Summary

Irish Heart Foundation
The National Stroke & Heart Charity

Summary of Primary Prevention of Cardiovascular Disease

Best Practices and Lessons for Ireland

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Introduction

The vast majority of premature cardiovascular disease is **preventable**. This fact was well established by the World Health Organization many years ago, yet little meaningful action has been taken in Ireland to truly address the key drivers of a leading cause of death and disability. We know what is driving the disease and we know what needs to be done. We also know that the poorer you are, the more likely you are to die from heart disease or stroke, yet the less control you have over your own health and risk factors. While the mortality rate of cardiovascular disease has declined in recent years, it is of great concern that the slowdown of this decline will lead to decreased life expectancy.

The Department of Health's Cardiovascular Health Policy is out of date. There are significant gaps between the vision set out by Healthy Ireland and Slaintecare and their implementation. It is not sustainable for the health services to continue to focus on those already ill. If the political will existed, there is an enormous opportunity to prevent cardiovascular disease from the outset in thousands of citizens. Investing in chronic disease prevention, through affordable, cost–effective, high-impact policies and legislative measures will deliver the greatest possible health impact in reducing illness, disability, and premature death.

To date, there has been an absence of evidence synthesis around primary prevention and cardiovascular disease to inform policy and practice. Therefore, the Irish Heart Foundation commissioned Prof Ivan Perry and colleagues in UCC to prepare a paper on 'Primary Prevention of CVD: Best Practices and Lessons for Ireland'. The paper sets out to make recommendations for the implementation of effective CVD primary prevention policies and programmes in Ireland, drawing on national and international evidence on relevant policies, programmes and interventions, set within the current Irish policy and programme context.

Cardiovascular disease is estimated to cost the Irish state €1.7 billion per annum, almost half of which are direct health care costs.

In the future, the Irish economy will depend more than ever on building a society with strong population health. The economic, health and wider social impacts of COVID-19 have been strongly felt, as have their fiscal impacts on the health service. Coupled with a cost-of-living crisis and a climate emergency requires Government policy to recognise that the way in which we manage the population's health is a major driver of our economic wellbeing. The social and economic determinants of health are powerful, and they are exacerbated by the current crises.

To address these major challenges, the Irish Heart Foundation urges a reorientation of focus away from encouraging individual change and towards policy-based strategies that are proven to be more effective, equitable and cost-efficient.

Without the implementation of bold policy initiatives, we can expect continued and increased deaths and ill health driven by these risk factors.

There are nine key areas identified in this paper requiring action. Some recommendations, if implemented, would reap immediate benefits while others will take longer to have an effect. Not only do CVD prevention initiatives cut across organisational boundaries, but they cannot be considered in isolation from other noncommunicable diseases which are impacted by the same risk factors. The multiple risk factors for CVD are also risk factors for other non-communicable diseases such as cancer, COPD, diabetes, and dementia. Adressing these areas will lead to a fundamental improvement in cardiovascular disease incidence and death, but also many other NCDs and overall life expectancy. Furthermore, there are many health co-benefits of climate action.

This Summary Paper is organised in **5 parts**, with part 5 summarising the **9 main areas for action**, with 39 recommendations highlighted.

Background

Cardiovascular disease (CVD) is a leading cause of morbidity and mortality in Ireland and around the world [1]. While mortality from CVD has declined over the last two decades, it remains Ireland's second leading cause of death after cancer [2].

The underlying rates of cardiovascular disease in the population are also driven by the broad range of social, political, commercial and environmental determinants of health, which may be regarded as "the causes of the causes" of cardiovascular disease.

These include the inequitable distribution of power, status, income and resources in society, the relentless promotion and marketing of unhealthy diets and sedentary behaviours and air pollution linked to vehicle emissions and the burning of fossil fuels in other settings [3].

The discourse on health is dominated by intervention strategies in high-risk individuals and the rhetoric on prevention inevitably falls short of the reality in terms of national policy priorities and resource allocation.

Part 1 | What is primary prevention?

The term primary prevention encompasses measures to:

- prevent the onset of disease, including strategies addressing the social, economic and environmental conditions in which risk of CVD emerges, such as tobacco taxes and restrictions on the marketing of unhealthy food to children (often described as primordial prevention),
- limit the incidence of disease, by controlling specific causes and risk factors such as smoking and high blood pressure.

Thus, primary prevention efforts can be directed at the whole population with the aim of reducing average risk (the population or "mass" strategy) or at people at high risk as a result of particular exposures (the high-risk-individual strategy).

With respect to the health system and curative care, it is important to make the distinction between primary prevention and secondary prevention, which aims to halt the progression of the disease through interventions at an early stage in the disease process, or tertiary prevention, which is concerned with rehabilitation and minimising the impact of complications.

While the clinical issues that arise within the health sector are clearly urgent and command attention and resources, in Ireland (as in other countries) we struggle to achieve an appropriate balance between the immediate short-term imperatives of clinical care and the longer-term opportunities to prevent suffering and premature death and reduce health care costs through prevention.

It is also noteworthy that some of the causes of CVD such as smoking, physical inactivity and poor diet are described as "lifestyle" risk factors. But the term "lifestyle" frames health and wellbeing at an individual level – effectively blaming individuals for making irrational decisions that are detrimental to their health. The language of lifestyle tends to perpetuate a disproportionate focus on the need for individuals to make different choices and change their 'unhealthy lifestyle' as opposed to the need for system level change to support healthier choices.

If we want to prevent and limit the onset of disease, we must change the discourse and reorient public policy accordingly.

Part 2 | CVD Trends: Why we need to take this seriously

As of 2021, CVD remains one of the leading causes of premature death and disability in Ireland, accounting for 8,753 deaths (170 deaths per 100,000 population), or 26.5% of all deaths, of which 4,121 were due to coronary heart disease and 1,423 due to stroke. Based on the most recent age-standardised data (2019) from Eurostat, the age-standardised death rate from cardiovascular disease in Ireland is 315 per 100,000 in men and 209 per 100,000 in women [4].

While mortality rates for cardiovascular disease in Ireland have decreased by two thirds over the past 30 years, lower death rates do not necessarily translate into a significant fall in the population disease burden and health sector costs.

CVD is responsible for the loss of 163,335 Disability-adjusted life years (DALYs) in Ireland (13.8% of all DALYs lost). Based on extrapolation from UK data, it is estimated that CVD costs the Irish state €1.7 billion a year, of which 46% are direct health care costs.

The absolute number of cases of CVD has increased in Ireland due to population ageing, improved survival and population growth. In Ireland the average annual decline in age-standardised CVD mortality between 2000 and 2010 was approximately 7% in men and women aged 35-74 years, falling to 4% in both sexes from 2010 to 2015 [5]. This slowdown in the CVD mortality decline is linked to high and increasing obesity levels, diminishing returns from tobacco control policies and persistent social inequalities in exposure to CVD risk factors and access to care.

Moreover, the burden of cardiovascular disease should also be set within the broader context of noncommunicable diseases (NCDs).

Tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of dying from a non-communicable disease, including CVD. It is difficult to overstate the role of **five core risk factors:**

both individually and in combination on a wide range of adverse health outcomes, including the incidence of CVD and diabetes, death from CVD, death from cancer, risk of cognitive decline and dementia, overall life expectancy, healthy life expectancy and death from all causes. It is estimated that around 40% of all deaths in Ireland are attributable to preventable risk factors [6].

The Big 5

Tobacco, Poor Diet, Physical Inactivity, Overweight and Obesity, Alcohol

In Ireland, smoking is the leading cause of preventable death. Each year in Ireland, over 4,500 people die because of smoking; this amounts to approximately one in seven of all deaths.

Poor diet is the single biggest risk factor for NCDs, exceeding the combined effects of tobacco, alcohol and physical inactivity.

Sedentary behaviour, is associated with all-cause mortality, cardiovascular disease mortality, cardiovascular disease incidence, cancer mortality, cancer incidence and type 2 diabetes incidence.

The costs of overweight and obesity in the Republic of Ireland in 2009 were estimated at €1.13 billion, with approximately 35% of the costs assigned to direct healthcare costs (heavily weighted on cardiovascular disease and diabetes) and 65% to indirect costs linked to productivity losses associated with work absenteeism and premature mortality.

Children who have obesity at the ages of 7-11 years were five times more likely to have obesity as adults compared children without obesity.

In Ireland, 1543 deaths (4.8% of all deaths) were attributable to alcohol from all causes in 2019.

Recent trends in risk factors from Healthy Ireland surveys

Major findings on trends in the five major modifiable risk factors for the development of CVD – smoking, obesity, diet, physical inactivity and alcohol intake – using data from the Healthy Ireland Surveys support the need for preventive action.

Smoking & E-cigarette use

While the prevalence of smoking has declined in Ireland in recent years as a result of successful tobacco control policies and legislation, worrying trends are emerging in the younger age cohorts. Data from the Healthy Ireland Survey 2022 [7] shows:

- 18% of the population are current smokers (14% smoke daily and 4% smoke occasionally), a 5% decrease in current smokers since 2015.
- A 4-point increase (to 24%) in the proportion of 25-34-year-olds who smoke, with smoking prevalence in this age group returning to the level reported in the 2019 survey.
- Evidence of an upward trend in e-cigarette use, with 25% of young adults aged 25 to 34 having tried e-cigarettes and 6% current users.
- There is considerable evidence to suggest that the youth use of e-cigarettes can act as a gateway to eventual tobacco cigarette smoking initiation. A systematic review led by the Health Research Board found that adolescents in Europe and North America who had never smoked conventional tobacco cigarettes but had used e-cigarettes, were four times more likely to subsequently start smoking tobacco [8].

Overweight and Obesity

The number of people in Ireland meeting current criteria for overweight and obesity has more than doubled in the last 20 years. Alarmingly, Ireland has one of the highest levels of obesity in Europe. Results from the Healthy Ireland Survey 2019 [9] show:

- 60% of Irish adults and 20% of children and young people are living with overweight or obesity.
- Men are more likely than women to be overweight or obese (66% and 55% respectively.
- Approximately 65% of those living in deprived areas are characterised as overweight or obese compared with 55% of those living in affluent areas.
- Among those aged under 35 years, 50% of people living in deprived areas meet the criteria for overweight or obesity, compared to 37% of those living in affluent areas.

Dietary habits

There is considerable evidence that a diet rich in vegetables and fruits is associated with lower blood pressure and reduced risk of coronary heart disease, stroke, type 2 diabetes and specific forms of cancer. In the 2021 Healthy Ireland survey [10]:

- 75% of respondents reported daily consumption of vegetables, and 65% of respondents reported eating fruit every day. However, only 2.9 servings of fruits and vegetables are reportedly consumed on average every day.
- Approximately 34% of participants reported that they eat the recommended five or more pieces of fruit and vegetables a day.
- 25% of respondents reported consuming one unhealthy snack food a day and 35% reported consuming two or more.
- Younger people were significantly more likely to consume two or more unhealthy snack foods per day, with 51% of those aged under 25 reporting doing so compared to 30% of those aged 65-74
- Approximately 29% of respondents reported drinking sugar-sweetened drinks at least once a week. This includes 8% who reported drinking them every day – this behaviour was reported by 12% of those aged under 25, compared to 4% of those aged 65 and older.

Physical Inactivity

The World Health Organization recommends that all adults aged 18 to 64 should achieve at least 30 minutes a day of moderate activity on 5 days a week. Based on the 2019 Healthy Ireland survey[9], the Irish population is not currently meeting these targets:

- Less than half (46%) report the minimum level of activity (150 mins) recommended by the National Physical Activity Guidelines for Ireland
- The estimated proportion of the population following national physical activity guidelines falls from 61% in those aged 15 to 24 years to 18% among those who are 75 or older.
- Approximately 8% of respondents reported that they participated in no physical activity during the previous seven days.
- Those living in more affluent areas are more likely than those in deprived areas to achieve the recommended minimum level of activity (49% compared with 43%).

Alcohol

The Healthy Ireland Survey 2022[10] found:

- 67% of Irish respondents over age 15 reported they had consumed alcohol in the previous 6 months
- An estimated 32% of drinkers consumed alcohol on multiple days a week
- 32% of those who consumed alcohol in the previous six months meeting the criteria for binge drinking, defined as drinking six or more standard drinks on a drinking occasion.

Studies that focus on overall life expectancy and CVD risk in those at low levels of exposure to the five core risk factors (those who have never smoked and have maintained regular physical activity, a healthy diet, a healthy weight and moderate alcohol consumption) have profound implications for public policy on the primary prevention of cardiovascular disease. Research from the Harvard School of Public Health [11] published in 2018 and based on two large cohort studies, the Nurses' Health Study and the Health Professionals Follow-up Study with over 120,000 participants followed for up to 34 years found that:

- Life expectancy at age 50 was by 14.1 years greater for females and 12.1 years for male US adults at low levels of exposure to the five core risk factors compared with those individuals who were not
- For those females and males who were at low levels to the five risk factors the projected life expectancy at age 50 was a further 43.1 years and a further 37.6 years respectively

Part 3 Population-based strategies for CVD prevention: Best outcomes to deal with the scale and threat

While population based and high-risk approaches to prevention are both clearly necessary and complementary,

policy makers should prioritise **population-based strategies** for primary CVD prevention on the grounds of health and wellbeing, economics and social justice.

Ireland has successfully implemented major population-based prevention strategies in the area of tobacco control.

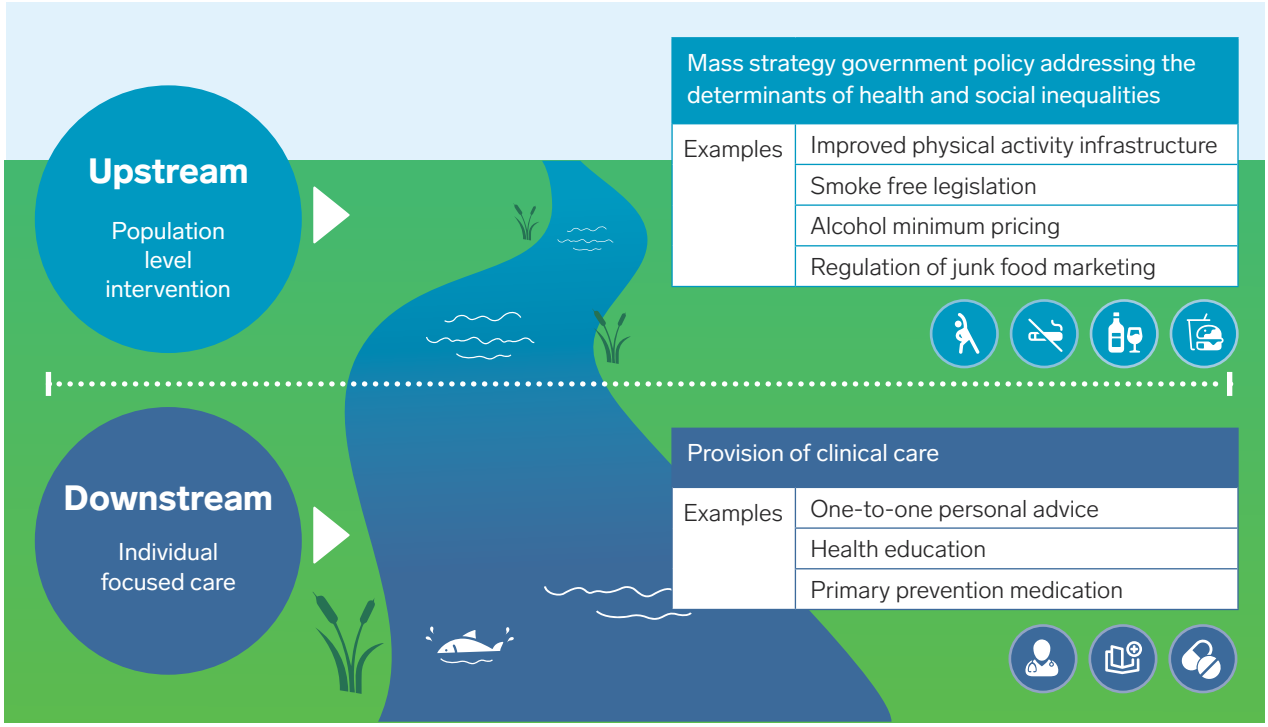
Although high-risk prevention strategies are essential to reduce the risk of major events such as heart attack, stroke and death in those already at high risk, population strategies are essential if we wish to reduce the underlying incidence of heart disease and stroke in the population and reduce the number of individuals falling into high-risk categories and requiring lifelong interventions with drug therapy and monitoring of risk factors.

Table 1: Example of Targeted vs Population wide strategy in treating blood pressure

	High Risk Strategies	Population- Wide strategies
Aimed at	Those exceeding the risk threshold	Whole Population irrespective of individual risk status
Intervention/ Action Example	Lifestyle advice and/or medication to reduce their blood pressure	Reduce average blood pressure levels in the entire population by legislation on the salt content of processed food to reduce the population's exposure to dietary salt

The current evidence on CVD prevention suggests limited effectiveness for strategies that are over-reliant on promoting individual level behaviour change through media campaigns and educational interventions without regard to the wider societal context.

'Downstream' preventive activities targeting individuals (such as 1:1 personal advice, health education, 'nudge' or primary prevention medications) consistently achieve smaller population health impacts than interventions aimed further 'upstream', such as smoke-free legislation, alcohol minimum pricing or regulations addressing dietary salt intake.



Comprehensive, upstream, policy-based interventions reach all parts of the population and do not depend on a sustained 'agentic' individual response. They thus tend to be more effective, rapid and equitable and save more costs.

Research [12] that compared the estimated effects on CVD mortality of population strategies with targeted high-risk strategies using data from 109,954 participants pooled from six European general population cohort studies found that at least 1,673 lives per million more would be saved with population-wide risk factor reduction:

- At the population level, a 10-year reduction of blood cholesterol level of 10%, a blood pressure reduction of 10% and a 10% reduction in the prevalence of smoking would save 9125 lives per million over 10 years.
- By contrast, an approach that treats all high-risk individuals with a "polypill" containing a statin, three antihypertensives drugs at half-dose and aspirin, with a 20–80% uptake, would save 1861-7452 lives per million.

Research from the Netherlands [13] found that the population approach to prevention accounted for **67% of the reduction in death rates** and **78% of the reduction in cases of disease.**

Drawing on a broad and comprehensive noncommunicable disease prevention framework, research endorsed by the World Stroke Association (WSO) and the World Heart Federation (WHF) [14] argues that focusing on a "high-risk group" alone will be addressing just the tip of the iceberg. It notes that when developing stroke and CVD primary prevention strategies, priority should be given to reducing exposure to CVD risk factors of the whole population across the life course, regardless of the CVD risk, with a focus on behavioural risk factors including tobacco use, unhealthy diet (excessive salt and sugar intake, lack of fruits and vegetables), physical inactivity, and the harmful use of alcohol. This would allow an integrative approach that also targets other major noncommunicable diseases, such as dementia, diabetes mellitus, cancer and pulmonary diseases.

However, it is not suggested that screening for CVD risk be abandoned but that the 'high risk' approach should not be the prime focus of public health policy for the primary prevention of cardiovascular disease. Screening should be used as an adjunct to population-wide strategies with a particular focus on detecting undiagnosed hypertension and other established risk factors for which effective interventions are available.

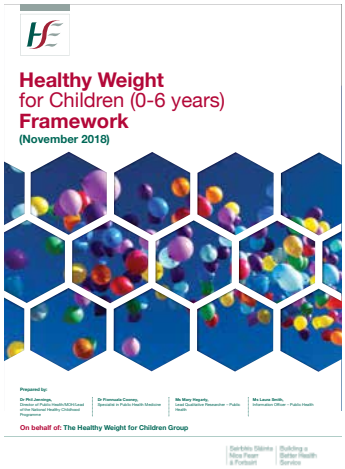
Evidence from well-designed intervention studies and a meta-analysis of randomised controlled trials builds a strong case for CVD risk factor screening and management in the pharmacy setting. In contrast, targeted CVD risk factor screening in primary care has been argued to be intuitively appealing but of uncertain effectiveness with high costs per QALY; opportunistic screening in healthcare settings is recommended on pragmatic grounds but found to be of uncertain impact; and workplace screening has shown no reliable evidence of effectiveness.

Part 4 Policy & Political landscape: Enablers and barriers to progress

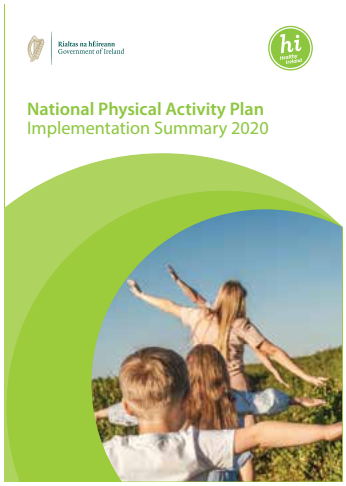
The Department of Health's *Changing Cardiovascular Health: Cardiovascular Health Policy 2010–2019* established a framework for preventing, detecting and treating cardiovascular diseases to reduce the burden of these condition [15]. It covered the whole area of prevention, including measures that individuals could take as well as population interventions and areas in which intersectoral action addressing the societal determinants of health are necessary. To date, there has not been a formal review of the policy's implementation or impact.

Healthy Ireland: A the Framework for Improved Health and Wellbeing 2013-2025 encompasses specific policy initiatives, action plans, care models and collaborative initiatives of direct relevance to CVD prevention, including:

- *A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016–2025*



- The *HSE Healthy Weight for Children (0-6 years) Framework and HSE Model of Care for the Management of Overweight and Obesity;*



- The *National Physical Activity Plan for Ireland*

- The Tobacco-Free Ireland policy;
- The Healthy Ireland Alcohol policy;
- Work with Healthy Cities and Counties of Ireland Network to improve health and wellbeing at a local level;

- The Healthy Workplace Framework;
- Engagement and collaboration with the Department of the Environment, Climate and Communications to align policy and initiatives with Healthy Ireland policy;
- Engagement with the HSE Chronic Disease Management Programme within the wider context of the Sláintecare Health Reform Programme.

However, *Healthy Ireland: A the Framework for Improved Health and Wellbeing 2013-2025* [16], is based on "an understanding of the determinants of health" and "seeks to address risk factors and promote protective factors at every stage of life", primary prevention policy is still not sufficiently prioritised and resourced. The discourse on health is dominated by intervention strategies in high-risk individuals and the rhetoric on prevention inevitably falls short of the reality in terms of national policy priorities and resource allocation. In this context, it should be noted that in the Committee on the Future of Healthcare Sláintecare Report [17] it is argued that

> *Upfront investments and a powerful prevention strategy will prevent chronic disease from overwhelming the health service in the future.*

It is clear that the challenges of preventing cardiovascular and other diseases and the promotion of health and wellbeing are ultimately political, revolving around how we organise ourselves as a society at local and national level. It is also clear that prevention of CVD and the promotion of health and wellbeing cannot be separated from wider government and societal policy agenda. There is a need for greater investment in Ireland's public health infrastructure to support the implementation and evaluation of public health programmes and initiatives.

Part 5 | Recommendations: What do we need to do?

What is evident is the need for a series of recommendations for the implementation of effective CVD primary prevention policies and programmes in Ireland, set within the current Irish policy and programme context.

Given the contribution of major CVD risk factors to the burden of disease, including both behavioural risks and the wider societal and environmental determinants, actors at all levels of the policy spectrum must be involved in formulation, implementing and resourcing effective policies for primary prevention; from Government to clinicians, NGOs to statutory agencies.

	Government Policy & wider society	Department of Health, HSE & other agencies	Clinical Actors
Focus, actions & areas for consideration	The fundamental social, economic, commercial and political determinants of health and wellbeing, with a focus on social justice; The need for greater policy alignment on climate action and public health; The promotion of health and wellbeing through food taxes and subsidies; The need for greater investment in Ireland's public health infrastructure	CVD prevention targets and population health monitoring; Mandatory limits on the salt content of bread and processed meat; The need to implement the detailed recommendations from the 2020 Irish healthy Food Environment Policy Index (Food-EPI), the Obesity Policy and Action Plan (OPAP) mid-point evaluation report and the Physical Activity Environment Policy Index (PA-EPI);	Hypertension awareness, detection and control; CVD risk factor screening in primary care; CVD risk factor screening and management in the pharmacy setting.

9 Areas for Action

1. Political leadership is needed to effectively prevent CVD

Government must focus its efforts and resources on creating the conditions in which population and individual health can flourish. This requires a political culture that acknowledges and is willing to address the broad range of social, political, commercial and environmental determinants of health, including the inequitable distribution of power, status, income, and resources in society.

- A new Cardiovascular Health Policy to succeed Changing Cardiovascular Health: Cardiovascular Health Policy 2010 – 2019, which is 4 years out of date and which was never evaluated.

2. CVD prevention targets and population health monitoring

- The Department of Health and the HSE need to develop specific and ambitious targets for reductions in CVD mortality, incidence and prevalence over the next decade, leveraging international collaboration on disease burden and modelling.
- Investment in survey fieldwork resources to ensure and sustain response rates for the Healthy Ireland surveys at the level required to track significant trends in health and wellbeing and evaluate the effects of policy.
- Annual tracking of the distribution of the five core protective behaviours among adults in the general population: being physically active, a non-smoker, a moderate alcohol consumer, having adequate fruit and vegetable intake (or an alternative marker of diet quality) and maintaining a healthy body weight, supplemented by regular surveys involving measurement of blood pressure, glycosylated haemoglobin and blood lipids.

3. Investment in Ireland's Public Health infrastructure

There is an urgent need for greater investment in the human capital and the processes required to understand, protect and promote the health and wellbeing of the population, including the capacity to plan for our future health and social care needs and respond appropriately to a wide range of potential public health emergencies.

- Department of Health document and set specific targets for the proportion of total health spending allocated to public health and prevention activities.
- Invest in training and career development within public health departments and other agencies for non-clinical public health staff.
- Progress unique health identifiers.
- Address the legal, ethical, practical and scientific issues that currently impede ability to access, share, link and analyse large and complex population health and health services datasets.

4. Promotion of Health and Wellbeing through Taxation and Legislation

Over recent decades, the volume of industrially processed products in global food supplies has increased. This trend has coincided with a transition towards diets linked to a rising prevalence of obesity and non-communicable diseases in many countries. Two European cohort studies, published in 2019, reported positive associations between consumption of ultra-processed foods and cardiovascular disease and all-cause mortality . Therefore, we welcome and support the recommendations on the use of taxation to promote public health in Ireland as set out in Foundations for the Future: Report of the Commission on Taxation and Welfare, published in July 2022.

- Establish an expert group to advise the Government on the implementation of the Commission's recommendation that "Government develop fiscal measures which could be introduced to encourage a reduction in the consumption of ultra-processed foods, to support reformulation measures to reduce the harm of such foods and promote healthier eating".
- Completion and publication by the Department of Health of the evaluation of the impact of the 2018 Sugar Sweetened Drinks Tax.
- Model the effect of food taxes and subsidies on population health and health costs.

Furthermore, there is an urgent need to introduce legislation and other statutory measures that improve public health, prevent non-communicable diseases and promote children's rights, by effectively protecting children from the harmful impact of the widespread, ubiquitous and insidious marketing of nutritionally poor food.

- Progress the Public Health (Obesity) Bill and its' associated provisions to:
  - ban all online marketing of HFSS food and drinks.
  - extend the broadcast watershed for HFSS food and drink ads to 9:00 pm.
  - remove HFSS food and drink ads from State-owned transport, buildings and other public infrastructure.
  - create "No Fry zones" to prohibit the placement of unhealthy food outlets within 400m of schools.

5. Addressing key cardiovascular disease risk factors: poor diet, physical inactivity and obesity

Poor diet, lack of exercise and obesity together with smoking are the major causes of cardiovascular disease in Ireland and globally. Recommendations on diet, physical activity and obesity are framed in the context of the wider policy environment, and the need to prioritise system-wide, policy level interventions for primary CVD prevention as opposed to individual and health system level interventions.

- Specify mandatory upper limits to the salt content of bread and other major sources of salt in the Irish diet, with linked initiatives addressing food labelling, public sector procurement and mass media campaigns.
- Mandatory reformulation of additional food products.
- Food composition standards for portion size and nutritional quality for the out of home sector.
- Mandatory evidence-based front-of-pack labelling.
- Department of Health set out a revised national food pyramid for Ireland designed to promote both human and planetary health, inspired by the Harvard healthy eating pyramid.
- Government and local authorities should address core issues in relation to urban planning, infrastructure and amenities, building design, regulatory and design guidelines and frameworks as set out in detail in the WHO's Global status report on physical activity 2022.
- National measures to reduce levels of sedentariness, especially in the workplace.

6. Tobacco Control

While Ireland has emerged as a global leader in tobacco control over the past two decades, we face ongoing challenges: Tobacco control spending per capita by the government is lower than in other European countries, including France and the Netherlands; Regulation of e-cigarettes is also weak relative to international benchmarks, and we are failing to keep pace with the changing product landscape of innovative and novel tobacco and nicotine products; The use of e-cigarettes has increased in adolescents and during pregnancy.

- Further increase the current high level of tobacco taxes adjusted for GDP.
- implement new legislation increasing the legal age of sale of tobacco products and e-cigarettes from 18 years to 21 years.
- begin a consultation process on the implementation of New Zealand style smoking restrictions in Ireland, including measures to prevent children born after a certain date from ever legally purchasing tobacco or products or e-cigarettes, reduce the amount of tobacco allowed in tobacco products and cut the number of retailers allowed to sell tobacco by 90%.
- increase regulation of e-cigarettes and newer nicotine products among youths and adolescents.
- Design and launch awareness campaigns addressing the use of e-cigarettes and related nicotine products during pregnancy.
- Additional investment in Ireland's tobacco control budget.

7. Air Quality

There are an estimated 1,300 premature deaths in Ireland per year due to particulate matter in our air. Reductions in the burden of disease linked to air quality (including significant effects on coronary heart disease and stroke) will form a significant element of the health co-benefits of working towards the greenhouse gas emission reduction targets for 2030.

- Adopt the 2021 WHO Air Quality Guidelines as legally binding targets.
- Improve enforcement of existing air quality legislation by providing additional resources to local authorities for monitoring and enforcement and increasing penalties for breaches of regulations.
- Transition from the remaining solid fuels available and support those in energy poverty who are most reliant on these traditional forms of home heating.

- Expedite and allocate necessary resources to meet the national retrofitting scheme target of 500,000 homes by 2030, prioritising social housing and households most vulnerable to energy poverty.
- Facilitate a shift to more sustainable forms of active travel, including walking, cycling, and public transport, by rapidly expanding infrastructure and deterring private car use while supporting those in rural Ireland to transition from fossil fuel vehicles to cleaner electric vehicles.
- Develop an all-island air quality strategy in coordination with the government of Northern Ireland and establish a statutory alignment of air quality legislation.

8. Policy alignment on climate action and public health

There is an opportunity for Government and other stakeholders to engage more positively with the public on climate action and enlist their support for necessary system level change by highlighting potential short-term health co-benefits of climate action, including beneficial effects on diet, the food environment, public transport, access to green spaces, air quality and home insulation.

- The Government should add public health to the list of areas of relevant expertise to be considered by the Minister in making appointments to the Climate Advisory Council.
- Establish an interdepartmental working group (chaired by An Taoiseach and involving a range of Departments, including health, environment, agriculture, local government, transport, tourism, sport and culture) with a specific focus on the health co-benefits of working towards the GHG emission reduction targets for 2030 specified in the Climate Action and Low Carbon Development Act, 2021.

9. Clinical Interventions

- Hypertension awareness, detection and control
  - Irish data on the hypertension control cascade (levels of hypertension awareness, treatment and control in the population) are now over 10 years old and should be updated in a Healthy Ireland survey or through a dedicated Department of Health or HSE-funded national study.
  - Run a sustained and well-resourced campaign, led by the Irish Heart Foundation with support from the Department of Health and potentially the health insurance sector.
  - Rigorous and continuous audit and quality control of the Chronic Disease Management Programme in General Practice.

- CVD risk factor screening and management in the primary care: Population wide screening, if conducted, should only be in deprived communities and in conjunction with structural population-wide interventions targeting unhealthy diet and tobacco control.
- CVD risk factor screening and management in the pharmacy setting
  - CVD risk factor screening and management in the pharmacy setting should be explored.
  - Further work is needed to assess the feasibility for involving pharmacists in Ireland in the management of confirmed hypertension and the overall cost effectiveness of both screening and potential management interventions in the pharmacy setting.

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