Chronic
diseases in
Europe

A guide for the incoming European
Commissioner for Health
Stella Kyriakides

HEALTH
PREVENTION
INVESTMENT

United to reverse the rise in chronic disease
This guide aims to provide an overview of the situation, gaps and policy needs in relation to the main chronic disease risk factors, as well as in research; and support the incoming European Commissioner for health in dealing with these topics, working in collaboration with the College of Commissioners. Chronic disease represent an important health challenge to Europe from a human, economic and societal perspective. A strategic approach is needed, focusing on prevention and embedding health considerations across sectors. The present document outlines important areas where work needs to be sustained to effectively respond to disease risk factors.

The Commissioner for Health has a clear mandate from European Commission President Von der Leyen to protect and improve people’s health. Taking a strategic leadership in shaping EU policy can help restore citizens’ faith in the European project. Advancing climate action, a full implementation of the European Pillar of Social Rights and the set up of a European plan against cancer are meaningful steps towards a healthier Europe. These actions should be complemented with further health promotion and prevention measures which can benefit chronic diseases as a whole and improve wellbeing.
The importance of prevention

The best way to decrease the high impact of chronic diseases on individuals, our societies and economies, is to prevent them. Prevention addresses both the occurrence of the disease and the evolution as a severe form, with complications.

Prevention can largely be improved by understanding risk factors and how these play in the development of the diseases. Sixty percent of the chronic disease burden on society is attributed to the major common risk factors: diet, tobacco, alcohol, physical inactivity and air pollution, as well as hypertension and elevated blood cholesterol. Estimates indicate that some 790 000 EU citizens die prematurely each year from tobacco smoking, alcohol consumption, unhealthy diets and lack of physical activity. While understanding risk factors is the first step of prevention, policy intervention is necessary to address them. The World Health Organisation provides extensive evidence on cost-effective policy interventions for the prevention and control of major chronic diseases (“Best buys”), and member states should be encouraged to implement them. Policies should provide the structural and organisational means of achieving those, by for instance creating health-friendly environments restricting marketing of unhealthy food and beverages to citizens, or building on the potential of urban planning to increase physical activity. Better quality of indoor and outdoor air and chemical exposure regulation; as well as legislation responding to the health-related harm of alcohol consumption and tobacco use are also realistic targets for prevention.

Several studies and research outcomes have outlined the value of investing in prevention and the economic benefits of investments in people’s health and wellbeing as a long-term goal. Public health policies are shown to have excellent rates of return on investment.

A Structured Framework for the Prevention of NCDs – or chronic diseases – in Europe would guide action in the field, providing coherence and a direction to cross-sectoral interventions and existing initiatives. It would act upon the 2010 EU Council Conclusions on chronic diseases and resulting EU reflection process which concluded in the need to prioritise EU action in the fields of: 1) prevention and health promotion, and 2) disease management, recognising the importance to scale up action, in particular on risk factors. It would further support member states achieve their commitments, notably following on the United Nations High-Level Meeting on NCDs in September 2018.
Chronic diseases in Europe

Strategic issues, key policy needs & opportunities

Nutrition & food, unhealthy diets

Overview of existing regulations

To address diet-related chronic diseases in the EU as well as overweight and obesity, the EU has adopted several legislative measures. These include two on labelling:

- Regulation (EU) No1169/2011 on the provision of food information to consumers
- Regulation (EC) No 1924/2006 on nutrition and health claims made on foods

A recent regulation setting maximum limits of industrially-produced trans fatty acids:

- Commission Regulation (EU) 2019/649 as regards trans fats, other than trans fat naturally occurring in fat of animal origin.

Promotion of fruit and vegetables as well as milk in schools as part of a wider programme of education about European agriculture and the benefits of healthy eating:

- Regulation (EU) 2016/791 as regards the aid scheme for the supply of fruits and vegetables, bananas and milk in educational establishments.

Gaps in implementation and policy needs

Nutrient profiles

Article 4 in the Regulation (EC) No 1924/2006 on Nutrition and Health Claims Made on Foods has not been implemented. This article calls for the establishment of specific nutrient profiles, which food or certain categories of food must comply with in order to bear nutrition or health claims, and the conditions for the use of nutrition or health claims for foods or categories of foods with respect to the nutrient profiles.

The Regulation requires that the European Commission establish these nutrient profiles by 19 January 2009. More than 10 years later, these nutrient profiles have not been established. Currently, claims can be found on millions of products across the EU including products which are ‘unhealthy’, i.e. high in fat, saturated fat, sugar and salt. Claims are effective marketing tools and encourage people to buy and consume the products that carry them.

Establishing nutrient profiles in the context of the ‘Claims Regulation’ should be a priority for the new Commission.
**Front-of-pack nutrition labelling**

Regulation (EU) No1169/2011 on the provision of food information to consumers makes it mandatory for food products to display a nutrition declaration (back-of-pack). In order to assist consumers in making healthier food choices easily, easy-to-understand and at-a-glance front-of-pack (FOPL) nutrition labelling should also be mandatory.

Article 35 of the Regulation provides for “additional forms of expression and presentation” – which is another way of saying FOPL. These additional forms of expression and presentation can only be used on a voluntary basis. Article 35 stipulates that by 13 December 2017, the Commission shall submit a report to the European Parliament and the Council on the use of additional forms of expression and presentation, on their effect on the internal market and on the advisability of further harmonisation of those forms of expression and presentation. The report is yet to be submitted. Several countries worldwide have adopted mandatory front-of-pack schemes. In the EU, several schemes are currently in use; these include the hybrid colour-coding and percentage reference intake scheme (AKA traffic-light scheme); Nutri-Score; Nordic Keyhole; and the Finnish Heart Symbol.

Establishing a mandatory EU-wide FOPL scheme is an important task for the new Commission.

**Marketing of unhealthy foods and drinks to children**

Any realistic attempt to tackle child obesity and alcohol harm in youth must reduce children and adolescents’ exposure to marketing. It is well-established that marketing influences consumption patterns – especially for children – by increasing overall consumption of the product category advertised, and not just of a certain brand.

The existing Audiovisual Media Services Directive (AVMSD – Directive (EU) 2018/1808) does not protect children sufficiently; nor does it empower parents or encourage governments to act forcefully for a healthier marketing environment. For example, rather than limiting health-harmful marketing during hours of peak viewing by children, as requested by the ENVI Committee in the European Parliament and supported by health organisations, it encourages self-regulation as a primary tool to reduce exposure. This is insufficient.

The new Commission should work towards amending the AVMSD to include binding provisions to limit exposure to marketing of unhealthy foods and alcoholic drinks. A strict watershed is likely the most effective solution. The new Commission should also work towards separate regulation on digital marketing to children of unhealthy food and alcoholic beverages.

**Wider considerations**

The reasons why people eat what they eat are many and complex and linked to today’s intricate food system. While it is complex, it provides many entry points along the food chain where policy makers can take action to enable and encourage healthy, sustainable diets.

The new Commission should work towards an integrated health, environment and climate-change approach to food systems. Further, food reformulation is to be tackled as a collective effort - it is
a challenge of the entire society. A regulatory approach is needed as the free market will not solve the issues alone.

## Alcohol & tobacco consumption

Smoking is the most preventable cause of deaths in Europe, currently causing 1 death every 6 seconds. Europe has a high prevalence of tobacco use by adults (26% of the overall population) and young Europeans aged 15-24 (29% respectively). Equally, the European region has the highest levels of alcohol consumption in the world, with one fifth of the population aged 15 and above drinking heavily at least once a week. Alcohol is the largest risk factor for burden of disease for people in productive age, 15-49, in Europe and globally.¹

Tobacco-related and alcohol-related harm are shown to carry a high socio-economic burden in Europe. Social costs of alcohol including productivity losses are estimated to exceed 1% of GDP in high-and middle-income countries. The annual cost related to tobacco consumption in the EU is 517 billion euro.²

### Overview of existing regulations

#### Tobacco

The Tobacco Products Directive (TPD) and the Tobacco Tax Directive harmonise tobacco control policy across the 28 EU member states, defining rules on packaging of cigarettes and roll-you-own tobacco, lays down rules for electronic cigarettes sold as consumer products in the EU; prohibits cigarettes and roll-your-own tobacco with characterising flavours and bans promotional and misleading elements on tobacco products, e-cigarettes and herbal products for smoking.

Further, the European systems of tobacco traceability and security features became operational in May 2019 as part of the EU response to illicit trade in tobacco products.

#### Alcohol


As explained above, the EU has enacted limited restrictions on the advertising of alcoholic products to minors and young people in the Audiovisual Media Services Directive (AVSMD), revised in 2017.

The EU also developed “soft” policy initiatives including the 2006-2012 EU Alcohol Strategy and the European Alcohol and Health Forum to support advances in responding to alcohol-related harm.
Gaps in implementation and policy needs

Tobacco

Evaluation of the Tobacco Products Directive

- It is crucial that independent, science-based research informs the Commission report on the evaluation of the Tobacco Products Directive due by May 2021, which will give special attention to e-cigarettes, in order to assess policy needs in the area. In particular, the EU should enact measures to ensure roll out of plain packaging of tobacco products across Europe, as scientific evidence has shown that the implementation of plain packaging reduces smoking prevalence, increases thoughts about quitting and is a cost-effective public health policy.

Regulation of new tobacco products

- Any future revision of the Tobacco Products Directives must cover the new tobacco products.

Support member states in achieving smoke-free environments

- The Commission should further support member states in transitioning towards a full prohibition of smoking in public spaces, where these are not in place, and extending existing bans. The European Semester Process is an appropriate tool for this, due to the high impact of tobacco consumption on our societies and economies.

Marketing of tobacco products and (cross border) sale

Health concerns should be fully considered within internal market rules and in the scope of the EU digital framework. Measures shall be taken to address indirect online promotion of tobacco products to young people and the promotion of e-cigarettes and heated tobacco products.

The EU should encourage member states to ban cross-border distance sales of tobacco products and to increase taxation on tobacco products to reduce the initiation and addiction to cigarettes and other tobacco products.

Alcohol

New EU alcohol strategy

The EU alcohol strategy expired in 2012 and was not extended, despite calls from the Council and the European Parliament, and civil society organisations. Developing a new strategy should be a priority of the next Commission, in light of the high burden of alcohol-related harm in Europe.
**Health information labels on alcoholic products**

The European Commission should propose a *regulatory approach to labelling of alcohol products*, requiring health information labels on all alcoholic products sold and marketed within the EU, independently from voluntary initiatives by the industry. While all concerned stakeholders should be involved in the discussions leading to policy measures, important topics pertaining to public health should be based on carefully thought regulation by independent EU decision-making instances.

**Digital marketing and (cross-border) advertising of alcohol products**

EU legislation should *ban cross-border advertising of alcohol products*, and ensure that exposure of the EU population - in particular children and youth - to marketing of alcohol is fully addressed, including on online platforms and social media channels. This should include restrictions on advertising during peak viewing hours, and on sponsorship and product placement. As expressed above, the European Commission should work towards amending the AVMSD to *this aim and towards separate regulation* on digital marketing to children.

**Increased excise duties**

The EU should *revise directives 92/83/EEC and 92/84/EEC to increase EU alcohol excise rates*. The ongoing evaluation of the legislation is an an opportunity to re-assess the value and potential of increased taxation, which is defined as the single most effective tobacco control measure\(^6\).

Finally, increased collaboration with and consultation of expert medical societies and patient groups shall be sought when shaping policy measures in the area.

**Air quality & environment**

Air pollution is the biggest environmental threat to human health and recognised as a fifth risk factor for NCDs\(^7\). In Europe, human health is still insufficiently protected from air pollution: despite positive developments, air quality limits continue to be exceeded in many European countries. The scientific literature shows that Europe's most serious pollutants in terms of harm to human health are Particulate Matter (PM), NO2 and ground-level O3.

The health effects of indoor and outdoor air pollution are significant, especially in sensitive population groups. Poor air quality impacts the entire body with the effects ranging from inflammation to premature deaths. According to WHO, the main NCDs associated with air pollution include ischaemic heart disease (IHD), stroke, chronic obstructive pulmonary disease (COPD) and lung cancer\(^8\). However, accumulated data indicate that every organ system in the human body may be affected by air pollution; and there is now scientific evidence that air pollution also harms the kidney\(^9\).

Many urban and even rural centres in Europe are undergoing rapid population growth impacting the environment, thus the global burden (incidence, prevalence, and severity) of these chronic diseases is likely to increase.

**Overview of existing regulations**

Air quality in the EU is regulated by European legislation. The EU's clean air policy is based on three main pillars\(^10\):
Ambient air quality standards set out in the Ambient Air Quality Directives

They set out ambient air quality standards and oblige Member States to adopt and implement air quality plans and meet standards in order to protect human health and the environment.

National emission reduction targets established in the National Emission Ceilings (NEC) Directive

It obliges Member States to develop National Air Pollution Control Programmes in order to comply with their emission reduction commitments.

Emission and energy efficiency standards for key sources of air pollution

These standards are set out in EU legislation targeting industrial emissions, emissions from power plants, vehicles and transport fuels, as well as the energy performance of products and non-road mobile machinery.

Gaps in implementation & policy needs

EU legislation should take into consideration the latest scientific evidence which shows that the existing ambient air legislation is severely deficient in terms of protecting health. The current evaluation of the Ambient Air Quality Directives should allow to examine means to improve implementation of the legislation, such as examining the reliability of data reported and reinforced air quality plans, in a more systematic way than only when national member states are in breach of the current legislation.

Further, a roadmap approach is essential to look for coherence across all policy areas, from transport to agriculture, energy and other sectors. Health considerations must be key to any revision of the Directives and cannot be viewed as secondary elements in comparison to other areas. When evaluating to what degree the benefits of improved air quality justify the costs and when conducting impact assessments of EU directives, health costs of air pollution should weigh heavily in. Making a strong link between DG SANTE and DG Environment should be a priority for the new Commissioner.

Research

Overview of the situation

Research on non-communicable (chronic) diseases has been extensively supported by the European Union in the context of successive Framework Programs, emanating in considerable steps forward in therapeutic approaches to e.g. diabetes mellitus, cancer, allergy and cardiovascular disease. This research has mainly focused on unraveling patho-physiologic approaches and pharmacologic treatments.

Research gaps and policy needs

In addition to continuing those efforts, several innovative fields need an extra boost, such as regenerative medicine and stem cell therapy, and artificial and bio-artificial organs, especially portable or wearable devices, providing more flexibility and easier to perform home therapy to patients.
Next to these highly technical approaches, specific attention should also be given to aspects improving sustainability, such as evidence-based medicine on lifestyle, prevention approaches, studies on quality of life and patient-centered outcomes, health-economic analyses, and development of educative approaches, including those for minorities and neglected populations.

More research is also needed to increase knowledge of the biological processes and mechanisms involved in normal health and in specific disease situations, in order to bring this knowledge to the clinic and ensure that clinical (including epidemiological) data guide further research.

In particular, research into the mechanisms and risk factors of chronic diseases need to be sustained. For example, air quality is regulated by most jurisdictions in terms of its individual components. However personal exposure impacting health is a mixture of pollutants, microbial components, diet, and various other stressors, best known as the exposome, currently not measured routinely. The adverse effects of exposure to air pollutants might vary over the life course and therefore future research should be directed toward differential effects at different stages of development. Developmental exposome research can improve the understanding of the mechanistic connections between exposures and health to help mitigate adverse health outcomes across the life span. Mobile health technology can play a crucial role in monitoring environmental exposure, as shown by the MASK (Mobile Airways Sentinel Network) and POLLAR (Impact of Air POLLution on Asthma and Rhinitis, EIT Health) projects in chronic respiratory diseases.

Finally and most importantly, the prevalence of comorbidities in chronic diseases makes their management a challenge. Even though one condition may contribute or be connected to another, treatments may conflict. A greater awareness of the importance of managing a patients’ overall health status will provide an appropriate scientific basis on which to build evidence-based care guidelines for multimorbid patients. More efforts are needed to understand how to deal with comorbidities rather than treating each chronic disease in isolation.

But treating all conditions simultaneously requires a way of coordinating and analyzing data from multiple sources. Thus, there is also a need for support of large biobanks linked to systematically structured databases allowing big data analyses generating on the long term information without need for controlled studies. Developing such comparable and quality data registries on diseases and risk factors at the European level should be a major goal of the next Commission’s legislature. This will further support member states in defining prevention strategies and understanding the importance of investing in health from an economic and societal perspective.
About ECDA

ECDA is a coalition of 11 European health organisations sharing the same interests in combating preventable chronic diseases through European policies that impact health. Our mission is to reverse the alarming rise in chronic diseases by providing leadership and policy recommendations based on contemporary evidence.

The Alliance represents millions of chronic disease patients and over 200 000 health professionals. For more information, please visit our website: https://alliancechronicdiseases.org/

ECDA remains fully committed to cooperate and share knowledge on this important topic.
Facts & figures on chronic disease: the case for Action on Prevention

Prevalence

- One third of the European population aged 15 and over[^1], and 23.5% of the working age population in the EU lives with a chronic disease[^12].
- The co-occurrence of two or more chronic conditions (multimorbidity) has become increasingly common in Europe[^13].
- Two out of three people at retirement age have at least two chronic conditions[^14].

Mortality

- Globally, Europe has the highest burden of chronic diseases, which are responsible for 86% of all deaths[^15] and a major cause of morbidity and disability estimated in disability-adjusted life-years (DALYs).
- 550 000 people of working age die from four major chronic diseases (CVD, cancers, respiratory diseases and diabetes) in the EU every year[^16].

Socio-economic impact

- The premature death of more than 550 000 people of working age annually across the EU represents a loss of around 3.4 million potential productive life years[^17] and costs the EU economy euros 115 billion a year. This corresponds to 0.8% of the GDP in the EU.
- 70-80% of healthcare costs are spent on chronic diseases in Europe[^18].
- Direct costs of healthcare to treat people with chronic diseases amount to €700 billion in the EU[^19].
- Given that the average age of European populations is increasing, chronic diseases will continue to place an important pressure on national budgets[^20].
- Productivity losses are estimated at €54 billion per year for cardiovascular diseases alone[^11].
- The employment rate of people who have one or more chronic condition, and particularly people aged 50-59, is much lower than for those who do not suffer from any disease[^13].
- Prolonged sickness leave of one month or more is frequent among employed persons with circulatory problems, including heart disease or attack (29%) as well as stress, depression or anxiety (25%) and musculoskeletal problems (25%)[^13].
- On average only 3% of total health expenditure (for all age groups) in OECD countries including EU Member States goes towards population wide public prevention while 97% of health expenses are presently spent on treatment[^24].
For further information

- EHN Report “Transforming European food and drink policies for cardiovascular health” (2017)
- ESMO. Article “Global cancer control: responding to the growing burden, rising costs and inequalities in access” (2018)
- ESC – EHN. The ERA-CVD Strategic Research Agenda (SRA-CVD): “Challenges and Opportunities for Cardiovascular Disease Research” (2019)
- ESH. European Guidelines for the treatment of high blood pressure (2018)
Endnotes


2 The Lancet. The Lancet Taskforce on NCDs and economics. Available from: https://www.thelancet.com/series/Taskforce-NCDs-and-economics Date last updated: April 4, 2018


10 European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of regions: A Europe that protects: Clean air for all. Available from: https://ec.europa.eu/environment/air/pdf/clean_air_for_all.pdf Date last updated: May 17, 2018


Chronic diseases in Europe


