



FORESIGHT AND MODELLING FOR EUROPEAN HEALTH POLICY AND REGULATION

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D 6.1 Compilation of Current Public Health Policies in different European Regions

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INTRODUCTION

In the last two decades, chronic non-communicable diseases (NCDs), mainly cardiovascular diseases, cancers, diabetes, chronic lung disease, depression, musculoskeletal and neurological diseases, are the leading cause of death, disease and disability in the WHO European Region. In Europe, NCDs account for nearly 86% of deaths and 77% of the disease burden, putting increasing strain on health systems, economic development and the well-being of large parts of the population, in particular people aged 50 years and older. At the same time, NCDs are responsible for many of the growing health inequalities that have been observed in many countries, showing a strong socioeconomic gradient and important gender differences.

Globally, there has been a growing awareness of and mandate for action on NCDs in recent years.

In 2008, the World Health Assembly endorsed the Action Plan for Implementation of the Global Strategy for the Prevention and Control of Non communicable Diseases (2008–2013), with its comprehensive plan for mapping emerging epidemics, reducing exposure to risk factors and strengthening health care for people with NCDs.

NCDs will be the focus of the FRESHER project since their exponential growth has a serious negative impact on human development, reduces productivity, contributes to poverty and creates a significant burden on health systems. The overall project objective is the representation of alternative futures where the detection of emerging health scenarios will be used to test future research policies to effectively tackle the burden of NCDs and promote an interactive process with key actors in public health and European policies for the elaboration of policy recommendations according to different scenarios, including options for health systems restructuring and reorganization.

Work package 6 (WP6)-*Policy Recommendations and priorities for health research*- aims at issuing recommendations to EU and national policymakers in both the health and the non-health sectors.

One of the main activities of WP6 will be the building of a participatory European policy dialogue, with the involvement of key European decision-makers and all stakeholders, aiming at producing a common European strategy to tackle the future health NCDs scenarios, overcoming some of the already existing limitations of current policies and define the future agenda for health research and health policies.

To this aim, WP6 will assess past and present (good) practice in health-relevant policy formulation in Europe, and through highly participatory mechanisms then will proceeds to the design of future health strategic policy options.





NCDs are linked by common risk factors, underlying determinants and opportunities for intervention. After the identification in the 1950s of tobacco smoking as the principal cause of lung cancer, other major risk factors for NCD became known, mainly in the 1960s and the early 1970s. The evidence that epidemiologists generated on the role of risk factors influencing health problems and their magnitude was impressive.

At a WHO meeting in 1981, the concept of an integrated approach to the prevention and control of NCD was formulated, based on growing evidence that major NCD, such as heart disease, stroke, cancer, chronic respiratory disease and diabetes, shared common risk factors such as tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol.

The first European Conference on Tobacco Policy was organized by the Regional Office in 1988 and was followed by three consecutive action plans for a Tobacco-free Europe spanning the period 1987–2001, leading to the adoption of the European Strategy for Tobacco Control in 2002. Similarly, there were three phases to the European Alcohol Action Plan, beginning in 1993 and leading to the launch of the Framework for Alcohol Policy in the WHO European Region in 2005. A global strategy to reduce the harmful use of alcohol, endorsed in 2010, added to the existing tools on diet, physical activity and health, and to the Framework Convention on Tobacco Control.

A European Action Plan (2012–2020) to reduce the harmful use of alcohol is being presented to the Regional Committee for adoption this year (see document EUR/RC61/13).

The first food and nutrition plan for Europe was endorsed in 2000 and later renewed in 2007 as an Action Plan for Food and Nutrition Policy. In 2006, the Regional Office organized the Ministerial Conference on Counteracting Obesity together with the European Commission.

A European framework to promote physical activity for health has been presented in 2007. The Regional Office's broad focus on NCDs is continuing with work on mental health and disabilities; in that regard, the European Declaration on the Health of Children and Young People with Intellectual Disabilities (2010) is also being submitted to the Regional Committee for endorsement (see document EUR/RC61/Conf.Doc./5). In the Parma Declaration on Environment and Health (2010), European Member States (MS) have explicitly set themselves the goal of contributing to the prevention of NCDs through actions directed at reducing the relevant environmental exposures. In addition, the European Union (EU) is taking significant action on health determinants, in disease prevention, on healthy and active ageing, and against poverty and social exclusion.





Europe is diverse and countries are at different stages in responding to the challenge of NCD. Most countries already have a range of policy measures in place that address NCD and their risk factors (Table1).

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	National health policy	Specific national programme	Specific act, law, legislation, ministerial decree
NCD prevention and control	28	28	
Tobacco control	28	25	37
Nutrition/diet	24	20	35
Physical activity	19	17	13
Alcohol control	19	17	28
Hypertension	15	16	
Diabetes	20	29	
Heart disease	20	20	
Stroke	17	14	
Cancer	23	23	
Chronic respiratory disease	13	10	
Other chronic disease	10	10	

Source: WHO survey of NCD-relevant policies and capacities in Europe 2005–2006: 38 of 52 countries responding.

This situation reflects the wide variety in the NCD challenges that countries face and their capacities to respond. Over the last five years, there have been positive trends, with more countries developing specific policies and legislation relevant to NCD prevention and control, backed by dedicated budget lines. Yet it is still more common for countries to have national protocols, guidelines or standards in place for diseases such as diabetes, heart disease and cancer, than to have the corresponding policy instruments for weight control and physical activity.

The impact of good policies has been essential, with main efforts to mitigate the NCDs burden directed not only at improving access and quality of the health care services for suffering people, but also at impacting on behavioral risks and, to quite a lesser extent, because their role was not always recognized, at social determinants, such as income, education, employment, and housing and environmental determinants.

Three key policy areas will be evaluated:

1. Health prevention policies to address smoking, alcohol misuse, physical inactivity and poor diets such as regulation of advertising or sales, taxation, minimum product pricing, school or work-based programmes, public education campaigns and health care treatments.



2. Environmental health protection policies to address air pollution, road traffic accidents, unwalkable neighbourhoods, industry regulations, infrastructure and transportation investments, and urban planning.

3. Health care policies to improve access to care, to limit expenditures and to support research in innovation in health care treatments and practices.

Countries have taken different pathways to reach the stage they are at today. A frequent starting point appears to be to focus on an individual risk factor and/or a single disease. It is not uncommon to find countries that have a cancer and/or heart disease prevention plan, alongside tobacco control and/or dietary measures. A comprehensive and integrated approach to preventing and controlling NCD appears to exist in relatively few countries. In such a scenario, a multifactorial approach to NCD prevention through tackling common risk factors would be firmly established, targeting both population-level and high-risk groups.

Risk factors can be classified as:

-<u>behavioral</u> (dietary risks, alcohol use, tobacco smoking, physical inactivity and low physical activity)
 -<u>biological</u> (hypertension, high body mass index, high total cholesterol, and high fasting plasma glucose)
 -<u>environmental</u> (outdoor and indoor air pollution, outdoor temperature , walkability (parks and open spaces, road traffic), access to healthy and unhealthy products (concentration of bars, restaurants, convenience stores and grocery stores and the prices of risky products, such as alcohol, tobacco and high-sugar foods) and occupation)

-<u>socio-economic</u>. Risk factor patterns vary for different socio-economic groups and a consistent measure of socio-economic status is educational attainment.

Regarding diseases, although diverse chronic NCDs all deserve proper attention, a group of four diseases (cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases) and their shared risk factors account for the majority of preventable disease and death in the WHO European Region.

These four NCDs also share common determinants that are influenced by policies in a range of sectors, from agriculture and the food industry to education, the environment and urban planning. They share common pathways for interventions through public policy.

Effective policy interventions for NCDs are already implemented, although with major differences, among European MS. Risk factors can be positively modified to prevent or at least to compress the onset or progression of NCDs at a later age, thus augmenting the years of healthy life, by policies directed toward early detection, appropriate treatment and effective rehabilitation. So far, the greatest cost-effectiveness







potential is clearly linked to population-based prevention, which appears to be the most sustainable strategy in the long term (addressing the majority of NCDs with their common risk factors). Indeed, there are multiple examples of interventions to reduce the overall prevalence of risk factors in the population, in particular addressing some of the biological risk factors (such as obesity, hypertension, dyslipedemia, diabetes) and of behavioral factors (such as tobacco and alcohol consumption, impacts of dietary behaviour, patterns of physical activity, exposure to environmental harm, mental health). However, social determinants represent nonmedical psychosocial factors that affect both the average and distribution of health within populations with increasing evidence of their impact on NCDs. They include the distal political, legal, institutional, and cultural factors, and the more proximate elements of socioeconomic status, physical environment, living and working conditions, family and social network, lifestyle or behaviour, and demographics. Therefore, policies to tackle the social determinants of health shall necessarily supplement the health-focused ones in the future and shall be complemented by policy actions aimed at strengthening health care provision for people with NCDs or those who are at high risk.

This review on current policies will be important to verify what has worked and to what extent, what is missing, and the differences between different European regions.

We will illustrate in more details the policies implemented actually in Europe. They are classifiable into five main priorities on which interventions are focused on:

- 1. promoting healthy consumption via fiscal and marketing policies;
- 2. elimination of trans fats in food;
- 3. salt reduction;
- 4. cardio-metabolic risk assessment and management;
- 5. early detection of cancer.

Two other sets of supporting interventions are also included, as a means of promoting intra-sectoral linkages with action on the environmental determinants of NCDs:

- 1. promoting active mobility;
- 2. promoting health in settings.

To produce this document, relevant literature published up to 2015 was gathered through structured bibliographic searches on the NICE Evidence database_using the following search string:

(polic*) AND ("behavioral risk factors" OR "non communicable" OR NCD) AND (impact OR effectiveness OR efficacy)





No limitations were applied for date of publication or language. References of considered studies were also searched to identify any further relevant publications.

Moreover a free research was made on the web mostly on institutional sites as WHO Europe.

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1. Tobacco

Tobacco consumption is the single largest avoidable health risk in the EU, and one of the biggest public health threats the world has ever faced. It is a risk factor for six of the eight leading causes of deaths in the world.

Tobacco use or exposure to tobacco smoke negatively impacts health across the life course. During fetal development, tobacco can increase rates of stillbirth and selected congenital malformations. In infancy, it can cause sudden infant death syndrome. In childhood and adolescence, tobacco can cause disability from respiratory diseases. In relatively young middle aged adults, it can cause increased rates of cardiovascular disease and, later in life, higher rates of cancer (especially lung cancer), as well as death associated with diseases of the respiratory system.

There are more than one billion smokers in the world. In industrialized countries, where smoking has been common for decades, it is estimated to cause over 90% of lung cancer in men and about 70% of lung cancer among women, and about 22% of all cardiovascular disease.

Globally, use of tobacco products is increasing, although it is decreasing in high-income countries. More than 80% of the world's smokers live in low- and middle-income countries.

Actually tobacco use kills 5.4 million people a year - an average of one person every six seconds and passive smoking can be a risk factor for asthma in children, sudden infant death syndrome, lower respiratory tract infections, lung cancer, and coronary heart disease.

Despite considerable progress made in recent years, the number of smokers in the EU is still high-28% of the overall population and 29% of young Europeans aged 15-24 smoke.

To address this situation, the EU and its Member States have taken various tobacco control measures in the form of legislation, recommendations and information campaigns.

The main policy measures include the regulation of tobacco products (e.g. packaging, labelling, and ingredients); advertising restrictions; the creation of smoke-free environments; tax measures and activities against illicit trade and anti-smoking campaigns.

From a public health perspective, the measures aim to protect citizens from the hazardous effects of smoking and other forms of tobacco consumption, including against passive smoking. Crucially, they aim to help smokers to quit or not to start smoking at all. Particular attention is given to youth smoking, as tobacco is an addictive product and 94% of smokers start smoking before they turn 25.

The WHO Framework Convention on Tobacco Control (WHO FCTC) is the first international treaty negotiated under the auspices of WHO. It was adopted unanimously by the World Health Assembly in 2003





and entered into force in 2005. The WHO FCTC counts today 177 Parties, including the European Community, which makes it one of the most widely embraced treaties in UN history.

The WHO FCTC was developed in response to the globalization of the tobacco epidemic and is an evidencebased treaty that reaffirms the right of all people to the highest standard of health. The Convention represents a milestone for the promotion of public health and provides new legal dimensions for international health cooperation.

The treaty outlines legally binding actions regarding price and tax measures (Article 6); non-price measures including protection from smoke exposure (Article 8); packaging and labelling measures (Article 11); education, communication, training and public awareness (Article 12); tobacco advertising, promotion and sponsorship bans (Article 13); and demand reduction measures concerning tobacco dependence and cessation (Article 14).

The fight against tobacco is also positively impacted by European directives, binding 28 of the 53 Member States in the Region.

In the EU, some of the major directives related to tobacco are:

-Council Directive 2011/64/EU on the structure and rates of excise duty applied to manufactured tobacco;

-Directive 2003/33/EC of the European Parliament and of the Council of 26 May 2003 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the advertising and sponsorship of tobacco products;

-the Tobacco Products Directive (2014/40/EU), replacing Directive (2001/37/EC), lays down rules governing the manufacture, presentation and sale of tobacco and related products. These include cigarettes, roll your own tobacco, pipe tobacco, cigars, cigarillos, smokeless tobacco, electronic cigarettes and herbal products for smoking.

In particular, the Directive:

-prohibits cigarettes and roll-your-own tobacco with characterising flavours,

-requires the tobacco industry to submit detailed reports to the Member States on the ingredients used in tobacco products, in particular cigarettes and roll-your-own tobacco,

-requires that health warnings appear on packages of tobacco and related products. Combined (picture and text) health warnings must cover 65% of the front and back of cigarette and roll-your-own tobacco packages,

-sets minimum dimensions for warnings and eliminates small packages for certain tobacco products,

-bans all promotional and misleading elements on tobacco products,

-introduces EU-wide tracking and tracing to combat illicit trade of tobacco products,



-allows Member States to prohibit internet sales of tobacco and related products,

-sets out safety and quality requirements for consumer electronic cigarettes, and

-obliges manufacturers to notify novel tobacco products before placing them on the EU market.

Despite tobacco control policies that are applicable globally (WHO FCTC), regionally (EU directives) and nationally, the tobacco epidemic persists. The spread of the tobacco epidemic is facilitated through a variety of complex factors with cross-border effects, including trade liberalization and direct foreign investment. Other factors such as global marketing, transnational tobacco advertising, promotion and sponsorship, and the international movement of contraband and counterfeit cigarettes have also contributed to the explosive increase in tobacco use.

The fight against tobacco is a key action to help decrease NCDs, mainly cancers, cardiovascular diseases, diabetes and chronic respiratory diseases. In the Ashgabat Declaration on the Prevention and Control of Non communicable Diseases in the Context of Health 2020, in December 2013, Member States of the WHO European Region confirmed their commitment to accelerate efforts to achieve full implementation of the WHO FCTC and pledged to work together to make the global target on NCDs related to tobacco use, a reality in all Member States in the Region. Member States also shared the ambition of moving beyond a focus on tobacco control, towards a tobacco-free European Region.

The Sixty-sixth World Health Assembly adopted resolution WHA 66.10 in May 2013 on the global action plan for the prevention and control of NCDs 2013-2020, which included a 30% reduction in tobacco use by 2025.

Measures to curb tobacco use are not only found in health policy; tobacco is a cross-cutting issue which affects numerous policy areas.

The European Anti-Fraud Office (OLAF) is involved in investigating cases of illicit trade of tobacco products which cost the EU billions of euros per year. In addition, illicit tobacco products are often cheaper and thus more easily affordable. An international Protocol on illicit trade in tobacco products has been negotiated and adopted under the WHO FCTC in 2012.

Tobacco subsidies used are an important but controversial agricultural policy issue in the EU. In the interest of public health, tobacco subsidies are currently being phased out.





Most common policies

1.1 Pricing Policies

Evidence clearly shows that high taxes on cigarettes and other tobacco products are among the most effective instruments to reduce tobacco consumption, particularly in young people. This is why EU legislation on the taxation of tobacco is increasingly seen not only as a fiscal instrument but also as an instrument of public health policy.

The WHO European region is doing better than all other WHO Regions regarding tax measures.

The proportion of WHO European countries where tax represents more than 75% of the retail price of the most popular brand of cigarettes has increased by 29% between 2008 and 2012.

EU legislation has contributed significantly to the success of tax measures. The latest piece of legislation, Council Directive 2011/64/ EU of 21 June 2011 on the structure and rates of excise duty applied to manufactured tobacco (codification), binds EU countries to a minimum excise duty of 57% of the retail selling price of cigarettes and a minimum excise duty of €90 per 1000 cigarettes regardless of the retail selling price.

Nevertheless, a great disparity between cigarette retail prices (CRPs) persists in Europe, raising the issue of cross-border purchasing and/or illicit trade. This is particularly true where great disparities in CRPs exist in neighboring countries as it does, for example, in Romania and Ukraine or the Republic of Moldova, Turkmenistan and Uzbekistan, Bulgaria and the Republic of Macedonia, Turkey and Georgia.

Different types of tax may be used to tax tobacco products, including excise duty taxes and import duties (both applicable to selected goods, e.g. tobacco products), as well as value-added-taxes and sales taxes (both applicable to all goods).

Ad valorem excise taxes can significantly impact the retail price; the higher the rate, the greater the price increase.

However, ad valorem excise taxes can be undermined by the tobacco industry by setting low retail prices, which can mitigate the impact of a high tax rate.

On the contrary, amount-specific excise taxes are not calculated in reference to retail price but apply per stick, per pack, per 1000 sticks, or per kilogram; thus the tobacco industry cannot influence excise taxes by lowering retail prices.

The increase of the price of tobacco products through taxation was introduced in UK, Ireland, Lithuania, France, Italy and Finland.





In Finland Government has established that 0.75% of tax revenues from tobacco products to be used for anti-smoking research and education.

1.2 Non-price policy: smoke-free environments

The ban on smoking in workplaces and/or in public places has been adopted from several countries, although national measures differ considerably in extent, scope and compliance. The ban on one hand protects the health of non-smokers who are exposed to tobacco smoke and on the other hand protects smokers themselves from excessive use of tobacco and tobacco products. Despite progress, the European Region still provides less protection from smoke exposure than most WHO regions.

Many European citizens are still regularly exposed to second hand smoke either at home, in public or at the workplace. About a third of European Countries have implemented comprehensive smoke-free legislation and the immediate positive health effects are impressive, for example the incidence of heart attacks has decreased between 11-19%.

Some progress was made in implementing comprehensive smoking bans. Improvements were particularly significant for schools, universities, government facilities, public transport, restaurants, pubs and bars. In contrast, progress for health care facilities and indoor offices was more limited.

All EU countries have adopted measures to protect citizens against exposure to tobacco smoke. Currently, 17 EU countries have comprehensive smoke-free laws in place. Among these, Ireland, the UK, Italy, Greece, Bulgaria, Malta, Spain and Hungary have the strictest smoke-free provisions with a complete ban on smoking in enclosed public places, on public transport and in workplaces, with only limited exceptions allowed.

Ireland was the first country in Europe to implement the smoke-free legislation in workplaces and was pivotal in negotiating and supporting the recent EU Tobacco Products Directive during its presidency of the EU in 2012.

Since the publication in 1999, of the White Paper Smoking Kills, the UK Government has demonstrated that ban on smoking in workplaces and enclosed public places were one of the effective measures to reducing smoking prevalence.

In Bulgaria after many discussions, information campaigns, meetings with various organizations, debates in Parliament, etc., on May 17, 2012 the National Assembly passed amendments to the Law of Health, which introduced a total ban on smoking in indoor and some outdoor public places from June 1, 2012. The ban of smoking includes: adjacent terrain and sidewalks of nurseries, kindergartens, schools, student dormitories and places where social services are provided for children playgrounds, open public spaces, which are







organized activities for children and students, sports venues cinemas and theaters summer – at sports and cultural events.

In Finland public premises are smoke-free and on most public transport there is smoking prohibition. Improved Tobacco Control Act, that came into effect in 1995, involves many sectors in reducing the yields of certain harmful substances, reducing exposure to tobacco smoke for smokers and non-smokers alike (particularly in the workplace, where smoking was prohibited except in one-person offices or in special smoking rooms) and promoting health education, smoking cessation and related research.

In Lithuania in 2007 smoking has been banned in all public places, including bars, discotheques, clubs and restaurants. No separate smoking rooms are permitted. Smoking is also forbidden at the workplace and in educational and sports institutions. Municipal councils have the right to prohibit smoking in public places such as squares and parks.

In 2002 smoking has been banned in Greece in all building housing public services, private workplaces, and places where the public is obligated to wait for long periods of time (such as airports and railway stations), all health services and educational institutions, where smoking rooms were to be provided. In 2003 by agreement between employers and employees smoking and non-smoking zones were instituted. In 2007 Internet cafes and other places where young people meet became smoke-free.

In France smoking in public places has been banned since February 2007 and smoking in bars and restaurants since January 2008.

In Italy in 2005 smoking was banned in workplaces and in public places. In 2015 smoking was banned in vehicles in the presence of children and pregnant women, in public parks and public playgrounds and in front of all grade public and private schools.

Penalties are one of the measures to ensure high compliance with existing policies.

1.3 Marketing

1.3.1 Bans on Tobacco Advertising, promotion and sponsorship

Tobacco advertising increases consumption in several ways, most importantly by encouraging children or young adults to start smoking. It also encourages smokers to increase consumption, reduces smokers' motivation to quit, encourages former smokers to resume and creates an environment in which tobacco use is seen as familiar and acceptable and the warnings about its health are undermined.

In many EU countries banning of smoking advertisement was introduced as a policy to reduce tobacco smoking.





The Tobacco Advertising Directive (2003/33/EC) has an EU wide ban on cross-border tobacco advertising and sponsorship in the media other than television. The ban covers print media, radio, internet and sponsorship of events involving several Member States, such as the Olympic Games and Formula One races. Free distribution of tobacco is banned in such events. The ban covers advertising and sponsorship with the aim and with the direct or indirect effect of promoting a tobacco product.

Tobacco advertising and sponsorship on television was prohibited already since 1989 by the Television without Frontiers Directive (89/552/EEC). This Directive has been replaced by the Audiovisual Media Services Directive (2007/65/EC) adopted in March 2010, which extends the application of this ban to all forms of audiovisual commercial communications, including product placement.

In May 2008 the Commission published a Report on the implementation of the Tobacco Advertising Directive.

The Council Recommendation (2003/54/EC) on the Prevention of Smoking and on Initiatives to improve tobacco control covers other forms of tobacco promotion. It recommends Member States to prohibit the use of tobacco brand names on non-tobacco products or services; the use of promotional items and tobacco samples, the use and communication of sales promotion, such as a discount, a free gift, a premium or an opportunity to participate in a promotional contest or game; the use of billboards, posters and other indoor or outdoor advertising techniques (such as advertising on tobacco vending machines); the use of advertising in cinemas and any other forms of advertising, sponsorship or practices directly or indirectly addressed to promote tobacco products.

At international level Article 13 of the WHO Framework Convention on Tobacco Control (FCTC) lays down the obligations of the Parties to ban or restrict tobacco advertising, promotion and sponsorship. In July 2007 the Conference of the Parties under this Convention decided to establish a working group whose task is to develop comprehensive draft guidelines on the implementation of Article 13 of the Convention and to present recommendations on key elements of a protocol on cross-border advertising, promotion and sponsorship, which would be complementary to these guidelines.

In Ireland and Greece regulations was also put in place to exclude indirect advertising.

1.3.2 Packaging and Labelling

Tobacco packaging and labelling policies have rapidly become among the most prominent and costeffective tobacco control measures. Packaging regulations comprise three primary areas: health warning messages, disclosure of product emission and constituent information, removal of misleading and deceptive information. The list of prohibited terms includes light, mild, and low tar.





International guidelines under Article 11 of the WHO-FCTC, the world's first public health treaty, state that: "...tobacco product packaging and labelling shall not promote a tobacco product by any means that are false, misleading, deceptive or likely to create an erroneous impression including any term, descriptor, trademark, figurative or any other sign that directly or indirectly creates the false impression that a particular tobacco product is less harmful than other tobacco products."

Cigarette package labeled with warning message are present in UK, Ireland, France, Italy and Greece.

The removal of color and other elements of package design-so-called "plain packaging"-has emerged as one regulatory option for reducing potentially misleading package designs. Plain packaging would standardize the appearance of cigarette packages by requiring the removal of all brand imagery, including corporate logos and trademarks. Packages would display a standard background color and manufacturers would be permitted to print only the brand name in a mandated size, font and position. Plain packaging has several potential effects. It reduces the attractiveness of tobacco products, increases the effectiveness of health warnings by increasing their noticeability, recall, and believability and has the potential to reduce false beliefs about the harmfulness of different cigarette brands.

In Italy, the recent implementation of the European Legislation on Tobacco Products, entered into effect on February 2016, includes stringent labelling and packaging requirements for the marketing of cigarettes. In particular, it prescribes the use of mandatory warning and informative messages on smoking product packages, including the following: "Smoking Kills–Stop Immediately", and "Tobacco Smoke Contains More Than 70 Cancer-Causing Substances". These visible warnings must also be included on the packaging of other tobacco products, such as rolled tobacco and tobacco for water pipes. Smokeless tobacco products are also subject to the new warning regulations, and their packages must include this message: "This Tobacco Product Damages Your Health and Causes Dependence." Smoking products based on herbs are also subject to severe restrictions on their manufacture and sale in Italy, and their packages must include this warning: "The Smoke of This Product Damages Your Health."

1.3.3 Sale Restrictions

Restricting the availability of cigarettes to young people is an important element of tobacco control policy. In particular, there is some evidence that restricting access to vending machines, small packs or single cigarettes can be effective.

Since 2002, 14 new countries have introduced age restrictions on the sale of tobacco products. Currently 34 countries ban the sale of tobacco products to young people aged under 18 years and 10 countries to young people aged under 16 years. But despite these bans, tobacco is still widely available to young people





throughout the Region. Compliance with law on age restrictions appears to need improvement in the majority of countries. In Italy, the recent implementation of the European Legislation on Tobacco Products, entered into effect on February 2016, contains measures for limiting the offering of tobacco products also to pregnant women.

In addition to age restrictions, some countries have introduced regulation of impersonal modes of sale. Twenty-two countries reported that they ban the sale of tobacco products through vending machines and 18 in self-service displays. Forty MS ban the sale of single or unpacked cigarettes and 32 ban the distribution of free samples, while a few countries have banned or restricted mail order and electronic sales. A majority of countries have restrictions on duty-free sales of tobacco products and licence requirements for retail sales.

1.4 Education and information

Prevention is another key part of the EU's tobacco control policy. Several anti-tobacco campaigns have been developed and run in the last 20 years, aiming to draw the population's attention to the negative effects of smoking on their health and quality of life.

The campaign: "HELP – for a life without tobacco" is one of the largest EU health awareness-raising activities ever organised. The Help anti-tobacco campaign ran from 2005 to 2010, targeting primarily young people between 15 and 25 years of age. It was focused on smoking prevention, smoking cessation and passive smoking, aiming to promote a tobacco-free lifestyle by delivering comprehensive information on the health and societal problems caused by tobacco consumption. The campaign was activated in 27 Member States with television spots, a website in 22 languages and a series of European and national press events. HELP 2.0 continues to target young people. The web-driven campaign is designed to give young people all the information they need about the dangers of smoking and how to quit. It encourages them to take control of their own live and pay less attention to media influences. During its first phase, over 70,000 TV spots ran on more than 96 national channels and the HELP website received over 7.6 million visits. The campaign proved successful at reaching young people and informing them about the benefits of not smoking. 59% of Europeans under 25 declared that they had seen the Help campaign and 79% of young non smokers said that the adverts had made them think about the importance of not smoking. In order to reach its core audience, Help campaign integrated television, the internet and new media such as mini-sites accessible via mobile phone.



The Help campaign was an example of a unique cooperation, conducted in partnership with communication experts, tobacco control professionals from the European Network for Smoking Prevention (ENSP), the European Network of Quitlines (ENQ) and the Youth Forum Jeunesse (YFJ).

The creative strategy focused on collecting, presenting and implementing tips – serious or silly – addressing the traditional tobacco-control themes of prevention, cessation and passive smoking.

The best tips were used as creative material. As an EU-wide campaign, the strategy at national or regional levels was fine-tuned to reflect cultural and societal specifics.

Different programs are designed for smokers, to make them aware of the dangers of smoking and encourage them to quit. The UK service provision framework employed by smoking cessation clinics was originally based on the Maudsley model, an evidence-based approach to treating dependent smokers. This approach entails regular meetings (in a group or on an individual basis) with a trained adviser using structured, withdrawal-orientated behavioral therapy combined with smoking cessation medications such as nicotine replacement therapy, bupropion or varenicline.

In Ireland, the tobacco control programme delivers specific actions in the context of the WHO MPOWER model, including a far-reaching, evaluated and comprehensive national smoking cessation awareness and support programme and an accredited national brief intervention training programme for smoking cessation.

In France, counselling points for smoking cessation were established in hospitals. An inter-ministerial website for the public (www.tabac.gouv.fr) was launched and a telephone hotline service was set up. The Minister of Health announced his plans to double the number of hospitals with consultation centers for smoking cessation, and the health insurance funds offered a reward of €50 to every patient who participated in the anti-smoking program.

1.5 Standards for emission of harmful substances and traceability

In Italy, the recent implementation of the European Legislation on Tobacco Products establishes the maximum levels tolerated for the cigarette emission of tar, nicotine, carbon monoxide, and other substances. The new law covers the technical parameters and methodology for the determination of these maximum levels. The Istituto Superiore di Sanità supervises the laboratories that verify compliance with the established maximum emissions levels. Manufacturers and importers of tobacco products must furnish the Health Ministry and the Customs and Monopolies Agency with the technical information required for the verification of the standards established in this new legislation.



In addition, the new legislation includes traceability requirements for tobacco products, including the stipulation that specific information be provided about, among other aspects, the place and date of manufacturing of the product, the machinery utilized in production, the product description, and the transit history of the product.

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2. Alcohol

Alcohol is a psychoactive substance with dependence-producing properties. Consumption of alcohol and problems related to alcohol vary widely around the world, but the burden of disease and death remains significant in most countries. Harmful use of alcohol can also have serious social and economic consequences for individuals other than the drinker and for society at large (e.g. Anderson et al., 2006; Sacks et al., 2013).

Alcohol impacts people and societies in many ways and it is determined by the volume of alcohol consumed, the pattern of drinking, and, on rare occasions, the quality of alcohol consumed. In 2012, about 3.3 million deaths, or 5.9 % of all global deaths, were attributable to alcohol consumption.

Overall 5.1 % of the global burden of disease and injury is attributable to alcohol, as measured in disabilityadjusted life years (DALYs). Alcohol consumption causes death and disability relatively early in life. In the age group 20-39 years approximately 25 % of the total deaths are alcohol-attributable. In the EU every year 120.000 citizens aged between 16 and 64 years die from alcohol.

The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions and it may be considered a drug that produces dependence as much as other illegal substances. It is a toxic substance that causes voluntary and involuntary injuries, interpersonal violence, murders, suicides and fatal road traffic crashes while driving. Alcohol consumption by an expectant mother can cause fetal alcohol syndrome (FAS) and preterm birth complications.

Alcohol is neurotoxic in brain development, causes structural modifications of hippocampus during adolescence and reduces brain volume in middle age. Therefore it can develop mental and behavioral disorders. Moreover it is an immunosuppressant that increases the risk of infectious diseases such as tuberculosis, HIV/AIDS and pneumonia.

Alcohol is classified by the International Agency of Cancer Research as carcinogenic, as it causes cancers of mouth, larynx, esophagus, liver, rectum colon and breast.

Furthermore alcohol consumption causes gastrointestinal diseases such as liver cirrhosis and pancreatitis, and is also associated to cardiovascular diseases.

There are gender differences in alcohol-related mortality, morbidity, as well as levels and patterns of alcohol consumption. The percentage of alcohol-attributable deaths among men amount to 7.6 % of all global deaths compared to 4.0 % of all deaths among women. Total alcohol per capita consumption in 2010 among male and female drinkers worldwide was on average 21.2 liters for males and 8.9 liters of pure alcohol for females.





Alcohol is one of the world's top three priority public health areas. Even though only half the world's population drinks alcohol, it is the world's third leading cause of ill health and premature death, after low birth weight and unsafe sex (for which alcohol is a risk factor), and greater than tobacco. Alcohol impacts on both non communicable and communicable diseases. The WHO's European Region remains the area of the world with the highest levels of alcohol consumption and alcohol related harm, and alcohol-related cardiovascular and injury mortalities are a major cause of health inequalities between MS. In particular alcohol consumption has been identified as a component cause for more than 200 health conditions (WHO, 1992; Rehm et al., 2010a, Shield et al., 2013):

Neuropsychiatric conditions	alcohol use disorders (AUDs), epilepsy, depression and anxiety disorders
Gastrointestinal diseases	liver cirrhosis and pancreatitis.
Cancers	alcohol consumption has been identified as carcinogenic for the following cancer
	categories (International Agency for Research on Cancer, 2012) cancer of the
	mouth, nasopharynx, other pharynx and oropharynx, laryngeal cancer,
	oesophageal cancer, colon and rectum cancer, liver cancer and female breast
	cancer. In addition, alcohol consumption is likely to cause pancreatic cancer. The
	higher the consumption, the greater the risk for these cancers, with consumption
	as low as one drink per day causing significantly increased risk for some cancers,
	such as female breast cancer (Seitz et al., 2012; Rehm & Shield, 2013; Nelson et
	al., 2013)
Intentional injuries	alcohol consumption, especially heavy drinking, has been causally linked to
	suicide and violence (Cherpitel, 2013; Macdonald et al., 2013)
Unintentional injuries	almost all categories of unintentional injuries are impacted by alcohol
	consumption. The effect is strongly linked to the alcohol concentration in the
	blood and the resulting effects on psychomotor abilities. Higher levels of alcohol
	consumption create an exponential increase in risk (Taylor et al., 2010)
Cardiovascular diseases (CVD)	the relationship between alcohol consumption and cardiovascular diseases is
	complex. The beneficial cardioprotective effect of relatively low levels of drinking
	for ischaemic heart disease and ischaemic stroke disappears with heavy drinking
	occasions. Moreover, alcohol consumption has detrimental effects on
	hypertension, atrial fibrillation and haemorrhagic stroke, regardless of the
	drinking pattern (Roerecke & Rehm, 2012)





Fetal alcohol syndrome (FAS)	alcohol consumption by an expectant mother may cause these conditions that
and preterm birth complications	are detrimental to the health of a newborn infant (Foltran et al., 2011).
Diabetes mellitus	a dual relationship exists, whereby a low-risk pattern of drinking may be
	beneficial while heavy drinking is detrimental (Baliunas et al., 2009).
	Infectious diseases: harmful use of alcohol weakens the immune system thus
	enabling development of pneumonia and tuberculosis. This effect is markedly
	more pronounced when associated with heavy drinking, and there may be a
	threshold effect, meaning that disease symptoms manifest mainly if a person
	drinks above a certain level of heavy drinking (Lönnroth et al., 2008).

In response to the high rates of morbidity and mortality due to alcohol, the WHO Regional Office for Europe has a long history of taking action on alcohol. It was the first regional office to address the problem, starting in 1975 with the scientific publication "Alcohol control policies in a public health perspective" (Bruun et al., 1975). In 1992, WHO MS endorsed the European Alcohol Action Plan 1992–1999, making the European Region the first region to develop an action plan to address the harmful use of alcohol (2). This document was updated in 2000 by the European Alcohol Action Plan 2000–2005 (3) and in 2006, by the Framework for alcohol policy in the WHO European Region (4). In 2005 the WHO Regional Committee for Europe resolution on alcohol (EUR/RC55/R1) was adopted, and in 2010, by adopting resolution WHA63.13, the Sixty-third World Health Assembly endorsed the global strategy to reduce the harmful use of alcohol.

The European Region maintains the world leadership role through the launch of a re-invigorated European action plan to reduce the harmful use of alcohol 2012-2020 (5). The action plan reflects the most recent evidence concerning alcohol-related public health policies and includes a wide range of policies and programs that are relatively easy and cheap to implement, can reduce the harmful use of alcohol, promote health and well-being, improve productivity, and enhance human, health and social capital across the life course from birth to old age.

The European action plan 2012–2020 is closely linked to the interventions in the action plan for implementation of the European Strategy for the Prevention and Control of Non Communicable Diseases (2012–2016). The action plan is also closely linked to the new European health policy, Health 2020, where non communicable diseases and the risk factors behind them are a priority for WHO during 2012–2020.

Alcohol policies are defined as being measures put in place to control the supply and/or affect the demand for alcoholic beverages in a population, including education and treatment programs, alcohol control and harm-reduction strategies.



An effective policy design and implementation to reduce the harmful use of alcohol, needs the coordinated action of health ministry's and other ministries and stakeholders and the planning and provision of prevention and treatment strategies and interventions coordinated with those for other related health conditions with high public health priority such as illicit drug use, mental illness, violence and injuries, cardiovascular diseases, cancer, tuberculosis and HIV/AIDS. The policy options and interventions available for national action can be grouped into 10 recommended target areas (6 MG), which should be seen as supportive and complementary to each other. These 10 areas are: (a) leadership, awareness and countermeasures (e) availability of alcohol (f) marketing of alcoholic beverages (g) pricing policies (h) reducing the negative consequences of drinking and alcohol intoxication (i) reducing the public health impact of illicit alcohol and informally produced alcohol1 (j) monitoring and surveillance.

The wide range of policy options available to reduce the public health burden of alcohol consumption, have been classified into three main groups:

a. Population-based policies, aimed at altering levels of alcohol consumption among the population. They include policies on taxation, advertising, availability controls including prohibition, rationing and state monopolies, promotion of beverages with low or no alcohol content, regulation of density of outlets, hours and days of sale, drinking locations, and minimum drinking age, health promotion campaigns and school-based education. Except for school-based education and health promotion campaigns, these are generally the policies where effectiveness has been most clearly demonstrated.

b. Problem-directed policies, aimed at specific alcohol-related problems such as drink-driving (e.g. promoting widespread random breath testing) or alcohol-related offences.

c. Direct interventions focused on individual drinkers. These include brief interventions, treatment and rehabilitation programs. Successful interventions have potentially a major impact in improving the individual's quality of life, but would have to encompass a sizable population of this particular group in order to have a noticeable impact on the macro level of problems.

The existence of a wide range of alcohol policies is clear. And it is evident from research that measures are available that can significantly reduce alcohol-related problems and the resulting harm. However, there is clearly no single policy measure that is able to combat and reduce all alcohol problems. Rather, it is more effective to incorporate a range of measures in a comprehensive alcohol strategy. A policy mix, is more likely to achieve success in reducing the level of alcohol consumption problems.



Most common policies

2.1 Pricing policies

Of all alcohol policy measures, the evidence is strongest for the impact of alcohol prices as an incentive to reduce heavy drinking occasions and regular harmful drinking. The gains are greatest for younger and heavier drinkers and for the well-being of people exposed to the heavy drinking of others.

2.1.1 Taxation

Despite extensive evidence that raising alcohol prices reduces overall consumption levels, the trend is that the real price of alcoholic beverages and the real value of alcohol taxation has been decreasing. The real value of the EU alcohol minimum excise duty rates, and of MS alcohol taxation, has decreased since the mid 1990s in most EU countries, and in some countries alcoholic drinks have become more affordable by 50%. Excise duty rates on alcoholic beverages vary across EU MS, however harmonization of excise duties is a long-standing goal of the EU.

In 1992 the Directive 92/84/EEC was adopted, which instructs MS on how to define the products and product categories to be taxed, and the principles of how to set the excise duty rates for these products. The Directive also sets a minimum excise duty rate for distilled spirits, beer and intermediate products (such as fortified wines and liqueur wines), but not for wine and fermented beverages other than wine and beer.

Above these minimum rates, the directive states that EU MS retain sovereignty to set excise duty rates at the levels they consider appropriate given each country's particular circumstances. The Directive requires that the Commission review these minimum rates periodically. However, the rates were not modified after they were originally set in 1992, representing a reduction in their real value of almost 30%. In 2006, the Commission adopted a proposal to increase the minimum excise duty rates on alcoholic beverages, increasing the rates in line with inflation between 1993 and 2005 (around 31%).

The Directive also includes provisions for small distilleries and breweries, as well as for wine and beer of low alcohol content (less than 8.5% and 2.8% respectively), which benefit from reduced rates.

All MS reported that excise duty is levied on beer and spirits. However, just over one third of the countries do not have an excise duty on wine.

In the period 1995–2010, developments in excise duty rates were not at all uniform:





the Nordic countries, decreased their alcohol excise duty rates which were lower in nominal terms in 2010 than in 1995; in some countries like Germany they were held constant; in the other countries belonging to the EU before May 2004, they were increased but by less than the rate of inflation, meaning than even in these countries the real values of excise duties fell; only in a few countries, such as Greece and Italy, the nominal values of excise duty rates were increased so much that the excise duty rates also increased in real terms; countries that joined the EU in 2004 and later, such as Bulgaria and Romania, had to increase their alcohol excise duty rates considerably before or when they joined the EU, with the exceptions of Cyprus, with a constant nominal rate, and Malta, with a constant excise duty rate for beer and a 50% decrease for distilled spirits.

Despite increases in alcohol excise duty rates in the new EU MS, the lowest excise duty rates were still found among them in 2011, Bulgaria and Romania being the clearest examples. Low excise duty rates for beer can also be found among the older MS (Germany, Luxembourg and Spain). By 2011, no EU MS had moved from a zero excise duty rate for wine to a positive excise duty rate. In fact, during the creation of the single market in 1993 or in the process of joining it later, four countries (Bulgaria, Hungary, Luxembourg and Romania) abandoned their former positive duty rate for wine.

The French government has increased tax on beer by 160%, which is a step in a right direction that will help to address alcohol related harm and improve public budget.

In order to combat increases in alcohol imports by travelers, alcohol excise duty rates for distilled spirits were reduced in Denmark in October 2003, making alcohol more affordable for not only its own population, but also the neighboring countries like Sweden and Norway (that have higher taxes).

In March 2004, Finland reduced its alcohol excise duty rates by an average of 33%. The motivation for this decrease was that in May 2004, Estonia, which had much lower alcohol prices than Finland, joined the EU.

Finally, the taxation of alcopops has received particular attention in recent years in the EU. Alcopops are highly sweetened, pre-mixed spirit-based drinks, typically designed and marketed for adolescents and young adults. Five MS reported that they made additional taxes on alcopops and other ready-to-drink mixtures.

2.1.2 Minimum Unit Pricing

A complementary measure to tax increases, and one which manages any lack of pass-through of tax to price, is to set a minimum price per gram of alcohol, a policy option with an impact on heavy consumers, as they tend to drink more cheap alcohol, far in excess of that on light consumers. The impact has been tested in Canada (showing that a 10% increase in minimum prices reduced overall consumption by an estimated





8.4%, and was modeled in the United Kingdom in England and Scotland. Moreover it has been shown that a 10% increase in the average minimum price for all alcoholic beverages was associated with an estimated 32% reduction in deaths wholly attributable to alcohol.

In 2012, the Scottish Parliament passed legislation to set a minimum unit price for alcohol of 50p (≤ 0.60), with the aim of increasing the cost of the cheapest, strongest alcohol products in order to reduce and deter harmful drinking.

This sets a floor price below which a given quantity of pure alcohol cannot be sold (1 unit=10 ml or 8 g). The government of the United Kingdom has since announced it also intends to introduce a minimum unit price for England & Wales.

2.1.3 Regulation of volume discounts

The regulatory landscape in Europe is diverse, with most countries implementing at least one type of nontax alcohol pricing regulation. There is evidence that alcohol sales promotions such as 'happy hours' (temporary price cuts), 'two for one' and others, increase alcohol consumption among youth as well as increasing the likelihood that they will binge drink.

At the end of 2011, Germany, Iceland and Sweden prohibited volume discounts (such as two-for-one offers), and below-cost selling (selling for a price less than the production cost).

In Germany, the Baden-Württemberg Law prohibits activities or events offering alcoholic beverages at fixed or below-cost prices, such as "flat-rate parties", "all inclusive parties" and drinking competitions (promotional activities such as "first drink free", "first drink half price" or happy hour promotions are exempted from the ban).

In Finland, a ban on volume discounts was introduced in 2008 (The Alcohol Act): it is now forbidden to offer several packages or servings of alcoholic beverages at a reduced joint price.

In Belgium, Luxembourg and Poland laws on commercial practices and consumer protection ban alcohol sales below cost.

In the context of growing concern over the availability of cheap alcoholic beverages and persistent concern over alcohol-related harm, the Spanish autonomous region of Catalonia enacted modifications to a 1985 law in 2009 (BOE, 2009), which now bans the sale of alcoholic beverages through sales promotions and price discounts, prizes, promotional parties and events, and other similar practices. These include offers such as "two for one", "three for one", "open bar" and others. In other Spanish provinces, only selfregulation is in place to control alcohol sales promotions.





In Ireland, the Intoxicating Liquor Act 2003 bans happy hour sales in the on premise sector (law into force since 2012).

In other countries, including England and Latvia, interest in legislating on these issues has become more prominent in the policy arena. In England, there were recent calls from parliamentarians to ban both pub "happy hours" and supermarkets selling alcohol as a loss leader. In an example of comprehensive regulation on alcohol promotions, the Scottish Licensing Act 2005, which came fully into force on 1 September 2009, stipulates that a number of price promotions are banned, including, among others: promotions that involve the supply of an alcoholic drink at a reduced price on the purchase of one or more drinks, whether alcoholic or not (in on-sales premises only); promotions that involve the supply of unlimited amounts of alcohol for a fixed charge, including any charge for entry to the premises (in on-sales premises only); promotions that encourage, or seek to encourage, a person to buy or consume a larger measure of alcohol than the person had otherwise intended to buy or consume (in on-sales and off-sales premises); promotions that reward or encourage, or seek to reward or encourage, drinking alcohol quickly (in on-sales and off sales premises).

Within Scandinavia, differences between the countries are evident in their approach to alcohol promotions. In Finland, while sales below cost are not banned, quantity discounts are, both in on- and off-premise sales, as well as advertising of alcohol discount prices outside on-trade premises unless the prices advertised are valid for two months or more. The scope of this regulation, however, is limited: 'happy hours' are still allowed, but advertising of 'happy hours' outside a bar or restaurant is not. In Sweden, national legislation stipulates that the price of alcohol cannot be lower than the cost price plus a 'reasonable addition'. Norway, like Sweden, has a ban on the use of alcohol as a loss-leader in off-premise sales, as well as on 'happy hours' and other price promotions.

Finally, alcohol promotions are subject only to self-regulation only in a number of countries. In The Netherlands, for example, the Licensing and Catering Law specifies that alcohol cannot be sold at a price lower than 70% and 60% of the original selling price in the off- and on-trade respectively.

Another industry body, the Royal Dutch Catering Industry, also developed its own code of good practice in alcohol sales, and supports a ban on alcohol discounts as a measure to prevent nuisance behavior and violence.

2.2 Restrictions on the availability of alcoholic beverages

Restricting availability means putting obstacles and regulations on how easy it is to obtain alcoholic beverages, or when, where and to whom it is sold and served. The implementation of even small





reductions in the availability of alcohol can bring health gain. Restricting the availability of alcoholic beverages includes a variety of measures that are generally considered to be quite effective.

2.2.1 State monopoly and licensing system

Many European governments control the retail sale either through a state monopoly or a comprehensive alcohol licensing system.

Traditionally, the state monopoly approach has been characteristic of the Nordic countries, (except Denmark), and some of the central and eastern European countries. Existing evidence is fairly strong that off premise state monopolies limit both alcohol consumption and related problems, and that abolishing monopolies can increase alcohol consumption. Licenses may only be renewed for establishments that adhere to laws restricting sales to underage drinkers and intoxicated people, and that discourage patrons from being a public nuisance or engaging in violence. The system must include regular checks, sanctions and licensing fee.

In Europe 19% of countries have state monopoly (in Finland and Norway these are for beverages above 4.7% alcohol by volume and in Sweden for beverages stronger than 3.5%.); 57% have a licensing system and 23% have no restrictions (Austria, Croatia, Czech Republic, Estonia, Georgia, Germany, Greece, Slovakia, Slovenia, Switzerland); in this last group of countries many have general sales restrictions that cover all goods, that are not alcohol-specific. This happens to be the case in Austria, for example, which requires a license for retail sale of consumer goods, which is not specific to the sale of alcoholic beverages.

2.2.2 Sales restrictions

Sales restrictions by time (hours of sale can vary across the days of the week), circumstances (such as during football matches) and place (parks, streets, hospitals and workplaces), are especially useful when utilized to target problem or high risk areas and times (restricting days and hours of sale, certain locations or density of retail outlets).

For example, France and Germany ban alcoholic beverage sales at highway petrol stations between 10 p.m. and 6 a.m. Frequently, a restriction on days of sale means that it is not allowed to sell alcoholic beverages off the premises on Saturdays and/or Sundays. In general, restrictions on places of sale probably refer mostly to the kind of store in which off-premise sales are allowed, e.g. whether in kiosks, supermarkets or only in specific liquor stores.





2.2.3 Age limit

A minimum age limit for purchase and consumption of alcoholic beverages is a measure targeted at barring young people, who are regarded as particularly vulnerable, from having easy access to alcoholic beverages. Overall, the age limits for buying alcoholic beverages varies from 15 to 21 years, with 17/18 years being the most common age limit for on premise as well as off-premise purchase of beer. Having an age limit of 16 years or younger is almost exclusively a European phenomenon.

In Europe, Bosnia and Herzegovina, Croatia, Greece, Luxembourg and Malta have age limit only for on premise sales but not off-premise. The high age limits for beer can be found in Iceland (20) and Sweden (20 for strong beer off-premise, 18 otherwise). When it comes to the different beverages, the differences are rather small. Austria, Germany, the Netherlands and Switzerland, for example, have an age limit of 18 for spirits, versus 16 for beer and wine. In Denmark, the age limit for off-premise sale is 15 for all beverages and 18 years for on premise sale. In Finland and Norway, the off-premise age limit is 18 for beer and wine and 20 for spirits, while it is 20 for all beverages in the Swedish monopoly stores.

No age limit on the off-premise purchase of beer, and therefore legal access for children and adolescents, is generally found in some countries in Eastern and South-eastern Europe, however, access for children may be effectively limited by custom or social control, without a need for legal restrictions.

2.3 Marketing

Alcohol marketing ranges from mass media advertising to sponsorship of events, product placement, online advertisement, merchandise, usage of other products connected with alcohol brands, social networks etc. While much of the research on the impact of alcohol advertising is not conclusive, increasing evidence can be found that exposure shapes positive perceptions of drinking and can increase heavier drinking. Therefore, it seems that restrictions on advertising and sponsorship should be part of a comprehensive alcohol policy, especially when it is targeted at young people.

2.3.1 Alcohol advertising

Alcohol advertising exists in almost all countries in Europe, and was first regulated at EU level by the EU's "Television without Frontiers" Directive (adopted in 1989, revised in 1997). This was later replaces by the Directive on Audiovisual Media Services (AVMSD), which entered into force on 19 December 2007. The AVMSD was revised in 2010 (Directive 2010/13) and is the current legal framework for alcohol advertisement in EU.





France implemented important restrictions on advertising and sponsorship in favor of alcoholic beverages in accordance with the Evin Law of 1991. A total ban exists on TV and on sponsorship of any kind. In broadcasting, advertising is forbidden between 5 p.m. and 0 a.m., and on Wednesdays (when schools are closed) from 7 a.m. to 0 a.m. Advertising is forbidden in the print media and on internet web sites dedicated to young people. The content of advertisements is restricted to objective information about the product and a health warning message must be placed on every advertisement allowed. Respect for the regulatory framework is assured by the advertising regulation authority and by surveillance of advertisements, but mostly countries have no restrictions on advertising (between 28% and 57%), especially in print media and on billboards. Advertising on television and radio are more restricted than in print media and on billboards, with legal restrictions, total or partial ranging from 44% (beer on national radio) to 60% (spirits on national television). Beer advertising is significantly less controlled than advertising for wine, and especially that for spirits.

2.3.2 Sponsorships

An important part of alcohol marketing and promotion are sponsorships by the alcohol beverage industry. The variety of sponsorships covers sports events such as football, motor sports, basketball and also concerts and other cultural events, many of which are directly targeted at young people. If these sponsored events are televised, they may in fact amount to the same effect as direct alcohol advertising on television. Few countries restrict alcohol industry sponsorship of sport or youth events. A majority of countries have no restrictions while Norway has complete bans on both kinds of sponsorships. In addition sports sponsorship is banned in Croatia for the wine and spirits industries and in Bosnia and Herzegovina, Finland, Poland and Switzerland for spirits. Youth event sponsorship bans exist in Bosnia and Herzegovina, France, and Switzerland, for wine and spirits in Croatia, and for spirits in Finland and Poland.

2.3.3 Labelling

Research regarding warning labels on bottles is rather ambiguous at this stage, with most of the evidence (primarily from the United States, Canada and Australia) suggesting no change in the perception of risk among people who have taken note of the label, and only few studies suggesting behavior change that could be attributed to the label.

In April 2015, the European Parliament has adopted resolution on EU Alcohol Strategy, in which it clearly called on the European Commission to improve alcohol labelling at the European level.

Product labels can serve a number of purposes, providing information about the product to the consumer, enticing the consumer to buy the product and warning consumers of dangers and health risks from the





product. Listing the ingredients contained in a particular beverage alerts the consumer to the presence of any potentially harmful or problematic substances.

2.4 HS response

All the evidence suggests that the majority of hazardous and harmful drinkers are not receiving advice from primary care providers as a matter of course, and that many people with alcohol use disorders who would benefit from treatment are not currently receiving it.

Health services play a critical role in tackling alcohol-attributable harm by developing and delivering prevention and treatment services (NICE, 2010a,b; WHO, 2010c,d; Drummond et al., 2011). Hence, the Global strategy to reduce the harmful use of alcohol suggests several policy options and interventions to enhance health services capacity development.

These include increasing capacity of health systems to deliver prevention, treatment and care for alcoholuse and alcohol-induced disorders; supporting initiatives for screening and brief interventions for hazardous and harmful drinking; developing and coordinating integrated and/or linked prevention, treatment and care strategies and services for alcohol-use disorders and comorbid conditions; securing universal access to health including through enhancing availability, accessibility and affordability of treatment services for groups of low socioeconomic status; providing culturally sensitive health and social services as appropriate.

2.5 Community and workplace action

Action at the local level, in communities, workplaces and educational settings, can reduce the harmful use of alcohol by changing collective rather than individual behavior. Public education campaigns and information about health risks given on alcoholic beverage labels can be used to support local action and alcohol policy measures. In 37 MS, there is a legal obligation to include alcohol prevention in the school curriculum, while 28 MS have national guidelines for the prevention and reduction of alcohol-related harm in school settings.

Eighteen MS have national guidelines for the prevention of and counselling for alcohol problems at workplaces, and in 17 MS testing for alcohol at workplaces is governed by legislation.

In 19 MS, social partners representing employers and employees are involved at the national level in action to prevent and address alcohol-related harm at workplaces.

Community-based intervention projects involving stakeholders are present in 43 MS. The most commonly involved partners are nongovernmental organizations (41 MS) and local government bodies (32 MS).





Involvement of economic operators, which in most cases means the alcoholic beverage industry, was reported by 20 MS.

National guidelines for implementing effective community-based interventions are available in 22 MS. In 27 MS, the national alcohol policy/action plan includes steps to involve young people in activities to reduce or prevent alcohol-related harm.

2.6 Drink-driving policies

Even small amounts of alcohol can impair the ability to drive, and action to reduce drinking and driving receives widespread public support, particularly since many of the victims of drink–driving are not the drink–drivers themselves. To be effective in reducing the unnecessary tragedy of drink–driving injuries and fatalities requires sustained joined-up action between government, traffic police, the criminal justice system, safety authorities, the health sector, local communities and other stakeholders. A blood alcohol concentration level low enough to deter people from drinking and driving, and effective enforcement of that limit, ideally through frequent and visible random breath testing (and as punishment for drink driving offenders, revoking of the driving privileges has been shown to be the most effective). Although the importance of drink-driving policies, the present document will not deepen into this topic, since indirectly correlated to NCDs.

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3. Unhealthy diet

Although almost all Member States in the European Region have government-approved policies on nutrition and food safety, the burden of disease associated with poor nutrition continues to grow in the European Region, particularly as a result of the obesity epidemic, while food borne diseases still represent a challenge for European health systems.

Unhealthy diet is one of the major risk factors for chronic diseases. Reports of international and national experts and reviews of the current scientific evidence recommend goals for nutrient intake in order to prevent chronic diseases. For diet, recommendations for populations and individuals should include the following:

- achieve energy balance and a healthy weight
- limit salt (sodium) consumption from all sources and ensure that salt is iodized
- limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats and towards the elimination of trans-fatty acids
- increase consumption of fruits and vegetables, and legumes, whole grains and nuts
- limit the intake of free sugars

The trend in obesity is especially alarming in children and adolescents. The annual rate of increase in the prevalence of childhood obesity has been growing steadily, and the current rate is 10 times that in the 1970s. This contributes to the obesity epidemic in adults and creates a growing health challenge for the next generation. Overweight is responsible for a large proportion of the total burden of disease in the WHO European Region: more than 1 million deaths and 12 million life-years of ill health every year, and childhood obesity is strongly associated with risk factors for cardiovascular diseases and diabetes, orthopedic problems and mental disorders, and linked to underachievement in school and to lower self-esteem. Moreover maternal obesity substantially increases a child's risk of being overweight. High birth weight is linked to obesity in later life: the children whose weight was above the 85th percentile at birth were more likely to be overweight at the ages of 6, 9 and 15 years.

Obesity has important consequences for morbidity, disability and quality of life, and obese adults are especially likely to develop type 2 diabetes, cardiovascular diseases, several common forms of cancer, osteoarthritis and other health problems.





There are major differences in the prevalence of overweight and obesity between countries in the European Region and between socioeconomic groups in those countries (with groups with low socioeconomic status likely to have an increased occurrence of dietary risk factors for obesity). This variation shows the importance of environmental and socio cultural determinants of diet and physical activity.

The Second Action Plan for Food and Nutrition Policy establishes health, nutrition, food safety and food security goals and provides a coherent set of integrated actions, spanning different government sectors and involving public and private actors, for Member States to consider in their own national policies and health system governance and for international organizations to consider at the regional and global levels. In September 2007, the WHO Regional Committee for Europe approved resolution EUR/RC57/R4, which endorses the Action Plan and calls on Member States to develop and implement food and nutrition policies, to ultimately significantly reduce the burden of preventable diet-related NCDs, obesity and all other forms of malnutrition still prevalent in the WHO European Region. The Action Plan encourages action in a range of policy areas through a whole-of-government, health-in-all-policies approach. The goal is to improve food system governance and overall quality of the population's diet and nutrition to ultimately promote health and well-being.

The commitments focus on six activity areas:

- 1. Education, including lifestyle modification;
- 2. Advocacy and information exchange;
- 3. Composition of foods (reformulation), availability of healthy food options, portion sizes;
- 4. Consumer information, including labelling;
- 5. Marketing and advertising;
- 6. Physical activity promotion.

Since the adoption of the First European Action Plan for Food and Nutrition Policy in 2000, several policy documents have been proposed in the context of the European Commission (EC), such as the "Blueprint for Action on Protection, Promotion and Support of Breastfeeding in Europe".

Other government sectors should be involved in the discussion of the Action Plan and in the design of specific policies and programmes. The sector of agriculture, fisheries and food should incorporate public health, nutrition and food safety objectives in primary production, food processing, distribution and retail





activities, offering production incentives, establishing infrastructure and providing services, issuing regulations, and facilitating dialogue between the private sector and public representatives.

Transport, urban planning and housing should ensure access to healthy and safe food, facilitate physical activity and create or re-establish the conditions for making walking and cycling feasible, safe and an attractive options. Environment should allocate resources to facilitate outdoor recreation, consider the environmental impact of food production and provide safe drinking-water. Labor should allow for adequate parental leave, breastfeeding breaks and flexibility to support working women during lactation, and should promote healthy and safe dietary habits and physical activity in the workplace. Social policy should consider social benefits to improve the food security of vulnerable population groups, as well as access to recreational facilities. Research should support a better understanding of the role of nutrition, food safety and lifestyle factors in disease development, provide information on risk factors and determinants throughout the whole food supply chain, and strengthen the evidence base for, and the health impact of, interventions and policies.

Most common policies

3.1 Pricing policies

Until recently, price policies for healthy eating had not been widely adopted by countries and new proposals often faced significant opposition from key stakeholders. In recent years, however, several countries within the Region have introduced price policies with the objective of influencing consumers' purchases and dietary intake. Price is one of the most important factors influencing food choice, and pricing strategies (food taxes and subsidies) have been proposed as a means to improve population diets and reduce rates of obesity and NCDs. Nonetheless, despite differential application of goods and services tax or value added tax to food in some countries, the application of such taxes is largely driven by revenue-raising imperatives, and food pricing policy with the aim of improving population diets is a relatively untested concept.

In 2008 WHO recommended that policy be used to influence food prices "in ways that encourage healthy eating". Economic theory suggests that increasing the price of foods high in nutrients counter to health (such as excess energy, sodium, sugar, and saturated fat) and/or reducing the price of foods high in nutrients that are pro-health (such as fiber and unsaturated fat) may improve the nutritional quality of




diets consumed, raise revenue to support other population health interventions or government expenditures, and send a clear message to consumers about which foods are healthier.

A corrective subsidy works in a similar manner to taxes, but the other way around: a drop in price at point of purchase should increase demand. A good example is fruit and vegetables, where the low consumption of fruit and vegetables is a significant risk factor for global mortality. Their increased consumption has been shown to be protective against gastrointestinal cancer, ischemic heart disease and stroke. Without government intervention, however, the prices of fruit and vegetables at point of purchase are likely to exceed the socially optimal price, and the quantity sold will be below the level needed for the maximum benefit to society. An increase in price will lead to a fall in demand and a shift by consumers to similar but untaxed substitutes. It seems reasonable to infer, therefore, that diets and diet-related health and wellbeing might be improved by changing the relative price of non-core foods high in energy, saturated fat, trans fatty acids, sugar or salt and/or by improving the affordability of core foods such as fruit and vegetables and whole grain products.

One concern with food taxes and subsidies is that taxes may be regressive by disproportionately affecting lower income households, if lower income households spend a greater percentage of their household budget on food items that are taxed (or less on food items that are subsidized), even allowing for changes in purchasing behavior due to the pricing intervention.

The use of food pricing policies has received attention because the price of a calorie has been shown to be substantially cheaper when obtained from unhealthful, energy-dense foods, instead of from more healthful, less-dense foods. The idea of using pricing policies to address obesity is to change the price of unhealthy, energy-dense foods relative to that of more healthy, less-dense foods, which in turn, is expected to shift consumption patterns toward a more healthful diet and a healthier weight outcome. Actually the evidence of the effect of food pricing strategies on consumption, health, and disease is limited, although indicating that price policies can influence what consumers buy and could contribute to improving health by shifting consumption in the desired direction.

Taxes on food and beverages, also called excise taxes, are common throughout Europe, but in all countries in the Region (except possibly Norway) their purpose is not to promote public health but to raise revenue. Denmark became, in October 2011, the first country in the world to introduce a "fat tax" – a tax of DKr 16 (\pounds 2.15) per kg of saturated fat, with the taxable base including all foods containing saturated fat (for example, meat, dairy, edible oils and fats, margarine and blended spreads).





Soft drinks and/or sweets and snack food, are selectively taxed in some countries (Finland, France, United Kingdom, the Netherlands and Norway). Denmark and Norway have the highest taxes on soft drinks in Europe (€0.21 per liter). Lower domestic sales have followed increasing tax rates in Denmark, but imports from neighboring countries have increased, leaving total consumption unchanged.

Hungary has introduced in 2011 a public health product tax, motivated by the population's high salt consumption (among the highest per capita in the world) and around two thirds of the adult population was obese. The tax aimed at products for which healthier alternatives were available: sugar-sweetened beverages, energy drinks, confectionery, salted snacks, condiments, flavored alcohol and fruit jams.

In November 2008, the European Union (EU) Council of Agriculture Ministers agreed to implement the European School Fruit Scheme– a subsidy scheme to provide free fruit and vegetables to children in schools. In return, schools must teach children about healthy eating and food production through appropriate programmes (known as accompanying measures). The scheme began in the 2009/2010 school year, and had an initial annual EU budget of €90 million with co-financing (either 50% or 75%) by national or private funds required in each country. The scheme now reaches over 8 million children in over 54 000 schools across the 25 participating Member States.

3.2 Food content

Data from diverse sources suggest that diets with high energy density (high in fat or sugar and low in fiber), sugar-rich drinks and large portion sizes, each increase the risk of consuming excess energy. The proportion of energy derived from fat is higher than recommended in most countries and all age groups, while the availability of fruit and vegetables and the intake of dietary fiber are largely insufficient. This indicates an overall pattern of energy-dense diets throughout the Region.

WHO and EU indications include:

-The promotion of the reformulation of mainstream food products in order to reduce the amount of salt, added sugar, saturated fat and trans fatty acids. And also the promotion of appropriate micronutrient fortification of staple food items and developing of complementary foods with adequate micronutrient content, in areas where micronutrient deficiencies are a public health problem, taking into account the cost–effectiveness of the action, monitoring its impact and potential risks, and avoiding conflicts with the practice of exclusive breastfeeding



-The improvement of the nutritional quality of the food supply and food safety in public institutions (e.g. health and social services, child care services, schools, workplaces, elderly nutrition services, military institutions, leisure facilities) by adopting guidelines and regulations on food procurement; applying of food-based dietary guidelines and good hygiene practices to catering and food services, including safe drinking-water; and offering and promoting foods at retail outlets located in public institutions.

3.2.1 Reduced salt intake

The reduction of salt and satured fat is strongly recommended in many international guidelines, because they are the cause of most of cardiovascular diseases, and in particular high blood pressure is the leading risk for mortality globally.

High levels of dietary salt intake have been associated with high blood pressure, with a higher prevalence of hypertension and a greater rise in blood pressure with age both within and between populations (INTERSALT Cooperative Group, 1988). These observations suggest a direct link between the levels of salt intake and high blood pressure and the prevalence of hypertension.

The consensus is that by lowering salt intake blood pressure is lowered. The blood pressure-lowering effect is dependent on the degree of reduction of dietary salt intake, and the effect is dose-dependent.

A modest, long-term reduction in population salt intake has the potential to reduce stroke deaths by about 14% and coronary deaths by about 9% in people with hypertension, and by approximately 6% and 4%, respectively, in those with normal blood pressure.

Current recommendations on salt intake for the prevention of cardiovascular disease is <5 g (90 mmol) per day or, for persons with high blood pressure, African Americans, and middle-aged or older adults, <1500 mg of sodium per day (WHO/FAO 2003; USDA Guidelines for Americans 2005; AHA Guidelines, 2007; WHO Guidelines 2007).

The WHO MS in WHA 66.10 have agreed on a voluntary global NCD target for a 30% relative reduction in mean population intake of salt, with the aim of achieving a target of less than 5 grams per day (approximately 2g sodium) by 2025.

3.2.2 Replacement of trans fat with polysatured fat

The consumption of industrially produced trans fat is associated with an increased risk of cardiovascular disease. Eating foods that contain saturated fats raises the level of cholesterol in the blood, in particular LDL cholesterol, increasing the risk of heart disease and stroke.





The American Heart Association recommends aiming for a dietary pattern that achieves 5% to 6% of calories from saturated fat.

In response to the negative health consequences associated with its consumption, the WHO has called for the removal of trans fat from the global food supply and has included the 'adoption of national policies that limit saturated fatty acids and virtually eliminate partially hydrogenated vegetable oils in the food supply' as an indicator in the global monitoring framework for the prevention and control of NCDs. The WHO recommends the replacement of both trans and saturated fat with polyunsaturated fats given that maximum health benefits will be achieved through this substitution.

Trans fat reduction has been achieved in several high-income countries through a combination of mandated trans fat labelling, public education campaigns, engagement with industry to reformulate products and national and local trans fat bans. Trans fat bans have led to the most significant reductions in the levels of trans fat in the food supply; however, only a handful of countries (Denmark, Austria, Switzerland, Iceland), have enacted them worldwide. Key factors that have led to the success of trans fat regulation, and bans in particular, have been high consumer and political awareness regarding the health implications of trans fat consumption and champions in government and consumer organizations.

Although the removal of TFAs from the food supply has been identified as a "best-buy" public health intervention for low- and middle-income countries, WHO Member States that took part in consultations indicated "low (no) support" for including the removal of TFAs as a global monitoring target because of concerns about the feasibility, achievability and public health effect of removing them from the food supply. However, both national and local bans of TFAs in foodstuffs have been implemented throughout the world, which demonstrates that the removal of TFAs is both feasible and achievable.

3.2.3 Fruit and vegetables

Fruit and vegetables are important components of a healthy diet, and their sufficient daily consumption could help prevent major diseases, such as cardiovascular diseases and certain cancers. Approximately 16.0 million (1.0%) disability adjusted life years (DALYs, a measure of the potential life lost due to premature mortality and the years of productive life lost due to disability) and 1.7 million (2.8%) of deaths worldwide are attributable to low fruit and vegetable consumption. In particular, insufficient intake of fruit and vegetables is estimated to cause around 14% of gastrointestinal cancer deaths, about 11% of ischemic heart disease deaths and about 9% of stroke deaths globally.

Because most studies have addressed multiple aspects of dietary change and life style modification, the independent effects of fruit and vegetable intake on child weight gain and BMI outcomes are often unclear.





Intake of fruits and vegetables by children ages 5 years and older can be modestly increased through a variety of interventions, but almost all have been school-based and have advocated a stronger parental component.

A recently published WHO/FAO report recommends a minimum of 400g of fruit and vegetables per day for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity.

3.3 Packaging and Labelling

The importance of promoting adequate labelling of food products to improve consumers' understanding of product characteristics is clear. It is essential to support healthy choices and to promote safe food storage and preparation, by developing regulations and guidelines that reflect best practice (e.g. front-of-pack "signposting"), based on existing Codex Alimentarius standards or EU legislation on labelling and health claims, and by establishing an efficient method for assessing the nutrient quality of food products. Consumers today are exposed to information on food from several sources, including television, print mass media, packaging (nutrition labels and health claims), education, the Internet and advertising. Nutrition labelling, besides complying with consumers' right to information, is also a potentially important element in the overall strategy for combating NCDs. Nutrition labelling is defined as a list of nutrients on a food label accompanied by some form of quantification. Under EU legislation, nutrition labelling is not compulsory on a food package unless a nutrition claim is made. A survey in four EU countries showed that 56% of the 2954 products surveyed include tabular nutrition labelling. Labelling was most comprehensive in the United Kingdom (75% of all products), Spain (54%), Germany (50%) and Poland (41%). The most frequently labeled food categories were breakfast cereals, margarine, soups and frozen vegetables. The most commonly used types of labelling list either four (energy, fat, carbohydrate and protein) or eight nutrients (with the addition of saturated fat, sugar, sodium and fiber). The European Commission has revised the EU nutrition labelling directive in 2007, including the mandatory nutrition labelling, the number and nature of nutrients to be included, the format to use in presenting the information (expressing nutritional content in units and/or percentage of a value to be determined) and the most appropriate reference quantity for nutritional declaration, such as information given per serving. Little is known about the effects of nutrition labelling on consumers' food choices and their overall diet, and virtually nothing is known about the effects of nutrition labelling on energy intake in the population. In the spring of 2005, the European Consumers' Organisation (BEUC- a Brussels-based federation of 40 independent national consumer organizations from the EU, candidate countries and European Economic Area countries) commissioned research into consumers' understanding of nutrition and food labelling. The study was carried out in Denmark, Germany,





Hungary, Poland and Spain, reflecting European diversity (northern Europe, central and Eastern Europe and southern Europe). The study indicated no clear health benefit associated with nutrition labelling as a standalone measure. Most consumers find the current nutrition label format confusing but find short, simple information easy to understand. Failure to provide clear and understandable nutrition information may seriously undermine other initiatives undertaken to improve consumer diets. Some examples of best practices in Europe:

Sweden's Green Keyhole

The Green Keyhole was introduced as a food label during the 1980s as part of a regional health promotion project to reduce coronary heart disease in northern Sweden. In 1989, Sweden's National Food Administration added the symbol into the Swedish Code of Statutes. It is used on a voluntary basis, and the National Food Administration sets the criteria for labelling.

The criteria for Keyhole labelling were revised in 2004 and now include the total amount of fat, type of fat (saturated fat plus *trans* fatty acids), added refined sugars or total sugars, salt as sodium chloride and fiber. For ready-made dishes, the (minimum and maximum) required amount of energy and a minimum for vegetables (80 g) have been established. Products excluded from the label are ice cream, skimmed-milk powder, whey cheese and biscuits.

Finland's Heart Symbol

In 2000, the Finnish Heart Association and Finnish Diabetes Association launched the Heart symbol, which signals a better choice in a certain product group regarding fat (total fat and quality of fat), sodium, cholesterol (in some product groups) and fiber (in one product group). Product groups include milk and dairy products, fat and oil, processed meat, bread and cereals, convenience food, semi processed food, meal components, spices and seasoning sauces. In October 2005, 247 products from 29 companies were entitled to use the symbol. The symbol has been heavily promoted through television, radio, the Internet, shopping carts, periodicals, fairs and journals. Target groups for marketing are enterprises in the food sector, consumers, food marketers or retailers, the health care sector and interest groups.

Signposting in the United Kingdom

The Food Standards Agency in the United Kingdom evaluated the performance of different approaches to nutrition labelling in terms of consumer understanding and ease of making healthy choices. It is considering two main schemes: its proposals for a color-coded traffic-light scheme indicating absolute levels of key nutrients (fat, saturated fat, sugar and salt) and a scheme proposed by sections of the food industry that







presents guideline daily amount values for these nutrients and additional nutrients at the discretion of the manufacturer.

Consumer organizations and health NGOs in general support the traffic-light scheme, and some of the food industry has adopted this approach, while other elements of the industry remain supportive of a guideline daily amount scheme. Results of research involving over 2600 people in the UK indicated that front of-pack nutritional signposting helped consumers quickly and accurately assess the nutritional quality of food. Consumers particularly wanted signpost labelling on complex processed foods. Sales data from food companies using signposting indicate the consumers switch to healthier products in the same food categories.

In conclusion, little is known about the effects of food symbols on dietary behavior, obesity and public health. Most consumers recognize such symbols and seem to understand what they stand for and the campaigns associated with them.

3.4 Information and education

Even though schools are the ideal setting for education, positive long-term results in preventing childhood obesity resulting from nutrition education programmes are still lacking, possibly due to the low intensity of their implementation. In Europe, projects intended to increase children's nutritional knowledge are often ineffective. Better short- and medium-term results have been obtained; however, applying such tools as psychological strategies to change specific types of behavior, active learning, family involvement and increasing the intensity and time of contact.

Consumers' food choices are also influenced by the mass media that are both the solution (to increase information) and the problem (to create demand for non healthy food).

Nutritional education must start in early life and must include promotion of optimal fetal nutrition by ensuring maternal nutrition from pre-conception and protection, promotion and support of breastfeeding and timely, appropriate and safe complementary feeding of infants and young children.

The school can influence children's diets by providing meals, controlling the availability of food and drinks and providing nutrition education. A survey in 26 European countries showed a great variety of school food services that can influence children's and adolescents' food habits and choices and that could be one of the environmental factors leading to the differences in obesity rates among European countries. School meals, from nursery school to secondary school, are often nutritionally imbalanced. In a study in kindergartens in Poland, the energy and nutrient content of meals exceeded requirements. In a survey in two secondary





schools in southern England and one junior school in northern England, the standard breakfast provided was too high in salt, fat, saturated fat and percentage of energy.

Many countries are promoting or have already applied pre-school and school nutrition and food safety policies and programmes with a whole-school approach in kindergartens and schools, including education in nutrition, food safety and physical activity as part of the curriculum, by making use of the Nutrition-friendly School Initiative and other guidance available.

Hungary and the Netherlands introduced programmes for healthy school canteens. To support implementation, the Netherlands Nutrition Centre provides comprehensive information packages and guidelines for the supply of healthy and safe food in the school canteen.

France banned vending machines from schools in 2005. The products sold through the machines can be modified, however, and their prices manipulated to increase the consumption of healthy products. In Hungary, several schools successfully introduced apple vending machines.

As a further attempt to improve nutrition among schoolchildren, France, Latvia, Norway and the United Kingdom provide fruit free of charge or make it easily accessible in schools. A school fruit project is under way in seven large cities in the Netherlands.

The Norwegian School Fruit Program was launched in 1996 to provide free fruit and vegetables for all children in day-care centers and primary schools. In 2004 this parent-supported, subsidized program was introduced nationwide, although each individual school decides whether or not to participate.

Parents' food preferences can influence their children's preferences for both healthy and unhealthy food, through role modeling and controlling the availability of specific types of food. Children in families with less education and lower socioeconomic status show less healthy food choices than those in families with more education and higher status, and a family environment in which parents strongly control children's food intake reduces the children's ability to self-regulate their eating behavior. A higher occurrence of family meals and a better meal environment are essential to better dietary habits.

Therefore food-based dietary guidelines and food safety guidelines, must be aimed at the general population and at vulnerable groups (especially pregnant women, and the elderly as well as the infants and young children), that take account of cultural and religious sensitivities and the price and availability of food. Locally produced foods and traditional cooking and eating practices should be considered in the context of a healthy diet. These guidelines should be complemented by ones on physical activity, for which recent state-of-the-art guidance can be used as a reference.

Public campaigns must be conducted, aiming at informing consumers about food, nutrition, food safety and consumer rights, and about the opportunities to be physically active in different settings of daily life.





The workplace is a setting in which many adults can be reached, regardless of sex, age, social group and ethnicity. Interventions at the workplace, as in schools, appear more successful when they do not focus solely on one aspect but include nutrition education and physical activity.

Proposed actions in Sweden include certification of health promoting workplaces and guidelines for the food provided in workplaces or competitions for healthy workplaces, such as in Norway.

Children are uniquely vulnerable to the marketing of food that affects children's food preferences purchasing behavior and consumption at both the brand and category levels. Eleven countries' policy documents recognize the importance of developing strategies on marketing food and non-alcoholic beverages to children and aim to tighten the regulations that prevent the marketing of unhealthy food and drinks to children and adolescents.

Many countries, such as Bulgaria, Denmark, the Netherlands and Spain, seem to rely on voluntary agreements and self-regulation, but will consider new approaches if self-regulatory measures prove to be ineffective. None, however, sets a time limit for this.

The Government of the United Kingdom has introduced a series of measures to reduce children's exposure to the advertising of food and beverages high in fats, sugar or salt on television, and is considering how to extend it to non-broadcast mass media. Similarly, Sweden has banned marketing to children on television and would like to extend this ban to other EU countries.

3.5 Agriculture and food industry

Indications regarding agriculture and policies include improvement in the availability and affordability of fruit and vegetables by revising agricultural policies; providing technical advice and market incentives for local horticulture, including urban horticulture; reducing trade barriers to imports; and ensuring a reduced risk of pesticide residues.

The declining real price of food in a relatively saturated European market means lower growth in revenue for farmers and the food industry. In an effort to maintain growth, the industry has responded by producing value added foods. Cereals, for example, are converted to more expensive processed breakfast cereals, often containing appreciable amounts of sugar and fat.

The food industry has enormous potential to improve the composition and reduce the energy density of foods by lowering the amount of fat, sugar and additives in foods. Progress has already been made: for example, the cooperation between the United Kingdom Food Standards Agency and parts of the food industry to reduce salt, fat and sugar intake by reformulating processed foods and reducing portion size.



Breeding of cereal varieties giving higher yields, more efficient use of fertilizers, biofixation of nitrogen and improvement in irrigation systems have led to ever increasing agricultural outputs of crops, and there is room for further improvement. The industrialization of grain production has produced yields sufficient to feed larger numbers of animals than could be raised on grass and other traditional sources of forage. This in turn has facilitated the increased meat consumption that is now seen worldwide and linked to a higher intake of saturated fat.

The food industry, through its supply management, pricing and marketing strategies, represents part of both the problem and the solution for better dietary habits.

Countries use different approaches in working with the private sector. Many countries seem to rely on voluntary and self-regulation codes, while the United Kingdom tends to achieve commitments with a more government-led approach. Recognizing the potential of the food industry to change food composition, the United Kingdom Government is cooperating with the food industry to reduce salt, added sugar and fat in processed food and will further develop and publish guidance on portion sizes to reduce energy, fat, sugar and salt intake and reverse the trend towards bigger portion sizes. The Netherlands, Norway and Spain have engaged with the food industry to promote the production and distribution of products with a favorable nutritional profile by modifying food composition. Further to optimizing food composition, Ireland emphasizes that the food and drink manufacturing industry, the retail sector, the catering industry and their suppliers should promote research and development investment in healthier food choices.

3.6 Health Care Services

Prevention, detection and treatment are important measures to combat obesity in the health care system. Health services should recognize the maintenance of a healthy weight as an important health issue, and that measuring height, weight and waist circumference and calculating BMI should be part of routine clinical health care practice in primary care and hospitals. Many countries in the European Region consider establishing or improving training for health care professionals, nutritionists, dietitians and personnel in health and social services and residential homes.

Strategies focusing on the health sector include:

publishing guidelines for health professionals on preventing and treating obesity; Engage primary
health care staff in nutrition assessment and the provision of counseling on diet, food safety and
physical activity, including infant and child growth monitoring (using the new WHO child growth
standards); weight measurement and dietary assessment in adults; protection, promotion and support
of breastfeeding; and promotion of a balanced diet, safe food handling practices and physically active







behavior, by revising terms of reference, developing guidelines, building capacity and providing appropriate incentives.

- Improve standards of service delivery for the prevention, diagnosis and treatment of nutrition-related diseases, by establishing efficient outpatient and inpatient nutrition services with adequate population coverage; adopting and applying evidence-based guidelines on screening and treatment; integrating nutrition support in the treatment protocols of different diseases; revising the curricula of health staff; providing dietary supplements (e.g. iron and folate in pregnancy) according to national needs and circumstances; and establishing clearance systems for the commercialization of dietary supplements.
- proposing a national commission to assess the surgical treatment of obesity;
- drawing up a proposal for a list of pharmaceutical and nutritional supplements that will be used to treat obesity;
- Improve the quality of nutrition services and food safety in hospitals, by providing safe, palatable and nutritionally adequate food according to individual patients' needs and in line with food based dietary guidelines; establishing nutritional risk screening in all inpatient facilities, in order to prevent the development of under nutrition; and improving the supply of food in kiosks, vending machines and cafeterias for visitors and staff.

Actions in the EU have been very fragmentized: Ireland developed an education and training program for health professionals in the appropriate and sensitive management of overweight and obesity; Spain's strategy underlines the need to make professionals in the national health system able systematically to detect overweight and obesity in the population.

Slovenia's program introduces nutritional screening and assessment of patients. France is established clinical practice recommendations for screening and treating nutritional disorders. Norway and Sweden focus on intensifying nutrition work in health care for mothers and children. Portugal's program against obesity strongly emphasizes improving obesity treatment in the hospital.

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4. Lack of physical activity

Physical activity (PA) is defined as any bodily movement produced by skeletal muscles that requires energy expenditure. It includes exercise as well as other activities which involve bodily movement and are done as part of playing, working, active transportation, house chores and recreational activities. It is fundamental means of improving people's physical and mental health.

Physical inactivity (lack of physical activity) has been identified as the fourth leading risk factor for global mortality (6% of deaths globally). Moreover, physical inactivity is estimated to be the main cause for approximately 21–25% of breast and colon cancers, 27% of diabetes and approximately 30% of ischaemic heart disease burden.

Regular and adequate levels of physical activity in adults reduce the risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer, depression and the risk of falls. Furthermore they strengthen bone, muscles and functional health and are a key determinant of energy expenditure, and thus fundamental to energy balance and weight control. The benefits of physical activity also include positive effects on mental health development and cognitive processes.

Globally, around 31% of adults aged 15 and over were insufficiently active in 2008 (men 28% and women 34%). Approximately 3.2 million deaths each year are attributable to insufficient physical activity.

In 2008, prevalence of insufficient physical activity was highest in the WHO Region of the Americas and the Eastern Mediterranean Region. In both these regions, almost 50% of women were insufficiently active, while the prevalence for men was 40% in the Americas and 36% in Eastern Mediterranean. The South East Asian Region showed the lowest percentages (15% for men and 19% for women). In all WHO Regions, men were more active than women, with the biggest difference in prevalence between the two sexes in Eastern Mediterranean.

Physical activity is central to a baby's normal growth and development. This continues through school, and into adulthood and older years. Being physically active can bring substantial benefits and there is consistent evidence of a dose-response relationship, i.e. the greater the volume of physical activity undertaken, the greater the health benefits that are obtained.

The benefits of regular physical activity have been clearly set out across the life course. Physical activity, as recommended by the World Health Organization (WHO), is important for all age groups, and has particular relevance for children, the working population and the elderly.



For adults, insufficient physical activity is defined as not meeting any of the following criteria: at least 30 minutes of moderate-intensity activity or walking per day on at least five days in a typical week; or at least 20 minutes of vigorous-intensity activity per day on at least three days in a typical week; or 5 or more days of any combination of walking, moderate-or vigorous-intensity activities achieving a minimum of 600 metabolic equivalent (MET)-minutes per week.

The strength of the relationship between physical activity and health outcomes persists throughout people's lives, highlighting the potential health gains that could be achieved if more people become more active throughout the lifecourse. There is a clear causal relationship between the amount of physical activity people do and all-cause mortality. While increasing the activity levels of all adults who are not meeting the recommendations is important, targeting those adults who are significantly inactive (i.e. engaging in less than 30 minutes of activity per week) will produce the greatest reduction in chronic disease.

Patterns of physical activity have changed in high-income countries, from being mainly work- or transportrelated to being leisure-time activities. In low-income countries, physical activity still mainly occurs during work, doing chores or transport.

Thanks to the range of conclusive findings over the past decade regarding physical activity as an important health determinant, there now exists a solid foundation for a clear and strong call to action.

In May 2004, the Fifty-seventh World Health Assembly endorsed Resolution WHA57.17: Global Strategy on Diet, Physical Activity and Health and recommended that Member States develop national physical activity action plans and policies to increase physical activity levels in their populations. Furthermore, in May 2008, the Sixty-first World Health Assembly endorsed Resolution WHA61.14: Prevention and Control of Non communicable Diseases: Implementation of the Global Strategy and the Action Plan for the Global Strategy for the Prevention and Control of Non communicable Diseases.

The WHO Global action plan for the prevention and control of NCDs 2013-2020, provides Member States with a political mandate to initiate or expand actions to curb chronic disease and obesity by addressing four major risk factors, which include physical inactivity and diet. WHO Member States agreed to reduce physical inactivity by 10% by 2025.

This Action Plan urges Member States to implement national guidelines on physical activity for health and encourages them to develop and put into practice policies and interventions that develop and implement national guidelines on physical activity for health; introduce transport policies that promote active and safe methods of travelling to and from schools and workplaces, such as walking or cycling; ensure that physical environments support safe active commuting, and create space for recreational activity.



The WHO European Region is the first Region worldwide to develop a physical activity strategy, a development that was mandated in the Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020. In the Vienna Declaration Member States called for a physical activity strategy, alongside the Food and Nutrition Action Plan 2015-2020, to encourage physical activity across all population groups with a view to promoting well-being using a whole-of-society approach, and tackling the burden of obesity and NCDs.

Also the Parma Declaration on Environment and Health adopted by WHO European Member States at the Fifth Ministerial Conference on Environment and Health held in Parma, Italy, on 10-12 March 2010 underscores the importance of providing safe environments to enable physical activity, and commits countries to work towards the achievement of targets to that effect.

WHO/Europe collaborates with HEPA Europe (European network for the promotion of health-enhancing physical activity), which works for better health through physical activity among all people by strengthening and supporting efforts to increase participation and improve conditions for healthy lifestyles.

In November 2013, the Education, Youth, Culture and Sport Council met in Brussels aimed at encouraging the development and implementation of effective cross-sectoral HEPA policies in the Member States in the areas of sport, health, education, environment and transport.

At the national level, many countries have already developed national physical activity policies and action plans. Local governments have a crucial role to play in creating environments and opportunities for physical activity and active living.

Priority areas being considered include:

-promoting physical activity among children and adolescents for optimal development;

-the creation of health-promoting environments conducive to physical activity, including through active transport and healthy workplaces;

-maximizing the potential to promote physical activity in healthcare settings such as primary care; and -ensuring opportunities for social physical activity among older people in order to maintain functional capacity and reduce the onset of chronic diseases.

A number of policy areas can contribute to the promotion of physical activity and can provide new opportunities for Union citizens to become physically active. The key physical activity initiatives developed by national governments are mainly related to:

HEALTH Counselling on physical activity as part of primary health care services

SPORTS Existence of a national Sports for All policy(ies)

EDUCATION Mandatory physical activity in primary and secondary schools



TRANSPORT National or subnational schemes promoting active travel to school and/or workplace MONITORING Physical activity included in the national health monitoring system or separate routine survey GUIDELINES Existence of a national recommendation on physical activity

While efforts to promote health-enhancing physical activity (HEPA) have been stepped up by public authorities in some Member States over the past years, rates of physical inactivity in the Union remain unacceptably high. The majority of European citizens do not engage in sufficient physical activity, with 60 % never or seldom playing sport or exercising. The lack of leisure-time physical activity tends to be more common in the lower socio-economic groups. As regards physical activity levels, there are vast discrepancies between Member States. While some have made considerable progress in increasing the proportion of citizens who meet the minimum level of recommended physical activity, many others have made none or even regressed. Current policies have so far not had a decisive impact in reducing the physical inactivity levels for the Union as a whole.

Most common policies

4.1 Education and information

Reforms aimed to raise awareness of the importance and benefits of physical activity among the population are under way in many countries. The main strategies address physical activity measures throughout the life-course through education and sharing and disseminating best practices.

4.1.1 School-based interventions

Education policies can mandate quality physical education and physical activity programs throughout the school years. School-based physical activity interventions show consistent improvements in knowledge, attitudes and behaviour of children and, when tested, in physical and clinical outcomes. Physical education at school has the potential to be an effective tool to increase awareness of the importance of HEPA, and schools can be easily and effectively targeted to implement activities in this regard. Physical education at school not only contributes to pupils' immediate fitness and good health, but also helps young people to perform and understand physical activity better with positive lifelong repercussions. Moreover, physical education at school brings about transferable knowledge and skills, such as teamwork and fair play, cultivates respect, body and social awareness and provides a general understanding of the 'rules of the game', which students can readily make use of in other school subjects or life situations.





Physical education is compulsory in all European Regions at primary and lower secondary level. Promoting a healthy lifestyle is also often emphasized and health education has become its own mandatory subject in Ireland, Cyprus and Finland. Some countries, such as Germany, Portugal, the United Kingdom and Nordic countries, take a cross-curricular approach to the subject at school. This means that aspects of, for example, social and natural sciences are explored during physical education and vice versa, showing how subjects are interrelated.

Prescribed taught time of physical education varies significantly from one country to another as well as between education levels. Moreover, some countries fix the minimum hours of physical education at central level, while others leave this decision up to schools. For example, for the 2011/12 school year, the recommended minimum average taught time at primary level varied between 37 hours in Ireland and 108 hours in France. At secondary level, time spent ranged from 24 to 35 hours in Spain, Malta and Turkey to 102 to 108 hours in France and Austria. The Folkeskole (Consolidation) Act, passed by the Danish Parliament in 1993 and updated in 2014, makes it compulsory for schools to offer an average of 45 minutes of physical activity per school day in primary and lower-secondary education, as well as adding an extra physical education lesson per school week in grade 1 and an exit examination in physical education when students reach grade 9 (15/16 years old). Portugal and Finland are intending to raise the profile of physical activities directly by increasing the minimum taught time.

Some extracurricular activities even take place during the school day. Indeed, in some countries physical education is not limited to physical education classes, but is integrated into the daily school routine. In many Danish schools, for example, students practice 'morning running' before school starts. Other countries use extended school breaks to include physical activities on the playground or in the gym.

In most countries, pupils' progress in physical education is assessed like it is in any other subject. Only a few countries do not assess pupil's physical education skills in a formal way.

National reforms in many countries are also seeking to improve the conditions under which the subject is taught and to promote the training of those who teach it.

4.1.2 Informational activities

Large-scale media campaigns aimed at increasing awareness, education and motivation are disseminated via various channels, such as print media (e.g. newspapers, magazines, advertisements); electronic media (e.g. television, documentaries, radio, Internet); face-to-face activities (e.g. exhibitions, health fairs, public forums); mass events (e.g. mass aerobic exercise events, walks for health), sometimes held in line with national and international celebration days (e.g. National Heart Month, World Health Day, Move for Health







Day, World Diabetes Day); public advocacy by famous individuals (e.g. Prime Minister, high-ranking officers in ministries, sports champions, pop stars).

Several countries have disseminated national physical activity guidelines for adults as well as for children and youth. The United Kingdom is one of few countries in the world with national physical activity guidelines for people of all age groups from early years to older adults. Recommendations also exist on how people can reduce their sedentary behaviour.

In Ireland a national media campaign entitled "Ireland needs a change of heart" was developed in 2000, with an accompanying information pack and a handbook distributed to all households.

4.2. Sport policy

Sport promotion plays a very important role in supporting the achievement of the recommended levels of physical activity in the European population. Sport is often mistakenly used as synonym for physical activity but this is not the case. Sport has been defined as "all forms of physical activity which, through casual or organized participation, aims at expressing or improving physical fitness and mental wellbeing, forming social relationships or obtaining results in competition at all levels".

The ability of the sports sector to affect physical activity levels still often tends to be underutilized, and it is recommended that support be provided to local authorities and nongovernmental organizations that promote and organize sport.

The European Sports Charter adopted by the Committee of Ministers of the Council of Europe in 1992 and revised in 2001, defines principles for sport on a number of different areas and provides guidance for policy development in Europe. In 2007, the EU White Paper on Sport was adopted by the European Commission as a strategy paper setting out policy guidelines in the field of sport.

The Lisbon Treaty entered into force in 2009 and gave the EU competence in sports policy for the first time (Article 165). The article gave the Commission a mandate to develop a specific EU sports program, which can be supported by a budget.

In 2011, the European Commission published "Developing the European dimension in sport", which proposed action at EU level in the thematic areas of the societal role, the economic dimension and the organization of sport, which earlier had also provided the structure for the White Paper on Sport.

The European Union Work Plan for Sport for 2011-2014 recognized the need to strengthen cooperation between the Commission and the Member States in sport in a few priority areas, including the promotion of HEPA.





In July 2012, the Expert Group "Sport, Health and Participation" expressed support for a new Union initiative to promote HEPA.

On 26 November of 2013 the Council adopted the first ever Council Recommendation in sport, notably on promoting HEPA. It also adopted Council conclusions on the 'Contribution of sport to the EU economy, and in particular to addressing youth unemployment and social inclusion'. The Council also held a policy debate on 'Good governance in sport'.

The new Erasmus plus Programme aims to support actions in the fields of Education, Training, Youth and Sport for the period 2014-2020. The Sport Chapter in the Erasmus plus Programme aims to support European partnerships on grassroots sport in order to tackle cross-border threats to the integrity of sport, such as doping, match fixing and violence, as well as all kinds of intolerance and discrimination; to promote and support good governance in sport and dual careers of athletes; to promote voluntary activities in sport, together with social inclusion, equal opportunities and awareness of the importance of health-enhancing physical activity, through increased participation in, and equal access to sport for all.

The great diversity of the ministries responsible for sport, reflecting the historical, political and cultural nature of the countries, is interesting. In most cases, the ministry responsible for sport was also that responsible for education or physical education and in some cases also for youth. The second most frequent combination was that of sport and culture, sometimes combined with other areas such as tourism. Other combinations were health, welfare and sport; local government and sport; and finance, work, spatial planning and sport. The diversity can be assumed to have a bearing on the capacity of a policy to address certain aspects for example education ministries focusing more on education in sport and culture ministries focusing more on the cultural dimension of sport.

The tendency showed that the newer Member States were more likely to have a recent strategy dedicated to sport promotion, while this was the case for only one third of the older Member States.

Some of the new Member States had a strong sports tradition, which could have led to specific policies being developed on sport, while the older Member States might have been more likely to combine their sports strategies with other areas such as physical activity or nutrition.

In recent years, Austria has developed a solid policy framework addressing physical activity. A strong partnership with the Austrian Sports for All organizations — including their network of over 15 000 sports clubs -allows their experience to be drawn upon in terms of HEPA promotion and delivery. Provision of sufficient public funding through the Fit for Austria (Fit für Österreich) initiative, since 2006, has strengthened the Sports for All organizations' competences to provide a countrywide network of health-





oriented sports clubs. Collaboration between these partners ensures that activities such as the annual Austrian Day of Sports and "School Olympics" activities are successful.

This partnership is also responsible for Austria's largest cooperation programme between the sports and education sectors, entitled Move Children Healthy (Kinder gesund bewegen). The initiative aims to build cooperation between sports clubs, preschools and primary schools and to promote an active lifestyle by offering a joyful and fun approach to physical activity for children aged 2-10 years. By the end of 2014, more than 120 000 interventions have been provided to almost 7000 preschools and primary schools since 2009.

The Hungarian Parliament passed the National Strategy in 2007 aimed to improve the quality of life of the Hungarian population by developing stronger systems for sporting activities, investing in physical education, including physical activity in tourism, and encouraging the population to allow time for physical activity. Ultimately, this will strengthen human capital and community cohesion. The National Sport Strategy incorporates Sports for All values, including the need for special provision for marginalized groups (such as people with lower socioeconomic status, those with disabilities and the Roma population). These provisions are the responsibility of national and local governments, along with nongovernmental sports organizations, seeking to create a sensitive and continually evolving professional development toolkit to handle this complex task.

The Hungarian Government has approved a national strategy entitled Healthy Hungary 2014-2020, which has the promotion of regular physical activity among its priorities.

Sport England, the body responsible for investing in organizations and projects to promote sport, has published a strategy for 2012-2017 entitled "A sporting habit for life". The strategy aims to increase the rate of participation in sport; create opportunities for participation; encourage and develop sporting talent; provide facilities in the right places; support local authorities; and unlock local funding. This strategy complements the Government's participation in sports policy, which aims to get more people playing sports safely from a young age, and to help them keep playing sports throughout their life, no matter what their economic or social background is.

Some countries allocate financial resources to create supportive environments that facilitate participation in physical activity. As an example, in June 2002, Italy endorsed the "Fondo ex art. 64, comma 1, DL n°83" to provide financial support for the building or the renovation of sports facilities and infrastructures.

In June 2015, Germany passed the new prevention law (Praeventionsgesetz) that will allow individuals to get reimbursed through their health insurance for preventative physical activity, such as fitness clubs.





4.3. Transport and urban/environmental planning policies

Transport and urban planning policies play a paramount role in determining environmental exposures to transport-related air pollution and noise, as well as in providing conditions that can enable or suppress daily physical activity, particularly through cycling and walking for transport or leisure. There is growing evidence that interventions which provide urban environment settings that facilitate active transport, in combination with public transport, can influence people's choices of their mode of transportation and thereby facilitate the choice of healthier behaviour - as well as contributing to the climate change agenda. Urban planning in many European cities is a critical means of ensuring daily physical activity, as people often live far from their work or has few cycle paths, pavements or parks. The culture of work and education must change in order to recognize the importance of physical activity and encourage people to go to their schools and offices by active transport - on foot or by bicycle. In the European urban context, where more than 50% of trips done by car are shorter than 5 km and more than 30% are shorter than 3 km, the substitution of short car trips by walking and cycling is largely feasible and broadly coincides with the recommended levels of daily physical activity of moderate intensity.

Promoting safe walking and cycling as a mode of transport is one of the priority areas for policy interventions in the new physical activity strategy for the WHO European Region.

Using the Health economic assessment tool (HEAT) for walking and cycling, WHO highlighted that if all EU citizens aged 20-74 cycled or walked an additional 15 minutes per day, 100.000 premature deaths could be prevented each year.

The city of Freiburg in southwestern Germany has been successful in implementing sustainable transport policies that may be transferable to car-oriented counties around the world. Over the last three decades, transport policies in Freiburg have encouraged more walking, cycling and use of public transport. During this period, the number of bicycle trips has tripled, travel by public transport has doubled, and the proportion of journeys by car has declined from 38% to 32%.

In Denmark, specific funding has been allocated for the promotion of cycling. Aarhus Cycling City is one of many projects that have received funds from the Cycling Fund (Cykelpuljen) for the period 2009–2014. Aarhus has experienced a 19% increase in cycling in recent years. The increase is the result of several improvements to infrastructure, such as new cycle paths, bicycle-friendly streets and new bicycle parking solutions, as well as campaigning efforts.

In September 2015, in Kaunas Lithuania, Government leaders, members of nongovernmental organizations and representatives from the WHO European Region partnered in a cross-collaborative bicycle event to promote physical activity and reduce NCDs. The community event spread awareness about life-long healthy





lifestyles through a 10-km cycle ride, the unveiling of a bicycle sculpture and a presentation to the community about the physical activity policies of the local government. The plan is to increase the current bike route to 300 km by 2020.

The initiative in Lithuania is a strong example of intersectoral collaboration at local level to improve the lives of citizens by offering safe, healthy options for work and play, thus reducing health risks and improving well-being.

The Cycle to Work Scheme is available to employees in England, legislated within the 1999 Finance Act, which introduced an annual tax exemption allowing employers to loan cycles and cyclists' safety equipment to employees as a tax-free benefit.

The London congestion charge is a fee charged on most motor vehicles operating within the Congestion Charge Zone in Central London. It was introduced in 2003 and remains as one of the largest congestion charge zones in the world. Although the charge is mainly designed to reduce high traffic flow in the central area, it has contributed to a significant increase in the use of cycles and new investments in infrastructure for cyclists.

The Model Project-Sustainable Spatial Development 2014-2018 promotes activities that encourage physical activity in Switzerland's urban areas, where 75% of the population lives. Nine open-space projects are currently receiving support. One such project is in Sursee, where 17 communities have committed themselves to promoting open spaces as places for physical activity and sport, recreation, leisure and meetings. This is part of the regional urban planning strategy, with the strong participation of civil society and a special focus on seniors, young people and people with disabilities, ensuring easy access for all.

A project in Winterthur promotes social diversity and the effective use of public and semi-private open spaces. It uses measures such as intercommunal planning processes and construction quality standards, offering incentives to various stakeholders, including real-estate owners.

The policy options and interventions available for national action include not only urban planning policy but also environment strategies, supported by efforts from parks and recreation authorities.

Policies and programs to create and preserve built and natural environments that support physical activity are best implemented through settings such as schools, universities, workplaces, health-care services, and the local and wider community. The physical environment also provides sports, recreation and leisure facilities and ensures there are adequate safe spaces for active living, for both children and adults.

In 2010, Metsähallitus Natural Heritage Services, the estate managers of Finland's national parks, launched a programme to encourage people to go outside into natural settings, to enjoy positive and genuine experiences, and to improve their physical health through a wide range of outdoor activities. The



programme addresses 4 key issues: strategic partnerships, research and monitoring, green space accessibility and nature and health for people of all ages. It was launched in the Oulu region of Finland, in an attempt to combat the high rates of health inequality in the region, especially with regards to mental health and poverty. The project aims to use Oulu's natural resources, allowing the area's green spaces to enhance physical activity opportunities, along with the generally beneficial health effects that natural surroundings can bring.

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5. Screening programs in European Union

The concept of screening in health care – that is, actively seeking to identify a disease or pre-disease condition in individuals who are presumed and presume themselves to be healthy – grew rapidly during the twentieth century and is now widely accepted in most of the developed world. Used wisely, it can be a powerful tool in the prevention of disease. But it is essential to observe the long-established principles and criteria and resist the introduction of screening practices that do not meet these requirements.

The screening situation across Europe is generally variable. Few countries have a single national body to review screening practice and policy, as UK, and population registers for recall and follow-up of patients are also rare. Screening tends to be targeted at individuals rather than populations and not all countries adhere to the criteria summarized in Table 1. In many countries health service provision is devolved to local or regional government and screening practice in different areas can vary widely as a result.

Table 2. Summary of criteria for screening

Category	Criteria
Condition	The condition sought should be an important health problem whose natural history, including development from latent to declared disease, is adequately understood. The condition should have a recognizable latent or early symptomatic stage.
Diagnosis	There should be a suitable diagnostic test that is available, safe and acceptable to the population concerned. There should be an agreed policy, based on respectable test findings and national standards, as to whom to regard as patients, and the whole process should be a continuing one.
Treatment	There should be an accepted and established treatment or intervention for individuals identified as having the disease or pre-disease condition and facilities for treatment should be available.
Cost	The cost of case-finding (including diagnosis and treatment) should be economically balanced in relation to possible expenditure on medical care as a whole.





Table 3. Summary of criteria for evaluation of screening

Factor	Criteria
Simplicity	The test should be simple to perform, easy to interpret and, where possible, capable of use by paramedics and other personnel.
Acceptability	Since participation in screening is voluntary, the test must be acceptable to those undergoing it.
Accuracy	The test must give a true measurement of the condition or symptom under investigation.
Cost	The expense of the test must be considered in relation to the benefits of early detection of the disease.
Repeatability	The test should give consistent results in repeated trials.
Sensitivity	The test should be capable of giving a positive finding when the individual being screened has the condition being sought.
Specificity	The test should be capable of giving a negative finding when the individual being screened does not have the condition being sought.

Table 4. Benefits and disadvantages of screening

Benefits	Disadvantages			
Improved prognosis for some cases detected	Longer morbidity in cases where prognosis is unaltered			
Less-radical treatment which cures some early cases	Overtreatment of questionable abnormalities			
Resource savings	Resource costs			
Reassurance for those with negative test results	False reassurance for those with false- negative results			
	Anxiety and sometimes morbidity for those with false-positive results			
	Hazard of screening test itself			
Source: Chamberlain. ⁹ Reproduced by	ind permission of the author and publisher.			





5.1 Key issues in screening

5.1.1. Information

Few would disagre that clear information about the benefits and harms of any screening procedure should be available to all individuals invited to participate in any program. Information provided should be based on results from respectable scientific trials in a form that is acceptable, accessible and useful to those receiving it. There must be information about the whole screening process, including follow-up tests, some of which may be invasive and unpleasant. Information is thus another central concept in modern health care in general and screening in particular.

5.1.2. Economics

Economic aspects of screening have come to the fore in the consideration of screening in the last decade. This is partly due to theoretical advances in the application of economic principles in health services but also because it has been realized that some screening procedures require large amounts of resources with little benefit to the population. With the increase in the perception by both policy-makers and the public that stringent criteria must be applied before screening procedures are introduced, economic facts have been increasingly demanded in order to try to quantify the costs and benefits in terms that are more readily understood. A screening service provided for one population consumes resources that will be unavailable for use elsewhere. Economic approaches may demonstrate conflicting aspects of policy decisions – for example, increasing efficiency may reduce equity. They may also highlight the differing perspectives of providers, consumers and industry. In all health services, however funded, financial resources are, and will continue to be, insufficient; expert economic analysis and advice must be an integral part of the system and must help to guide policy.

5.1.3. Ethics

Ethical considerations, such as the harm-to-benefit ratio, must be paramount whenever a screening program is being put forward for implementation. In any assessment of screening in a population an assessment has to be made of the harm-to-benefit ratio. Any abnormality identified, whether in a national screening program or in primary care, must be treatable and the investigation itself must not cause harm. Audit, evaluation and quality control in any screening program, as with any other service program, adequate steps must be taken to ensure that the original objectives are being met and that the methodology meets appropriate standards. The ideal method for evaluating a screening program is the





randomized controlled trial in which individuals in a population are allocated, at random, either to a group that is screened or to a group that receives only its normal medical care. Randomized controlled trials are expensive and difficult to manage and may also be ethically questionable in situations where the control group is denied treatment for the condition in question. Despite this, the UK National Screening Committee will only recommend the introduction of any new screening program after assessing the findings of a properly conducted randomized controlled trial. The Committee also keeps all screening programmes under regular review to ensure that they continue to perform in the way intended and continue to be effective. The importance of maintaining the quality of screening programmes should never be underestimated.

5.1.4 Screening in adults

Screening in adults is potentially big business. Media interest in health is insatiable, and anyone who reads the newspapers, watches television or listens to radio can hardly fail to be aware of the various diseases that may be lying in wait for them. Of course, it is of benefit if potential health problems can be identified early and treated, or at least alleviated. But society must beware of turning health into an obsession and must resist both the increasing medicalization of life and the growing politicization of medicine. Above all, before any further national screening program is introduced, it must be clear that the long-established screening criteria are satisfied and that the evidence base exists. Efforts must also be made to improve coverage of those at highest risk. A national program of screening for colorectal cancer by fecal occult blood testing in adults aged from 50 to 74 years has been agreed in the United Kingdom but it is essential that adequate diagnostic, treatment and follow-up facilities are in place before it is introduced. Screening for risk factors of coronary heart disease and stroke should be carried out in the primary care setting with advice, treatment and follow-up as appropriate. In the case of abdominal aortic aneurysm, it now seems clear that ultrasound screening in men aged 65 years and over would reduce mortality from this condition, although the benefit for those aged over 75 years has been questioned. As with colorectal cancer, however, national implementation should await the certainty that adequate facilities and resources are available.

5.1.5 Screening in the elderly

Society is facing a major challenge in how best to maintain health and quality of life in populations where the proportion of people aged over 60 years now outnumbers those aged under 16 and the number of individuals aged over 85 is rising. A system of regular surveillance and case-finding in primary care would





seem to be the most appropriate form of screening, particularly in those aged 75 and over, but the resource implications of this must be confronted. Several simple tests, such as identifying difficulties with sight or hearing or problems with feet, can make a huge difference to the comfort and quality of life. Depression is another area where identification and treatment could improve well-being. Social and community support are also vital in enabling older people to enjoy as independent and contented a life as possible. The emphasis in screening at this stage of life should be on improving quality of life and preserving function and independence, rather than on providing "heroic" treatments to prevent mortality.

Table 5. Recommendations for screening in the ederly

Physical assessment	Mental assessment	Social assessment
Hypertension Early heart failure Hearing loss Vision loss Incontinence Lack of physical activity Foot problems Review of medication	Depression Alcohol use	Falls Undernutrition Isolation

5.2 Cancer screening programs

After circulatory disease, cancer is the second largest cause of death in the European Union. Every year around 3.2 million Europeans are diagnosed with cancer, a burden that is expected to grow even greater due to demographic trends in Europe. Substantial proportions of the cancer deaths in the EU are attributable to breast, cervical or colorectal cancer, according to 2006 estimates of the International Agency for Research on Cancer, over 250,000 deaths due to these cancers in men and women were reported in the EU.

A large body of knowledge on implementation of cancer screening programmes has been acquired through the screening networks established under the Europe Against Cancer program which have been consolidated under the current EU Health Program in the European Cancer Network. The EU networks have shown that the potential benefit of cancer screening may only be achieved if quality is optimal at every step in the screening process which includes identification and personal invitation of the target population,





performance of the screening test and, if necessary, diagnostic work-up and treatment of screen-detected lesions, and aftercare. Screening is performed on predominantly healthy persons; comprehensive quality assurance is also required to maintain an appropriate balance between benefit and harm in the large numbers of persons eligible to attend cancer screening programmes. Achieving and maintaining high quality at every step in the screening process requires an integrated, population-based approach to health service delivery. This approach is essential in order to make screening accessible to those in the population who may benefit and in order to adequately monitor, evaluate and continuously improve performance.

The Council Recommendation on cancer screening, adopted unanimously by the Health Ministers of the EU in December 2003, sets out fundamental principles of best practice in early detection of cancer, and represents a shared commitment by Member States to implement cancer screening programmes.

The Report on the implementation of the Council Recommendation on cancer screening, prepared four years after adoption, shows that Europe leads the way world-wide in implementation of population-based screening, with over 50 nationwide programmes for breast, cervical or colorectal cancer currently running or being established and over half a billion examinations, at current levels, being performed over a 10-year period in the EU.

5.2.1 Breast cancer screening

In 2007 more than 59 million women in the EU were of the target age for breast cancer screening based on mammography specified in the Council Recommendation (50-69 years). Four out of 10 women in this age group in the EU (41%) were targeted for breast cancer screening by 11 Member States in which nationwide rollout of population-based programmes was complete in 2007. A lightly higher proportion of the women in this age group in the EU (44%) were targeted for breast cancer screening by the seven Member States in which nationwide rollout of population-based breast screening programmes was ongoing in 2007. Non-population-based programmes were running in five Member States, one of which was also piloting population-based programmes. No screening program based on mammography was running or being established in only one Member State in 2007.

Women outside the age range 50-69 years were also eligible to attend breast screening programmes in a number of Member States in 2007. In the Member States which have adopted a population-based approach for breast cancer screening, the smallest target age range is 50-59 years and the largest age range is 40-74 years. The limits of the target age for breast cancer screening in the EU varied between 40 and 75 years in 2007. The lowest age targeted was less than 50 years in 8 Member States; the highest age targeted was over 69 years in the same number of Member States. In 2007, over 64 million women in the EU were





targeted for, and approximately 12 million women attended breast cancer screening programmes based on mammography.

The study "Mammographic screening programmes in Europe: organization, coverage and participation" by Giordano L. et al (J Med Screen 2012;19 Suppl1:72–82) summarizes participation and coverage rates in population mammographic screening programmes for breast cancer in Europe. The authors used the European Network for Information on Cancer (EUNICE), a web-based data warehouse (EUNICE Breast Cancer Screening Monitoring, EBCS), to obtain information on program characteristics, coverage and participation from its initial application in 10 national and 16 regional programmes in 18 European countries. The total population targeted by the screening program services covered in the report comprised 26.9 million women predominantly aged 50-69. Most of the collected data relates to 2005, 2006 and/or 2007. The average participation rate across all programmes was 53.4% (range 19.4–88.9% of personally invited); or 66.4% excluding Poland, a large program that initiated personal invitations in 2007. Thirteen of the 26 programmes achieved the EU benchmark of acceptable participation (>70%), nine achieved the desirable level (>75%). Despite considerable invitation coverage across all programmes (79.3%, range 50.9–115.2%) only 48.2% (range 28.4–92.1%) of the target population were actually screened. The overall invitation and examination coverage excluding Poland was 70.9% and 50.3%, respectively.

Based on the directives developed by Europe Against Cancer, the three Communities of Belgium and the Federal Government signed a protocol, in October 2000, to organize and finance a national campaign of breast cancer screening for women aged 50–69 years. The responsibility for the coordination of the campaign rests with 11 recognized screening centers. There are five centers in Wallonia (one per province), five in Flanders (in the four Flemish universities and in Bruges) and one in Brussels. The screening center are responsible for making information available to the target group, sending out the invitations, retesting where necessary, recording data and reporting to the referring doctor. In Flanders the campaign started on 15 June 2001 and in Wallonia and Brussels a year later. In Denmark, screening programmes for breast cancer are established in two of the 14 county councils for women aged 50–69 21 years. These two screening programmes cover 20% of the target population. In Finland, under the terms of the Public Health Act, women between the ages of 50 and 59 years are invited every two years for breast screening. In France, screening for breast cancer, previously limited to some departments (32 at the end of 2002), has been extended since January 2004. Every woman between 50 and 74 years (except for those in Guyana) is invited for a free breast screening every two years. A strategic objective of the Public Health Act, which





came into force in August 2004, is to "reduce the percentage of late-stage breast cancer detected in women, notably by increasing the screening coverage rate up to 80% in women aged between 50 and 74 years". The Act calls for specific programmes to target isolated, disabled or deprived women who might be reluctant to participate. This has been partly achieved by the production of audiovisual materials for people suffering from visual or hearing deficiencies, and by the translation of brochures into community languages. Several campaigns at national and local levels are also planned. Patients' and women's associations are involved in this information/distribution effort. In Ireland, Phase 1 of Breast Check, a national breast screening program, started in February 2000 and already offers screening in several areas, with coverage expected to extend nationwide by the end of 2007. Breast screening outside the Breast Check program is available to all women if they are referred by a GP. In Italy, screening policies for breast cancer have been included in the package of essential levels of care provided by the national health system (Essential Level of Assistance) by Decree "DPCM 29/11/2001". All national health plans have set targets for these areas of prevention. Registers are managed at regional level, however, and screening programmes are more widespread in northern and central Italy. There is usually a system for targeting and recalling patients, but the target population varies according to regional health plans so the position is varied. In the Netherlands, there is a national program for breast cancer screening. In Spain, since 1990 breast cancer detection programmes have been implemented in all Autonomous Communities. The programmes target 22Screening in Europe – a policy summary population varies across regions but in most it includes women aged 50-65 years. In Sweden, national guidelines from the National Board of Health and Welfare recommend mammography screening for early detection of breast cancer for women aged between 40 and 74 years. Examination intervals are 18 months for women under 55 years, and 24 months for women over 55. Among the new Member States, a pilot program for breast cancer screening has started in Cyprus and covers women aged 50–69 years. In Estonia, there is a screening program for breast cancer, financed and administered by the Estonian Health Insurance Fund. The target population is women aged 45–59 years, and the screening interval is three years. In Hungary, mammography screening was introduced in 2002 for women aged 45–65 years, and the procedure is repeated biannually with a good participation rate. In Latvia, screening for cancer is included in the prophylactic program for adults and covered through the health care budget. For breast cancer, women aged 50-69 years are recommended to undergo one mammography every two years. In Slovakia, breast cancer screening is provided by the State and paid for by health insurance companies. The target population is women aged 40-60 years and the method is periodic mammography.





5.2.2 Cervical cancer screening and human papillomavirus (HPV) vaccination

Nearly 109 million women in the EU in 2007 were in the age range 30-60 years which corresponds to the minimum target age recommended in the recently published second edition of the European Guidelines for Quality Assurance in Cervical Cancer Screening. Five out of ten 30-60-year-old women in the EU (51%) were targeted for cervical cancer screening in the 17 Member States which had adopted policies aiming for implementation of population-based screening programmes. Two out of 10 women in this age group in the EU (22%) were targeted for cervical cancer screening by the population-based programmes which were rolled out nationwide in seven Member States in 2007. Five up in the EU (47%) were targeted by cervical cancer screening programmes in the 12 Member States which have adopted non-population-based policies. Four Member States had dual programme type or status and two Member States were not running or establishing cervical screening programmes in 2007.

The full age range targeted for cervical cancer screening varied considerably across the EU in 2007; the lowest age to begin screening was less than 30 years in 19, and the highest age targeted for screening was over 60 years in 16 Member States.6 If women outside the 30-60-year-old age range are taken into account, approximately 146 million women were targeted by cervical cancer screening which were running or being established in the EU in 2007. Approximately 32 million women in the EU attended screening programmes based on cervical cytology in 2007.

On 3th December 2014 in Melbourne, at the World Cancer Leaders' Summit, WHO launched the "Comprehensive cervical cancer control: a guide to essential practice", a new guidance to help countries better prevent and control cervical cancer. This guidance involves: a) primary prevention: human papillomavirus (HPV) (the virus responsible for most cases of cervical cancer) vaccination for girls aged 9 to 13 years, aiming to reach them before they become sexually active; b) secondary prevention: access to technology for women over 30 years of age, such as VIA (visual inspection of the cervix with acetic acid) or HPV testing for screening, followed by treatment of detected precancerous lesions, which may develop into cervical cancer.

Since 2008, HPV vaccination programmes have been implemented in most EU countries. By May 2012, 19 out of 29 countries in the EU (including Norway and Iceland) had implemented routine HPV vaccination programmes, and 10 countries had also introduced catch-up programmes. Despite the efforts made by individual Member States, coverage rates – where data are available – are lower than expected in many EU countries (range from 24% to 84%). Furthermore, target age, system of financing and delivery of the vaccines differ from one country to another and coordination among EU countries is lacking.



Data collected from seven randomised controlled trials (including 44.142 females globally) showed that HPV vaccines are safe, well tolerated and highly efficacious in preventing persistent infections and cervical diseases associated with vaccine-HPV types in young females. The data also support the notion that the vaccines provide some degree of cross-protection from persistent infections and cervical diseases associated with non vaccine-HPV serotypes (Table 6: Lu B. et al. BMC Infect Dis 2011 Jan 12; 11:13)

	Vaccine		Control		Risk ratio	
	Events	Total	Events	Total	IV, fixed, 95% CI	
Efficacy						
CIN2+ associated with HPV 16						
Intention to treat populations	85	14506	232	14523	0.47 [0.36, 0.61]	
Per-protocol populations	3	11617	93	11323	0.04 [0.01, 0.11]	
CIN2+ associated with HPV 18	-				0.01 [0.01, 0.11]	
Intention to treat populations	8	14023	53	14030	0.16 [0.08, 0.34]	
Per-protocol populations	2	11849	26	11716	0.10 [0.03, 0.38]	
CIN1+ associated with HPV 16	-	11045	20		0.10 [0.05, 0.50]	
Intention to treat populations	67	10922	174	10969	0.43 [0.33, 0.58]	
Per-protocol populations	0	2643	63	2597	0.02 [0.00, 0.11]	
CIN1+ associated with HPV 18	-	2015		2337	0.02 [0.00, 0.11]	
Intention to treat populations	9	10425	44	10460	0 22 [0 10 0 44]	
Per-protocol populations	0	2102	16	2120	0.02 [0.10, 0.44]	
	v	2102	10	2120	0.05 [0.00, 0.51]	
Persistent HPV 16 infection of ≥ six months						
Intention to treat populations	25	5974	173	5990	0.15 [0.10, 0.23]	
Per-protocol populations	31	7332	475	7153	0.06 [0.04, 0.09]	
Persistent HPV 18 infection of \geq six months						
Intention to treat populations	16	6456	69	6492	0.24 [0.14, 0.42]	
Per-protocol populations	9	7056	193	6952	0.05 [0.03, 0.09]	
CIN2+ associated with HPV 31/33/45/52/58						
Intention to treat populations	267	17213	341	17263	0.79 [0.67, 0.92]	
Per-protocol populations	74	12478	130	12533	0.58 [0.43, 0.77]	
Persistent infection of ≥ six months associate	ed with HPV	31, 33, 45	, 52 and/or	58		
Intention to treat populations	1092	10262	1418	10262	0.77 [0.72, 0.83]	
Per-protocol populations	661	8700	922	8672	0.72 [0.65, 0.79]	
Safety						
Serious adverse effects	825	21916	829	21940	1.00 [0.91, 1.09]	
Injection-related serious adverse effects	15	21916	8	21940	1.82 [0.79, 4.20]	

Table 6. Efficacy and safety of HPV vaccines

HPV: Human papillomavirus; CIN: Cervical intraepithelial neoplasia

In Denmark, screening for cervical cancer is available in all 14 county councils. Women in the age group 23-59 years are invited to participate, except in Copenhagen, where coverage is limited to those aged 25-45 years. In Belgium, a program of cervical cancer screening has been running since 1994, when the Flemish Government decided to reorient the 23 organization of secondary prevention of cervical cancer according





to the European guidelines. The program targets women aged between 25 and 64 years, who are invited for a Pap smear every three years. The program is administered and evaluated by the Scientific Institute of Public Health in collaboration with the Communities. Despite scientific support, no formal screening program is organized in the French Community. In Finland, the Public Health Act states that women aged 30-60 years should be invited for screening for cervical cancer every five years. In France, cervical cancer screening is offered to women aged 25-69 years every three years. A recent study estimated that 35% of women in the target age group have never, or only rarely, been screened. Targeted messages will be used to reach these women and coverage could be increased by the participation of GPs (96% of Pap tests are currently carried out by gynecologists). The 48th objective of the Public Health Act of 2004 is "to continue the annual 2.5% decrease of cervical cancer incidence, notably by increasing screening coverage rate to 80% for women aged 25–69 and HPV test utilization". National screening programmes for cervical cancer are available also in Germany (for the statutory health insured) and the Netherlands. In Italy, screening programmes for cervical cancer are similar to those for breast cancer. Registers are managed at regional level and screening policies are more widespread in northern and central Italy. In Ireland, Phase 1 of a National Cervical Screening Program, which offers free cervical screening to women aged 25-60 years in the Mid Western Health Board (MWHB) area, has recently started. In Spain, cervical cancer screening through cytology is offered to all women aged 35 years and over, but there are regional differences. In Catalonia, for example, there is a personalized register of all target individuals (women aged 20–64 years). Cervical cancer screening (Pap smear) is recommended every three to five years. In the Balearic Islands, screening for cervical cancer prevention is opportunistic rather than population-based. In Sweden, organized cervical cancer screening has been implemented since the mid-1960s. Guidelines for recommended screening are every third year for women aged 23–50 years and every fifth year for women aged 51-60.

In Bulgaria, a national strategy for prophylactic cancer screening (2001-2006) was approved in 2000. Given the scarce resources available for this strategy, however, it only recommends preventive examinations for cervical cancer as part of regular gynecological examinations. In Cyprus, there is a national policy on screening for cervical cancer based on the population register and covering all women aged 25-65 years. In Hungary, a gynecological cervical screening program was launched in 2004. It is based on Pap smear testing of all women aged 25–65 years every three years. In Latvia, women aged 20-35 years are recommended to have an oncological test every three years. For women aged 35-70 years, the test is carried out annually. Since July 2004, in Lithuania a cervical cancer prevention program has been financed by the Compulsory Health Insurance Fund. The program targets women aged 30–60 years and screening is performed every





three years. In Slovenia, there is a national policy on screening for cervical cancer that includes all women between the ages of 25 and 64 years. There is active follow-up through a central surveillance system, and the screening interval is three years, after two initial smears over six months have proved negative.

5.2.3 Colorectal cancer screening

Approximately 136 million women and men in the EU in 2007 were in the target age group for colorectal cancer screening specified in the Council Recommendation (50-74 years). Over four out of 10 women and men (43 %) in this age group in the EU were targeted for colorectal cancer screening by the 12 Member States which have adopted policies aiming for implementation of population-based programmes. Three out of 10 women and men (34%) in this age group in the EU were targeted for colorectal cancer screening by the five Member States rolling out population-based programmes nationwide in 2007. Approximately three out of 10 women and men (27%) in this age group in the EU were targeted for colorectal cancer screening by the seven Member States which have adopted policies aiming for implementation of non-population-based programmes. No screening programmes were running or being established in eight Member States in 2007. If women and men outside the age range 50-74 years are taken into account, approximately 107 million individuals were targeted by colorectal cancer screening programmes which were running or being established in the EU in 2007.

The age range targeted for colorectal cancer screening varied considerably across the EU. Colorectal cancer screening began at ages above 50 years in screening programmes based on the faecal occult blood test (FOBT) in three Member States, and in programmes based on endoscopy in two Member States. The oldest eligible age to attend FOBT-based colorectal cancer screening was less than 74 years in programmes in nine Member States, and more than 74 years in seven Member States. In 2007, approximately 12 million women and men attended colorectal cancer screening programmes in the EU. In more than nine out of 10 cases (approximately 94%), screening was based on the faecal occult blood test (FOBT), which is the evidence-based screening method currently recommended by the Council. The other screening tests were based on endoscopy (flexible sigmoidoscopy or colonoscopy), a novel test method which is still under evaluation.

In Denmark, a trial for colorectal cancer has started in two of the county councils where men and women aged 50-74 years are invited to participate. In Finland, a pilot project for colorectal cancer screening of people between the ages of 60 and 69 years was introduced in 2004 in several municipalities. In France, colorectal cancer screening is the 53rd objective of the 2004 Public Health Act and is currently the subject of trials in 22 departments. People aged 50–74 years are invited for a fecal occult blood test (FOBT) every two years. If the result is positive, a colonoscopy is carried out. The program will be assessed shortly to





define the national strategy for 2007. Initial results showed an increasing rate of participation (up to 50% in some departments) because of active participation by GPs.

5.3 CONCLUSIONS

On the basis of this brief account, it is evident that screening programmes and practices vary widely across the countries of the EU and will continue to do so for many years to come. This is inevitable given the differing structures and financing of health services, and differing demographic features of the population. There are, however, key objectives to strive for. These include having one national body per country responsible for practice and policy, scrupulous adherence to the long-established screening criteria, accurate population registers, greater uniformity of access across different areas of a given country and across different socioeconomic groups, and sound research evidence on which to base practice. The wide variation in practice in Europe illustrates the complexity of screening.

Sources:

- Policy Brief Screening in Europe European Observatory on Health Systems and Policies http://www.euro.who.int/___data/assets/pdf_file/0007/108961/E88698.pdf
- Giordano L. et al (J Med Screen 2012;19 Suppl1:72–82)
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