



EUROPEAN
CANCER
ORGANISATION



fighting heart disease
and stroke
european heart network



International
Diabetes Federation
Europe



EASL

EUROPEAN
ASSOCIATION
FOR THE STUDY
OF THE LIVER



ERS
EUROPEAN
RESPIRATORY
SOCIETY
every breath counts

FEND

Foundation of European Nurses in Diabetes



EUROPEAN SOCIETY OF HYPERTENSION

CHRONIC DISEASE ALLIANCE

A UNIFIED PREVENTION APPROACH

THE CASE FOR URGENT POLITICAL ACTION

TO REDUCE THE SOCIAL AND ECONOMIC BURDEN

OF CHRONIC DISEASE THROUGH PREVENTION

CONTENTS

EXECUTIVE SUMMARY	3
BRIEF OVERVIEW OF KEY HEALTH RISKS.....	5
TOBACCO.....	9
NUTRITION	11
PHYSICAL ACTIVITY.....	13
ALCOHOL.....	15
CONCLUSIONS.....	17
References	18

In an unprecedented alliance, 10 not-for-profit European organisations, representing over 100,000 health professionals, have joined forces to put the case for immediate political action, to reverse the alarming rise in chronic non-communicable diseases which affects more than a third of the population of Europe – over 100 million citizens. The evidence is overwhelming for tackling the four major risk factors for these diseases, as an essential starting point for bringing about a healthier European population.

Chronic non-communicable diseases account for 86% of deaths in the WHO European Region (1). They include heart disease, stroke, hypertension, diabetes, kidney disease, cancers, respiratory and liver diseases. Because most are treatable but not always curable, they generate an enormous financial burden due to treatment costs, care costs and loss of productivity. Four major health determinants – tobacco, poor diet, alcohol, and lack of physical activity - account for most of chronic illness and death in Europe. All of them can be successfully addressed to prevent disease and promote the health of the European population. However, 97% of health expenses are presently spent on treatment, only 3% invested in prevention (2).

This alliance aims to support the European Commission in bringing together Member States to further influence their respective policies, not only in the fields of health and research, but also in areas such as agriculture, taxation, sport and recreation, urban planning, education and food regulation, to generate the political will to move this agenda forward by making “Impact on Public Health” a key aspect of decision making, and by creating a political environment which has improved health as its priority.

The chronic disease challenge facing Europe goes far beyond public health. If not addressed they threaten the “Europe 2020 strategy”, especially the goal to have 75% of the working population employed and productive; addressing chronic disease prevention holds promises to support the 2020 strategy and offers solutions to achieving its objectives and contributes to a stronger, competitive and inclusive Europe:

- Addressing chronic diseases will allow the Europeans to live longer and healthier lives, staying longer in the workforce and contributing to reversing the alarming negative labour force growth predicted for 2020 (3).
- Keeping people healthy will also help improve Europe’s productivity: in developed regions, 28% of DALYs¹ are attributable to risk factors common to chronic diseases (i.e. tobacco, alcohol, inadequate intake of fruit and vegetable and physical inactivity). This figure reaches 35% if obesity & overweight are included (4).
- Health represents a strong economic sector, source of employment for European workers, driver of innovation in research and production, directly resulting in growth for the European economy. But ‘non-health’ puts a drain on public and private finances with high direct and indirect costs related to early death and absenteeism (5).

Health equals Wealth. This message is still very much valid today: investing in health means investing in people and ultimately, in the European economy, with big improvements happening in short time scales.

¹ Disability Adjusted Life Years: The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability

Poverty is a powerful contributor to chronic disease. Preventing disease reduces health inequalities by narrowing gaps between the vulnerable and privileged populations. The Alliance recognises the importance of the socio-economic status in the prevalence of the disease, which is not directly addressed in this paper, and fully supports the commitment of the European Union to create more equitable access to prevention as part of its plan to reduce health inequalities in the EU (6).

This paper is a synthesis of pragmatic and principled approaches to health promotion. It brings together the long time scientific knowledge and research of leading European organisations in the fields of health promotion, disease prevention and healthcare.

Prevention costs less than disease management and treatment. It is for this reason that this alliance has been established to form a partnership with the European Commission, urging the introduction of the innovative measures which are needed to protect the future of the European population.

PRIORITY RECOMMENDATIONS

Choice and information

- Comprehensive disclosure of the physical, chemical and design characteristics of all tobacco products should be required and made public
- Adoption of a compulsory standardized packaging of cigarettes with all branding elements removed and 80% of the packet front & back devoted to pictorial health warnings
- Mandatory food labelling on front and back of pack including traffic light colour-coding to facilitate consumer education and understanding
- Use of educational programmes to reinforce awareness of the problems created by alcohol in preparation for specific interventions

Incentives

- Ensure taxation on tobacco and alcohol is harmonised at a high level across the EU
- Promote measures to increase the affordability of healthy food choices including financial measures
- Encourage Member States to prioritise the needs of pedestrians and cyclists over those of motorists in urban development and to ensure easy access to facilities encouraging physical activity

The default healthy option

- Ban internet sales of tobacco
- Proceed with EU-wide measures to prohibit all marketing of unhealthy food to children through television and non-broadcast media
- Ban alcohol advertising, promotion and sponsorship of events via TV and radio programmes and sports

Safety & science

- Urge Member States to implement and enforce comprehensive smoke free legislation
- Take out industrially produced trans fatty acids from the food supply through an EU-wide legislative measure
- Further reduce salt and saturated fats from foods
- Prioritise non-communicable diseases within the health programme of DG Research 7th Framework Programme, across relevant areas

BRIEF OVERVIEW OF KEY HEALTH RISKS: TOBACCO, POOR NUTRITION, LACK OF PHYSICAL ACTIVITY AND ALCOHOL

Chronic diseases together account for over 86% of deaths in the European Union.

They include heart disease, stroke, hypertension, diabetes, kidney disease, cancers and respiratory and liver diseases. Four key health risks, or determinants, have a major impact on all types of chronic, non-communicable disease. The human cost cannot be overstated, but they also place an unsustainable financial burden on health budgets.

Cardiovascular diseases (CVD), which are the primary cause of death in the European Union, account for more than 2 million deaths every year. The annual cost to the EU economy is estimated to be over €192 billion, of which €110 billion are spent on the health care system, representing around 10% of total health care expenditure across the EU (5). However, 90% of heart disease is directly related to risk factors, including notably: tobacco use, unhealthy diet, physical inactivity and alcohol abuse (7). The declining rates of smoking, high blood cholesterol and hypertension account for up to 75% of the reduced death rates from cardiovascular disease seen in recent years (8), while only 25% of the decrease is due to medical treatments. However, unfavourable lifestyle factors – in particular physical inactivity and unhealthy diet, leading to obesity and diabetes – are driving the incidence rates up in young people (8). Furthermore, hypertension can lead to heart disease and stroke, one of the most disabling conditions (9). A 10% reduction in the population levels of the main risk factors would save thousands of lives, whereas commitment of the comparable cost to treatment will have a limited impact on overall mortality (10).

Respiratory Diseases: millions of people suffer from lung diseases and they account for a significant part of the global chronic disease health burden. The two most important risk factors for chronic respiratory diseases are tobacco smoke (through smoking and exposure to second-hand smoke) and indoor and outdoor air quality. The best control strategy from the standpoint of human health, supported by the scientific evidence to date, is to reduce the levels of all types of air pollutants.

The major five lung diseases are chronic obstructive pulmonary disease (COPD) asthma, lung cancer, pneumonia, and tuberculosis, many of which do not have a cure. They cause almost 20% of all deaths worldwide, and account for a financial burden of over €100 billion in Europe alone, due to health care costs and lost working days (11).

According to the latest WHO estimates (2007), 300 million people in the world have asthma, which represents one of the most prevalent long term conditions, and is unequivocally one of the most common chronic diseases of childhood. COPD is a complex, debilitating and life-threatening disease which gets worse over time and affects 30 million people in Europe. WHO predicts it to be the third leading cause of death by 2030 (12). Lung cancer remains the number one cancer killer in men and women in Europe and is likely to increase faster than any other type.

Liver Disease is the fifth largest cause of death in Europe, for which the main risk factors are alcohol consumption and obesity. Health budgets carry a huge burden in the treatment of this disease which is largely preventable through healthier choices in the consumption of both food and drink. Some policies aimed at limiting alcohol abuse have been effective (with the glaring exception of self regulation by the industry) and successive reviews and studies have shown that policies regulating the price and the environment in which alcohol is marketed, would have a significant effect in reducing alcohol consumption (13). The rise in retail outlets for alcohol, as well as longer hours of sale and reductions in price, have led to a marked increase in consumption (13). Other measures such as community interventions, drink-driving policies, cognitive behaviour therapies, mandatory treatment and pharmaceutically based inhibitors and antagonists have all been helpful in reducing alcohol dependence (15, 16, 17). Over the next 5 to 10 years, however, saturated fat consumption is likely to take over as the major cause of death from liver disease.

Type 2 Diabetes affects nearly 10% (31 million) of the entire adult population of Europe and costs €166 billion annually; the figures are rising sharply. By 2030 it is estimated that 35 million of the population of Europe will be affected (18). Worldwide, in 2010, 385 million people have diabetes and this is predicted to rise to half a billion by 2030 (19, 20). The cost of diabetes accounts for more than 10% of the entire European health budget. The microvascular complications of diabetes lead to its being the commonest cause of visual impairment, blindness and kidney failure. These vascular complications also mean that diabetes is a major contributor to the risk factors of other potentially fatal conditions such as cardiovascular disease and stroke. A study carried out by the German Diabetes Union showed that the risk of stroke is up to five times higher in older people with diabetes than in those without. Unhealthy eating habits and sedentary lifestyles are driving forces in the spread of diabetes, and treatment of its complications is very expensive. In Germany alone, where 11.8% of the population has diabetes (19), it accounts for 20% of the expenditure of statutory health insurers (18).

A vast number of cases are preventable by modifications in eating habits and physical activity. Action in these areas would improve health and achieve significant cuts in the immense costs of treatment and long term care. Urgent preventive action is needed to control the rise in the prevalence of diabetes. Successive trials have proved that measures aimed at diabetes prevention are highly cost effective.

Cancer (comprising approximately 100 different types of malignant tumours of the body organs) is the second largest cause of death after CVD and the first cause of death at middle age (12), when mass screening programmes are offered for cervical, breast and colorectal cancer. Annually, there were about 3.2 million new cases and 1.7 million deaths in 2008 (21). The most frequent cancers with each 13% of the total are colorectal, breast, prostate and lung cancer, whereas most deaths are due to lung (20%) and colorectal cancer (12%), breast cancer (7.5%), 16% of female cancer deaths only) and stomach cancer (7%).

Cancer has also become a source of longstanding treatment and surveillance, with a population prevalence of 3-4% that reaches 10-15% at old age. Whereas suffering and quality of life is nowadays

managed better, the costs of treatment and managing long term side effects are rising dramatically across Europe, due to increased availability of biological drugs. Smoking and alcohol have been identified by the International Agency for Research on Cancer, as containing major carcinogens, increasing the risk of cancers of the lung, oral cavity, larynx and oesophagus, and to a lesser extent also in cancers of the stomach, colon, rectum and breast (22). Use of tobacco is recognised as a major health risk, on average causing 30% of all cancers. There are other common denominators with CVD, in nutrition and food choices, although their causative role in various cancers is less specific than for some other non-communicable diseases. The role of physical exercise is increasingly recognised as important in the prevention of postmenopausal breast and colorectal cancer.

Chronic Kidney Disease (CKD) is classified into five stages of increasing severity, and affects 10% of the population (23). Hypertension, diabetes, obesity and smoking are all associated with development of CKD and may be accelerating transition through to End Stage Renal Disease (24). The ageing population and growing prevalence of diabetes and other chronic non-communicable diseases has led to increased prevalence of CKD and kidney failure (25). However, governments and health authorities still largely overlook the high prevalence of the disease, its contribution to the risk of cardiovascular disease and diabetes as well as its economic implications. What is more, most health authorities literally ignore CKD prevention (26). Approximately 1.7% of Europe's total healthcare budget is spent on ESRD patients - a disproportionate expenditure in relation to the much smaller percentage of the population affected (0.001%-0.087%) (27). Despite these costs, the prognosis for these patients is poor, and transplants are obviously limited to the availability of donors.

Obesity and overweight The healthcare systems of industrialised, emerging and developing countries across the world are facing a tidal wave of costs arising from the unhealthy eating habits and sedentary lifestyles which result in this condition. By 2020, obesity and overweight may wipe out all the health gains of the highly successful anti-smoking policies. Not only is it a significant factor in all the chronic diseases, but the costs of obesity, to the combined EU health budgets, are considerable. Obesity and overweight have also increased the risk for children developing diseases such as hypertension, hyperlipidemia, cardiovascular disease and type 2 diabetes, the latter formerly associated chiefly with adults – in particular the elderly. This is exacerbated by the vicious circle wherein weight gain discourages physical activity. The increasing prevalence of childhood obesity is particularly alarming since the vast majority will carry it into adulthood (28). In the case of sleep apnea, associated with severe obesity, loss of weight results in the regression if not complete cure of the condition (29). An increasing number of obese children and adults are now becoming at much greater risk of having a reduced life expectancy contrary to the long standing improvement in life expectancy seen in the general population.

The incidence of all these chronic diseases is increased by poverty and deprived socio-economic circumstances.

This alliance shares the view outlined in the Comité Permanent des Médecins Européens (CPME)'s appeal to the European Commission, published in February 2010, that investment in the promotion

of healthy lifestyles is the only sustainable way forward. There is a clear need for a decision-support system to estimate the impact, of future policy changes regarding smoking, nutrition, alcohol abuse and physical activity on the above mentioned diseases (30, 31).

The scientific evidence for the adverse health effects of smoking is overwhelming. There is a direct correlation between the number of cigarettes smoked and the risk of cancer, cardiovascular and chronic obstructive pulmonary diseases. Smoking, or exposure to smoke, causes up to 90% of lung cancers and is also proven to be an independent risk factor in diabetes. In general, about half of all continuing regular smokers will be killed by their smoking. Smokers who die in middle age as a result of their smoking lose about 22 years of life, with a larger proportion of that shortened life span being spent in ill health. However, stopping smoking before middle age largely eliminates this risk (32, 33).

Smoking increases the risk of cardiovascular disease five-fold in young and two-fold in older people (33). In addition, it is associated with both the onset and progression of Chronic Kidney Disease. Young people who do not start smoking before the age of 20 will usually never smoke at all, which enormously increases the urgency of measures to protect young people from starting, such as the removal of vending machines and of cigarette packets from point of sale display as well as ensuring that tobacco is highly taxed.

Passive smoking poses a massive risk to public health. The successful implementation of the measures proposed in the Framework Convention on Tobacco Control (FCTC), in particular those relating to smoking in the workplace, have already reduced the incidence of heart attacks by 17-19% in several countries (34). This success needs to be extended by the ratification and enforcement of the FCTC by all Member States. Implementing tobacco control strategies will require greater levels of investment across the EU, but economic evidence indicates that this is the second most cost-effective use of health funds after childhood immunisation. The European Commission has a clear role to play in coordinating and supporting these measures at a national level across all Member States.

Experiences within the European region, as well as worldwide, provide considerable knowledge on useful methods in controlling the use of tobacco. Immediate research priorities have been identified to clarify the true scale of the tobacco epidemic, mostly decreasing in males and increasing dramatically in females, especially in southern and central European countries: better understanding of the effects of tobacco on health and to best direct resources towards its control, improved surveillance data, standardised methodologies for research, particularly in the case of prevalence and mortality, and regular measurement of smoke exposure across all populations. It is essential that all regulation, research and advice, both at Member State and European level, be absolutely independent of all influence from the tobacco industry.

The tobacco industry is already required to disclose additives used in their products. This should extend to all chemical and design characteristics of these products, including the type of tobacco used, the way it is processed, the physical and chemical characteristics of its emissions, as well as the mode of use and behaviour of the user. Only in this way will it be possible to make comparisons between different tobacco manufacturers and establish a harmonised system for Member States to analyse, verify and finally report this information to the Commission.

RECOMMENDATIONS FOR REDUCING THE USE OF TOBACCO

At EU level

- Ensure that taxation on tobacco is harmonised at a high level across the EU
- Cigarette packets should adopt a compulsory standardized packaging with all branding elements removed and 80% of the packet front and back devoted to pictorial health warnings
- Dealings with the tobacco industry, across the EU, should be absolutely transparent
- Internet sales of tobacco should be banned
- All regulatory, scientific and advisory capacity, at Member State and European level, to be independent of all tobacco industry influence - in line with FCTC Art 5.3
- Comprehensive disclosure of the physical, chemical and design characteristics of all tobacco products should be required and made public Ref. FCTC Arts 9 and 10
- Ensure accurate data about quantities of tar, nicotine and CO with qualitative information about hazardous content and 'stop smoking' help lines

At Member State level

- All EU Member States should fully implement the Framework Convention for Tobacco Control (FCTC)
- All EU Member States should implement comprehensive bans on tobacco advertising and promotion, including on displays at point of sale in line with the FCTC
- All EU Member States should introduce a comprehensive ban on smoking in all public and workplaces
- Apply annual increases in tobacco tax above inflation as the most effective way to control consumption
- Cigarettes vending machines, should be banned
- Further development of smoking cessation and treatment strategies across all Member States including training of health professionals, increased accessibility of nicotine replacement therapies and national networks of treatment services

There is a direct correlation between eating patterns and the prevalence of obesity, type 2 diabetes, cardiovascular disease, hypertension, emphysema, respiratory infections and certain types of cancer (35, 36).

Low fruit and vegetable intake has been estimated to account for 4.4% of the burden of disease (37, 38). Fruit and vegetables have a high content of vitamins, minerals, antioxidants and phytochemicals and play a positive role in preventing CVD, diabetes and specific cancer types (40, 40). It is estimated that fruit and vegetable intake of 600 g per day could reduce the risk of coronary heart disease by up to 18% and stroke by 11%. This could prevent over 135 000 deaths from cardiovascular diseases each year (41).

A study published in NEJM warns that reductions in deaths resulting from cardiovascular disease could come to a halt as people get fatter. In contrast, a recently published WHO study suggests that deaths could be reduced by half by adopting a healthier diet and giving up smoking (42,43). Between 1970 and 1990 the death rate from cardiovascular disease fell by half, due to reductions in smoking, cholesterol levels and hypertension alongside an increase in physical activity. This trend has been halted since 1990 in young people due to the rise in obesity and increase in numbers of people with diabetes (8).

Much can be achieved by making relatively small changes across the broader population. These interventions target the risks faced by the entire population, from their social, economic and physical environments, and are also effective in reducing health inequalities. They include measures such as taxation on foods that are high in fat, salt and sugar, as well as reformulation measures (improving the composition of food to reduce the level of fat, saturated fat, salt and added sugar). Clear and easily understandable information on nutrition is crucial to the success of these interventions. Survey results consistently suggest that consumers like and understand a simple front of pack nutrition label, with traffic light colours, indicating whether the nutrient is present at a low, medium or high level. A simple traffic light system thus enables consumers to make informed choices (44).

The risks of a diet containing too many calories are shown in Europe and North America, where fast foods and soft drinks are increasingly popular. In countries such as Italy and Greece, where a traditional diet containing large amounts of fruit and vegetables has been replaced by foods high in carbohydrates and saturated fats, obesity, diabetes and coronary heart disease are on the increase.

Regulation is needed to control the use of trans fats, which have been officially identified by WHO as a “clear risk for human health” as they contribute significantly to an increased risk of coronary heart disease events (45). Examples of successful legislation against the use of trans fats are in existence for example from Denmark (46).

The availability of fast and convenience foods should be reduced, in particular to younger people, for example through eliminating advertising and snack dispensers in schools. In Scotland restrictions have been introduced to limit the use of saturated fats in school meals, in particular through fried

foods, but the effect of such measures is reduced by the availability of other outlets in the nearby locality (47).

High salt intake, coming mainly from processed foods, contributes to high blood pressure which in turn increases the risk of stroke, chronic kidney disease, coronary heart disease and diabetes. Several European countries have successfully reduced salt intake, through regulation and better labelling of processed foods. Such population wide interventions are likely to produce health benefits similar in magnitude to reductions in tobacco use, cholesterol levels and obesity (48, 49). Measures are urgently needed to reduce the consumption of salt to less than five grams per day in all EU countries, as already successfully achieved in Finland.

Self regulation by the industry on reducing salt is currently the policy makers' preferred option. It should be noted that voluntary measures for alcohol and tobacco have failed. (13, 50) Conversely, regulatory approaches have consistently proved to be the most effective, efficient and cost-effective way of achieving public health targets (51). This is what has been done in Finland, Japan and now Portugal. A law substantially reducing the amount of salt contained in bread was adopted in Portugal in March 2009.

Much has been done in recent years to improve nutritional health and try to reduce the prevalence of diabetes and cardiovascular disease as well as certain types of cancer. It is essential to maintain the political will to continue to take action. The introduction of a periodic report on nutritional health would help a great deal in maintaining momentum.

The 2007 Audiovisual Media Service Directive called upon governments and the European Commission to 'encourage media service providers to develop codes of conduct regarding inappropriate advertising of 'unhealthy' food and drinks in or accompanying children's programmes'. However, the code of conduct has not been taken up in all Member States, and it is recognized that, given the intense marketing of goods in the internal market, measures can only be effective if harmonised across the EU. Nor do the restrictions limit internet sales and promotion.

RECOMMENDATIONS FOR IMPROVED NUTRITION

At EU level

- Efforts to reduce the fat, sugar and salt content of mainstream food and drink products should be a key priority for Europe. The European Commission should set a firm agenda for progress in product reformulation. If the collaborative voluntary approach does not deliver results within that timescale, the Commission should introduce rules setting maximum levels of these nutrients/ingredients for different foodstuffs
- The European Commission should bring forward a proposal for an EU-wide ban on the addition of industrially produced trans fats in foodstuffs marketed in the EU
- Mandatory food labelling on front and back of pack should include traffic light colour coding to facilitate consumer education and understanding

- An integrated European Food and Agriculture Policy which works towards improving European diets in a sustainable way should be developed; it should provide for, inter alia, an increased supply of and access to affordable fresh fruit and vegetables
- EU-wide measure to prohibit all marketing of ‘unhealthy’ food to children through television and non-broadcast media
- Research into measures by which internet advertising can be discouraged

At national level

- Control the provision and sale of fatty snacks, confectionery and sweet drinks in public institutions, such as schools and hospitals
- Introduce subsidies on healthy foods to improve patterns of food consumption

PHYSICAL ACTIVITY

As mechanisation has reduced the need for manual labour and exercise, resulting in more sedentary lifestyles, the prevalence of the diseases addressed by this Alliance has increased. The World Health Organisation (WHO) describes physical activity as ‘a fundamental means of improving the physical and mental health of individuals.’ Physical activity is key to reducing the risk of cardiovascular and respiratory diseases, obesity, cancer, type 2 diabetes as well as liver diseases (52, 53).

Lack of physical activity during childhood increases overweight and obesity. The WHO estimates that within a decade this trend will affect 5 million children, with a further 15 million overweight. The majority will carry their obesity into adult life (28). Type 2 diabetes is now being reported in children and is directly linked to obesity.

As people get older, some types of physical activity become more difficult. However some activities are suitable, even for the aged such as walking and gardening & cycling. Therefore increasing physical activity is an important message, especially in an ageing population.

In some areas appropriate fitness facilities are scarce and accessible only to some communities. Better facilities for physical exercise as well as planning measures to encourage greater physical activity play a great part in combating these diseases. But with the shift to academic subjects a priority within the school curriculum, many schools have had to reduce, or even phase out, physical education through lack of time. This has been further exacerbated by the sale of playing fields for development, by many local authorities. With the responsibility for physical exercise now shifting to extra-curricular sports clubs, the questions of safety and public transport become increasingly important.

There are many other areas of urban planning where simple measures could be taken to encourage greater activity, such as the provision of more and safer cycle lanes and footpaths, and making stairs more visible and accessible than lifts and escalators in public buildings.

Lifestyle interventions involving consistent physical activity and regulated diet, significantly reduces the incidence of type 2 diabetes and reverses the glucose intolerance which precedes it. Just one half hour of moderately vigorous activity a day, over and above normal levels, will reduce weight by 1-2kg per year (54). With sufficient support and monitoring, these interventions can be successfully implemented by a wide range of professions, in a wide range of settings, for a wide range of ethnic and age groups.

RECOMMENDATIONS FOR INCREASED PHYSICAL ACTIVITY

At EU level

- Intensify the collection, analysis and dissemination of information on effectiveness of interventions in the area of physical activity
- Monitor EU citizens' participation in physical activity through regular surveys

At Member State level

- Set urban planning standards prioritising non-motorised transport and for recreational areas encouraging physical activity
- Each school child to have access to periods of physical activity each day at school, and to be encouraged to after school physical activity
- Regular monitoring in all areas of child and adolescent growth and development e.g. height, weight, lung capacity etc.
- Improve facilities for physical activity in schools, and an end to the disposal of recreational land for development
- Encourage the implementation of the above recommendations at regional and local levels

ALCOHOL

The use of alcohol accounts for over 7% of all ill-health and premature deaths in the EU (55). The prime target for damage is the liver. Indeed excessive consumption of alcohol is a major cause of cirrhosis and liver failure and also cancer (e.g. breast, oral cavity, oesophagus, pharynx), cardiovascular diseases and brain damage (56). Alcohol is also an immune-suppressant, increasing the risk of communicable disease in particular respiratory infections. It is also a potent teratogen, harming the foetus, including low birth weight, cognitive deficiencies and foetal alcohol disorders (57).

The majority of alcohol control programmes are cost saving and effective. Benefits are rapid, usually within months of implementing legislation to control alcohol availability and use (58).

Price is a key driver in determining alcohol consumption. This is directly affected by increased taxation. A rise in excise duty is always cost effective since taxation policies cost relatively little to implement and can reap substantial health, as well as financial, returns.

Legislation to reduce the legal level of alcohol in car driver's blood, combined with an increase in roadside breath testing, has been extremely effective in reducing the number of deaths through traffic accidents (59). Public information programmes, and media focus, have put drink-driving on the public and political agendas and have done much to reduce the social acceptability of driving with alcohol in the bloodstream (60).

Advertising increases the likelihood that children and adolescents will start to use alcohol and will drink more if they are already using alcohol. Legislation is badly needed to offset the budget inequalities involved in alcohol promotion. Last year, in the UK alone, £600 million was spent by the industry on promotion, whilst a mere £18 million was spent on education designed to reduce the abuse of alcohol. One immediately effective way to offset this difference would be the imposition of a ban on all price-related alcohol promotion.

Labelling is also a potentially important information tool for communication between producers, public authorities and consumers. Labels could inform customers of the dangers and health risks associated to the consumption of alcohol.

Early recognition of an alcohol related disorder is vital. A brief but timely intervention by a health professional is an extremely cost-effective way of preventing further harm. There is a clear need for specific training for staff in primary care, in emergency rooms and in schools, to recognize the signs of alcohol-use disorders and to deliver effective, brief interventions.

School based education alone is largely ineffective in protecting young people from early alcohol consumption (61). Perhaps predictably, industry-funded education programmes actually tend to have the reverse effect.

Reduction of access to retail outlets, and implementation of a comprehensive advertising ban have the potential to be very effective, but only if they are fully enforced across all Member States. The

economic arguments for doing this are compelling: every healthy year of life gained saves approximately €500² (59).

RECOMMENDATIONS FOR THE REDUCTION OF ALCOHOL CONSUMPTION

EU level

- Ban alcohol advertising, promotion and sponsorship of events via TV radio programmes and sports
- Introduction of uniform minimum EU tax rates for all alcoholic beverages and their increase in line with inflation
- Restrict the amount and content of advertising for alcohol products: in particular all elements that have proved to be appealing to young people
- Use of educational programmes to reinforce awareness of the problems created by alcohol and to prepare the ground for specific interventions

Member States level

- Reduce the availability of alcohol through restriction in the number of outlets for alcohol purchase
- Widespread help through primary-care agencies and intensive help for alcohol dependence
- Training for staff in primary care, in emergency rooms and in schools, to recognize the signs of alcohol-use disorders and to deliver effective, brief interventions
- Legal concentrations in the blood reduced eventually to 0.2 g/L, for all vehicle drivers, with stringent enforcement

² Between I\$500 and I\$1000 (I\$ = International Dollar, or Purchase Power Parity)

CONCLUSIONS

The threat to our societies from chronic, non-communicable diseases cannot be overstated, and the proportion of people affected is growing. Up to 40% of the EU population aged over 15 years report a long standing health problem (62) and two out of three people who have reached retirement age have at least two chronic conditions (63). Yet these conditions, which are responsible for 86% of deaths in Europe, are largely preventable. Simple policies could save millions of lives and cut billions of euros in direct and indirect costs.

Chronic diseases are often viewed as primarily affecting old people. In fact, almost half of chronic disease deaths occur prematurely, in people under 70 years of age. One quarter of all chronic disease deaths occur in people under 60 years of age (64). Beyond the human cost to society, this alarming figure directly affects the productivity and the national income of Member States.

The Chronic Disease Alliance has taken up the collective social challenge of chronic non-communicable diseases adopting a constructive approach. The recommendations contained in this report are based on scientific evidence and experiences. Without immediate robust interventions tackling the chronic non-communicable diseases, the EU 2020 Strategy may not succeed. In contrast, if the Alliance succeeds in engaging policy makers at the highest level to take action now, the alarming projections of a downward trend in number of people in the workforce by 2020 can be reversed.

In contributing to a Chronic Disease Alliance, partner organisations and their member organisations across the EU Member States commit to bringing their combined knowledge and support to the table to create a healthier and wealthier Europe.

The Alliance believes in a multisectorial and inclusive approach. This demands strategic partnerships involving the EU decision makers and other actors, including patient organisations and the agro-food, pharmaceutical and medical device industries.

Prevention, which is at the centre of this report, is only one aspect of the challenge. The diseases represented in the Alliance have striking commonalities and interactions. Each chronic condition requires its own strategy but the Alliance would like to underline that there are other common areas to chronic diseases which can be addressed by policy measures, i.e. screening, inequalities, education and further research.

The clock is ticking. This year billions will be spent on the treatment of avoidable chronic disease in Europe alone, and millions of lives will be unnecessarily lost or impaired. If radical action is not taken now, this costly burden will continue to rise.

By acting now, the European Commission will be doing something that transcends anything else it may accomplish. That will make European citizens safer and healthier, and Europe more productive.

REFERENCES

1. Gaining Health – The European Strategy for Prevention and Control of Non-communicable diseases. WHO, EUR/RC56/8+EUR/RC56/Conf.doc/3 30th June 2006
2. Together for Health: A Strategic Approach for the EU 2008-2013, White paper, European Commission, COM(2007) 630 final
3. 2009 Ageing report: Economic and budgetary projections for the EU-27 Member States (2008-2060), European Commission Directorate General for Economic and Financial Affairs, 2009
4. Lopez A D, Mathers C D, Ezzati M, Jamison D T, Murray Ch J L, Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data, *Lancet* 2006; 367: 1747–57
5. Allender S, Scarborough P, Peto V, Rayner M. European cardiovascular disease statistics. 2008. European Heart Network: Brussels.
6. Solidarity in health: reducing health inequalities in the EU, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2009) 567 final
7. Yusuf S, Hawken S, Ounpuu S, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study) case-control study. *Lancet* 2004; 364:937-52
8. O’Flaherty & Capewell S. Recent levelling of CHD mortality rates among young adults in Scotland may reflect major social inequalities. *BMJ* 2009; 339: b2613
9. MacMahon S, Peto R, Cutler J et al. Blood pressure, stroke and CHD. *Lancet* 1990; 335:765-74.
10. Capewell S, Ford ES, Croft JB, Critchley JA, Greenlund KJ, Labarthe DR. Cardiovascular risk factor trends in the US population and options for reducing future CHD mortality. *WHO Bulletin* 2010; 88; 120-130
11. Loddenkemper R, Gibson GJ, Sybille Y, editors. European Lung White Book, The first comprehensive survey on respiratory health in Europe, European Respiratory Society, ERSJ, 2003:16-25
12. http://www.who.int/whosis/whostat/EN_WHS08_Full.pdf, World Health Statistics Report 2008, WHO
13. Anderson P. et al. Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol, *Lancet* 2009; 373:2234-46
14. Chikritzhs T, Tatalonao P, Pascal R. Predicting alcohol-related harms from licensed outlet density; a feasibility study. National Drug Law Enforcement Research Fund, Monograph, Series No 28, 2007
15. Walters G.D. Behavioural self control training for problem drinkers: a met-analysis of random control studies. *Behaviour Therapy* 2000; 31:135-49
16. Giesbrecht N. Alcohol, tobacco and local control. A comparison of several community-based prevention trials. *Nord. Stud. Alcohol Drugs* 2003; 20:25-40
17. Srisurapanont M, Jarusuraisin N, Opiate Antagonists for alcohol dependence. *Cochrane Database Sys. Rev.* 2005; 1:CD001867
18. Perlitz U, Diabetes – the price of increasing prosperity; Deutsche Bank Research 2009
19. Diabetes Atlas 4th Edition 2009
20. Yang W et al, Prevalence of Diabetes among Men and Women in China, *N Engl J Med* 362:1090, March 25, 2010
21. Ferlay J, Parkin DM, Steliarova-Foucher E, Estimates of cancer incidence and mortality in Europe in 2008, *Eur J Cancer.* 2010 Mar;46(4):765-81. Epub 2010 Jan 29
22. Soerjomataram I, de Vries E, Pukkata E, Coebergh J.W; Excess of cancers in Europe: A study of eleven major cancers amenable to lifestyle change, *Int J Cancer*, 2007. 120(6): p. 1336-43
23. EUGLOREH: The status of health in the European Union: Towards a healthier Europe, 2008
24. Kiberd, B. The Chronic Kidney Disease Epidemic: Stepping Back and Looking Forward. *J Am Soc Nephrol* 17:2967-2973, 2006
25. James MT, Hemmelgarn BR, Tonelli M. Early recognition and prevention of chronic kidney disease. *Lancet.* 2010;375:1296-309
26. Epidemiology of CKD in Europe: An Uncertain Scenario, C Zoccali, A Kramer, K Jager, *Nephrol Dial Transplant*, June 2010
27. Averages based on data published in International Study of Healthcare Organisation and Financing of Renal Services in England and Wales, Germany, France, Italy, Spain and Belgium *Int J Health Care Finance Econ* (2007) 7:283–299;
28. Bellows L, Roach J, Childhood Overweight; Colorado State University Study No 9.317
29. Beuther D, Obesity and Asthma, *Clinics in Chest Medicine*, Volume 30, Issue 3, Pages 479-488
30. CPME - Comité Permanent des Médecins Européens – Appeal to the European Commission on the occasion of the incoming European Commission, February 2010
31. Soerjomataram I., de Vries E., Engholm G., Paludan-Müller G., Brønnum-Hansen H., Storm HH., Barendregt JJ. Impact of smoking and alcohol intervention program on lung and breast cancer incidence in Denmark: an example of dynamic modeling with Prevent. *Eur J Cancer* 2010 (in press)
32. ASPECT Report: Tobacco or Health in the European Union – Past, Present and Future. ERS 2005
33. Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years’ observations on male British doctors. *BMJ* 2004; 328:1507
34. Meyers DG, Neuberger JS, He J. Cardiovascular effect of bans on smoking in public places: a systematic review and meta-analysis. *J Am Coll Cardiol.* 2009 ;54(14):1249-55.

35. Hu F, Globalization of Food Patterns and Cardiovascular Disease Risk *Circulation* 2008;118:1913-1914
36. Williams M, Hord N, The Role of Dietary Factors in Cancer Prevention: Beyond Fruits and Vegetables Nutrition in Clinical Practice (2005) 20, (4) 451-459
37. World Health Organization (2002) The World Health Report 2002. Reducing Risks, Promoting Healthy Life, World Health Organization, Geneva.
38. World Health Organization (2004) World Health Report 2004. Reducing Risks, Promoting Healthy Life, World Health Organization, Geneva.
39. European Heart Network (2002) Food, Nutrition and Cardiovascular Disease Prevention in the European Region: Challenges for the New Millennium, European Heart Network, Brussels.
40. World Cancer Research Fund / American Institute for Cancer Research. Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective. (2007). Washington DC, AICR.
41. Lock, K. Pomerleau J. et al. (2005) Fruit and vegetable policy in the European Union: its effect on the on the burden of cardiovascular disease, European Heart Network, Brussels.
42. Olshansky SJ, Passaro DJ, Hershov RC et al. A potential decline in life expectancy in the United States in the 21st century. *N Engl J Med* 2005;352:1138-45
43. Capewell S, Ford ES, Croft JB, Critchley JA, Greenlund KJ, Labarthe DR. Cardiovascular risk factor trends in the US population and options for reducing future CHD mortality. *WHO Bulletin* 2010; 88; 120-130
44. Gorton D, Ni Mhurchu C, Chen MH, Dixon R. Nutrition labels: a survey of use, understanding and preferences among ethnically diverse shoppers in New Zealand. *Public Health Nutr.* 2009 Sep;12(9):1359-65.
45. Nishida C, Uauy R. WHO scientific Update on health consequences of trans fatty acids, *European Journal of Clinical Nutrition* (2009)63, S1-S4
46. Stender S, Dyerberg J and Astrup A(2006) Consumer protection through a legislative ban on industrially produced trans fatty acids in foods in Denmark, *Scandinavian Journal of Food & Nutrition*, 50:4,155 — 160
47. Childhood Obesity in Scotland: a Scottish parliamentary briefing paper, BMA December 2007
48. Cutler J, Follman D, Alexander P. Randomised controlled trials of sodium reduction: an overview. *Am J Clin Nutr* 1997;65:S643-51
49. Bibbins-Domingo K et al, Projected effect of dietary salt reductions on future cardiovascular disease, *New England Journal of Medicine* (2010) 10.1056/NEJMoa0907355
50. Brownell KD and Warner KE. The Perils of Ignoring History: Big Tobacco Played Dirty and Millions Died. How Similar Is Big Food? *Milbank Quarterly*, 2009. 87, (1); 259–294.
51. Asaria P et al. Chronic disease prevention: health effects and financial costs of strategies to reduce salt intake and control tobacco use, *The Lancet* 2007,370,2044-2053
52. Friedenreich Ch M et al, State of the epidemiologic evidence on physical activity and cancer prevention, *European Journal Of Cancer*, 2010, in press
53. Centis E et al, The effect of lifestyle changes in non-alcoholic fatty liver disease, *Dig Dis.* 2010;28(1):267-73
54. Laaksonen DE, Lindstrom J, Tuomilehto J, Uusitupa M, Increased physical activity is a cornerstone in the prevention of type 2 diabetes in high risk individuals. *Finnish Diabetes Prevention Study Group* 2007
55. Rehm j, Mathers C, Popovea S, et al. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders , *Lancet* 2009; 373: 2223-33
56. Harper, C. G., Kril, J. J. and Daly, J. M. (1988). Brain shrinkage in alcoholics is not caused by changes in hydration. *Journal of Neurology, Neurosurgery, and Psychiatry* 51, 124–127
57. Murray CJL, Lopez AD, The global burden of disease. Cambridge: Harvard School of Public Health (on behalf of the WHO and the World Bank) 1996
58. Single E, Collins D, Easton B, et al. International Guidelines for estimating the costs of substance abuse (2nd Edition) Geneva WHO 2003
59. Anderson P, Chisholm D, Fuhr DC, Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet.* 2009 Jun 27;373(9682):2234-46. Review.
60. Thavorncharoensap M, Teerawattanonan Y, Lertpitakpong C, et al. The economic costs of alcohol consumption in Thailand. Nonthaburi, Thailand: Health Intervention and Technology Assessment Program. Ministry of Public Health 2008
61. Collins DJ, Lapsley HM. Counting the cost: estimates of the social costs of drug abuse in Australia in 1998-1999. Canberra: Publication Production Unit, Commonwealth Department of Health and Ageing 2002
62. Van den Akker M et al, Multimorbidity in General Practice: Prevalence, Incidence, and Determinants of Co-Occurring Chronic and Recurrent Diseases, *J Clin Epidemiol.* 1998 May;51(5):367-75
63. Deutsches Zentrum für Altersfragen (2005). Gesundheit und Gesundheitsversorgung. Der Alterssurvey: Aktuelles auf einen Blick, ausgewählte Ergebnisse. Bonn, Bundesministeriums für Familie, Senioren, Frauen und Jugend. WHO global report Preventing chronic diseases: a vital investment, 2006.
64. WHO global report Preventing chronic diseases: a vital investment, 2006.



EUROPEAN
CANCER
ORGANISATION



fighting heart disease
and stroke
european heart network



European Society of Cardiology
2035 Route des Colles
F-06903 Sophia Antipolis
www.escardio.org

European Heart Network
Rue Montoyer 31
B-1000 Brussels
www.ehnheart.org

European Society of Hypertension
Holstraat 58
B-9000 Ghent
www.eshonline.org

European Respiratory Society Brussels
Office
49-51 Rue de Trèves
B -1040 Brussels
www.ersnet.org

European CanCER Organisation
Avenue E. Mounier 83
B-1200 Brussels
www.ecco-org.eu

European Society for Medical Oncology
via L. Taddei 4
CH-6962 Viganello-Lugano
www.esmo.org

European Association for the Study of the Liver
7 rue des Battoirs
CH-1205 Geneva
www.easl.eu

European Kidney Health Alliance
9-13 Rue D'Idalie
B-Brussels 1050
www.ekha.eu

International Diabetes Federation - Europe
Chaussée de la Hulpe 166
B-1170 Brussels
www.idf-europe.org

Foundation of European Nurses in
Diabetes
24 Holmesdale Avenue
UK-London SW14 7BQ
www.fend.org