

Société Française de Santé Publique

Health and Human Nutrition: Element for European Action



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Health and Human Nutrition: Elements for European Action

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Preface

Public health has now become an essential issue. Opinion attaches more and more importance to it. The Amsterdam Treaty addresses this concern with its article 152, which states that “a high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities”. The European Commission has restructured itself in order to be able to take on this new role, and has expressed its views in its communication of April 1998 on a European public health policy. Three priorities for action are considered:

- to set up a permanent database on health, and more specifically on health determinants;
- to create an early warning system;
- to intervene on health determinants through preventive actions and health promotion.

It also suggests that co-operation between Member States on issues of common concern be increased.

It is now fully recognised that nutrition is one of the major causes of avoidable mortality and morbidity (particularly in relation to cardiovascular disease and certain cancers), and is therefore an important matter for public health. Although strong scientific evidence to confirm this statement exists, few political consequences have been drawn from it. It seems that it is now the right moment to do it.

Nutrition policy is a matter for member States, but there is also room for Community action in order to support the actions of member States, to help them with building comparable scientific evidence, and to intervene within the wide range of actions that belongs to the European community and which influence national policies involving nutrition.

The analysis proposed hereafter has been drawn by a group of experts in nutrition from all member States, supported by the European Commission, with the help of the French society of Public health; it aims to describe the nutrition situation in Europe, in order to:

- raise awareness of all partners on the need for common action on nutrition;
- allow the Ministers of Health to adopt a resolution to mobilise Member States as well as the various EU authorities and to show the possible paths for designing and implementing a long term plan of action.

Introduction

The French presidency has decided to highlight, at the European level, the importance of human nutrition. Nutrition, along with the related area of physical activity, is also a major determinant of human health. Nutrition can be a risk factor, but also a protective factor for health. Until now, European efforts in health promotion have placed a heavy emphasis on more negative aspects of health, such as the effects of smoking on health. Alcohol will be highlighted by the forthcoming Swedish presidency, and it seemed important to focus now on nutrition.

This report is produced for the French presidency with the help of a group of 15 governmental experts, in order to outline the options for European actions in the field of nutritional health.

HEALTH AND THE EUROPEAN UNION

European action in the health domain has in recent years been built on health programmes, that is on the financing of action in those fields which could concern nutritional health (health promotion, health monitoring, cancer) and on the basis of calls for proposals. This has enabled a better understanding of the current state of nutritional health, the identification of gaps in the monitoring and observation systems, and the establishment of professional networks on joint projects.

There are significant opportunities for European Union action in the field of public health following the Treaty of Amsterdam. Community action which contributes “to the realisation of a higher level of health protection” ⁽¹⁾ is clarified in article 152 of the Treaty:

- *“A high level of human health protection shall be ensured in the definition and implementation of all Community policies and activities.*
- *Community action, which shall complement national policies, shall be directed towards improving public health, preventing human illness and diseases, and obviating sources of danger to human health. Such action shall cover the fight against the major health scourges, by promoting research into their causes, their transmission and their prevention, as well as health information and education...”*

(1) Article 3 of the EC Treaty.

The text also makes provision for the possibility of encouraging community level co-operation on those subjects mentioned in this article (i.e., the improvement of public health and prevention of disease).

Finally, the article describes the possible methods of action open to the Council:

- in conjunction with the European Parliament, normative measures (Directives, Regulations) for organs and substances of human origin (including blood) and in the veterinary and phytosanitary fields;
- in conjunction with the European Parliament, incentive measures (such as programmes) to protect and improve human health;
- recommendations.

These components of a European action in the domain of health, having regard for Member State competence on health matters and for the principle of subsidiarity, could be applied to nutrition. This report seeks to determine if this would be helpful and if it could be effective.

NUTRITION AND EUROPE: BACKGROUND

Concerns about nutrition matters have already featured at several meetings of the Council of Ministers of Health.

In a resolution of 3 December 1990 [1], the Council, noting the importance of nutrition as a determinant of health and the general need to examine this issue, invited the Commission to present a programme incorporating:

- the declaration and implementation of a year of nutrition;
- some general actions to raise awareness;
- some pilot projects on nutrition;
- research and studies on nutrition and health;
- an intensification and a diversification of the work of the Scientific Committee for Food in the field of nutrition.

This text included objectives which are still relevant: to disseminate knowledge on the impact of a good diet on health and on the serious problems posed by alcohol abuse, to develop and disseminate recommendations and information to promote dietary change, to improve consumer knowledge through labelling (particularly nutrition labelling), and to encourage that nutritional aspects be taken into account in the actions of different sectors etc.

These elements have since been used in the debate on European action in public health and in the application and introduction of article 129 in the treaty of

Maastricht. In 1991, the Commission hesitated to present a proposal for a plan of action in response to the resolution of the Council, and ultimately the approach retained for the implementation of the new Treaty was to incorporate everything to do with the determinants of health, particularly nutrition, into the related programmes on health promotion, health monitoring and, to a lesser degree, the campaign against cancer.

The development of programmes targeted at particular diseases, such as cancer, AIDS and infectious disease, has prompted the Council to request, in a resolution of 2 June 1994 concerning cardiovascular disease, that specific community actions be considered and that initiatives to promote the co-ordination of Member States policies and programmes in this area should be taken. This resolution has not had any results.

Nutrition has suffered, therefore, from a lack of visibility at the Community level.

This has not prevented the Commission from developing actions in the domain of nutrition, and notably from allocating significant resources to research projects, from improving nutritional labelling, from, for example, reviewing the legislation on breastmilk substitutes, or from developing networks and information systems.

EU health programmes have also financed nutrition actions, among them:

- The Cancer programme has included, among other things, the European Prospective Study into Cancer and Nutrition (EPIC), an epidemiological study on the links between nutrition and cancer, and made recommendations to promote the consumption of fruit and vegetables and other dietary changes through the dissemination of the European Code against Cancer.
- The health promotion programme has supported many initiatives to improve nutrition, including the European Masters Programme in Public Health Nutrition and the Institute of European Food Studies (IFES) surveys of consumer attitudes to food, nutrition, physical activity and obesity.
- The same programme has supported the Eurodiet project on *Nutrition and Diet for Healthy Lifestyles in Europe*, co-ordinated by the University of Crete, which aims to produce a framework for European dietary guidelines and suggest strategies for the promotion of healthy nutrition and the promotion of healthy lifestyle.
- The EURALIM (Europe Alimentation) project, also financed by the health promotion programme, aims at improving ways of comparing and combining nutritional data extracted from different research projects, and to determine whether a European surveillance system of risk factors could be derived by combining data from locally run programmes.

- The health monitoring programme has supported the project on the European Food Availability Databank based on Household Budget Surveys (DAFNE) which aims to create a cost-effective European food consumption databank.
- The same programme has supported the European Food Consumption Survey method (EFCOSUM) which aims to define a method for monitoring food consumption in Europe. This method could be used alone or as a calibration for other studies.

It is clear that the context is very different now to that which existed in 1990 when the Council asked for an action plan on nutrition and health [1].

SCOPE OF THIS REPORT

This report adopts a global approach towards nutrition in which the overall relationship between food consumption and health is considered.

Food safety problems are often high on the European agenda, because the free movement of products gives rise to a sharing of risks throughout the Union. Food quality and safety are important to improve and maintain nutrition [2]. But they are already largely taken into account and discussed at EU level. For this reason, the subject of food safety will not be addressed.

In the same vein, European policy on the fight against alcoholism has links with nutrition. The Swedish Presidency of the European Union will address policy in the field of alcoholism, and this subject will not generally be included in the scope of this report. It is worth noting, however, that alcoholic drinks can be a significant source of calories. The alcohol intake of one in three men and one in ten women represents more than ten per cent of their energy intake. It is likely, for moderate drinkers, that this will not be a substitute for food energy, but is in addition, thus contributing to the development of obesity.

Food consumption

DATA COLLECTION

The development and implementation of an effective strategy to improve nutritional health needs reliable data. Monitoring of food and nutrient intake data and nutritional status is required [3]. These data gathering exercises are also important for the ongoing development of scientific knowledge and to enable long term research on the relationship between diet and health.

The Food Balance Sheets of the Food and Agricultural Organisation of the United Nations (FAO) comprise national data calculated on the basis of food *available* for human consumption on a *per capita* basis. Despite their limitations, and the fact that they tend to overestimate consumption in Europe, the Food Balance Sheets are a useful tool available for cross-country comparisons of trends over time.

Dietary information is also available from surveys carried out in individual countries. Household Budget Surveys (HBS), which collect food, demographic and socio-economic data from nationally representative samples of European households, are conducted regularly. The DAFNE initiative has shown that, with minimal adjustments, HBS data may serve as a tool for comparing food availability across countries and over time [4].

Dietary surveys, which seek to measure individuals' actual food and nutrient intakes – by asking people to keep a food diary or to complete a questionnaire about the foods they have consumed – are the most detailed form of collecting information about what people eat and to relate the food and nutrient intakes to other health parameters. The precise method carrying out the survey and of measuring food intakes varies from country to country and from survey to survey. The World Health Organisation Regional Office for Europe has recently collated dietary information on the basis of these national surveys and some of the information has been summarised in the 2000 edition of European Cardiovascular Disease Statistics [5] but we should recognise that comparable data on food and nutrient intakes are not available in most EU countries.

Some European projects, like the European Food Availability Databank (DAFNE) have tried to improve the collection of data throughout the European Union. But they have to face the lack of sustainable funding and the absence of partners in some countries.

So, while current surveillance and monitoring systems are necessary, there remains room for improvement.

FOOD CONSUMPTION SITUATION

Food has become so plentiful in Europe that those who have sufficient income have been able to buy as much food as they want. At the same time, changing lifestyles have resulted in a net reduction in energy expenditure.

In recent decades there have been significant changes in the foods that we eat, the way that they are eaten and how much we spend on food [6]. The proportion of household income spent on food has dropped from 50% to 25% over the last 40 years across Europe as a whole, and there has been a huge increase in the proportion of food consumed outside the home. [6] Other general trends in the way we eat include a shift away from traditional dishes prepared from raw ingredients, consumption patterns diverging from the seasonal production/growing cycle and a trend towards consumption of new and 'exotic' foods in some population groups [6].

Promoting a good diet should begin as soon as possible in life, and the best diet for a baby once it is born is breastmilk. In some countries, particularly Nordic countries, there has been considerable success in increasing the breastfeeding rates in recent decades. In Norway, for example, rates of breastfeeding in the third month rose from 25-30% in 1969 to around 80% in 1991 [8] and preliminary data suggest that this may be as high as 98 per cent in 2000 [7]. Breastfeeding rates are difficult to compare accurately, because different definitions of breastfeeding are used. Nonetheless, it is clear that the prevalence and duration of breastfeeding does vary tremendously across the European Union. [8] In Sweden, for example, approximately 100% of babies were breastfed initially in 1995 compared to 66% in the UK. By the time the babies are six months old these rates had fallen to 69% in Sweden and 28% in the UK [7].

Eating patterns in the Southern countries of Europe, usually referred to as the 'Mediterranean diet', are traditionally characterised by low saturated and high monounsaturated lipid ⁽²⁾ (mainly olive oil) intakes, high fruit and high vegetable consumption, and are associated with a low risk of heart disease. [3] People in Southern European countries eat more fruit and vegetables than the people of Northern, Western, Central or East European countries. According to the FAO data, for example, over nine (9.3) per cent of the energy from food available to people in Greece in 1997 came from fruit and vegetables. This compares to less than four (3.8) per cent energy

(2) There are three main types of lipids (fats and oils): saturated, monounsaturated and polyunsaturated. Saturated fats are usually found in foods from animal sources, such as meat, milk and dairy products, polyunsaturated fatty acids are found in fish, vegetables and in some vegetable oils and monounsaturated fatty acids are found in olive oil, rapeseed oil, peanut oil and avocado.

from fruit and vegetables in Ireland and just over four (4.2) per cent in Finland for the same year.

In Europe as a whole, the consumption of cereals has fallen by one quarter since the 1960s and meat consumption has increased, dramatically in some countries [9]. In Spain, for example, there was a 253% increase in meat consumption between 1961 and 1990 [9]. There has also been a general trend towards increasing vegetable intakes and, to a lesser extent, fruit consumption [9].

The data suggest that in the past 20 years, there have been decreases in fat intakes and increases in intakes of fruit and vegetables and of cereals in many Northern and Western European countries. In Southern European countries, fruit and vegetable intakes have not tended to show the same increases, although they continue to be higher than in other European countries, and there has been a noticeable increase in intakes of saturated and/or polyunsaturated lipids [5]. Greece, Italy, Spain and Portugal have seen considerable decreases in the proportion of total energy from cereals between 1972 and 1997 according to FAO data. The general effect of these various changes is to diminish the differences between the diets of Northern, Western and Eastern Europe on the one hand and Southern Europe on the other.

FAO, HBS and individual dietary survey data suggest that there remains considerable room for improvement in Europe's diets and also highlight remaining differences in dietary patterns between Member States. Recent dietary survey data suggest that very few countries are consuming more than the daily intake of 400 g of fruit and vegetables recommended by the World Health Organization [5]?

Dietary survey data also suggest that few, if any, Member States have average diets with less than 30% of dietary energy from fat. Of 13 Member States included in the review, none currently have intakes of less than 30% total energy from fat, as recommended by WHO, and only three have intakes of less than 35% energy from fat [5].

Scale and cost of nutritional problems

Epidemiological and clinical research in the field of nutrition and physical activity has clarified the role of certain nutrition and lifestyle factors in the genesis and development of the common chronic diseases. A certain consensus has been reached between scientists on the role of these factors.

In recent decades, there has been development of diseases where diet and physical inactivity are among the principal risk factors. The variety of cultures, lifestyles and diets in Europe and within countries results in differences in the relative importance of nutritional factors on patterns of health and mortality.

EPIDEMIOLOGY

The burden of cardiovascular disease

Diet and physical inactivity are the major preventable risks factors for the occurrence of cardiovascular illness. Cardiovascular disease (CVD), which includes coronary heart disease and stroke, is the main cause of death in the European Union as a whole, accounting for over 1.5 million deaths each year or 42 per cent of all deaths [5].

It is estimated that more than a third of deaths due to cardiovascular disease in people under the age of 65 are attributable to diet [10]. In addition, medical progress, which enables us to prevent these premature deaths, results in the survival of hundreds of thousands of Europeans with impaired cardiovascular function or living with the effects of stroke. The changing age structure of the population will only exacerbate this trend. This induces significant direct and indirect costs which, in turn, have a significant impact on national health budgets.

Some diets increase the risk of CVD, while others are protective. Among the former, particularly deleterious are diets which increase blood cholesterol levels, especially if they are accompanied by smoking, hypertension, obesity and physical inactivity. On the other hand, consumption of sufficient quantities of fruit and vegetables, unrefined cereals and an appropriate ratio of fatty acids appear to limit the risk of sudden cardiac death, abnormal cardiac rhythms and recurrent heart attacks [11, 12]. Even moderate physical activity is important in reducing the likelihood of developing CVD including high blood pressure. Blood pressure levels rise as people get older and a high intake of salt promotes this increase in sensitive individuals which is linked to the risk of stroke.

There is increasing evidence that low birth weight – particularly thinness at birth – is associated to the development of CVD, high blood pressure and diabetes. This thinness is related to the nutrition of the foetus which itself is related to, among other factors, the nutritional status of the pregnant woman. The health of the young woman before she becomes pregnant, more specifically when she is in adolescence, is a major concern regarding her future health and that of her baby [13].

Cancer and nutrition

It is estimated that between 30 and 40 per cent of cancers can be attributed to dietary factors [14].

In the EU as a whole, cancer accounts for 29% of all deaths in men and 22% of all female deaths. In the under 65 age group, cancers are responsible for 32% of the deaths in men and 45% of the deaths in women. Cancer rates do vary across Europe – for particular cancers and for the overall burden of all cancers.

International consensus exists on some aspects of the relationship between diet and cancer: an excess of energy (if more calories are consumed than expended) and excessive consumption of alcohol are risk factors for certain cancers (mouth, pharynx, larynx, oesophagus and liver), a diet rich in fruit and vegetables is associated with a reduced risk of cancer of the mouth, the pharynx, the oesophagus, the stomach and the lung [15, 16, 17]. It has been estimated that doubling the average fruit and vegetable intake in the Netherlands, for example, would potentially reduce cancer rates by a third [18].

Other links are still the subject of a debate and various studies, in particular the EPIC (European Prospective Investigation into Cancer and Nutrition) study supported by the European Commission, should go some way to clarifying these links. In particular, the relationship between fat and/or the balance of fatty acids and several cancers, the relationship between fruits and/or vegetables and colo-rectal cancer, breast cancer or prostate cancers and the relationship between physical inactivity and colon cancer.

Obesity and overweight

Being overweight or obese increases the risks of chronic diseases, including cardiovascular disease, certain cancers and diabetes type 2.

Although there are no comprehensive data on European trends in relation to body-weight, obesity is rising in all countries where there are data available. In fact, the prevalence of obesity is increasing in all age groups, particularly children which is worrying for the future, and is now regarded as one of the fastest growing epidemics [19].

A study by the Institute for European Food Studies, based on self-reported weights and heights, suggests that around 30% of adults in the EU are overweight (body mass index (BMI) between 25 and 30) and around 10 per cent are obese (BMI > 30). [20]

Prevalence varies between European countries. In the IEFS study cited above, the percentage of adults overweight varied from 24 to 35 per cent. The excess weight of children aged 6 to 10 years and adolescents tends to persist in adult life with particularly deleterious effects.

It is estimated that at least 80 per cent of diabetes cases (type 2 or mature-onset diabetes) are due to obesity and overweight, particularly with an excess of abdominal fat.

Diet and physical activity are obviously important factors in the development of overweight and obesity. Diets which are energy dense and/or physical inactivity, contribute to overweight and obesity. Alcohol intake should always be considered when estimating the energy intake.

Micronutrients

In recent years, micronutrient deficiencies have not been the major focus of nutritional concern in Europe. Nutritional deficiencies with obvious clinical signs have virtually disappeared. Recent dietary surveys suggest, however, that there is some biochemical evidence of micronutrient deficiencies at levels which are of public health concern [21, 22]. There are specific concerns about deficiencies in folate, iodine and iron.

Folate deficiency

A clear link has been established between the folate intake of mothers before – and a few weeks after conception and the occurrence of some birth defects, such as spina bifida [23]. Folate is found in green vegetables and some fruits. Several EU Member States now have policies of recommending that all women who wish to become pregnant should take a daily folic acid supplement.

Iodine deficiency

According to WHO, iodine deficiency disorders (IDD) affect around 16% of the WHO-Europe region and IDD is the most important cause of preventable mental retardation [39, 3]. In the EU, only Finland, Sweden, the Netherlands and the UK appear to be free from IDD. In iodine deficient pregnant women there is a risk of permanent brain damage induced during foetal development. Universal salt iodization has been introduced effectively in many parts of the world to eliminate IDD. The

EU has no Directive to require salt iodization and not all European countries have required salt iodization.

Iron deficiency

Iron deficiency is still highly prevalent in many EU countries. Women and young children are particularly at risk. Iron deficiency anaemia can lead to impaired learning in children and a deterioration of immune function. It decreases physical fitness and work capacity and increases the risk of health problems in women of childbearing age [24].

Dental health

Nutrition is one of the aspects of dental health promotion strategies (along with oral hygiene and fluoride intakes). The cost of treating dental caries in Europe is very high. In Germany, for example, treating caries cost 10.3 billion Euros compared to 7.9 billion euros spent on cardiovascular disease and 1.2 billion on diabetes [25]. Although caries rates have fallen in recent decades, tooth decay still represent a substantial burden on the healthcare system because it affects so many people. Diets which include frequent intakes of foods or drinks containing fermentable sugars promote caries [26].

Osteoporosis

One of the main consequence of osteoporosis is the occurrence of fractures of the hip in post-menopausal women and, less frequently, in older men. In 1995, there were 382,000 fractures of the hip in the European Union, a figure that will grow considerably in years to come with the ageing population. Primary prevention, to ensure that the adult bones are as healthy as possible, begins in childhood with the development of a physically active lifestyle, a diet with adequate calcium and adequate vitamin D status [27].

Other

Eating disturbances affect many young people – particularly girls during adolescence. There is a broad spectrum, which at their most extreme manifest as anorexia nervosa and bulimia. The prevalence of anorexia nervosa among adolescents is estimated to be around 1% and 1.5-2% for bulimia nervosa [28]. Long-term mortality of eating disorders is about 6% [28].

The prevalence of food intolerance and allergies has been the subject of very few studies and their results vary depending on the methods used. In the Netherlands, for

example, in the adult population these affect between 0.8 and 13.3 per cent of the population depending on the definition adopted [29]. It does appear, however, that adverse reactions to food are increasing. The most common allergies are found for cows milk, eggs, fish and shellfish, peanut and nuts, wheat and soy. Research is needed to clarify which parameters contribute to the development of food intolerance and whether eating habits, such as the early introduction of cows milk or other protein, like peanuts, are contributing to the rise in adverse reactions.

NUTRITIONAL HEALTH OF PARTICULAR GROUPS

In addition to consideration of the nutritional health of the population as a whole, there is a need to consider specific nutritional issues relating to particular groups of the population.

Infants: good nutrition during the first few years pays dividends throughout life. This starts with maternal nutrition because of its importance to the foetus and evidence that nutritionally related low birth weight may raise the risk of cardiovascular disease in later life. As stated by the Innocenti declaration, produced at the WHO policy-makers' meeting in 1990, all women should be enabled to practise exclusive breastfeeding and all infants should be fed exclusively on breastmilk from birth to 4-6 months of age. Exclusive breastfeeding before the introduction of safe and adequate complementary foods between 4 and 6 months while breastfeeding continues, can reduce the short and long term burden of illness. Breastfeeding promotes a healthy immune system and protects the newborn against infectious diseases. It also reduces the risk of breast cancer before the menopause in the mother and encourages good mother-child interactions which are beneficial for the newborn's development.

A wide range of factors can influence the prevalence of breastfeeding. These include healthcare practices and the attitudes of health professionals, maternal education, employment law concerning maternity leave and workplace facilities for childcare, social support for breastfeeding and attitudes towards breastfeeding in public and the marketing of breastmilk substitutes.

Young people: in adolescence, the health impact of nutrition is vital. The health of young women and men before they become adults is important for their health in later life and can have an impact on the health of any children that they go on to have. During their rapid growth spurts adolescents have increased energy and nutrient needs. Many of them, especially those in low income groups, choose relatively cheap sources of energy, such as large amounts of fat and sugar, potentially leading to micronutrient deficiency, obesity and dental caries. People affected by eating disorders usually develop them at this stage of their lives.

Older people: the issue of healthy ageing is also of major concern, especially as older people represent a growing proportion of the European population. With decreasing activity levels, energy needs are reduced, so the food eaten by older people should be rich in micronutrients in order to compensate for the reduction of food intake. Degeneration of eyesight, lower resistance to infection, and other micronutrient related deficiencies can co-exist with obesity. Osteoporosis is also a major area of concern in this age group. Physical activity must be maintained as far as possible and a micro-nutrient-dense diet is important for older people.

Disadvantaged groups: Between the late 1980s and 1993 poverty levels across the 12 countries of the EU increased dramatically. Discrepancies in wealth within countries are matched by inequalities in health. Within Member States there can be differences in life expectancy of up to five years between richer and poorer groups [18]. Access to an affordable, safe and varied healthy diet and to health promoting physical activity is a significant factor in these inequalities.

In terms of nutrition, the poor spend a much greater proportion of their disposable income but eat a diet of lower nutritional quality than the rich. Money is obviously a fundamental factor, as are the circumstances and environment in which poorer people live.

COSTS OF POOR NUTRITION

Financial costs

Europe's Member States bear heavy economic, public and social costs because of diet-related diseases, poor nutrition and a sedentary lifestyle. Conversely, healthy eating and physical activity can lead to a healthy society and promote a healthy economy.

The precise impact of poor nutrition on the European economy is not known. What is clear, however, is that the overall costs are considerable. Many diet-related diseases are chronic conditions which require high-technology treatment over many years and place a very heavy burden on healthcare systems. Lengthening life expectancy and the growing proportion of older people in the European population suggest that these costs will rise. In addition these conditions often strike at senior people who play an important part in Europe's workforce, and so the costs to the economies of Europe imposed by the lost productivity when these people are ill or face an early death are considerable. In 1990, the cost of nutrition related diseases was estimated to be 58 billion Euros in the whole of Germany [25].

The two main causes of disease and early death are cancers and cardiovascular disease. The group was not able to find how much cancer costs across Europe, but

the burden is known to be high. Cardiovascular diseases place a very heavy burden on the European economy. Across Europe, around 74 billion Euros are spent treating cardiovascular disease [30]. In addition, the costs of working days lost and lost productivity due to deaths and illness caused by CVD and lost by those caring for people suffering from heart disease amount to 106 billion Euros.

Obesity is estimated to cost between 2 and 7 per cent of health care costs in developed countries [19]. Such estimates are recognised to be a very conservative estimate of the true economic costs of obesity.

There will be other social and economic consequences of poor nutrition and physical inactivity which have yet to be calculated. There are considerable healthcare costs, for example, associated with diabetes, hypertension and osteoporosis and micronutrient deficiencies. The social costs of eating disorders affecting mostly young workers need also to be considered.

In stark contrast, Member States allocate less than one per cent of the total health budget in Europe to health promotion [31]. Public expenditure on research and promotion of good nutritional practice is a drop in the ocean compared to the promotion and research budgets of the food and agricultural industries. There is a need for more comprehensive information on the social and economic costs of diet and inactivity related disease on a Europe-wide basis. Such analyses are essential to creating and maintaining the political will to improve nutrition across the European Union. Economic costings also enable decision-makers to assess the cost-effectiveness of different health promotion actions to improve nutrition and prevent diet-related disease.

Human costs of poor nutrition

The human costs of early death or ill-health are obvious – for the individuals concerned and for their loved ones. Enjoying a happy retirement together is a luxury denied to many of Europe's couples. Within the Union, a quarter of women can expect to be widowed by the age of 65 because of heart disease in their partners [32].

In addition, there are many people throughout Europe who have to provide informal care for relatives because of diet-related disease. In the UK, for example, it has been estimated that 423,000 people give such informal care to people with heart disease, amounting to about 430 million hours of care in 1996 alone [33]. Often these carers have given up their employment – resulting in economic hardship for themselves – and have little personal freedom.

There are also psychological burdens relating to nutrition. Obesity, for example, is a highly stigmatised condition in many countries and obese people often experience

discrimination [19]. Obese people and people suffering from eating disorders suffer from altered body image. Eating disorders, including binge eating disorder, have a heavy psychosocial impact on individuals and their families.

Poverty, which affects a variable proportion of individuals and families in the European Union, poses a major constraint on access to quality foodstuffs. This only serves to increase the social exclusion of the poor.

Influencing food choices

The nutritional status of individuals, which influences in a major way their current and future state of health, is the result of a balance between their nutritional needs and the supply of nutrients available to them.

While the former are largely dependent on genetics and lifestyle factors such as physical activity (leaving aside particular physiological or disease conditions), the latter are linked to diet. Diets, and their nutritional content, changed dramatically during the 20th Century as a result of agricultural and industrial progress, commercialisation of the food supply and changing lifestyles for different groups of the population.

It is not surprising that diets and nutritional intakes vary across Europe and within countries, given the wide range of cultural, psycho-social, and practical factors which can influence food behaviour [3]. One of the cultural richnesses of the European Union is its culinary variety with very different food behaviour. Furthermore, within countries regional and socio-economic variations occur.

By influencing food choice, therefore, we can improve health. But what makes people choose their food?

FACTORS INFLUENCING FOOD CONSUMPTION

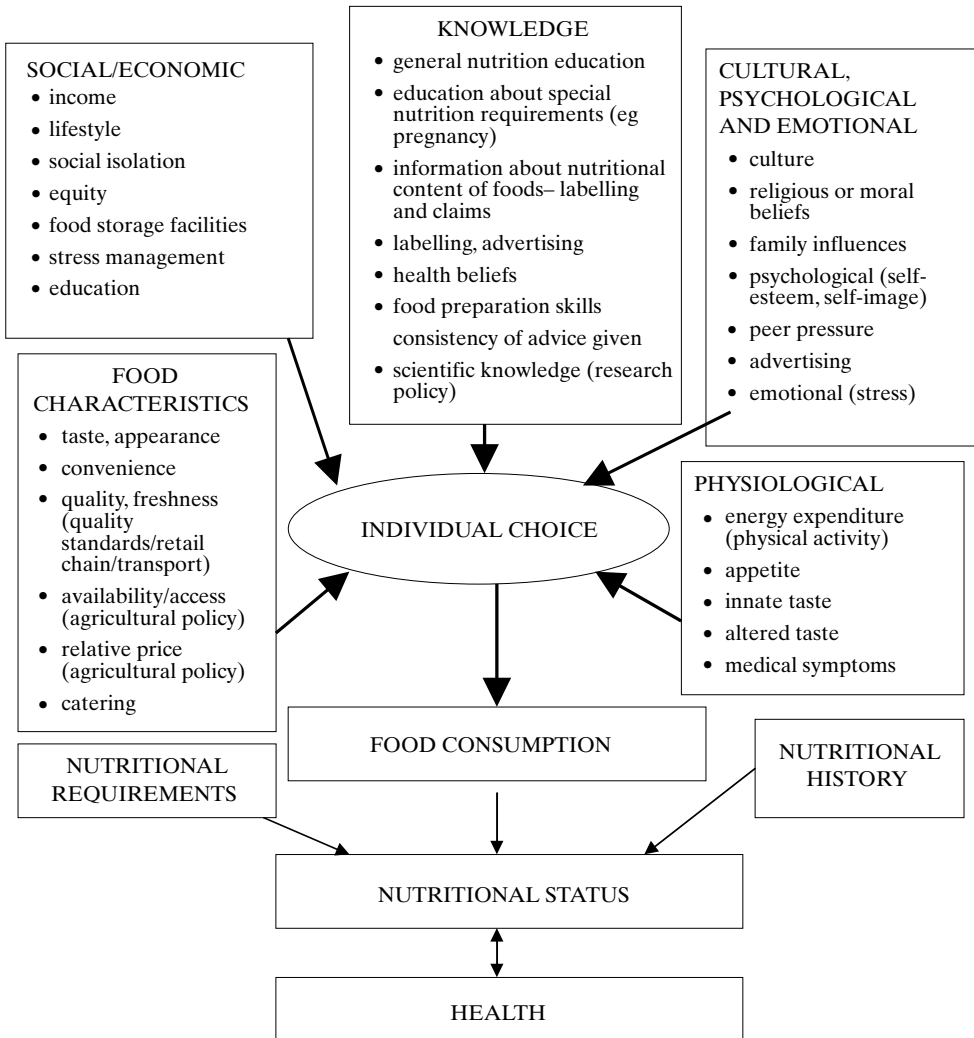
The factors influencing consumer choice are many and varied (see figure 1). It is because of these various determinants of diets that it is naïve to assume the answer to promoting healthy eating is simply to tell consumers what constitutes a healthy diet. It is now well recognised that such health education *alone* is not enough to effect a change in the population's diet. Other factors outside the control of individual consumers – from advertising and branding of food products to access to affordable fresh foods – have a significant impact on food choices. An effective strategy to improve nutritional health must address a wide range of issues which hinder or help good nutrition.

According to survey research, consumers themselves cite quality and freshness, price, taste, 'trying to eat healthily' and family preferences (in descending order) as the key influences on food choices [34].

Cultural

Cultural factors, including religious or moral beliefs or peer group expectations, clearly have an impact on food choices and dietary patterns. Traditional eating patterns vary

Figure 1: Influencing Food Consumption: A Model



considerably between, and even within, Member States. Attitudes to food, and particularly to healthy eating, are also important to differing degrees across Europe. In Denmark and Austria, 50% of consumers said that healthy eating was an important factor in their food choice. This compares to a quarter in France, Italy and Luxembourg.

Economic and Social factors

Changes in lifestyle factors – such as working patterns, family life, food shopping and storage patterns – have been a huge driver for changes in food consumption patterns in recent decades.

Social class plays an important role in determining family and individual diets. In a particular country, there are noticeable differences in eating habits between a working class environment and a middle-class environment.

Price and income are clearly important influences over food although the extent to which price is an influence varies from one Member State to another and between different groups in society. Nonetheless, price is clearly a factor in this equation and was the second most commonly cited influence (43%) over choice in the IEFS consumer surveys. Price itself is determined by a wide range of factors and policies. Higher prices disadvantage poor consumers, who spend a higher proportion of their income on food.

Several studies suggest that people on lower incomes have a more monotonous diet, a higher intake of energy-dense foods rich in fat and/or sugar, which can be cheaper sources of calories, and a lower intake of fruit and vegetables.

The way in which low income groups experience this 'food poverty' varies from country to country. This is because a wide range of factors, including food retailing patterns, public transport networks, welfare support for low income groups and the relative prices of different foods, can have an impact [6].

Food characteristics

Access to a variety of affordable foods is an essential pre-requisite for healthy eating. Many of Europe's consumers do not have such access.

The appearance and taste of a food, as well as its nutrient content, are clearly important in food choice. Quality and freshness was cited by almost three-quarters (74%) of consumers as an influence on food choice.

Availability certainly does vary across Europe: over 600 g of fruit and vegetables are available daily to the consumers of Greece compared to just over 275 g to Norwegian consumers, according to data from DAFNE (the Network for the Pan-European food data bank) [4]. Within countries there are also considerable discrepancies in the availability of some foods, such as fresh fruit and vegetables.

As the proportion of food taken outside the home has increased, people rely more on caterers to provide food. This includes workplace canteens, hospitals, residential care, schools, as well as restaurants, etc. This can lead to restricted options for healthy eating, ingestion of more processed food, and a lack of information about the nutritional content of meals.

Physiological factors

At the individual level, physiological factors can have a bearing on food choices. Fluctuations in appetite – how hungry a person feels – influence how much people eat and satiety will help determine when a person stops eating. Changes in the senses, such as altered perception of taste or smell, can influence what is eaten. Medical symptoms, such as nausea, heartburn or constipation can also play a role.

A combination of mechanisation, developments in transportation, the increasing importance of television and sedentary leisure activities have led to a reduction in physical activity, and thus energy expenditure. It is now recognised that efforts to promote healthy nutrition should include the promotion of physical activity.

Psychological and emotional factors

As well as personal physiological variations, psychological factors play a large role in determining food choice. Variations in mood, and factors such as stress, are known to influence food choice. Other psychological factors, such as a person's own body image, may have a strong influence on their eating patterns. This is particularly relevant to those people, mostly adolescents, suffering from eating disorders such as anorexia or bulimia nervosa.

Knowledge

Aspects of what we know about food, nutrition and health also play a role in determining food choice. This includes knowledge about general nutrition, or about specific nutrient requirements at particular times, such as when pregnant, and other beliefs about health. Skills in cooking and food preparation, or time available for cooking, are other factors which may come into play in the home.

Many of our attitudes to food may be influenced by the habits that we acquired as children. Eating patterns adopted in childhood have an influence on the dietary choices of that child as an adult [35].

For consumers, knowledge which influences their eating habits, comes from many different sources.

The main sources of information for consumers on food and health, in decreasing order, are television and radio, magazines, newspapers, health professionals, food packaging and the family [34]. Health professionals remain the most trusted source of information about nutrition [34].

Consumers are provided with different types of commercial information about foods – such as advertising and labelling, including health claims.

Labelling of the nutrient content of foods is covered by European legislation which requires that when manufacturers choose to put nutrition labels on their foods, the format is consistent. Such labelling requirements help consumers to compare one product with another. There is no easy way, however, to translate this nutrition information in its current format into useful healthy eating information. The rules on labelling and the format of the labels themselves, could usefully be updated to provide more assistance to consumers in choosing a healthy diet.

Commercial messages are another problem. They can be found also on food packaging, and recent decades have seen a huge increase in the number of health and nutrition claims. There are widespread concerns that some of these claims are misleading and can cause confusion. Measures exist to regulate some claims, and more wide-reaching controls are under consideration.

Consumer and public interest groups have become increasingly concerned that much of food advertising is targeted at children and that the foods advertised are not always of optimum nutritional quality [36]. The subject of food advertising – particularly to children – is highly controversial and approaches to this issue vary between Member States. Sweden, for example, has strong controls on advertising targeted at children whereas the advertising industry is self-regulated in many other Member States. This area will be subject to EU regulation.

While confusing and contradictory nutrition messages exist, it remains difficult for consumers to choose healthy diets. Furthermore, the influence of other food messages – such as advertising or health claims – can be counterproductive. The amount that governments and health institutions in Europe spend on disseminating nutrition messages is tiny compared to the amount the food industry spends on advertising its products.

This is really a problem, because, without proper training, the consumer is unable to find his or her way among all the available information. The Single Market requires consumers to be both informed and able to make informed choices. The use of new technologies, particularly the internet, could become one way to provide this information to the consumer.

ROLE OF STAKEHOLDERS IN INFLUENCING NUTRITION

Everyone plays a part in influencing nutritional patterns: health care professionals, schools, employers, farmers, food manufacturers, retailers, caterers, the media, local and national government, the EU and, of course, consumers themselves.

Health care professionals can have an influence on the nutrition of both their patients and their communities because they are particularly trusted sources of health information. Systematic reviews indicate that interventions in health care settings can have a moderate but real effect on dietary intake. However there have been criticisms of the extent of health professionals' knowledge of nutrition and their ability to promote behaviour change. There is a need, therefore, to improve health professionals' training in nutrition, and place more emphasis on prevention as well as treatment [31].

Schools are another important influence over dietary patterns. Schools influence the dietary habits of young people at an influential stage in their life, both through teaching about food (including food preparation skills), nutrition and health and through the food that is provided in schools (school lunches and breakfasts, sale of snacks etc). As children take messages home to their families, the influence of schools can spread into the wider community. Many schools are currently engaged in trying to promote nutritional health in a positive way through, for example, the European Network on Health Promoting Schools.

The workplace also has considerable influence over the nutritional health of the adult population because many people spend a large proportion of their time at work and often eat there. The circumstances in the workplace can also determine whether breastfeeding women can return to work. As with schools, some employers are already actively trying to promote nutritional health; those initiatives that have been effective have been supported by both employers and employees.

Farmers, food manufacturers, retailers and caterers clearly have a major influence over food consumption through the range and composition of foods that they produce and through the provision of information and messages about food products and diets. Manufacturers and retailers, whether they are large companies or small, could further influence nutrition by supporting broader strategies through changes in the production, pricing, marketing and labelling of foods.

As already stated, the catering sector has become a very important one. The evidence indicates that the most effective way to enable dietary change in this sector is through the alteration of the nutrient content of meals, rather than marketing 'healthy choices' [37, 38]. Without working closely with commercial or institutional caterers, a nutrition policy would not be successful.

National governments clearly have a role in influencing the nutritional health of their populations and creating a supportive environment for healthy nutrition (see below). Although nutrition is primarily a national issue, the EU plays an important role in influencing nutrition primarily through the related areas of policy, such as agriculture, food prices and subsidies, taxation, social policies, food labelling legislation and the training of health professionals, which are decided at the EU level and which can have an impact on nutrition.

Nutrition in the national and european policy context

NATIONAL NUTRITION POLICIES

Many national governments have taken action to improve nutrition as part of their public health policies. There is considerable variation, however, between Member States.

By 1998, some countries had developed and adopted a National Action Plan on Nutrition, as recommended at the 1992 International Conference on Nutrition (ICN) [2]. Other Member States were still in the process of developing their nutrition action plans, while other government have taken a series of different actions on nutrition without any national framework to bring the different areas together. It is clear, therefore, that there is a great deal of variation between countries [39].

Nutrition priorities, and the approaches taken to improving nutrition, vary from country to country. Some countries have selected priorities based on particular target groups, such as young people or the elderly, or actions, such as food education or provision of nutrition information. Other countries have organised their actions around goals to reduce particular diseases, such as obesity or heart disease.

It is no surprise that different countries have come up with different strategies to promote healthy nutrition, since disease rates and eating patterns vary from one Member State to another and since their respective cultures, through which the health promotion messages are carried, are different. Clearly national governments are in the best position to devise strategies to tackle their particular situation and that will have to be taken into account. Until now, however, despite the fact that the Treaty encourages Member States to co-operate on public health policy matters, with the help of the Commission, there has been no European Plan of Action on Nutrition, nor any common European dietary guidelines. As a result it is not just the strategies for improving nutrition which have varied across the Union, the basic healthy eating messages have not been totally consistent. Given the wide circulation of information that we observe now, this issue could become a problem if it is not addressed.

WHO EUROPE ACTION PLAN

It is because of this growing acknowledgement of the importance of a framework to support and encourage national governments in their efforts to improve nutrition,

that the World Health Organization Regional Office for Europe (WHO EURO) has recently undertaken a major initiative to develop a food and nutrition policy document and action plan for the European Region 2000-2005.

Representatives of most of the 51 Member States of the WHO European Region, gathered together in November 1999 to discuss a draft document. The consultation identified huge support for the initiative. Participants agreed that action at the WHO Europe level could stimulate effective national action, would raise the profile of food and nutrition at the highest political level and would promote a co-ordinated response to the problems which require an international solution.

It is planned that WHO will work closely with the Commission regarding these developments. It is suggested that a Food and Nutrition Task Force for the WHO European Region be established to facilitate collaboration between international agencies and European organisations, create a forum for exchange about food and public health, ensure development agencies support countries synergistically and strengthen political commitment to food and nutrition policy.

EU NUTRITION ACTIONS

At the moment, the EU has no special action plan or policy on nutrition. That does not mean that nothing is done in this field, because a lot of policies have an impact on nutrition, and some of them have taken into account diet and nutrition as an objective.

- **Health policy:**

It is clear that EU public health policy can have an important impact on nutrition. Section 1.2, above, describes some relevant public health initiatives at the European level. A new Directorate-General combining public health and consumer policy was created in 1999. This reorganised Directorate General has produced a proposal for a new health strategy and action programme for public health in 2000, which being health determinants oriented, will have to take great account of nutrition and physical activity matters.

- **Consumer policy:**

Consumer policy within the European Union is a key policy area relating to nutrition which has become more important in recent years. Article 153 of the Amsterdam Treaty calls on the EU to take into account consumer protection requirements in the definition and implementation of policies and activities. The difficult question of consumer information about nutritional matters, which are so differently dealt with by the media, relates to

this policy. Problems of nutrient function and health claims, new kinds of food products (like nutritional supplements or functional foods) and novel foods are addressed through this policy.

- **Internal Market and Industry Policy**

Policies relating to the creation of the internal market and industry policy have an impact on nutrition through the harmonisation of food laws throughout the EU.

Community Directives and Regulations have been developed in the last two decades relating to many relevant aspects. These include advertising, nutritional labelling, legislation relating to infant feeding, foodstuffs intended for particular nutritional uses, food hygiene monitoring; food safety; food additives; consumer protection; nutritional surveillance; control and regulation of veterinary medicines, pesticides, novel foods and food standards [40]. In these fields, Member States are not free to determine their legislation even if they feel that some of the rules do not adequately protect their citizens.

- **Trade Policy**

The European Union is the largest importer and exporter of food products [41]. On the world stage, the European Union participates as an observer in trade discussions which can have an impact on nutrition within the Union. Setting food standards is increasingly international and is now a multi-agency, multi-dimensional process.

Food legislation at the Codex Alimentarius level covers areas such as food labelling, food standards, health claims on foods, fortification of foods as well as issues relating to food safety. The standards set by Codex are increasingly important because they are used as reference standards in international trade disputes.

- **Agricultural & Fisheries Policy**

Many experts believe that, until now, the most important EU policy in relation to nutrition has been the Common Agricultural Policy (CAP) [40]. The real impact of CAP on public health is complex and not fully assessed [6].

European Union agricultural expenditure is financed by a single fund, the European Agricultural Guidance and Guarantee Fund (EAGGF). In 1998, this amounted to 38,748 million Euros. This means that approximately half of the total European Union budget goes towards financing the CAP.

The EAGGF is split between the Guarantee Section and the Guidance Section, representing around 88% and 12% of the total respectively. Expenditure covered by the Guarantee section is divided between the following four categories: market intervention, export refunds, direct aid to

farmers and co-financing of agri-environment measures, afforestation and early retirement schemes.

The Guidance section, on the other hand, is one of the Community's Structural Funds and, in the 1994-1999 period, provides co-financing for rural development and structural adjustment programmes.

From a nutrition point of view, it is extremely difficult to have a clear idea of the impact of these important actions. At this stage, we can only note that the allocation of resources under the Guarantee section was the following (in million Euros) in 1998:

1 Arable crops:	17 945
2 Beef:	5 161
3 Dairy products:	2 597
4 Olive oil:	2 267
5 Accompanying measures:	1 847
6 Sugar:	1 777
7 Fruit and vegetables:	1 510
8 Sheep and goat meat:	1 535
9 Tobacco:	870
10 Wine:	700
11 Other products and measures:	2 539

The Community has also so far been running **promotion** campaigns for farm products in a limited number of sectors only; these are measures provided for under the market organisation for certain products. Measures of this type have been in operation since the end of the 1970s.

The first were measures to promote market research for milk products and school milk. Then followed olive oil, linen, grape juice. There has been a marked increase in such campaigns since the beginning of the 1990s: in 1990/91, apples, citrus fruit and nuts were added to the list; in 1992/1993 they were followed by table olives, high-quality beef and veal and measures to raise awareness of labelling schemes denoting geographical origin and traditional specialities, in 1994 by raisins and sultanas and then in 1996 by flowers and ornamental plants. As a result of the BSE crisis, measures to support publicity campaigns for Community beef labelling systems were introduced, aiming to inform consumers that it is now possible to trace the origin of beef all the way from the meat counter back to the farmer who originally supplied the animal.

In recent years, around 95 million Euros has been available annually for promotional activities. The type of expenses financed are anything from consumer information campaigns using traditional generic product marketing methods such as posters, newspaper advertising, radio and television advertising, brochures and recipe books, to exhibition stands, sports spon-

sorship and seminars for doctors, dieticians, cooks, and canteen managers. Assistance is also available for market research and the development of new products.

The following products have been helped at EU level (million Euros for 1998):

Olive oil	6.9
Apple and citrus fruits	5.2
Grape juice	5.8
Milk and milk products	8.0
Beef/veal	10.0
Live plants floricultural products	6.3
Fibre flax	0.3
Nuts	0.3

From a public health point of view, it seems that this is a very useful tool to promote healthy diets.

However, the re-emergence of **food poverty**, linked with social exclusion, suggests that having abundant supplies does not automatically mean that these are available and accessible to everyone at a reasonable cost. Indeed, the price support mechanisms of the CAP could mean that consumers tend to spend more on food than they would at world market prices [40].

One mechanism to tackle this problem has been set up through **the European community food programmes** which pursue the twofold aims of contributing to the regulation of markets in agricultural products and the backing up of measures to offset the effect of poverty in the EU. This community assistance for supplying food to people at risk is funded at a significant level, around 200 million Euros a year. Three parts were assessed in 1998 (report available on Europa server): aid for the needy, distribution of fruits and vegetables and consumption aid for butter. The conclusion is that the efficiency is more on the social side than on the agriculture side.

So, from a nutritional health point of view, it is really difficult to determine the real impact of agriculture policy on nutrition. That is probably why some experts suggest that the CAP could have beneficial effects on the population's health and others that the general balance of foods promoted by the CAP could contribute to an increase in the prevalence of some chronic diseases in the EU. [40] The lack of a clear nutritional health message, however, does not help the people in charge of EU agriculture policy to take health into account in their decisions.

Fisheries policy, which has an impact on fish consumption in Europe, is another important policy area with positive aspects but also some concerns if fish may be polluted by heavy metals.

- **Research Policy**

Research is another area of Europe-wide policy which has the potential to make a real difference to nutritional health across the Union. There are a number of wide-ranging research programmes at EU level which relate to food. These include the Food-Linked Agro-Industrial Research (FLAIR), Key Action 1 (on Food, Nutrition and Health) of the 5th Framework Programme on research, and community-funded projects on health promotion and prevention.

It has been argued that there needs to be a shift in the emphasis of EU research programmes in the food area more. This should shift towards research which will better enable Europe's citizens to eat a healthy diet and be less focused on value-added foods.

The Commission's White Paper on Food Safety [41], despite being dedicated mainly to food safety, signals a new commitment to nutrition. The Commission '*is considering the development of a comprehensive and cohesive nutritional policy and will present an action plan for that purpose*'. As part of this, the White Paper refers to the development of Council Recommendations for dietary guidelines, establishment of appropriate information tools, promotion of nutritional research and inclusion of nutritional factors in national and Community data collection systems.

Also in this document, the Commission outlined its intention to introduce new legislation relating both to food safety and to nutrition. These include proposals to define some specific nutritional claims for foodstuffs intended for particular nutritional uses, such as 'low-sodium', 'sodium-free' and 'gluten-free'. Directives are proposed to control the composition and labelling of 'sport foods', food supplements and fortified foods.

THE NEED FOR A NUTRITION POLICY AT THE EU LEVEL

The influence of many EU decisions on the nutrition of the EU population is real: the EU sets the rules governing the quality of food, the prices of a large number of products, the labelling and advertising of food products, the management of surpluses and the education of many health professionals.

According to the Treaty of Amsterdam, all EU policies should now take into account health aspects. There is thus a major role for those responsible for public health within the EU to raise awareness of other sectors (agriculture, industry, education...) on the consequences of policies in their field on the health of populations.

Moreover, even though Member States are in a better position, at the national or local level, to address most aspects of nutritional health promotion, the EU has a

recognised role in providing Member States with comparable information about their relative situation, enabling the exchange of experience and building tools for national policies.

There has been a great deal of debate about the nature and extent to which these various aspects of European policy influence nutrition. Some aspects of policy have proved more controversial than others. There is agreement, however, that the potential effects of EU food policies on health in EU Member States has not been fully researched and quantified. Systematic assessment of the health impact of all EU policies – as specified by the Amsterdam treaty – is much needed. Methodologies to carry out these health audits of other policies also require development.

It is clear, therefore, that although Member States are the primary players in nutrition policy, there is a need for an added value for action at the EU level, taking into account the important influence of all EU policies on nutrition and health. Careful choice of the pertinent tools at EU level to provide the necessary support to national policies is now very much needed.

Towards an EU public health nutrition policy

This EU nutrition policy should be established in a way that respects:

- The principle of subsidiarity, including the need for EU policy to give an added value to what is and can be developed in Member States.
- The principle of proportionality, and the necessity for all policy options to be evaluated to determine whether they meet the health goals.
- Dietary diversity and cultural identity in the Member States.
- The need for a strong scientific basis.
- Free and informed choice for the population.
- Social justice – priority to matters influencing access to a nutritious diet for disadvantaged groups.

Member States must keep responsibility for national nutrition policies, including

- Dietary advice to the population and development of food based dietary guidelines.
- Health promotion, including nutrition and healthy lifestyles education
- Implementing action programmes in liaison with all stakeholders.

With this perspective, EU nutrition policy should focus on:

- Providing a safe and varied food supply, in sufficient quantities.
- Monitoring nutrition, food intakes and health status linked to nutrition.
- Providing reliable and comprehensive nutrition information about food.
- Developing nutritional research and disseminating results to all Member States.
- Training of health professionals.
- Support to national policies.

This can be achieved through the following actions:

- Food and nutrition monitoring.
- Scientific advice.
- Education and training of professionals.
- Tools for dietary guidelines.
- Consumer information and protection.
- Promoting nutrition in and through all policies.

- Immediate actions.
- Encouragement for the exchange of information and development of networks.
- Establishment of follow-up mechanisms.

FOOD AND NUTRITION MONITORING

This action is aimed to enable EU institutions and Member States to have access to comparable data and information in order to devise, evaluate and modify their nutrition policies.

The following actions are proposed at EU level:

- the health evaluation of developments in food availability (products, nutritional quality, prices, distribution and retailing patterns);
- the monitoring of food consumption (types, patterns, quality, availability, determinants) and nutrient intakes. This requires the standardisation of data-collection methods, of food composition tables and analytical methods. It also requires the regular updating of Population Reference Intakes, together with the relevant food authorities (European Food Authority);
- the establishment of nutritional health surveillance by devising standardised tools for the permanent monitoring of:
 - nutritional status (biological, clinical and anthropometric indicators),
 - breastfeeding habits,
 - physical activity levels (using equivalent units for different types of activity),
 - morbidity and mortality related to nutrition,
 - attitudes towards nutrition, physical activity and breastfeeding (taking into account specific regional socio-cultural differences).

A link has to exist with the European Food Authority, if it is created, but the nature of data (mainly epidemiological and health data) and the links with other health determinants, such as alcohol, suggest that this monitoring system has to be part of the EU health monitoring system. It could be organised through a European centre for health monitoring if and when such a centre is created.

Standardisation of data-collection methods, continuity in the collection of data in order to update regularly and sustainable financing are necessary to avoid a waste of money and energy.

This establishment of harmonised and standardised tools in the various countries could be done by the relevant national authorities. They could use the Food and Nutrition Councils which WHO Europe have highlighted as being effective co-ordination mechanisms.

SCIENTIFIC ADVICE

All decisions on nutrition have to rely on the production of consistent scientific advice. More specifically, the permanent revision of the nutritional objectives proposed at the European Union level and available for use by Member States has to be regularly reviewed, in order to take into account latest scientific developments.

The review should concern methodologies as well as key themes (for example, body mass index (BMI) in children, the relationship between diet and cancer, diet and cardiovascular disease, nutrition and quality of life, nutrition disorders, nutrition and ageing, and the development of food habits and preferences).

The following points are particularly relevant:

- the production of sound scientific advice needs to use the results of research and to re-orient the EU research and development programme to help Member States address the main nutritional challenges;
- independence of experts, according to the definitions which are used, for example, by the Commission in the field of pharmaceuticals, is important;
- real expertise in the field of nutritional health is necessary, to avoid scientific advice on human nutritional health being given by a group of experts where human health experts and nutritionists are a minority;
- minority views should be mentioned in the advice, as well as the majority point of view.

RESEARCH

Special attention has to be paid to research, which is an important lever for improving nutritional health. Alongside basic research, epidemiological/public health research should promote, direct, facilitate and finance multi-centre, multidisciplinary (including social sciences) research involving pan-European prospective cohort studies, also including the prospective candidate countries for EU enlargement. These issues require long-term studies and could be concentrated on enhancing the understanding of the relationships between nutrition and health, on predictive bio-markers for

diseases linked to nutrition, on factors influencing the onset and development of dietary behaviour (food consumption) throughout life, on the relationship between genetics and nutritional diseases/health, and on perspectives offered by new technologies.

This research policy should facilitate the development of new programmes for the promotion of adequate nutrition and physical activity. An effective and well-coordinated approach to the setting of research priorities and allocation of research funds is essential.

EDUCATION AND TRAINING OF HEALTH PROFESSIONALS

Specific training programmes in Public Health Nutrition should be developed in parallel with the inclusion of public health nutrition elements into the various health professional training programmes. Harmonised or common core curricula for different levels and professions should be developed between Member States. A lead has been given by the European masters programme in Public Health Nutrition which helps professionals to share Member State experience. Public health nutrition courses should be added to all health training programmes. The profession of public health nutritionist should be recognised in the Member States as such and quality assurance criteria developed. Recognition between Member States should be envisaged. A review of the roles and functions of the various professionals involved in public health nutrition will have to be conducted.

TOOLS FOR DIETARY GUIDELINES

For clear reasons, linked to differences in relative situations and cultures among member states, the definition and implementation of dietary guidelines and the delivery of health education messages for good nutrition is a matter for Member States.

The EU, however, does have a role to play. Creating a framework for dietary guidelines and delivering tools using the scientific advice at EU level seems reasonable. Defining the scientific basis and evidence for dietary guidelines is a difficult task, and it would be a waste of time, energy and money to duplicate this work in the 15 countries of the EU.

The expert Eurodiet project, funded through the Commission, will provide a good base for national food based dietary guidelines and valuable public health nutrition strategies to implement these guidelines.

One important topic that the Eurodiet project should deliver in October is an expert consensus on population goals on the following topics:

- Physical Activity Levels (PAL).
- Adult Body Weight as BMI.
- Dietary Fat.
- Fatty Acids (Saturated, Trans, Polyunsaturated, Monounsaturated).
- Carbohydrates.
- Sugary food consumption.
- Fruit and Vegetables.
- Folate from food.
- Dietary Fibre.
- Sodium.
- Iodine.
- Exclusive breastfeeding.

This would enable Member States, on the basis of the methodological recommendations developed by the EU working group, to develop then their own food and dietary guidelines taking into account their real situation and their cultural differences to develop adapted national policies.

An EU recommendation, which could be based on the results of this Eurodiet project, has been announced in the white paper on food safety.

CONSUMER INFORMATION AND PROTECTION

Two types of action, different but complementary, fall to the EU:

- taking legislative measures to define the information conditions which products – particularly certain products which may have a specific effect on health – must comply with in order to circulate freely within the internal market;
- supporting Member States in their efforts to give consumers comprehensive, coherent and easily accessible information about nutrition.

Legislative Aspects

This field has already been addressed by the Food Safety White Paper which proposes to improve food labelling:

- by amending the labelling directive 79/112/EEC to specify the conditions under which “functional claims” and “nutritional claims” can be made;

- by amending the nutrition labelling directive 93/496/EC to bring the provisions on nutrition labelling into line with consumer needs and expectations;
- by amending the directive on misleading advertising to clarify the scope of the directive with regards to claims concerning, in particular, food, health and the environment.

The Commission intends also:

- to produce a report on foods intended for persons suffering from diabetes, to assess the need for specific provisions for food for people with carbohydrate-metabolism disorders;
- to amend the directive on dietetic food to define the conditions for making the claims “low-sodium”, “sodium-free” and “gluten-free”;
- to propose a directive on purity criteria for nutritional substances in foods for particular nutritional uses;
- to propose a directive on food supplements (vitamins and minerals);
- to propose a directive on fortified foods.

This programme seems to address many of the problems. However, some others would have to be dealt with:

- the advertising of food products to children. At the very least, a recommendation for a code of good practice in this field would be necessary;
- the labelling of food which contain some components which could be dangerous for those persons who are subject to allergies;
- a means by which raw, or foods non-processed foods (fruits, vegetables, cereals etc) could benefit from some possible claims in the same way as processed foods;
- address the increasingly important issue of catering – from schools to hospitals, workplace restaurants to in-flight catering. If people (infants, school children, workers, travellers, almost all categories of the population) consume a growing proportion of their meals outside the home or in the institution in which they live, how can the quality of food offered to them be controlled and how can they be enabled to choose a healthy diet?

Information on nutrition

Information on nutrition is becoming more and more widely available to all, via a great number of channels. This information is frequent, plentiful and often inconsistent, contributing to a cacophony of information which is detrimental to consumers’ ability to choose healthy diets.

Member States, with the assistance of the EU, could investigate the means of facilitating easy access to data, which has been independently scientifically validated, on the relationships between diet and health for the media, consumers and consumer organisations. This could be done by using internet facilities, following the E-Europe initiative proposed at the Lisbon Summit.

PROMOTING NUTRITION IN AND THROUGH ALL POLICIES

The treaty of Amsterdam has brought the obligation to take into account a high level of health protection in the definition and the implementation of all EU actions, and nutritional health is specially concerned.

This is the most crucial action at EU level, and to determine how all policies can have a deliberate positive impact on nutritional health has to be the priority of the EU nutrition policy. The potential impact of all policies and actions in terms of nutritional health should be anticipated from the moment of their conception and evaluated according to a nutritional epidemiological approach.

Various policies and programmes developed by the European Union have, or may have, an impact on the nutrition or physical activity level of populations or of particular population sub-groups. The main areas of relevance are health, agriculture, taxation, internal market, consumers affairs, social policy, education, environment, customs, industry, transport, youth and sport.

Priority could be given to agriculture policy, which is already successful in taking environment into account in its definition and implementation. A similar process should be initiated for (nutritional) health, together with developing health impact assessment methods to help EU and Member States evaluate policy and formulate policy options.

IMMEDIATE ACTIONS

Before these general mechanisms are functioning, however, it seems necessary and possible to implement as soon as possible an action on two priorities:

Increase the consumption of fruits and vegetables

The objective of increasing the consumption of fruit and vegetables (or maintaining the level of consumption for those areas which already have adequate intakes) is widely supported by public health nutritionists across Europe. The necessary actions

– across the range of European Union policies and programmes – to achieve an increase in fruit and vegetable consumption could be devised as a ‘pilot’ programme on the co-ordination of policies.

In order to reach this objective, it would be useful to promote a study to determine what measures could support the consumption of fruit and vegetables in the EU, for example through:

- the positioning of the common agricultural policy to encourage the consumption of fruits and vegetables, including a quality policy and the efficient use of surplus management;
- a social policy which takes into account the different constraints which limit the access of disadvantaged groups to fruit and vegetables, to increase consumption in these groups;
- national information campaigns, with the support of the EU, to promote actively the consumption of fruit and vegetables, particularly among young people;
- a research policy directed towards the conservation of nutritional quality and safety of products for which epidemiological research has demonstrated positive/beneficial effects.

Promote breastfeeding

The first years of the life, after conception, are important for determining nutritional health throughout the whole life-cycle. An action on breastfeeding should be among the most effective, which is the reason for the proposal to have a EU action on breastfeeding. Anyway, the Innocenti declaration on the protection, promotion and support of breastfeeding was adopted under WHO in 1990 with the support of all EU members.

It is true that the determinants of breastfeeding are not only EU relevant. They can be classified as:

- Socio-demographic (age, education level, marital status, employment).
- Psycho-social (supportive partner, family, exposure to breastfeeding, willingness to breastfeed in front of others, maternal health knowledge, maternal confidence).
- Health care attributes (prenatal and postnatal discharge services, hospital practice).
- Community attributes (community awareness and advocacy, local and workplace support).
- Public policy (official recommendations, maternity benefits, baby friendly hospital initiative, training of professionals, code of marketing breastmilk substitutes).

But the EU can play a really positive role in the following fields:

- Help harmonise the definitions of breastfeeding.
- Assess the real situation in the EU, where the important differences between countries (from 15% to 85% breastfed children aged 4 months) have to be detailed and explained, and analysis of the factors leading to success
- On this basis, prepare a recommendation which could be used by Member States to build efficient policies.
- Assess and, if necessary, improve the EU regulations on infant and follow-on formulae (directive 91/321/EEC and for exports directive 92/52/EEC).

Other possible immediate actions

The two actions outlined pp. 38-39 seem to be the most obvious priorities for immediate action. It is possible, however, that other issues may also be suitable for consideration as immediate actions in this way. Options include obesity (including physical activity), dental health, osteoporosis, iodine deficiency and food provided through catering.

ENCOURAGE THE EXCHANGE OF INFORMATION AND NETWORKS

Existing programmes have promoted various networks, among them the European Network for Public Health Nutrition, the network stemming from the Eurodiet project, the ECOG network, the dental health network, a network on the promotion of breastfeeding, the diabetes network and a network on eating disorders.

The establishment and development of various research, intervention, and evaluation activities necessary for the pursuit, reinforcement and evolution of existing networks of competence (in particular), as well as the emergence of new networks, particularly resulting from pan-European activities such as the EPIC, EURALIM and DAFNE studies is necessary.

These exchanges will enable the development of communication within, and between, professions. They will also facilitate the dissemination of research findings, reviews, evaluation results and recommendations to all professionals linked to nutrition (politicians, health professionals, and those working in the food industry, communications and biological sciences, etc).

This has to be organised and efficiently run. It cannot be done on the basis of personal initiative, but has to be planned, and the exchanges between networks need to be clearly defined to avoid lack of dissemination of information, especially between networks financed by different programmes (research, public health, etc). An annual

conference of nutrition networks, or a participation of nutrition networks to an annual health networks conference, would be useful to present their results.

ESTABLISHMENT OF FOLLOW-UP MECHANISMS

Setting up a nutritional health policy without a follow-up would lead to a waste of money and time. The following suggestions made by the group need to be refined and their feasibility carefully studied, but they seem to be a good basis for thinking about the organisation of the follow-up mechanism.

- Periodic production (every four years, as proposed in the Eurodiet project) of a report, or a part of a public health report, on the state of nutritional health in the European population. This should include a review of the determinants of nutritional health and of morbidity and mortality linked to nutrition, bringing together national data collected with the help of the newly harmonised tools. This report should include an assessment of the impact of other European policies having integrated public health nutrition into their area and an evaluation of the progress of EU public health nutrition actions.
- Creation of a nutrition health task-force to help ensure the viability and durability of EU nutrition commitments by translating the general health commitments under the Amsterdam Treaty into the specific area of nutrition and co-ordinate the various activities in the field of nutrition. In particular, it would:
 - ensure co-ordination with the European authorities in charge of devising and/or putting into practice policies and programmes which could have an influence on nutritional health;
 - ensure co-ordination with the activities of international bodies, such as WHO;
 - encourage exchange between those authorities of European governments in charge of nutritional policy;
 - facilitate networks;
 - support the monitoring of policies for their impact on nutritional health.

This task force could rely on the support of expert groups and committees .

- A forum which brings together the principal players (including the public and private sectors and consumers) should be organised regularly, for example inside the public health forum already proposed, with a specific emphasis every four years for discussing the report on the state of nutritional health in the European population.

- The Council of Ministers of health should have a special debate on nutritional health policy every 4 years, based on the report on the state of nutritional health in the European population, to reorient, if necessary, the nutritional health policy.

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