer K, McHugh J, Callinan JE, Kelleher C. Impact of institutional smoking bans on reducing harms and secondhand smoke exposure. *Cochrane Database Syst Rev*. 2016 May 27;(5):CD011856. doi: 10.1002/14651858.CD011856.pub2

124. Health Service Executive. National Tobacco Free Campus Policy. 2012. <https://www.hse.ie/eng/staff/resources/hrppg/national-tobacco-free-campus-policy---april-2012.pdf>
125. Global Network for Tobacco Free Healthcare Services. <http://www.tobaccofreehealthcare.org/>
126. Global Network for Tobacco Free Health Services (2015). The Global Standards. Available at <https://www.tobaccofreehealthcare.org/standards/overview>
127. Health Service Executive (2016). How to Implement “HSE Tobacco Free Campus Policy” - Tobacco Free Campus Implementation Guidance Document. Available at <https://www.hse.ie/eng/about/who/tobaccocontrol/campus/tobacco-free-campus-toolkit-guidance-document-oct-16.pdf>
128. Irish Prison Service (2020). Annual Report 2019. Available at https://www.irishprisons.ie/wp-content/uploads/documents_pdf/IPS-Annual-Report-2019-Web.pdf
129. Bowe, A., Marron, L., Devlin, J., & Kavanagh, P. (2021). An Evaluation of the Impact of a Multicomponent Stop Smoking Intervention in an Irish Prison. *International Journal of Environmental Research and Public Health*, 18(22), 11981. <https://doi.org/10.3390/ijerph182211981>
130. See <https://www.who.int/news/item/22-05-2020-world-no-tobacco-day-2020-awards-the-winners>
131. GBD 2019 Tobacco Collaborators (2021). Spatial, temporal, and demographic patterns in prevalence of smoking tobacco use and attributable disease burden in 204 countries and territories, 1990-2019: a systematic analysis from the Global Burden of Disease Study 2019. *Lancet* (London, England), 397(10292), 2337–2360. [https://doi.org/10.1016/S0140-6736\(21\)01169-7](https://doi.org/10.1016/S0140-6736(21)01169-7)
132. Peto, R., Lopez, A. D., Boreham, J., Thun, M., & Heath, C., Jr (1992). Mortality from tobacco in developed countries: indirect estimation from national vital statistics. *Lancet* (London, England), 339(8804), 1268–1278. [https://doi.org/10.1016/0140-6736\(92\)91600-d](https://doi.org/10.1016/0140-6736(92)91600-d)
133. Banks, E., Joshy, G., Weber, M. F., Liu, B., Grenfell, R., Egger, S., Paige, E., Lopez, A. D., Sitas, F., & Beral, V. (2015). Tobacco smoking and all-cause mortality in a large Australian cohort study: findings from a mature epidemic with current low smoking prevalence. *BMC medicine*, 13, 38. <https://doi.org/10.1186/s12916-015-0281-z>
134. Doll, R., Peto, R., Boreham, J., & Sutherland, I. (2004). Mortality in relation to smoking: 50 years’ observations on male British doctors. *BMJ* (Clinical research ed.), 328(7455), 1519. <https://doi.org/10.1136/bmj.38142.554479.AE>
135. Thun, M. J., Carter, B. D., Feskanich, D., Freedman, N. D., Prentice, R., Lopez, A. D., Hartge, P., & Gapstur, S. M. (2013). 50-year trends in smoking-related mortality in the United States. *The New England journal of medicine*, 368(4), 351–364. <https://doi.org/10.1056/NEJMs1211127>
136. Pirie, K., Peto, R., Reeves, G. K., Green, J., Beral, V., & Million Women Study Collaborators (2013). The 21st century hazards of smoking and benefits of stopping: a prospective study of one million women in the UK. *Lancet* (London, England), 381(9861), 133–141. [https://doi.org/10.1016/S0140-6736\(12\)61720-6](https://doi.org/10.1016/S0140-6736(12)61720-6)
137. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2014). The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Center for Disease Control and Prevention (US).
138. Wipfli, H., & Samet, J. M. (2016). One Hundred Years in the Making: The Global Tobacco Epidemic. *Annual review of public health*, 37, 149–166. <https://doi.org/10.1146/annurev-publhealth-032315-021850>
139. World Health Organization. (2021). WHO report on the global tobacco epidemic, 2021: addressing new and emerging products. World Health Organization. <https://apps.who.int/iris/handle/10665/343287>. License: CC BY-NC-SA 3.0 IGO
140. Hoek, J., Edwards, R., & Waa, A. (2022). From social accessory to societal disapproval: smoking, social norms and tobacco endgames. *Tobacco control*, 31(2), 358–364. <https://doi.org/10.1136/tobaccocontrol-2021-056574>
141. Lopez, A.D., Collishaw, N., & Piha, T. (1994). A descriptive model of the cigarette epidemic in developed countries. *Tobacco control*, 3, 242–7.
142. Thun, M., Peto, R., Boreham, J., & Lopez, A. D. (2012). Stages of the cigarette epidemic on entering its second century. *Tobacco control*, 21(2), 96–101. <https://doi.org/10.1136/tobaccocontrol-2011-050294>
143. Dai, X., Gakidou, E., & Lopez, A. D. (2022). Evolution of the global smoking epidemic over the past half century: strengthening the evidence base for policy action. *Tobacco control*, 31(2), 129–137. <https://doi.org/10.1136/tobaccocontrol-2021-056535>
144. Blanco Marquizo A. (2022). The changing tobacco epidemic. *Tobacco control*, 31(2), 173–174. <https://doi.org/10.1136/tobaccocontrol-2021-057148>
145. Bottorff, J. L., Haines-Saah, R., Kelly, M. T., Oliffe, J. L., Torchalla, I., Poole, N., Greaves, L., Robinson, C. A., Ensom, M. H., Okoli, C. T., & Phillips, J. C. (2014). Gender, smoking and tobacco reduction and cessation: a scoping review. *International journal for equity in health*, 13, 114. <https://doi.org/10.1186/s12939-014-0114-2>
146. Amos, A., Greaves, L., Nichter, M., & Bloch, M. (2012). Women and tobacco: a call for including gender in tobacco control research, policy and practice. *Tobacco control*, 21(2), 236–243. <https://doi.org/10.1136/tobaccocontrol-2011-050280>
147. World Health Organization. Regional Office for Europe. (2021). Through a gender lens: women and tobacco in the WHO European Region. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/339328>. License: CC BY-NC-SA 3.0
148. Secretariat of the WHO FCTC. (2018). Gender-Responsive Tobacco Control: Evidence and Options for Policies and Programmes. Secretariat of the WHO FCTC. Available at <https://fctc.who.int/publications/m/item/gender-responsive-tobacco-control-evidence-and-options-for-policies-and-programmes>

149. Department of Health (2022). Women's Health Action Plan 2022 – 2023. Available at <https://www.gov.ie/en/publication/232af-womens-health-action-plan-2022-2023/>
150. National Cancer Registry Ireland (2021) Cancer in Ireland 1994-2019: Annual report of the National Cancer Registry. NCRI, Cork, Ireland. Available at https://www.ncri.ie/sites/ncri/files/pubs/NCRI_Annual%20Report_2021.pdf
151. Barrington-Trimis, J. L., Braymiller, J. L., Unger, J. B., McConnell, R., Stokes, A., Leventhal, A. M., Sargent, J. D., Samet, J. M., & Goodwin, R. D. (2020). Trends in the Age of Cigarette Smoking Initiation Among Young Adults in the US From 2002 to 2018. *JAMA network open*, 3(10), e2019022. <https://doi.org/10.1001/jamanetworkopen.2020.19022>
152. Ganz, O., & Delnevo, C. D. (2020). Young Adults as a Tobacco Control Priority Population in the US. *JAMA network open*, 3(10), e2019365. <https://doi.org/10.1001/jamanetworkopen.2020.19365>
153. Bähler, C., Foster, S., Estévez, N., Dey, M., Gmel, G., & Mohler-Kuo, M. (2016). Changes in living arrangement, daily smoking, and risky drinking initiation among young Swiss men: a longitudinal cohort study. *Public health*, 140, 119–127. <https://doi.org/10.1016/j.puhe.2016.07.011>
154. Firth, C., LaBrie, J. W., D'Amico, E. J., Klein, D. J., Griffin, B. A., & Pedersen, E. R. (2020). Changes in Cigarette, E-Cigarette, and Cannabis Use among U.S. College Students Studying Abroad. *Substance use & misuse*, 55(10), 1683–1691. <https://doi.org/10.1080/10826084.2020.1756853>
155. Windle, M., Haardörfer, R., Lloyd, S. A., Foster, B., & Berg, C. J. (2017). Social Influences on College Student Use of Tobacco Products, Alcohol, and Marijuana. *Substance use & misuse*, 52(9), 1111–1119. <https://doi.org/10.1080/10826084.2017.1290116>
156. Delaney, H., MacGregor, A., & Amos, A. (2018). "Tell them you smoke, you'll get more breaks": a qualitative study of occupational and social contexts of young adult smoking in Scotland. *BMJ open*, 8(12), e023951. <https://doi.org/10.1136/bmjopen-2018-023951>
157. European Commission (2021). Attitudes of Europeans towards tobacco and electronic cigarettes. Available at <https://europa.eu/eurobarometer/surveys/detail/2240>
158. Hindocha, C., Shaban, N. D., Freeman, T. P., Das, R. K., Gale, G., Schafer, G., Falconer, C. J., Morgan, C. J., & Curran, H. V. (2015). Associations between cigarette smoking and cannabis dependence: a longitudinal study of young cannabis users in the United Kingdom. *Drug and alcohol dependence*, 148, 165–171. <https://doi.org/10.1016/j.drugalcdep.2015.01.004>
159. Weinberger, A. H., Platt, J., Copeland, J., & Goodwin, R. D. (2018). Is Cannabis Use Associated With Increased Risk of Cigarette Smoking Initiation, Persistence, and Relapse? Longitudinal Data From a Representative Sample of US Adults. *The Journal of clinical psychiatry*, 79(2), 17m11522. <https://doi.org/10.4088/JCP.17m11522>
160. Weinberger, A. H., Dierker, L., Zhu, J., Levin, J., & Goodwin, R. D. (2021). Cigarette dependence is more prevalent and increasing among US adolescents and adults who use cannabis, 2002-2019. *Tobacco control*, tobaccocontrol-2021-056723. Advance online publication. <https://doi.org/10.1136/tobaccocontrol-2021-056723>
161. Weinberger, A. H., Pacek, L. R., Wall, M. M., Gbedemah, M., Lee, J., & Goodwin, R. D. (2020). Cigarette smoking quit ratios among adults in the USA with cannabis use and cannabis use disorders, 2002-2016. *Tobacco control*, 29(1), 74–80. <https://doi.org/10.1136/tobaccocontrol-2018-054590>
162. Dewhirst T. (2021). 'Beyond nicotine' marketing strategies: Big Tobacco diversification into the vaping and cannabis product sectors. *Tobacco control*, tobaccocontrol-2021-056798. Advance online publication. <https://doi.org/10.1136/tobaccocontrol-2021-056798>
163. Royal College of Physicians in Ireland, Policy Group on Tobacco (2018). Position statement: Occasional smoking and its associated health risks. Available at <https://www.rcpi.ie/news/releases/women-who-smoke-between-1-and-4-cigarettes-a-day-five-times-more-likely-to-develop-lung-cancer/>
164. Bayly, M., Scollo, M. M., & Wakefield, M. A. (2019). Who uses rollies? Trends in product offerings, price and use of roll-your-own tobacco in Australia. *Tobacco control*, 28(3), 317–324. <https://doi.org/10.1136/tobaccocontrol-2018-054334>
165. Brown, A. K., Nagelhout, G. E., van den Putte, B., Willemsen, M. C., Mons, U., Guignard, R., & Thompson, M. E. (2015). Trends and socio-economic differences in roll-your-own tobacco use: findings from the ITC Europe Surveys. *Tobacco control*, 24 Suppl 3(0 3), iii11–iii16. <https://doi.org/10.1136/tobaccocontrol-2014-051986>
166. Stimson GV, Thom B, Costall P. Disruptive innovations: the rise of the electronic cigarette. *Int J Drug Policy*. 2014;25(4):653-655. doi:10.1016/j.drugpo.2014.05.003
167. Abrams DB. Promise and peril of e-cigarettes: can disruptive technology make cigarettes obsolete? *JAMA*. 2014;311(2):135-136. doi:10.1001/jama.2013.285347
168. Kennedy, R. D., Awopegba, A., De León, E., & Cohen, J. E. (2017). Global approaches to regulating electronic cigarettes. *Tobacco control*, 26(4), 440–445. <https://doi.org/10.1136/tobaccocontrol-2016-053179>
169. Snell, L. M., Nicksic, N., Panteli, D., Burke, S., Eissenberg, T., Fattore, G., Gauci, C., Koprivnikar, H., Murauskiene, L., Reinap, M., & Barnes, A. J. (2021). Emerging electronic cigarette policies in European member states, Canada, and the United States. *Health policy (Amsterdam, Netherlands)*, 125(4), 425–435. <https://doi.org/10.1016/j.healthpol.2021.02.003>
170. Brady, B. R., De La Rosa, J. S., Nair, U. S., & Leischow, S. J. (2019). Electronic Cigarette Policy Recommendations: A Scoping Review. *American journal of health behavior*, 43(1), 88–104. <https://doi.org/10.5993/AJHB.43.1.8>
171. O'Connor, R., Schneller, L. M., Felicione, N. J., Talhout, R., Goniewicz, M. L., & Ashley, D. L. (2022). Evolution of tobacco products: recent history and future directions. *Tobacco control*, 31(2), 175–182. <https://doi.org/10.1136/tobaccocontrol-2021-056544>

172. Institute for Global Tobacco Control, John Hopkins Bloomberg School of Public Health. E-cigarettes Policy Scan. Available at <https://globaltobaccocontrol.org/en/policy-scan/e-cigarettes>
173. Klein, D.E., Chaiton, M., Kundu, A. et al. A Literature Review on International E-cigarette Regulatory Policies. *Curr Addict Rep* 7, 509–519 (2020). <https://doi.org/10.1007/s40429-020-00332-w>
174. McCarthy A, Lee C, Long J. Harms and benefits of e-cigarettes and heat-not-burn tobacco products: A literature map. Health Research Board; 2020. Available at https://www.hrb.ie/fileadmin/2._Plugin_related_files/Publications/2020_publication-related_files/2020_HIE/Evidence_Centre/Harms_and_benefits_of_e-cigarettes_and_heat-notburn_tobacco_products_Literature_map.pdf
175. O'Brien D, Long J, Lee C, McCarthy A, and Quigley J. Electronic cigarette use and tobacco cigarette smoking initiation in adolescents: An evidence review Health Research Board; 2020. Available at <https://www.hrb.ie/publications/publication/electronic-cigarette-use-and-tobacco-cigarette-smoking-initiation-in-adolescents-an-evidence-review/>
176. O'Brien, D., Long, J., Quigley, J., Lee, C., McCarthy, A., & Kavanagh, P. (2021). Association between electronic cigarette use and tobacco cigarette smoking initiation in adolescents: a systematic review and meta-analysis. *BMC public health*, 21(1), 954. <https://doi.org/10.1186/s12889-021-10935-1>
177. Quigley J, Kennelly H, Lee C, O'Brien D, Williams M, McCarthy A, Long J. Electronic cigarettes and smoking cessation: An evidence review. Health Research Board; 2020. Available at <https://www.hrb.ie/publications/publication/electronic-cigarette-and-smoking-cessation-an-evidence-review/>
178. Quigley, J. M., Walsh, C., Lee, C., Long, J., Kennelly, H., McCarthy, A., & Kavanagh, P. (2021). Efficacy and safety of electronic cigarettes as a smoking cessation intervention: A systematic review and network meta-analysis. *Tobacco prevention & cessation*, 7, 69. <https://doi.org/10.18332/tpc/143077>
179. Department of Health (2022). Stop Smoking (NCEC National Clinical Guideline No. 28). Available at: <https://www.gov.ie/en/collection/c9fa9a-national-clinical-guidelines/>
180. European Commission (2014). DIRECTIVE 2014/40/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 3 April 2014 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products and repealing Directive 2001/37/EC. Official Journal of the European Union. 2014. Available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0040>
181. Vardavas C. I. (2022). European Tobacco Products Directive (TPD): current impact and future steps. *Tobacco control*, 31(2), 198–201. <https://doi.org/10.1136/tobaccocontrol-2021-056548>
182. SCHEER (Scientific Committee on Health, Environmental and Emerging Risks) (2021). Scientific opinion on electronic cigarettes. Available at https://ec.europa.eu/health/system/files/2021-04/scheer_o_017_0.pdf
183. Institute for Global Tobacco Control, John Hopkins Bloomberg School of Public Health. E-cigarettes Policy Scan. Available at <https://globaltobaccocontrol.org/en/policy-scan/e-cigarettes>
184. Department of Health (2019). GENERAL SCHEME OF A PUBLIC HEALTH (TOBACCO AND NICOTINE INHALING PRODUCTS) BILL 2019. Available at <https://assets.gov.ie/39086/884ae414fa434c2c9ff12447d50e2c21.pdf>
185. Docherty, G., & McNeill, A. (2012). The hardening hypothesis: does it matter?. *Tobacco control*, 21(2), 267–268. <https://doi.org/10.1136/tobaccocontrol-2011-050382>
186. Feliu, A., Fernandez, E., Martinez, C., & Filippidis, F. T. (2019). Are smokers “hardening” or rather “softening”? An ecological and multilevel analysis across 28 European Union countries. *The European respiratory journal*, 54(3), 1900596. <https://doi.org/10.1183/13993003.00596-2019>
187. Hughes J. R. (2020). An Update on Hardening: A Qualitative Review. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 22(6), 867–871. <https://doi.org/10.1093/ntr/ntz042>
188. European Commission (2021). Attitudes of Europeans towards tobacco and electronic cigarettes. Available at <https://europa.eu/eurobarometer/surveys/detail/2240>
189. Central Statistics Office (2019). Mortality Differentials in Ireland 2016–2017. Available at <https://www.cso.ie/en/releasesandpublications/in/mdi/mortalitydifferentialsinireland2016-2017/>
190. Commission on Social Determinants of Health. (2008). Closing the gap in a generation : health equity through action on the social determinants of health : final report : executive summary. World Health Organization. <https://apps.who.int/iris/handle/10665/69832>
191. Marmot, M (2010). Fair society, healthy lives : the Marmot Review : strategic review of health inequalities in England post-2010. Available at <https://www.parliament.uk/globalassets/documents/fair-society-healthy-lives-full-report.pdf>
192. Institute of Health Equity (2020). Health equity in England: the Marmot review 10 years on. Available at <http://www.instituteofhealthequity.org/the-marmot-review-10-years-on>.
193. Marmot, M., & Allen, J. J. (2014). Social determinants of health equity. *American journal of public health*, 104 Suppl 4(Suppl 4), S517–S519. <https://doi.org/10.2105/AJPH.2014.302200>
194. Diderichsen, F, Evans, T, Whitehead, M. The social basis of disparities in health. In: Evans, T, Whitehead, M, Diderichsen, F, Bhuiya, A, Wirth, M, editors, *Challenging inequities in health. From ethics to action*, 1st ed. Oxford: Oxford University Press, 2001, pp12–23.

195. Jha, P., Peto, R., Zatonski, W., Boreham, J., Jarvis, M. J., & Lopez, A. D. (2006). Social inequalities in male mortality, and in male mortality from smoking: indirect estimation from national death rates in England and Wales, Poland, and North America. *Lancet* (London, England), 368(9533), 367–370. [https://doi.org/10.1016/S0140-6736\(06\)68975-7](https://doi.org/10.1016/S0140-6736(06)68975-7)
196. Loring, Belinda. (2014). Tobacco and inequities: guidance for addressing inequities in tobacco-related harm. World Health Organization. Regional Office for Europe. <https://apps.who.int/iris/handle/10665/344628>
197. Centers for Disease Control and Prevention. Best Practices User Guide: Health Equity in Tobacco Prevention and Control. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2015. Available at <https://www.cdc.gov/tobacco/stateandcommunity/best-practices-health-equity/pdfs/bp-health-equity.pdf>
198. Available at <https://www.gov.uk/government/news/government-launches-landmark-reviews-to-tackle-health-disparities>
199. Smith, C. E., Hill, S. E., & Amos, A. (2020). Impact of population tobacco control interventions on socioeconomic inequalities in smoking: a systematic review and appraisal of future research directions. *Tobacco control*, 30(e2), e87–e95. Advance online publication. <https://doi.org/10.1136/tobaccocontrol-2020-055874>
200. Central Statistics Office (2021). Survey on Income and Living Conditions (SILC) 2020. Available at <https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2020/income/>
201. Moodie, C., Hoek, J., Hammond, D., Gallopel-Morvan, K., Sendoya, D., Rosen, L., Mucan Özcan, B., & van der Eijk, Y. (2022). Plain tobacco packaging: progress, challenges, learning and opportunities. *Tobacco control*, 31(2), 263–271. <https://doi.org/10.1136/tobaccocontrol-2021-056559>
202. Cunningham R. (2022). Tobacco package health warnings: a global success story. *Tobacco control*, 31(2), 272–283. <https://doi.org/10.1136/tobaccocontrol-2021-056560>
203. Howell F. (2005). Smoke-free bars in Ireland: a runaway success. *Tobacco control*, 14(2), 73–74. <https://doi.org/10.1136/tc.2005.011304>
204. Bonnie, R. J., Stratton, K., Kwan, L. Y., Committee on the Public Health Implications of Raising the Minimum Age for Purchasing Tobacco Products, Board on Population Health and Public Health Practice, & Institute of Medicine (Eds.). (2015). *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*. National Academies Press (US).
205. Dyer O. (2021). New Zealand plans to outlaw tobacco sales to citizens born after 2008. *BMJ* (Clinical research ed.), 375, n3057. <https://doi.org/10.1136/bmj.n3057>
206. World Health Organization. (2021). WHO technical manual on tobacco tax policy and administration. World Health Organization. <https://apps.who.int/iris/handle/10665/340659>. License: CC BY-NC-SA 3.0 IGO
207. Drope, J., Siu, E., & Chaloupka, F. J. (2022). Perseverance is innovation: the journey to successful tobacco tax reform. *Tobacco control*, 31(2), 241–242. <https://doi.org/10.1136/tobaccocontrol-2021-057088>
208. Scollo, M., & Branston, J. R. (2022). Where to next for countries with high tobacco taxes? The potential for greater control of tobacco pricing through licensing regulation. *Tobacco control*, 31(2), 235–240. <https://doi.org/10.1136/tobaccocontrol-2021-056554>
209. Ribisl, K. M., Golden, S. D., Huang, J., & Scollo, M. (2022). Addressing lower-priced cigarette products through three-pronged comprehensive regulation on excise taxes, minimum price policies and restrictions on price promotions. *Tobacco control*, 31(2), 229–234. <https://doi.org/10.1136/tobaccocontrol-2021-056553>
210. World Health Organization. (2021). WHO report on the global tobacco epidemic, 2021: addressing new and emerging products. World Health Organization. <https://apps.who.int/iris/handle/10665/343287>
211. Joossens L, Feliu A, Fernandez E. The Tobacco Control Scale 2019 in Europe. Brussels: Association of European Cancer Leagues, Catalan Institute of Oncology; 2020. Available from: <http://www.tobaccocontrolscale.org/TCS2019.pdf>
212. Chaloupka, F.J., Drope, J., Siu, E., Vulovic, V., Mirza, M., Rodriguez-Iglesias, G., Ngo, A., Laternser, C., Lee, H.M., Dorokhina, M., & Smith, M. (2021). Cigarette Tax Scorecard (2nd Edition). *Tobacconomics*. <https://www.tobacconomics.org/files/research/738/tobacco-scorecard-report-2nd-ed-eng-v5.0-final-1.pdf>
213. Honohan, P. (2021). Economic Letter: Is Ireland really the most prosperous country in Europe? Available at <https://www.centralbank.ie/docs/default-source/publications/economic-letters/vol-2021-no-1-is-ireland-really-the-most-prosperous-country-in-europe.pdf>
214. Branston, J. R., & López-Nicolás, Á. (2022). Promoting convergence and closing gaps using affordability-based minimum taxes: an illustration using the European Union Tobacco Tax Directive. *Tobacco control*, tobaccocontrol-2021-056960. Advance online publication. <https://doi.org/10.1136/tobaccocontrol-2021-056960>
215. Revenue (2015). Economics of Tobacco: An Analysis of Cigarette Demand in Ireland. Available at <https://www.revenue.ie/en/corporate/documents/research/economics-of-tobacco.pdf>
216. Department of Finance (2021). General Excise Paper – Tax Strategy Group – TSG 20/08. Available at <https://www.gov.ie/en/collection/d6bc7-budget-2022-tax-strategy-group-papers/>
217. Commission on Taxation and Welfare. Available at <https://www.gov.ie/en/campaigns/92902-commission-on-taxation-and-welfare/>
218. Durkin, S. J., Brennan, E., & Wakefield, M. A. (2022). Optimising tobacco control campaigns within a changing media landscape and among priority populations. *Tobacco control*, 31(2), 284–290. <https://doi.org/10.1136/tobaccocontrol-2021-056558>

-
219. United States Public Health Service Office of the Surgeon General, & National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2020). Smoking Cessation: A Report of the Surgeon General. US Department of Health and Human Services.
220. Royal College of Physicians (2018). Hiding in plain sight: Treating tobacco dependency in the NHS. Available at <https://www.rcplondon.ac.uk/projects/outputs/hiding-plain-sight-treating-tobacco-dependency-nhs>
221. Pipe, A. L., Evans, W., & Papadakis, S. (2022). Smoking cessation: health system challenges and opportunities. *Tobacco control*, 31(2), 340–347. <https://doi.org/10.1136/tobaccocontrol-2021-056575>
222. Hayes, C. B., Patterson, J., Castello, S., Burke, E., O’Connell, N., Darker, C. D., Bauld, L., Vance, J., Ciblis, A., Dobbie, F., Loudon, K., Devane, D., & Dougall, N. (2022). Peer-Delivery of a Gender-Specific Smoking Cessation Intervention for Women Living in Disadvantaged Communities in Ireland We Can Quit2 (WCQ2)-A Pilot Cluster Randomized Controlled Trial. *Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco*, 24(4), 564–573. <https://doi.org/10.1093/ntr/ntab242>
223. Siersbaek R, Burke S, Parker S, Kavanagh P, Ford J. How and why do financial incentives contribute to helping people stop smoking? A realist review. PROSPERO 2022 CRD42022298941 Available at: https://www.crd.york.ac.uk/prospERO/display_record.php?ID=CRD42022298941
224. Notley, C., Gentry, S., Livingstone-Banks, J., Bauld, L., Perera, R., & Hartmann-Boyce, J. (2019). Incentives for smoking cessation. *The Cochrane database of systematic reviews*, 7(7), CD004307. <https://doi.org/10.1002/14651858.CD004307.pub6>
225. Hoek, J., Edwards, R., & Waa, A. (2022). From social accessory to societal disapproval: smoking, social norms and tobacco endgames. *Tobacco control*, 31(2), 358–364. <https://doi.org/10.1136/tobaccocontrol-2021-056574>
226. Malone, R., McDaniel, P., & Smith, E. (2014). It is time to plan the tobacco endgame. *BMJ (Clinical research ed.)*, 348, g1453. <https://doi.org/10.1136/bmj.g1453>
227. Malone, R. E., & Proctor, R. N. (2022). Prohibition no, abolition yes! Rethinking how we talk about ending the cigarette epidemic. *Tobacco control*, 31(2), 376–381. <https://doi.org/10.1136/tobaccocontrol-2021-056577>
228. WHO Framework Convention on Tobacco Control & World Health Organization. (2003). WHO Framework Convention on Tobacco Control. World Health Organization. Available at <https://apps.who.int/iris/handle/10665/42811>
229. Puljević, C., Morphet, K., Hefler, M., Edwards, R., Walker, N., Thomas, D. P., Khan, M. A., Perusco, A., Le Grande, M., Cullerton, K., Ait Ouakrim, D., Carstensen, G., Sellars, D., Hoek, J., Borland, R., Bonevski, B., Blakely, T., Brolan, C., & Gartner, C. E. (2022). Closing the gaps in tobacco endgame evidence: a scoping review. *Tobacco control*, 31(2), 365–375. <https://doi.org/10.1136/tobaccocontrol-2021-056579>
230. Hefler, M., Bianco, E., Bradbrook, S., Arnold, D., & Dorotheo, E. U. (2022). What facilitates policy audacity in tobacco control? An analysis of approaches and supportive factors for innovation in seven countries. *Tobacco control*, 31(2), 328–334. <https://doi.org/10.1136/tobaccocontrol-2021-056570>
231. Department of Health. Healthy Ireland Survey Documents. <https://www.gov.ie/en/collection/231c02-healthy-ireland-survey-wave/>
232. Daly L, Bourke G (2000). *The Interpretation and Uses of Medical Statistics*. Available at <https://onlinelibrary.wiley.com/doi/book/10.1002/9780470696750>
233. Royal College of Physicians. Hiding in plain sight: Treating tobacco dependency in the NHS. A Report by the Tobacco Advisory Group of the Royal College of Physicians. 2018. <https://www.rcplondon.ac.uk/projects/outputs/hiding-plain-sight-treating-tobacco-dependency-nhs>



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