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DEVELOPMENT
OF THE FIRST
FOOD AND
NUTRITION
ACTION PLAN
FOR THE WHO
EUROPEAN
REGION

Report on a WHO Consultation

Malta 8–10 November 1999

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EUROPEAN HEALTH21 TARGET 11 HEALTHIER LIVING

By the year 2015, people across society should have adopted healthier patterns of living (Adopted by the WHO Regional Committee for Europe at its forty-eighth session, Copenhagen, September 1998)

ABSTRACT

Access to safe healthy food is a human right underpinned by HEALTH21. Food is also a commodity that contributes to a country's national economy, so enormous economic interests are at stake in food production, processing, marketing and distribution. The role of the health sector is to help all stakeholders, whose main priority may not necessarily be health, to recognize the important role food plays regarding health. The health sector can only do this by developing evidence-based strategies that ensure health is central to all food policies. The WHO Food and Nutrition Action Plan outlines a possible strategy to assist Member States protect the most vulnerable, including infants, children, pregnant and lactating women, low income groups, food-intolerant people and older people. Unless food and nutrition plans are implemented, unsafe food and poor nutrition will be responsible for an increased economic burden from food-related morbidity and premature mortality. In November 1999, representatives of nearly 50 Member States in the WHO European Region gathered in Malta to discuss Europe's first comprehensive food and nutrition action plan. The participants contributed to the draft Food and Nutrition Action Plan for the WHO European Region, discussed how to ensure the support of all WHO Member States for it, and considered how national food and nutrition coordination mechanisms could be organized in each country.

Keywords

NUTRITION POLICY
REGIONAL HEALTH PLANNING
STRATEGIC PLANNING
FOOD HYGIENE
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1. Introduction

Access to safe healthy food is a human right underpinned by HEALTH21. Food is also a commodity that contributes to a country's national economy therefore enormous economic interests are at stake in food production, processing, marketing and distribution. Global economic stakes in food have increased dramatically since the World Trade Agreement in 1994, which for the first time included food.

The role of the health sector is to help all stakeholders, whose main priority may not necessarily be health, recognize the important role food plays regarding health. The health sector can only fulfil this by developing evidence-based strategies that ensure health is central to all food policies. The WHO Food and Nutrition Action Plan outlines a possible strategy to assist Member States. It outlines strategies that protect the most vulnerable, including infants, children, pregnant and lactating women, low income groups, food intolerant people and older people. Unless food and nutrition plans are implemented, unsafe food and poor nutrition will be responsible for an increased economic burden from food-related morbidity and premature mortality.

Heart disease accounts for up to 1.4 million deaths in the EU alone each year and over 30 million people have heart disease resulting in a tremendous burden to health services. Although no figures exist for Europe, WHO estimates that reversing the decline in breastfeeding could save the lives of 1.5 million infants in the world every year. In 1995 it was estimated that each year around 130 million Europeans are affected by episodes of food-borne diseases. However it is not possible to give an estimate of the real magnitude. Some food-related diseases only become manifest after a long period of exposure, consequently, many health problems do not figure in national statistics.

Production and consumption of food should: reduce the risk of both food-borne and noncommunicable diseases and prevent micro-nutrient deficiency. It is a bonus that a safe healthy diet can be environmentally sound. Growing the right kinds of foods for health can reduce fuel consumption, pollution, transport and packaging costs and promote biodiversity, especially if grown near to where it is consumed. This can help create local jobs, improve food security and promote a sustainable environment.

It is proposed that each Member State establish or strengthen intersectoral food and nutrition councils or install mechanisms to secure better coordination between different ministries — ensuring that public health concerns are duly taken into account. These councils are responsible for overseeing food and nutrition action plans. One of the main aims is to reduce inequalities related to food and nutrition. Responsibility for the food system is divided among various ministries, therefore, unless actions are coordinated there is a risk of duplication or, even more likely is the risk that certain public health concerns could be overlooked.

To achieve effective action in the WHO European Region, it is proposed that a Food and Nutrition Committee for Europe is set up, to support the development and implementation of national food and nutrition action plans and advise on international aspects of food control and nutrition policy. The Regional Office offers to act as secretariat to the Food and Nutrition Committee for Europe.

Access to a safe healthy diet is one of the most important public health actions that a country can take to improve health and increase economic gain.

The plan aims to improve the availability of, access to and consumption of a safe and healthy variety of nutritious food for all, reduce the risk of foodborne and noncommunicable diseases, and prevent micronutrient deficiency. Specific evidence-based strategies to protect the most vulnerable, including infants, children, pregnant and lactating women, low-income groups and older people, will be identified.

In November 1999, representatives of nearly all 50 active Member States of the WHO European Region gathered in Malta to discuss Europe's first comprehensive food and nutrition action plan (the subject of this report). A group of nutritional and health experts and representatives from UN and other agencies were also invited. The objectives of the consultation process were to:

- develop the Food and Nutrition Action Plan for the WHO European Region which will be submitted to the Standing Committee for the Regional Committee in December 1999;
- discuss how to ensure the support of all WHO Member States for the action plan;
- consider how national food and nutrition coordination mechanisms could be organized in each country.

2. Aim of this report

The aim of this report is to document fully the Consultation held in Malta, to communicate the discussions covered by individual working groups, and to report the recommendations resulting from the meeting.

3. Opening of the consultation

The consultation process was opened by Dr Louis Degara, Minister of Health for Malta and Dr Marc Danzon, the nominee for WHO Regional Director for Europe.

3.1 Dr Louis Degara, Minister of Health, Malta

Dr Degara warmly welcomed all participants to the consultation meeting organized by the WHO in collaboration with his Ministry. He said that it was an honour for Malta to host this meeting and to facilitate the interaction of so many experts in the science of food and nutrition.

Malta lies in the heart of the Mediterranean and is logistically positioned to bridge the north and south of Europe, as well as the west and east Mediterranean basin. Dr Degara believed that it was appropriate that this consultation process, about a food and nutrition policy for Europe, be held in a country known for its mixed culinary tastes that span from north to south and west to east.

Dr Degara emphasized the appropriateness of meeting, at the end of this century, to discuss issues related to food and health for Europe. This is particularly important considering the grim facts that concern Health Ministries throughout Europe. These include the tremendous burden of heart disease on health services in Europe; food-born diseases which affect millions of Europeans annually; the global decline of breastfeeding which is claiming each year the lives of over a million infants worldwide; widespread food inequity; and the lack of a safe healthy diet for all. Together these are responsible for an important proportion of overall mortality in the WHO European Region.

For Dr Degara, it is therefore no surprise that this consultation is taking place. He believes that the development of a food and nutrition policy is one of the most important public health actions that any country can take, and that healthy nutrition is one of the pillars for the Investment for the Health Approach advocated by WHO.

Dr Degara reminded the participants that food is also a commodity that contributes to a country's national economy. Large economic interests are at stake in food production, processing, marketing and distribution. He stressed that the health sector must strive to help stakeholders whose main priority is not health, to recognize the important role food plays regarding health. Furthermore, he suggested that the health sector should ensure that health is central to all food policies.

Eleven years ago Malta developed its first food and nutrition policy which outlined national dietary guidelines and nutrient goals. This was a landmark for the Maltese Islands. The report was not only the catalyst to a national reform in the provision of food but it also helped the Government shape initiatives to promote healthy nutrition for the Maltese population and to encourage appropriate food choices.

Dr Degara mentioned that in 1992, during the International Conference of Nutrition (ICN) held in Rome, Malta submitted a detailed case study report. This highlighted a number of serious issues in the country, including an alarming increase of obesity in young children, the decline in breastfeeding, the overall lack of regular physical activity, and a food consumption pattern clearly deviating away from the renowned Mediterranean Diet.

Since 1992, the Maltese Ministry of Health has supported various initiatives and programmes to promote healthy nutrition amongst all age groups and to address those issues emerging from the ICN country report. In 1995, the Ministry of Health prepared a report entitled *Health Vision* 2000 which addressed the main health issues inflicting the Maltese nation. Healthy nutrition was emphasized strongly and food targets set.

These food targets have since been translated into nutrition education campaigns for the general public. Opportunities to build alliances with key have been taken and all partners have helped inform consumers about the benefits of healthy nutrition. As a result Malta has seen an increase in the demand for fresh fruit and vegetables, wholemeal high fibre bread, low fat milk products and low fat foods. Dr Degara indicated that the Mediterranean diet, once so popular in Malta, is now gaining ground once more in Maltese homes.

The demand for natural, wholesome foods has triggered a positive response from the local food industry. Food labelling of locally manufactured food products was implemented by new food labelling regulations. With Malta's applications to join the European Union, all existing food laws were revised and updated to integrate and comply with the EU legislation.

Dr Degara reported that three years ago, he championed a health promotion initiative to provide overweight individuals with support from health professionals in their efforts to lose weight and make the necessary lifestyle changes. This project was a success both in terms of the numbers of potential slimmers it attracted and of the results achieved by the facilitators of the programme. This weight loss programme serves as a model of health services oriented towards the promotion of health.

Dr Degara informed the participants of other new initiatives that were going to take place in Malta. In January 2000, a national breastfeeding policy based on the International Code was to

be implemented in the Maltese maternity services. With the support of the country's health care professionals, the national general hospital could then be recognized as *Baby Friendly*. As well, the Maltese University had accepted postgraduate students for a diploma qualification in nutrition and dietetics.

Despite the importance of the numerous Maltese initiatives that have taken place over the past decades, Dr Degara emphasized that more needs to be done in Malta, to strengthen existing structures that promote health and prevent disease, and to develop better multi-sectoral strategies to make healthy choices the easy choices. This will require professionals within the Ministry of Health to work more proactively with other sectors to realize a healthier nation.

To conclude, Dr Degara wished all participants a fruitful meeting and a very pleasant stay in the Maltese Islands.

3.2 Dr Marc Danzon, nominee WHO Regional Director for Europe

Dr Marc Danzon thanked the Maltese Minister of Health for hosting the meeting and welcoming the participants.

Although not yet formally appointed WHO Regional Director for Europe, Dr Danzon particularly wanted to support the Food and Nutrition Action Plan (FNAP) and the consultation in Malta. He stressed the unique importance of the FNAP consultation process and warmly welcomed all participants and representatives of Member States, United Nations organizations and nongovernmental organizations, as well as colleagues from WHO headquarters and the regional offices.

Dr Danzon hoped that the FNAP consultation process could result in major long-term public health improvement. Moreover, the process represents an important example for future development of health policies in Europe. It could also provide a case study illustrating successful collaboration between the WHO Regional Office for Europe and Member States.

Health policies need to include several basic complementary strategies. First, a policy must *be knowledge- and evidence-based*. It should include epidemiological, clinical, behavioural and statistical research and feasibility assessment. Dr Danzon felt that while current knowledge in the field of food and nutrition is extensive, it needs to be better utilized and, where gaps exist, additional surveys and studies carried out.

A health policy also needs to *take an intersectoral approach*, consistently stimulating all sectors together towards common goals. Again, while the process of involving all sectors relevant to food and nutrition policy has already started, the consistency, convergence and coherence of this approach must be strengthened.

A policy should also, simultaneously and consistently, *use a variety of means*, including prevention, humanitarian assistance, care, education, legislation and communication. Here again, the food and nutrition sector provides an excellent example of this approach.

To be effective, health policy needs to *mobilize opinion-leaders*, *decision-makers and the general public*. Dr Danzon believes that food and nutrition policies are able to do this as

everyone is interested in food, especially safe food. As conflicts of interest may occur, the general public needs to receive clear, simple information.

Finally, policies should be regularly monitored and evaluated to demonstrate how effective and sustainable they are and how they impact on health.

Dr Danzon insisted that the Malta consultation represented an excellent opportunity to build a success story for public health partnerships. Member States would need to develop their own food and nutrition policies, taking into account their particular priorities. WHO could support this process by promoting the exchange of information, stimulating international collaboration, helping countries assess their own situation and needs, and by giving advice with an independent voice.

Dr Danzon concluded by requesting that participants take into account the complexity of the subject whilst providing WHO with simple and consistent recommendations. He asked participants to be innovative because there is a particular need for more creativity in public heal

4. Need for action in Europe

Day one of the consultation process was designed to introduce the context and focus participants on the *need for action in Europe*. Current research suggests there is a wide-ranging need for food and nutrition-related action in Europe. A knowledge-based food and nutrition action plan (FNAP) is required to take this scientific evidence into account.

In Malta, six expert papers were presented to participants to demonstrate the scientific basis for action. Each talk addressed one of the five key areas covered in the draft food and nutrition action plan (see Annex 1). The presentations are summarized in the papers below.

5. The challenge of poverty and production in the face of globalization and the need for sustainable consumption

Professor Tim Lang, Centre for Food Policy, Thames Valley University, London.

5.1 Introduction

The challenge that the WHO European Region faces in creating the Food and Nutrition Action Plan (FNAP) is great. The context in which food and nutrition policy has to be formed is rapidly changing. Key changes include:

- changing governance such as the creation of new national food agencies and new trade bodies
- worries about consumer confidence
- new technologies in food sectors, e.g. functional foods, biotechnology
- changing world food trade rules
- rapid concentration in the food economy
- food inequalities and their implications for health, and
- environmental aspects of food supply.

The creation of food and nutrition policies for the 21st century provides both the region and Member States a wonderful opportunity to link policy areas and the work of different Ministries. The food system is immensely complex within countries, let alone viewed internationally. It would be easy to wallow in, or be defeated by, this complexity. My own view is that for a policy such as the draft WHO Food and Nutrition Action Plan (FNAP) to succeed, it should aim for simple goals while admitting the complexity of the task. The importance of fruit and vegetables and their link with degenerative diseases is one such simple message both policy-makers and consumers can appreciate (Fig. 5.1). The only way forward is to produce an integrated, long-term strategy. There is considerable consumer pressure for political and policy action. Ironically, this can set up an unnecessary and false polarity in politicians' minds between nutrition and food safety which is why the FNAP's broad vision of food and nutrition policy giving equal weight to diverse policy considerations is so welcome. It is also clear that in an economic sector which is already characterized by strong company presence, states need to collaborate to ensure that proper dialogue with all interests occurs (Table 5.1).

In this paper, I explore these general thoughts by focusing on two particular issues which are central to our task and to the success of FNAP: The first is the need to tackle inequalities and food poverty. The second is the case for building environmental health into public health to create a new ecological (public) health approach. The FNAP addresses these in recommendations 1 and 5 respectively.

In particular, I want to explore a central tension in public policy between what we call a therapeutic approach to food and health and an ecological approach. Whereas the therapeutic approach tends to focus on individual/at risk groups, the ecological approach looks at total populations¹.

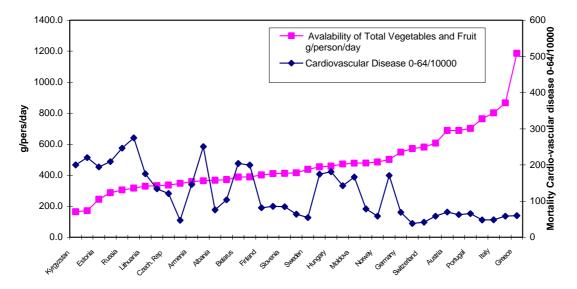


Fig. 5.1. National availability of vegetables and fruits compared with premature mortality due to cardiovascular disease in 1993

Source: WHO, HFA database, and FAO statistical database.

	Sales	Profits	Chief products	Number of employees
	(US\$ billion)			
Philips Morris	56.11	6.31	Tobacco, cereals, beverages	152 000
Cargill	51.00	4.68	Cereals, seeds, oils, beverages	80 600
Unilever	50.06	7.94	Oils, dairy, beverages, meals	287 000
Nestlé	49.96	4.11	Beverages, cereals, infant food	225 808
Pepsico	20.92	1.49	Beverages, snacks	142 000
Sara Lee	20.01	-0.53	Meat and bakery	139 000
Coca-Cola	18.87	4.13	Beverages, foods	29 500
McDonalds	11.41	1.64	Restaurants	267 000

Table 5.1. Largest food transnationals, by turnover, 1998

Source: FT 500, Financial Times, 28 January 1999, excepting Cargill, website: www.cargill.com.

5.2 Focus 1. Inequalities and food poverty

The evidence about the food dimension in inequalities in health is strong. Traditionally public health concern has rightly focused upon *absolute* under-consumption as a source of malnutrition. More recently, evidence has grown of the importance *relative* poor consumption ^{2,3,4}. The less income people have, the narrower the range of foods they consume, the higher the proportion of their household expenditure is on food, and the worse their diet-related ill health is. This is not a natural but human-created state of affairs. At its most extreme, poverty locks people into a cycle of hunger and premature death, a cycle which is known to be preventable. An equitable food supply would have major public health benefits. History shows us that food poverty is not inevitable. In both war and peace, equitable public policy can decrease infant mortality and increase overall human health. This applies to affluent countries as much as lower income countries. For example, when the UK introduced a system of food rationing in World War II, health improved because poorer social groups at least ate better ⁵. In the USA, Henry Wallace's food stamps plan and Roosevelt's New Deal tackled hunger effectively ⁶

The global picture on food and poverty is sobering. UNICEF and UNDP calculate 800 million children globally are under-nourished, and 2 billion people exhibiting effects of poor diet ⁷. This is the result both of macronutrient – protein, carbohydrates and fats – and micronutrient deficiencies. For the WHO European Region, it should be recognized that poverty is not confined to developing countries; in situations where absolute poverty is rare, relative deprivation becomes more important ⁸. Women, children and older people are at greatest risk of poverty ⁹. Fig. 5.2 shows the variations in food expenditure among countries seeking accession to the European Union (EU).

The health of the poor is at risk from a number of sources, from environmental hazards, such as unsafe food and water; from hazards of urbanization such as air, water pollution and accidents; and from inequalities of income. The economy is not traditionally in the remit of health ministries but it is definitely something that health professionals should engage on with colleagues in economic policy. There is strong evidence that more unequal societies have worse indices of health. ¹⁰

Data on food inequalities in Europe is scarce, although researchers have begun to map different country experiences. These suggest that food poverty is not just financial but social and emotional ¹¹. Even within the European Union, which has an explicit commitment to tackle social exclusion, there is no database, although a methodology to enable intra-EU analysis is now

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Fig. 5.2. Percentage of income spent on food in accession countries compared with EU average

Source: OECD 1996 and Agriculture Situation and Prospects in CCEE- summary report 1999.

being developed under the DAPHNE programme¹². There are, however, general calculations of poverty and its spread across Member States ¹³. The 1998 EC Communication on Public Health proposes improving information on "inequalities in health, covering variations between population groups of the determinants of health, morbidity and mortality and assessment of interventions to reduce them" ¹⁴. The EC is right to suggest this. There are considerable disparities of income within the EU. The top 10% of households shared over a quarter of disposable income in 1993, whilst the bottom 10% shared 2%. 57 million individuals in the EU live in 23 million poor households. If this is a situation calculable in affluent western Europe, how much more sensitive is the situation in the east of the region? There are political sensitivities at issue everywhere in the region.

Even in an affluent country such as the UK, food poverty can have a marked health impact. Food poverty in the 1990s was higher in the UK than other EU countries ¹⁵. Inequalities in income and health widened 1979–1997 and the proportion of people with less than half the average income grew. The economic and social costs of this concerned the last government and it set targets for tackling what it called variations in health. One initiative it set up was a Low Income Project Team under the Department of Health, which reported in 1996¹⁶. In 1997, the new Government set up an independent Inquiry into Inequalities in Health chaired by a former Chief Medical Officer. When this reported, it showed that the lowest income decile had experienced a real, not just relative decline in income ¹⁷. In effect, both reports showed that the health costs of economic policy had thus been externalized onto worsening food-related ill health of people on (relatively) low incomes. One issue now being debated through the Government's Social Exclusion Unit is the issue of improving access to shops. Local shops have declined in the UK (see Fig. 5.3). Supermarkets are also growing in number in central Europe, often through acquisition by western European companies (Fig. 5.4).

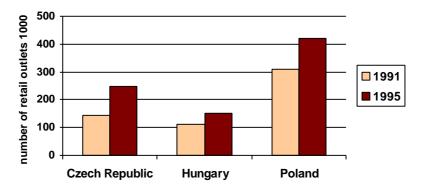
The Acheson Inquiry into Inequalities in Health 1999 found that lower socioeconomic groups have a greater incidence of premature and low birthweight babies, heart disease, stroke, and some cancers in adults ¹⁸. Other studies have shown that risk factors include lack of breastfeeding, smoking, physical inactivity, obesity, hypertension, and poor diet are clustered in the lower socioeconomic groups ¹⁹. The diet of lower socioeconomic groups in the UK is found to provide cheap energy from foods such as meat products, full cream milk, fats, sugars, preserves, potatoes, and cereals but has little intake of vegetables, fruit, and wholemeal bread. This type of diet is lower in essential nutrients such as calcium, iron, magnesium, folate and vitamin C than that of the higher socioeconomic groups.

80
70
60
50
40
30
20
10
0
1950
1990

Fig. 5.3. The relative grocery share of the market in the United Kingdom, 1950 and 1990

Source: Off our trolleys? IPPR, 1995.

Fig. 5.4. Increase in number of supermarkets in 1995 compared with 1991 in central Europe



Source: Eurometer 1997.

At a global (and arguably regional) level, food trade policy is now a factor to be borne in mind in tackling the links between public health and food poverty. G77 critics argue that current trade rules have been unnecessarily biased against the poor, particularly in developing countries, particularly in sub-Saharan Africa rather than in the European Region. There have been few studies of the impact of the General Agreement on Tariffs and Trade (GATT) on the food economies of Europe, other than the European Union. Developing countries argue that as food trading nations they have not been able to trade their way out of poverty ²⁰. There is a strong argument that the new GATT to be launched at Seattle November 30 1999 should allow more room for national food security measures. The new era of globalization has reconfigured social divisions both between and within countries. Within the European region, the role of the Common Agricultural Policy (CAP) is considerable. There is a deficiency in understanding CAP's impact on health within the EU, let alone on the WHO European Region ^{21,22}.

5.3 Focus 2. Environmental aspect of food and nutrition

Until comparatively recently, there has been little attention on how environmental health can be pursued through food and nutrition, yet it is clear that the new ecological public health has to give equal policy focus to both *what* people eat and *how* their diet is produced and distributed.

Environmental concerns include falling water tables from over-irrigation and intensive crop production ²³, uncertain drinking water quality ²⁴, loss of biodiversity²⁵, degraded soil²⁶ and wasteful use of land and sea ²⁷.

Pesticides illustrate this connection and show how this can confuse health advice to consumers. World-wide there is evidence of pollution and chemical contamination from pesticide (over-)use ²⁸. Most pesticide use is for fruit and vegetables, yet these are what nutrition advice encourages consumers to eat more of. In California, for example, 25% of all pesticides used in the USA, are on fruit and vegetables. Use of the most toxic pesticides actually increased 1991–1995²⁹.

In Europe, the link between poor production conditions and diet-related human health has featured in many recent public policy crises and concerns. Although crises may start in one member state, their impact has spread far partly due to trade liberalisation between countries and partly due to raised public interest and media coverage. Western Europe has experience considerable trouble in recent years. The UK salmonella in eggs crisis of 1988–1990 echoed the more serious Swedish crisis of the 1950s. The cost of poor conditions can be immense. The BSE crisis has already cost UK taxpayers £4 billion (c 6 billion Euros) in direct costs ³⁰.

There are also considerable political costs. Governments and institutions can be seriously damaged or fall, as happened in 1999 with the dioxin scandal in Belgium ³¹. There can also be serious intergovernmental tensions, as was shown by the 1999 UK-French problems following discovery that animals were being fed recycled sewage in animal feed. It is clear that we need a more integrated approach to health and environmental impact assessments ³². There is also need for food and nutrition policy specialists to develop new methodologies such as Life Cycle Analysis to assess the impact of food production and distribution both on nutrition and on the environment.

One example crying out for audit is energy. Although managerially, there have been astonishing efficiency improvements in the food supply in recent years, some food efficiency also creates unnecessary pollution. The UK food, drink and tobacco sector, for instance, emits 4.5 million tonnes of carbon annually, compared to the chemical industry's 7 million and the iron and steel industry's 10 million. It also creates nearly 6 million tonnes of waste, most of which is dumped in landfill sites ³³. This is not efficient.

Urbanization: who will feed the cities?

Of particular importance for eastern Member States of WHO-E is urbanization. It is self-evident that food supply is of critical importance, but today this has a particular importance due to urbanization. A coming challenge is how to feed the populations of cities with a declining proportion of people working in agriculture. Fig. 5.5 gives data on the proportion of populations in 10 central European countries. Globally, the pattern is clear. In 1900, approximately 5% of the world's people lived in cities with populations exceeding 100 000. In the 1990s, an estimated 45% – more than 2.5 billion people – live in large urban centres. By 2025, this is likely to be 61% of the world's population ³⁴.

As the population in cities continues to expand in the 21st century, the demand for food to feed urban people will grow. The FAO estimates that in a city of 10 million people, 6000 tonnes of food may need to be imported on a daily basis ³⁵. Londoners, for instance, consume 2 400 000 tonnes of food annually, sourced from all over the world ³⁶.

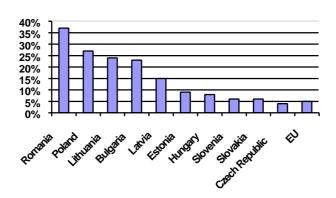


Fig. 5.5. Percentage of population employed in agriculture in 10 CE countries (seeking assession to EU) compared with EU

Source: Agriculture Situation and Prospects in CCEE- summary report 1999.

Why does this matter for health? As cities grow, so does demand for food. The model of food security is inexorably drawn away from one of self-reliance to a situation where food security is dependent upon earning power. In urban areas, the majority of food must be bought rather than grown oneself. Low income families can spend as much as 60% to 80% of their income on food and people in cities spend approximately a third more on food than their rural neighbours ³⁷. At the global level, the World Bank has estimated that there will be over one billion urban poor in the next century ³⁸. Already, following political changes in eastern Europe, urban-rural patterns are changing and their impact will be considerable for both the newly urbanized and the rural population left behind.

This offers good opportunity for intersectoral and interagency collaboration. The UNDP mapped out the urgency of the task at the 'Habitat 2' meeting in Istanbul. Its conclusion was that urban or peri-urban agriculture will have to be more central in both health and urban policy ³⁹. Western affluent countries may have to (re)learn from countries and urban areas which have retained closer urban-rural links. In Kathmandu for example, 37% of urban gardeners already grow all the vegetables they consume. In Hong Kong, 45% of demand for vegetables is supplied from 5-6% of the land mass. There is already a fast growing global movement of local authorities, small farmers and ecology-conscious and confidence-seeking consumers arguing for, and supporting, this modern urban agriculture sector ⁴⁰.

This sector already provides the kind of fresh foods nutritionists propose should be central to a health-enhancing diet. It has been calculated that there are approximately 30 million home gardeners in western Europe and that the total economic value of urban vegetable and fruit production is approximately US\$500 million. In Poland 500 000 tonnes of vegetables and fruits (one sixth of national consumption) were produced on 8000 council "employees" gardens in 1997. In cities of the former Soviet Republic of Georgia, home produced food made up 28% of the income. In 1998 in Bulgaria 47% of the population was self-sufficient in fruit and vegetables and 90% of urban families prepared some kind of preserves for the winter. The City Harvest project in London estimates that roughly 18% of the WHO recommended intake of vegetable and fruit could be produced in London ⁴¹. Town dwellers in Russia produce 88% of their potatoes. This important share is generated on plots of 0.2 to 0.5 hectares which together constitute only 4% of the total agricultural land, while in Romania the share of home produced food in total consumed by families rose from 25 to 37% between 1989 and 1994 ⁴².

The FNAP is significant for being one of the first public health initiatives to recognize the need for policy to link goals often left separate: health, environment, agriculture, food security, town planning. A process of debate and inquiry is essential within Member States as well as at regional level to ensure a high priority for health. One key issue is the policy choice between a strategy giving more priority to local produce for otherwise marginalised populations and one giving priority to providing food security by earning enough currency to import food sufficient for nutritional needs ⁴³. The latter is currently in the policy ascendancy with neo-liberal trade policies favouring reduction of subsidies and import-substitution strategies. Like all models, this has certain assumptions.

The food import-export approach to food security can work well in nutrition terms as long as the national currency is strong. Eastern Europe has recently experienced catastrophic currency collapses. In this context, the promise of urban agriculture and land to provide a safety net can be important. It not only provides nutritional security but can help boost the local economy ⁴⁴. It should be remembered that what is meant by 'local' is relative. No-one is against trade; the point is that it makes sense to save energy by consuming food produced *relatively* near. No-one is proposing that diet be restricted by consuming only what is *absolutely* local. Given a choice between Greek or Brazilian oranges, for example, it is environmentally more sensible for eastern or northern Europeans to consume the Greek.

The notion of 'food miles/kilometres' can be useful as an educational tool. This refers to the distance that food travels between primary producer and end consumer. Between 1975 and 19991/3, while the tonnage of food consumed remained constant, the amount of food transported on UK roads increased by 30% and the distance it travelled increased by nearly 60% ⁴⁵. If the food travelled further, so do consumers getting to the shops. In the UK, over the same period, the distance travelled for shopping in general rose by 60% and the number of shopping trips taken by car more than doubled ⁴⁶. Changes in the food retail sector meant that smaller, local shops fell in numbers while larger hypermarkets grew considerably. Environmentally, it would make better policy to encourage people to shop locally. The distance taken by shopping trips to town centre food stores is less than half that of trips taken to edge-of-town stores ⁴⁷.

Energy, again, is a key concept linking nutrition and environmental policy. In 1993, for instance, 685 000 giga joules of energy (equivalent to 14 million litres of fuel) were consumed in transporting 417 207 tonnes of dessert apples imported into Britain ⁴⁸, yet such apples can grow in the UK. Four out of five pears consumed in the UK are now imported ⁴⁹, and two thirds of its apples ⁵⁰. Fruit farmers were 'encouraged' out of business by Common Agriculture Policy subsidies to destroy trees. While CAP perceived a problem of over-supply, nutritionists are worried about under-consumption. In policy terms, the question is: why should a rich growing country like the UK be fed by others when it could feed itself and others could feed their own or local populations? The net import of 'hidden' land, i.e. land used elsewhere to feed the British, was 4.1 million hectares in 1995 ⁵¹. Much of this hidden importation was produce fed to animals.

This issue is ripe for further investigation and policy analysis by WHO European Member States. The FNAP recommends the need to learn from initiatives experimenting with growing food in and near the cities in both rich and poorer Member States. Sweden is one country which is pioneering integrated policy experimentation. Both agriculture and environment ministries are developing re-orientation programmes to reduce fossil fuel / energy use and to meet health targets⁵². This is based on the Factor Four approach of the Club of Rome⁵³, trying to increase efficiency fourfold by increasing technological sophistication. Sweden intends to halve resource use by 2021 ⁵⁴. Sweden is also exploring how to achieve tough targets on reducing greenhouse

gases from food consumption ⁵⁵. This was one of the public health recommendations of the joint WHO, World Meteorological Organization and UN Environment Programme report on climate change and public health ⁵⁶. On current evidence, Sweden reports that it is not close to meeting those targets. One comprehensive audit of the consequences of eating and travelling in Sweden has shown that far more energy is used than fits the proposed, self-imposed energy quotas. The situation appears to suggest the need for substantial lifestyle changes ^{57,58}. To ensure that policy is both comprehensive and accurate, new methodologies are required to improve energy auditing in food systems.

Besides energy, another food subject where human and environmental health policy appear to conflict is fish. Nutrition advice recommends the value of some, particularly oily, fish consumption, while environmental advice is that this could add to an already over-burdened sector. One recent review has concluded that "major stresses are evident in world food-producing systems, particularly land degradation, declining freshwater stores, and fisheries depletion." ⁵⁹ North American cod banks which for centuries have fed significant numbers of Europeans are now severely depleted and subject to fishing bans ⁶⁰. 69% of the world's fish stocks are in "dire condition". FAO suggests that the problem is "having too many vessels or excessive harvesting power in a growing number of fisheries" ⁶¹ yet globally, governments give subsidy of \$14–20bn to their national fishing fleets. This is equivalent to 25% of the fishing sector's entire revenues. There is also a question of social justice. With affluence, people tend to consume more meat and fish. If stocks are already in such a state when only 5% of humanity consume 45% of all meat and fish and while the poorest 20% consume only 5%, it is legitimate to ask if current mismatch can continue ⁶².

The challenge of FNAP

In effect, the FNAP asks us, as citizens and Member States, to link environmental and public health; to ask how can human health be achieved without compromising ecological health; and to engage with other policy areas. Only if all three are tackled could Europe achieve a sensible food and nutrition policy. In this paper, I have argued that we should promote a view that what matters is not just what we eat but also how food is produced and how equitably it is distributed and consumed. This requires us to explore new configurations. Some old food and nutrition goals remain, of course, but some new ones also require more emphasis. For instance, consumers should not just increase their fruit and vegetable consumption, but through their consumption help increase or maintain biodiversity in the field. The goal should be to get biodiversity from the field to the stomach. If, as is predicted, over 90% of Europeans will be living in cities by the year 2015, it is important for food and health policy planners to ask who will produce this food and how? The ecological consequences of increasing urbanization suggest new need to rebuild local food systems and policies.

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6. Action plan aiming at the sustainable elimination of iodine deficiency in Europe

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Iodine deficiency is the leading cause of preventable mental retardation and the iodization of salt has been adopted as the main strategy for its control. In 1990, almost one third of the earth population was affected by IDD and only 5–10% of the affected population had access to iodized salt. In 1999, nine years later, thanks to a unique mobilization of all partners around the world, this figure reached 68% and was even 90% in the Americas. This situation is a non precedent success in the field of noncommunicable diseases and the goal set by the World Summit for Children in 1990 to succeed in the sustainable elimination of IDD appears reachable.

However, in Europe, still only 27% of the population affected by IDD has access to iodized salt. The reasons for this impressively low figure are a spectacular relapse of IDD in some eastern European countries and the absence of national commitment in some large western European countries with mild to moderate IDD.

The aims of this paper are to propose to the European Member States of WHO an action plan in order to reach the goal of elimination of IDD in our region and to the underline the possible specific role of WHO, with the technical support of ICCIDD. The following suggestions will be made and discussed:

- (a) Maintain and develop advocacy, training, communication, and operational research on IDD.
- (b) Perform an ongoing detailed evaluation of the extend of IDD in Europe.
- (c) Implement universal salt iodization if not yet achieced wherever IDD is documented: ensure and control its availability, technique, legislation and quality control. In between,
- (d) Organize the administration of iodized oil in areas "hard to reach" with severe IDD.
- (e) Implement iodine supplementation during the perinatal period and up to three years of age in areas with mild and moderate IDD.
- (f) Ensure quality control and monitoring of the programmes of iodine supplementation from the producer to the consumer: implement and/or control the indicators, reference laboratories, IDD national programmes and the iodine and salt intakes of the populations. The promotion of iodized salt should not result in an increase of salt intake. The necessary monitoring of iodine intake through salt iodization is a unique opportunity to evaluate and monitor salt intake and to respect the WHO recommendation to maintain or decrease the salt intake at healthy levels.

Iodine is a micronutrient contained in minute amounts in the human body (10–20 mg, essentially in the thyroid gland). Iodine is required for the synthesis of thyroid hormones which play a decisive role in the metabolism of most cells of the organism and in the process of early growth and development of most organs, especially of the brain. Brain development occurs in humans during the fetal and early postnatal life. Consequently, iodine deficiency, if severe enough to affect thyroid hormone synthesis during this critical period will result in hypothyroism and brain damage. The clinical consequence will be irreversible mental retardation (1, 2).

The Recommended Dietary Allowance of iodine is $50 \,\mu\text{g/day}$ from 0 to 12 months, $90 \,\mu\text{g/day}$ from 1 to 6 years, $120 \,\mu\text{g/day}$ from 7 to 12 years, $150 \,\mu\text{g/day}$ during adolescence and adulthood and $200 \,\mu\text{g/day}$ during pregnancy and lactation (3). Metabolic studies conducted in areas with mild iodine deficiency in Europe indicated that the allowance should be increased to $90 \,\mu\text{g/day}$ during the first year of life as well (4). When the physiological requirements of iodine are not met in a given population, a series of functional and developmental abnormalities occur, among which goiter is only the visible "top of the iceberg". These complications, which constitute an hindrance to the development of populations, are grouped under the general heading of Iodine Deficiency Disoders (IDD) (5).

In 1990, almost one third of the earth population was affected by IDD and one tenth exibited a goiter. 43 million were significantly mentally handicaped as a result of iodine deficiency, including 11 million with overt cretinism. Therefore, iodine deficiency was seen as the greatest single cause of preventable brain damage and mental retardation (6).

The sustainable elimination of IDD by the year 2000 was accepted as one of the priorities in the field of nutrition by the WHO and the United Nations Children's Fund (UNICEF) in 1990 and this goal was further endorsed by the World Summit for Children during the same year.

The solution of iodine deficiency has focused on two main strategies, iodine supplementation and fortification.

Universal Salt Iodization (USI), defined as iodine fortification of all salt for human and animal consumption and for the food industry was recognized as the agreed strategy for the prevention of IDD (6).

The choice of this approach has been based on the following facts (7):

- Salt is one of the few commodities that comes closest to be universally consumed.
- Salt consumption is almost stable throughout the year in a given region.
- Salt production is usually limited to a few centres.
- Salt iodization technology is available at reasonable cost (0.4–1.5 US cents/kg or 2-8 US cents per person per year).
- The addition of iodine to salt does not impact any colour, taste or odour to salt.
- Quality of iodized salt can be monitored at production retail and household levels.

Other vehicles for iodine fortification include bread, milk, water, brick tea, sugar, candy (8). The problem with these vehicles is that the intake of all of them except water is not essential for survival and that they are frequently not consumed by those most vulnerable to IDD such as pregnant women, children and poor and isolated populations.

In 1990, only 5 to 10% of the populations affected by IDD had access to iodized salt. In 1999, thanks to a unique mobilization of all partners involved in the fight against IDD, this figure reached 68%. It was even 90% in the Americas (9). This achievement is a non precedent success in the field of noncommunicable diseases and the goal set by the World Summit for Children in 1990 to succeed in the sustainable elimination of IDD by the year 2000 appeared reachable.

However, in Europe in 1999, still only 27% of the populations of the 130 countries affected by IDD has access to iodized salt (9). The reasons for this impressively low figure are twofold:

- (a) difficulties to reimplement USI in some eastern European countries which used to have successful programmes of USI but in which these programmes were interrupted (10).
- (b) absence of national commitment and enforced legislation in spite of the presence of IDD in some western European countries such as Belgium, France, Italy and Spain (11–13).

The aims of the present paper are:

- (a) to propose an action plan for the elimination of IDD in Europe, and
- (b) to underline the possible specific role of WHO and the technical support of ICCIDD; the global action plan of ICCIDD for the year 1999–2001, including for the European Region, is available on request.

The suggested action plan includes:

- 1. Maintenance and even reinforcement of advocacy and training on IDD at local national, regional and global levels. Advocacy still needs to be targeted to all partners involved in the process, i.e. the people of the affected countries and their governments, the health sector including the physicians, the salt and food industry, the agriculturalists, the policy makers, communicators and educators.
- 2. Ongoing detailed evaluation and registration of the extend of IDD in Europe. This "state of the art" report could be based on the proceedings of a series of past meetings on IDD in Europe, for example in Ashkhabad (14), Brussels (11), Munich (10), and Kiev (in preparation); on a comparative analysis of the progress in elimination of IDD in Europe (15) and in the world (9) and on the ICCIDD database. The ideal situation would be the existence of a joint WHO-UNICEF-ICCIDD database accessible on the web.
- 3. Contribution to the implementation of USI wherever IDD is documented, if not yet achieved. This would imply at the European level, coordination between producers and importers of iodized salt at national levels; standardization of techniques and regulations on salt iodization in terms of the compounds used, levels of iodination, regulations on trade, importation and taxes; implementation of quality control programmes of iodized salt from the producer to the consumer. In between and in parallel until USI will be fully implemented,
- 4. Administration if necessary of iodized oil in areas "hard to reach" with severe iodine deficiency and persistence of the occurrence of cretinism, at least in women of child bearing age (16)
- 5. Iodine supplementation by tablets of potassium iodide at physiological levels during gestation (17), lactation, infancy and early childhood in areas with mild or moderate iodine deficiency.
- 6. Organization of quality control and monitoring of the programmes of iodine supplementation from the producer to the consumer. This objective implies the following:
 - Agreement on the indicators, epidemiological, clinical and biochemical.
 - Availability of a network of iodine laboratories including national and regional reference laboratories

- Implementation and support to national IDD Committees having easy and effective access to decisions at the levels of Ministries of Health, industry and commerce in order to sustain the programmes of iodine supplementation and fortification.
- Organization of partnership evaluations of country programmes by national and international expert teams.
- Develop operational research for example on simplified kits for the measurement of
 iodine in salt and urines; the use of neonatal TSH as a monitoring tool; evaluation of
 the consequences of moderate and mild iodine deficiency on neurointellectual
 development.
- 7. Evaluation of side effects of iodine which include essentially the occurrence of iodine induced hyperthyroidism, IIH; the possibility of triggering the development of thyroid autoimmunity by iodine and the change in the pattern of thyroid cancer (18). Iodine induced hypothyroidism and allergy to iodine have never been reported following salt iodization (19).
- 8. Monitoring of salt intake. The promotion of iodized salt should not result in an increase of salt intake. The necessary monitoring of iodized salt intake is a unique opportunity to evaluate and monitor the salt intake and to respect and support the WHO recommendation to maintain or decrease the salt intake at healthy levels (15).

Because of its specific mandate in the field of health, WHO, with the technical support of ICCIDD, could have, in close partnership with all other actors, a special role in advocacy, training, database, iodine supplementation, quality control and monitoring, insuring sustainability of the ongoing programmes and monitoring iodine and salt intake.

In conclusion, the ultimate goal of the sustainable elimination of iodine deficiency in the world is reachable but has not yet been achieved. We do not live yet in an IDD free world. Surprisingly enough, Europe is the part of the world where the most important delay has been recorded, while a country such as Switzerland has been the pioneer and the world model in the field (20). The reasons for the European delay are essentially socioeconomical and political. They could and should be easily overcome within a short time interval.

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7. Food safety and globalization of trade in food

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Summary

Globalization of trade in food covers several aspects. It introduces a wider variety of foods into the diet by providing consumers with a bigger and better choice of products, provides food exporting countries with foreign exchange, which is indispensable for the economic development of many countries, and also enables a foodborne disease to spread to other countries.

The Joint FAO/WHO Codex Alimentarius Commission (CAC) was established in 1962 to protect the health of the consumer and, at the same time, to ensure fair practices in food trade. CAC has been working since then and has elaborated a number of standards, guidelines and recommendations on food safety.

The WTO/SPS agreement was signed in 1994. One of the main objectives of the SPS Agreement is to protect human health in all WTO member countries. This is to be addressed through the establishment of a multilateral framework of rules and disciplines that will guide the development, adoption and enforcement of sanitary measures and minimize their negative effect

on trade. As a natural consequence, the SPS agreement recognized the standards and related texts of the CAC as international points of reference.

Another important aspect of the SPS agreement is that sanitary measures applied by WTO member countries should be based on an assessment of risks to human health and that it should take into account risk assessment techniques developed by the relevant international organizations. These techniques include methodologies in toxicological evaluation, exposure assessment and other related methods used by expert bodies, such as the JECFA and the JMPR. Sound knowledge of the functioning of these risk assessment bodies not only assists countries in better understanding the scientific background of Codex standards, but is useful in building national risk assessment procedures.

CAC is an intergovernmental body in which national delegations from Member Countries participate and discuss food safety standards. In order to fully protect the health of consumers, the health sector should be actively involved in the process of developing national position for the sessions of the Commission and its subsidiary bodies.

7.1 Introduction

This paper introduces briefly food trade, the Codex Alimentarius, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), and the role of the health sector in food safety and in the globalization of trade in food.

7.2 Food and trade

Foods are a major route of human exposure to microbiological and chemical hazards. Potential hazards that can be transmitted through foods include for example: microbiological pathogens such as salmonella; chemicals such as dioxins, pesticide residues, and aflatoxin; and potential hazards in new technologies such as biotechnology. The provision of safe, as well as nutritious, diets for the world's population is thus a major public health issue.

Without doubt, current international trade in foods is playing an increasingly important role in the provision of safe foods. The globalization of trade in food also has two important advantages: it introduces a wider variety of foods into the diet by providing consumers with a larger and better choice of products; and it provides food exporting countries with foreign exchange, which is needed for the economic development of many countries, and thus for an improvement in the standard of living for many people.

International food trade, however, faces several challenges. First, it enables potential transnational spread of foodborne hazards, and second, it requires the harmonization of national regulations, and thus requires that international rules be set by the governments involved. As well, international trade in foods can be impeded by tariff and non-tariff barriers at the national border.

7.3 Codex Alimentarius Commission

In order to address these concerns, the Joint FAO/WHO Codex Alimentarius Commission (CAC) was established in 1962 as an intergovernmental body. The objectives of this intergovernmental body are to protect the health of the consumers and simultaneously ensure fair practices in food

trade. CAC has been working since its creation and has elaborated a number of standards, guidelines and recommendations on food safety.

The CAC includes 165 members (as of 1 October 1999) from FAO Member Nations and WHO Member States who discuss and adopt the Codex food safety standards. The CAC includes a secretariat, an executive committee, and some subsidiary bodies (Codex Committees). Among these bodies, the nine General Subject Committees cover general principles (France), pesticide residues (Netherlands), food additives and contaminants (Netherlands), food labeling (Canada), food hygiene (USA), residues of veterinary drugs in food (USA), methods of analysis and sampling (Hungary), nutrition and foods for special dietary uses (Germany), and food import/export inspection and certification systems (Australia). The 12 Commodity Committees discuss topics such as processed fruits and vegetables (USA), fish and fishery products (Norway), milk and milk products (New Zealand), and cocoa products and chocolate (Switzerland). The three "ad hoc Intergovernmental Task Force" discuss matters such as foods derived from biotechnology (Japan), animal feeding, and fruit juice (Brazil). Finally, five Regional Coordinating Committees are found (Europe, Latin America and the Caribbean, North America and the South West Pacific, Asia, and Africa).

7.4 WTO Agreement on the Application of Sanitary and Phytosanitary Measures

In 1994, the Uruguay Round of Multilateral Trade Negotiations was concluded by the signing of the Marrakesh Agreement and it gave birth to a number of multilateral trade agreements to which all Members of the World Trade organization (established in January 1995) are committed. As a result of the Uruguay Round, countries agreed to reduce tariff barriers for many agricultural commodities so as to encourage free trade. Non-tariff barriers became a real concern because they could undermine the promotion of international trade if put into practice in an arbitrary or discriminatory way.

To address some of these concerns, the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) was prepared to ensure that all WTO countries apply measures to protect human and animal health (sanitary measures) and plant health (phytosanitary measures). This is achieved through the establishment of a multilateral framework of rules and disciplines that guide the development, adoption and enforcement of sanitary measures and minimize their negative effect on trade. As a natural consequence, the SPS Agreement recognize the standards and related texts of the CAC as international points of reference.

The most important concepts included in the SPS Agreement include the exchange of information (transparency), international harmonization, risk assessment, and technical assistance. Transparency is particularly important as several trade problems can be prevented if trading partners share information about sanitary measures before they are put into force.

International harmonization and the protection against the risks of foodborne diseases in all countries can be achieved, without restricting international trade, if all countries harmonize their regulations by using international standards as a basis for their sanitary measures. The SPS Agreement recognizes as the international reference for food safety, the standards, guidelines, and recommendations of the CAC (food additives, veterinary drug and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practices). The adoption of national standards stricter than Codex Standards have to be scientifically justified.

Another important aspect of the SPS Agreement is that sanitary measures applied by WTO Member Countries should be based on an assessment of risks to human health and that it should take into account risk assessment techniques developed by the relevant international organizations. These techniques include methodologies in toxicological evaluation, exposure assessment and other related methods used by expert bodies, such as the Joint FAO/WHO Expert Committee on Food Additives (JECFA), the Joint FAO/WHO Expert Meetings on Pesticide Residues (JMPR), and the Microbiological Risk Assessment Body. Sound knowledge of the functioning of these risk assessment bodies not only assists countries in better understanding the scientific background of Codex standards, but is useful in building national risk assessment procedures.

Finally, it is important that WTO members, especially those who encounter difficulty in meeting the requirements of the SPS Agreement are encouraged to request technical assistance from other Members and from international organizations such as the FAO and WHO. This will ensure that each country can strengthen its national food control systems to protect human health.

7.5 Role of the health sector

The health sector should play an active role in food safety and in the globalization of food trade. For example, it can send delegations to the WTO or CAC, prepare a diplomatic representation stationed in other countries, and send governmental comments to the CAC Secretariat.

Within each country, the health sector also needs to collaborate with the National Codex Committee and the National Codex Contact point. It can also conduct its own risk assessment studies to investigate exposure assessment as well as aspects of food safety that the Codex has not yet covered.

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8. Reform of food control services. strengthening enforcement, revitalizing research and development, improving communication

Mr Raymond Ellard, Chief Specialist, Environmental Health, Food Safety Authority of Ireland

Summary

Every nation has a responsibility to ensure that its citizens enjoy a safe and wholesome food supply. The recent spate of food scares in Europe has significantly damaged consumer confidence and lead to widespread public uncertainty about food safety. Food safety has become a highly sensitive political issue. The recent dioxin scare in Belgium, for example, caused IR£1.5 billion pounds of damage to industry and resulted in a change in national government. A re-examination of food safety in many countries has led to reform, with the development of national food safety programmes a common policy response.

The preparation of a national food safety programme is described in the WHO publication *Guidelines for strengthening a national food safety programme* (WHO, Geneva, 1996). This

publication identifies four principal stages in the development and strengthening of a national food safety programme: assessment, planning, implementation and evaluation. The importance of extensive consultation with key stakeholders is emphasized, as is the need for an integrated food control infrastructure that links food legislation with food inspection, surveillance and public education. This is best achieved by establishing a single national food agency with overall responsibility for food safety.

Single national food agencies have been, or are being, established in Belgium, Portugal, Greece, Denmark, Ireland and the United Kingdom. It is important any agency is independent, science-based, multidisciplinary, transparent, properly funded, with adequate enforcement powers. It is strongly recommended that the agency have a clear remit of health, rather than trade and industry, protection, in order to maintain public confidence. For example the mission statement of the Food Safety Authority of Ireland is: "to protect consumers' health by ensuring that food consumed, distributed, marketed or produced in the State meets the highest standards of food safety and hygiene".

Enforcement of food law alone will not be sufficient to bring about change. Agencies are most effective when also catalysts for change. They need to work proactively with producers, distributors, retailers and caterers to ensure that industry truly acknowledges its collective responsibility for food safety.

At a European level food safety is also high on the agenda. A White Paper on Food Safety in the European Union will be published in the next few weeks by DG SANCO, the EU directorate responsible for health and consumer protection. Serious consideration is being given to the establishment of a single Food Safety Agency within Europe, with possible models for such an agency being the Food and Drugs Administration (FDA) in the USA and the European Medicines Agency. Finally, EU food hygiene legislation is currently being simplified and consolidated.

8.1 Introduction

Every nation has a responsibility to ensure that its citizens enjoy a safe and wholesome food supply. Unfortunately there has been widespread public uncertainty about food safety. Food is a major route for the transmission of pathogenic microorganisms and there is widespread concern about chemical contaminants in food.

The recent spate of food scares in Europe is not a temporary set back. Their occurrence has been a watershed. Consumer confidence in food has been badly damaged. For consumers, perceived risk is actual risk. The dioxin scare in Belgium bears this out. Not one person became ill, but IR£1.5 billion worth of damage was done to industry and the Belgian Government was brought down.

Where once consumers concerns about food were principally related to food quality and nutritional value, nowadays their main concern about food is its safety.

Businesses cannot afford adverse publicity. It is commercial suicide to ignore consumer concerns. It takes substantial resources to build a brand name, however one contamination incident or food scare can destroy a brand or a business overnight.

Consumer concern, however, is only one of the forces driving a re-examination of food safety. Other forces include:

- World Trade Organization (WTO)
- European Union
- tourism
- exports and trade
- retailers, and
- food control agencies.

8.2 Worldwide trend

Evidence of the weight of these combined forces has been the phenomenon of the establishment of a single food agency within nations. Single agencies with overall responsibility for food safety have been or are being established in Belgium, Denmark, Greece, Ireland, Portugal, United Kingdom, Australia and Canada. Such agencies will be charged with the implementation of food safety programmes.

The preparation of a national food safety programme is described in the WHO publication *Guidelines for strengthening a national food safety programme* (WHO, Geneva 1996).

It is not sufficient to just have an effective set of food laws and regulations. Countries require a food safety programme that both identifies food safety needs and creates an integrated food control infrastructure that links food legislation with food inspection, surveillance and education programmes. This is best achieved by establishing a national food safety control agency with total responsibility for all sectors of the food chain. Such an agency can make more effective use of food inspection and surveillance resources, avoid duplication of functions, and lead to improved consumer confidence in the food supply.

The WHO Guidelines identified four principal stages in the development and strengthening of a national food safety programme, namely:

- Step 1 Assessment of food safety infrastructure and problems at national level: preparation of a country profile.
- Step 2 Preparation of a national food safety programme
- Step 3 Implementation of the national food safety programme
- Step 4 Evaluation of food safety activities

Step 1 Assessment of national food safety infrastructure and problems

The objective is to assess the effectiveness of the current system and to consider what scientific and organizational changes may be necessary. The information gathered in this process is collated into a country profile, which contains detailed information on the following:

- (a) organization of existing services (inspection, laboratory, outbreak investigation)
- (b) food production and consumption
- (c) food imports and exports
- (d) food legislation
- (e) epidemiological information
- (f) human resources and training requirements
- (g) extension and advisory services
- (h) public education and participation.

Step 2 Preparation of a national food safety programme

The planning and implementation of national food safety programmes involves extensive consultation with the key stakeholders. Key elements in the preparation include:

- (a) formulation of a national food safety plan and plan of action;
- (b) development or revision of food legislation and regulations;
- (c) strengthening of food surveillance and control systems;
- (d) promotion of systems for improving food safety, e.g. introduction of HACCP-based food control programmes;
- (e) education of food handlers, inspectors and analysts; and
- (f) research and data collection programmes.

Step 3 Implementation of the national food safety programme

This phase involves the strategy to put it into effect. It can include the formation of a food safety committee, assisted by expert groups, which will monitor and report on progress.

Step 4 Evaluation of the national food safety programme

Management review of the process is important. Choosing suitable performance indicators can be difficult. Some of the assessment criteria that can be used include:

- effectiveness pre-determined targets
- impact reduced prevalence of foodborne illness
- efficiency value for money
- progress achievement of pre-set targets
- target audiences vulnerable groups are they protected?
- continuing relevance of the programme.

8.3 Food safety agency – key issues

In establishing any food safety agency it is important to ensure that it is:

- independent
- science-based
- open, transparent and staff or advisers declare any interests
- free to publish advice and reports
- properly funded
- provided with adequate enforcement powers, and
- able to provide technical guidance for enforcers so as to ensure uniformity of service.

Accountability

An important aspect of any food safety agency is its reporting relationship with government. For the maintenance of consumer trust, it is recommended that it be accountable to the minister for health because his/her remit is health protection and not the development of trade or the promotion of industry.

Organizational structure

A typical organizational structure for a single food agency could be as shown in Fig. 4.1.

Management Board Chief Executive Consultative Council Scientific Committee Officer Corporate services Communications Audit/monitoring Operations Information technology Information centre Technical Contracts Finance Consumer education standards Management Human resources Media relations

Fig. 4.1. Organizational structure for a single food agency

It is also important that the staff is multidisciplinary. In Ireland the Food Safety Authority (FSAI) has overall responsibility for food control. However it was not necessary to transfer staff from existing agencies into the authority. Staff in the existing 48 agencies (government departments, health boards, local authorities) remained with their previous employers. However the food control services (inspection, surveillance, testing, investigation) provided by them are elaborated in the form a service contract between the Food Safety Authority of Ireland and the agencies concerned. These contracts are published and are subject to periodic review and renewal. The FSAI retains overall responsibility but supports the agencies in their role by providing technical and scientific guidance as well as monitoring their activities.

The benefits that can derive from a single agency approach to food safety control include:

- modernization of food safety programmes
- ability to act quickly to protect consumers
- improved cost efficiency and more effective use of resources and expertise
- harmonization of food inspection standards
- improved efficiency of inspection services
- capacity to respond to emerging challenges
- the provision of more streamlined services.

Role of a food safety agency

The conditions and infrastructure prevailing in a country will define the precise role of a food safety control agency. However the generic roles for such an agency can include:

- food law enforcement
- promotion of standards
- codes of practice
- promotion of food safety assurance schemes
- recalls
- education and communication.

For example the functions of the Food Safety Authority of Ireland include:

- principal function general:
 - o to take all reasonable steps to ensure that food produced, distributed or marketed in the State meets the highest standards of food safety and hygiene reasonably attainable;
- principal functions specific:
 - o to ensure that food complies with:
 - (a) relevant food legislation
 - (b) codes of good practice;
 - o to foster the establishment and maintenance of high standards of food hygiene and safety.

Regardless of its specific functions, the guiding principal of any food safety agency should be to protect consumer health. For example the mission statement of the FSAI is: "To protect consumers' health by ensuring that food consumed, distributed, marketed or produced in the State meets the highest standards of food safety and hygiene".

Regulatory authority or catalyst for change?

Enforcement of food law alone will not be sufficient to bring about change. Food laws only one of the weapons available is ensuring safe food. It should be noted that the responsibility for food safety rests with the food industry. A key role of any food safety agency should be to actively work to bring about a general acceptance amongst producers, distributors, retailers and caterers of the principle that, in respect of any food placed on the market, the primary responsibility for the safety and suitability of the food is borne by them individually and, as appropriate, collectively. This message should also be brought to public attention; otherwise the public may have unrealistic expectations of the control services.

Communication

To be successful a food safety agency should have an active communication strategy and engage with mass media both in providing news stories and reacting to them as well as developing public information campaigns.

8.4 Developments within the European Union

Within the European Union, considerable attention has been paid to food safety issues within the recent past. DG SANCO has responsibility for food safety and consumer protection and is preparing a White Paper on Food Safety (1) which will consider how to:

- modernize food legislation within the EU
- provide more speedy scientific advice, and
- strengthen food controls.

Serious thought is also being given to the establishment of a single Food Safety Agency within Europe. Models for the agency which are being considered include the Food and Drugs Administration (FDA) in the USA and the European Medicines Agency.

Food hygiene legislation within the European Union is also being simplified and consolidated. Current draft proposals are to merge seventeen existing directives on food hygiene and veterinary controls and replace them with:

- a single regulation on hygiene of foodstuffs
- a regulation on official controls
- a regulation on animal health, and
- a directive to repeal existing rules.

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9. The best start for infants and young children in the WHO European Region

Professor Fleischer Michaelson. Research Department of Human Nutrition, The Royal Veterinary and Agricultural University, Denmark

9.1 Introduction

Optimum nutrition and good feeding of infants and young children are amongst the most important determinants of their health, growth and development. Good feeding practices will prevent malnutrition and early growth retardation, e.g. stunting, which is common in some parts of the WHO European Region. Poorly fed children have greater rates and severity of enteric and other infections, and they are at risk of dying prematurely. There is evidence suggesting that infant nutrition has long-term health consequences and plays a role in preventing the development of noncommunicable diseases in adults. Furthermore, micronutrient deficiencies especially of iron and iodine, are associated with delayed motor development and impaired cognitive function. Thus improvements in young child nutrition are desirable not only for their physical health and growth but also to reduce the risk of infection, to maximize psychomotor development and school performance and, in the long term, to improve their adult life opportunities.

Despite the importance of correct infant and young child feeding practices, limited attention has been paid to the need for feeding guidelines based on scientific evidence. Recommendations on infant feeding practices in the eastern part of the European Region are based on former Soviet recommendations that are outdated and require revision. Moreover, a number of traditional practices within the Region appear to have adverse effects on nutritional status, particularly iron.

The WHO/UNICEF publication *Nutrition and feeding guidelines for infants and young children in the WHO European Region* has been produced to provide information that will help national experts develop or update their current national feeding recommendations. The scientific rationale supporting these guidelines will be outlined below.

9.2 Growth and programming

Growth faltering

Infants and young children are very sensitive to growth faltering resulting from malnutrition. In populations where nutritional problems, such as stunting, are prevalent, it is common for both weight and height to deviate progressively from the reference during the 6–18 month old period,

which is also the period of complementary feeding. The quality of complementary feeding is a major cause. It is possible that after this period, the capacity for catch-up in linear growth is limited, at least at the population level.

Programming

There is increasing evidence that a number of environmental factors that influence early human growth and development have long-term biological or behavioural effects. Examples include the relationship between the intra-uterine environment and adult cardiovascular disease (Barker 1992), chronic bronchitis and hypertension; and an association between respiratory infection in infancy and chronic lung disease in adult life. It has been proposed that there may be critical periods when environmental factors such as disturbances in nutritional metabolism, may significantly alter the developmental process from its genetic trajectory. This phenomenon is termed "programming".

Thus, the early human environment encompassing the intra-uterine period and first 18 months of life includes the most critical periods in development. According to the Barker hypothesis, suboptimal nutrition during intra-uterine development will not only produce adverse effects in the short term but will also have long-term consequences for health in childhood into adulthood. It is therefore vital to ensure good maternal nutrition immediately prior to conception and during pregnancy to ensure optimal fetal growth and development. After birth, these foundations should be built on by ensuring that the infant is breastfed and that complementary foods are introduced at an appropriate age and offer the best nutrition possible for the growing child.

9.3 Problems in the WHO European Region

Historically, life expectancy in the WHO European Region has been high and increasing. However, since the disintegration of the Soviet Union there has been an unprecedented and dramatic decrease in life expectancy at birth in countries which were formerly part of it. There are a number of factors contributing to this: infant and under five mortality remains high; rates of exclusive breastfeeding are still low in many countries; and iron deficiency anaemia is a major concern across the Region. Furthermore, it is estimated that 32% of the population of the WHO European Region is living in poverty (UNDP 1997; UNICEF 1997). While the impact of poverty is greatest in eastern Europe, there is evidence of growing inequalities in western Europe. Poverty is associated with malnutrition and other adverse health effects.

Infant and under 5 mortality

Since the 1970s, there has been a steady decrease in infant and under five mortality rates in the European Region. However, as shown in Fig. 9.1, rates differ considerably across the Region. While the EU and Nordic averages have dropped to just 5 deaths per 1000 live births in 1995, the figures for CIS and especially CAR remain significantly higher than in the rest of the Region, at 23 and 33 respectively. The mortality rates in central and eastern Europe (CEE) and in the Balkans fall between these two extremes at around 10–20/1000 live births in infants and under fives.

In countries with high mortality rates, the primary cause of infant deaths are infectious diseases. Poor nutritional status compromises the immune function of young children and makes them more susceptible to infections, such as acute respiratory infections (ARIs), diarrhoeal diseases and vaccine-preventable diseases such as tuberculosis. In CAR, seven out of ten deaths are due to these illnesses, often in combination, and among children under five years, ARIs, notably pneumonia, are responsible for between 30 and 50% of all infant deaths. In contrast, the main cause of infant deaths in western European countries are congenital malformations.

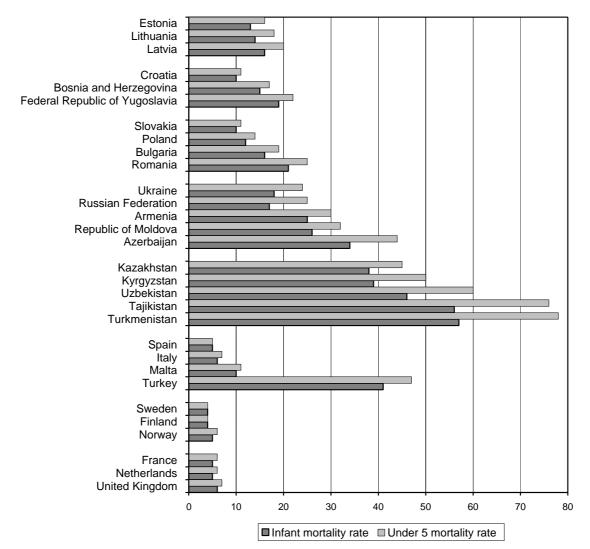


Fig. 9.1. Infant mortality rate (IMR) and under 5 mortality rate per 1000 live births in Europe, 1993–1996

Source: UNICEF, 1998.

Prevalence of breastfeeding

Owing to the lack of comprehensive and comparable data and the lack of standardized international definitions, it is difficult to make a general statement about the prevalence of breastfeeding in the WHO European Region. Data on the percentage of breastfed infants in Fig. 9.2 have been taken from different sources (WHO/UNICEF 1999). These data should be interpreted with caution, because the survey methodology varied and a description of how the surveys were carried out was not always reported.

With these caveats, it can be seen that the practice of breastfeeding varies dramatically between European countries. In the UK around 25% of infants are breastfed at three months compared with over 90% in Uzbekistan (Fig. 9.2). However within a country the prevalence of breastfeeding can change significantly over a few years. In Norway, for instance, the prevalence of breastfeeding at three months rose from only 25-30% in 1969 to around 80% in 1991 (Heiberg Endersen *et al*, 1995).

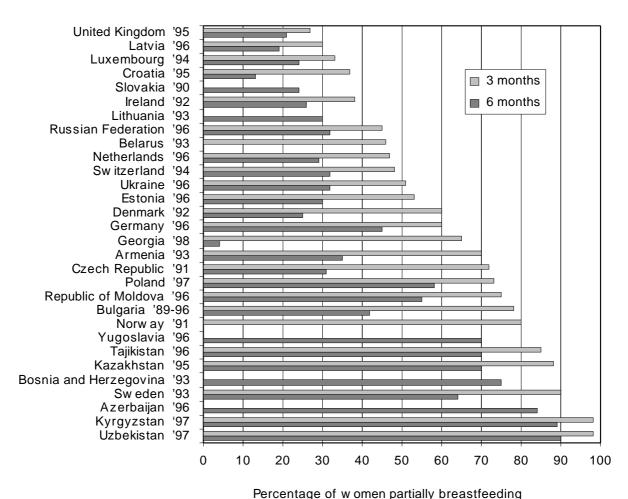


Fig. 9.2. Proportion of infants being breastfed at 3 and 6 months in different European countries

refeemage of women partially breasticeding

Source: WHO/UNICEF 1999.

Few surveys have provided a definition of exclusive breastfeeding, but data from those that have are presented in Fig. 9.3. Surveys carried out in CAR indicate that despite the high prevalence of breastfeeding, rates of *exclusive* breastfeeding are low at around 10% or less at three months, apart from Georgia and Kyrgyzstan where the levels are around 30%. Conversely, Nordic countries such as Sweden have relatively high rates of exclusive breastfeeding both at three and six months.

Greater efforts are needed to increase the rates of exclusive breastfeeding during the first few months of life. This is especially important for the vulnerable groups such as ethnic minorities and low-income families living in high risk areas with poor hygiene, sanitation and water supply.

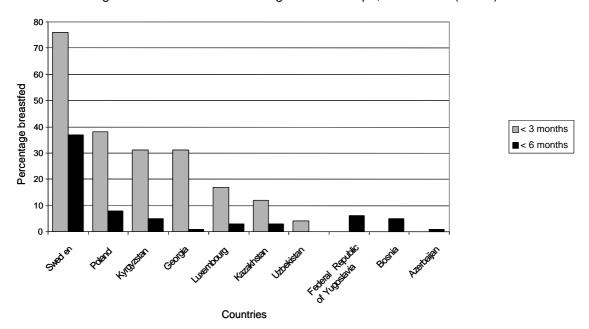


Fig. 9.3. Exclusive breastfeeding rates in Europe, 1989–1998 (REFS)

Prevalence of anaemia

In Europe information on the prevalence of iron deficiency in children is limited. Most studies have only investigated the prevalence of anaemia, usually by measuring haemoglobin levels, and not its aetiology, although iron deficiency is likely to be the most common cause. Comparisons are further hindered by the use of different cut-off points and different age groups. While all studies define severe anaemia as a Hb < 7 g/dL the cut-off point for mild anaemia in children under five years is 11 g/dL in some studies and 12 g/dL in others. The highest prevalence of anaemia has been reported in CAR where more than half of the children under three years had Hb less than 12 g/dL (Fig. 9.4). It should be pointed out however that only a small proportion of cases have severe anaemia (Hb < 7 g/d/L). In western Europe anaemia is less frequent in children of the same age: a 12% prevalence has been observed in UK children aged 1–2 years and a 6% prevalence in children aged 2-4 years. The UK survey however used a cut-off point of 11 g/dL. Iron deficiency anaemia (Hb< 11 g/dL) occurs in 10–30% of pre-school children living in inner cities of the United Kingdom (Gregory *et al*, 1995), and the prevalence among a nationally representative sample of Asian children was significantly higher than this (between 20% and 45%) (Lawson *et al* 1998).

Food intake data from Russia suggest that both women and children are at high risk of iron deficiency. Grain products rich in phytates, which inhibit non-haem iron absorption, are the major food source of iron in Russia (Kohlmeier, 1998). Moreover the reported high intakes of tea and low consumption of vitamin C also compromise the bioavailability of iron present in their diet (see section 5). There is a need for studies to identify the possible causes of the high prevalence of mild and moderate anaemia in some parts of the WHO European Region, such as too early introduction of cows' milk and tea.

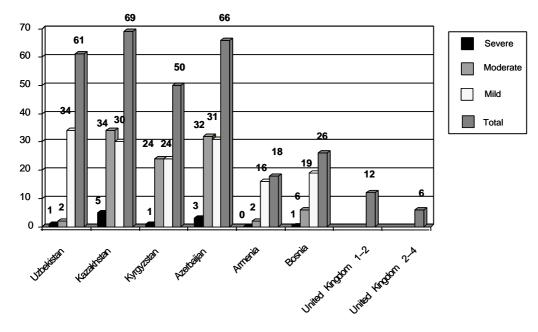


Fig. 9.4. Prevalence of anaemia in children aged under 5 years

Source: Institute of Nutrition in Rome/CDC/WHO/MSF 1996; UNICEF/UNHCR/WFP/MoH Armenia 1998; Sharmanov 1998; Biscevic 1998; Gregory et al 1993.

9.4 Breastfeeding

Human milk is the best food for babies and provides all the nutrients needed for about the first six months of life. WHO/UNICEF recommendations for the WHO European Region are that:

- all infants should be exclusively breastfed from birth to about six months, but for at least four months of age; additional foods and fluids are not necessary during this time, and if introduced will hinder the initiation and continuation of breastfeeding, which offers maximum benefits to both mother and infant;
- breastfeeding should preferably continue beyond the first year of life, and in populations
 with high rates of infection continued breastfeeding through the second year and beyond is
 likely to benefit the young child.

Breastfeeding and infectious disease

Human milk contains nutrients that serve the unique needs of the human infant (e.g. certain essential polyunsaturated fatty acids, certain milk proteins, and iron in a readily absorbable form). It also contains immunological and bioactive substances, absent from commercial infant formulas, which confer protection from bacterial and viral infections, aid growth, and enhance physiological and behavioural development of the newborn. These effects have been evaluated in several review papers (American Academy of Pediatrics, 1997; Heinig & Dewey, 1996; Golding, 1997).

Breastfeeding protects infants from infections by two mechanisms. First it lowers or eliminates exposure to bacterial pathogens transmitted by contaminated food and fluids. Second, human milk contains antimicrobial factors and other substances that strengthen the immature immune system and protect the digestive system of the newborn infants, and thereby confer protection

against infections, particularly those of the gastrointestinal and respiratory tracts. Colostrum (milk produced in the first few days after birth) is especially rich in protective proteins.

The principal immunoproteins in human milk are secretory immunoglobulin A (sIgA) and lactoferrin. The former acts at mucosal surfaces to protect them from injury by ingested microbial antigens and the latter is an iron-binding protein that competes with bacteria for iron, reducing bacterial viability and thereby the risk of enteric infections, particularly those caused by *Escherichia coli* and *Staphylococci*. These immunologicalactors are not present in commercial infant formula or complementary foods. Formula-fed infants therefore enjoy less protection against infection. Human milk also contains many other defence and trophic factors which may play a role in the protection and maturation of the digestive tract.

There is abundant evidence that exclusive breastfeeding for around the first six months reduces both morbidity and mortality, and these beneficial effects are more pronounced where infection rates are greatest and hygiene and sanitation are poor (Victora *et al*, 1987; Howie *et al*, 1990; Forsyth, 1995; Wilson *et al*, 1998). Furthermore, the concentrations of anti-infective substances in breast-milk are sustained beyond the first year of life and continue to offer significant protection against infection thereafter (Victora *et al*, 1987; Briend and Bari, 1989; Mølbak *et al*, 1994; Mitra & Rabbani, 1995).

The evidence that breastfeeding is protective against infectious disease is greatest for diarrhoeal disease: formula-fed infants suffer a significantly higher number of diarrhoeal episodes than infants who are breastfed. There is also strong evidence that breastfeeding protects against lower respiratory disease. In a recent study (César *et al*, 1999), breastfeeding was found to protect young children against pneumonia, especially in the first months of life. Formula-fed infants were 17 times more likely to be admitted to hospital for pneumonia than breastfed infants. Furthermore, a number of studies have demonstrated a protective effect of breastfeeding against otitis media (Teele *et al* 1989; Duncan *et al* 1993; Owen *et al* 1993).

Most of the protective effects of breastfeeding against infectious disease are passive i.e. immuno-protective factors in breast-milk protect the mucosal surfaces of the gastrointestinal and respiratory tract and thereby decrease the risk of infections. However, there is also evidence that breast-milk has an active influence on the infant's immune system. At four months old, the thymus gland of breastfed infants is twice the size of that in formula-fed infants (Hasselbalch *et al*, 1996), and several studies have indicated that immune-related diseases such as IDDM, Crohn's Disease and ulcerative colitis, are less common in breastfed compared to formula-fed infants (Heinig & Dewey, 1996).

Breastfeeding and obesity

It has been argued that breastfeeding is preventative against adiposity later in childhood. In a recent study from Germany (von Kries *et al*, 1999), the body mass index (BMI) of 9357 children aged 5-6 years was compared to their breastfeeding history. Those that had been breastfed for longest were significantly less likely to be obese at 5 to 6 years of age.

Breastfeeding and cognitive development

It has been postulated that suboptimal nutrition during the vulnerable phase of brain development (between the third trimester and second year of life) may have a permanent adverse effect on motor and mental development. A meta-analysis of 20 studies has investigated the relationship between early infant diet and cognitive function in childhood (Anderson *et al.*, 1999). Breastfeeding was

found to have a significant positive effect on intelligence quotient (IQ) scores. Children who had been breastfed as infants had a 5.3 point advantage over those who were formula-fed, before adjustment for confounders. After controlling for confounding factors, this advantage decreased to 3.2 points.

Supporting, protecting and promoting breastfeeding

As highlighted above, breastfeeding confers a wide range of benefits to both mother and infant, in both the short and long-term. However, current legislation and health care practices are often at odds with recommendations on the best ways to establish breastfeeding.

The International Code of Marketing of Breast-milk Substitutes was adopted by the World Health Assembly in 1981 as a "minimum requirement" to be enacted "in its entirety" in "all countries". The Code does not try to stop the availability or sale of breastmilk substitutes, but it does seek to stop activities which persuade people to use them. Most importantly, it also protects artificially fed children by ensuring safe labels and ensuring decisions are made on the basis of truly independent health advice. The key provisions are summarized in Box 9.1. Governments are urged to implement the Code and subsequent WHA resolutions, and companies that manufacture breast-milk substitutes are urged to adhere to it. Furthermore, health professions should have good knowledge of the provisions of the Code because they have a number of responsibilities under it.

Box 9.1. Summary of the International code of marketing of breast-milk substitutes

- 1. No advertising of any breast-milk substitutes (any product marketed or represented to replace breast-milk) or feeding bottles or teats.
- 2. No free samples or free or low cost supplies to mothers.
- 3. No promotion of products in or through health care facilities.
- 4. No contact between marketing personnel and mothers (mothercraft nurses or nutritionists paid by companies to advise or teach).
- 5. No gifts or personal samples to health workers or their families.
- 6. Product labels should be in an appropriate language and no words or pictures idealizing artificial
- 7. Only scientific and factual information to be given to health workers. feeding, (pictures of infants or health claims) should be used.
- 8. Governments should ensure that objective and consistent information is provided on infant and young child feeding.
- 9. All information on artificial infant feeding, including labels, should clearly explain the benefits of breastfeeding and warn of the costs and hazards associated with artificial feeding.
- 10. Unsuitable products, e.g. sweetened condensed milk, should not be promoted for babies.
- 11. All products should be of a high quality and take account of the climatic and storage conditions of the country where they are used.
- 12. Manufacturers and distributors should comply with the Code [and all the Resolutions] independently of any government action to implement it.

In 1990, the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding was produced and adopted by participants at the WHO/UNICEF policy-makers' meeting on "Breastfeeding in the 1990s: A Global Initiative". The Declaration sets a global goal and has become a guide for governments aiming to promote breastfeeding (Box 9.2).

Box 9.2. Operational targets of the Innocenti Declaration, 1990

By the year 1995 all governments should have achieved the following operational targets:

- appointed a national coordinator and appropriate authority, and established a multisectoral national breastfeeding committee composed of representative form relevant government departments, NGOs, and health professional associations;
- ensured that every facility providing maternity services fully practises all ten steps to successful breastfeeding set out in the joint WHO/UNICEF statement "Protection, promotion and supporting breastfeeding: the special role of maternity services";
- taken action to give effect to the principles and aim of all Articles of the International Code of Marketing of Breast-milk Substitutes and subsequently relevant World Health Assembly resolutions in their entirety, and
- enacted imaginative legislation protecting the breastfeeding rights of working women and established means for its enforcement.

To help countries reach the global breastfeeding goal stated in the Innocenti Declaration, WHO and UNICEF jointly launched the Baby-Friendly Hospital Initiative (BFHI) in 1991. At the foundation of the BFHI are the 10 steps to successful breastfeeding (Box 9.3). These summarize the maternity practices necessary to establish a supportive environment for women wishing to breastfeed and thereby bring about improvements in the incidence and duration of breastfeeding. The BFHI also prohibits free and low-cost infant formula supply in hospitals, and demands the elimination of advertising and promotional activities for infant formula or feeding by bottle. To become a baby-friendly hospital every facility that contributes to maternity services and to the care of newborn infants must implement the 10 steps.

Box 9.3. The BFHI 10 steps to successful breastfeeding

- 1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
- 2. Train all health care staff in skills necessary to implement this policy.
- 3. Inform all pregnant women about the benefits and management of breastfeeding.
- 4. Help mothers initiate breastfeeding within a half-hour of birth.
- 5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
- 6. Give newborn infants no food and drink other than breast-milk, unless medically indicated.
- 7. Practise rooming-in allow mothers and infants to remain together 24 hours a day.
- 8. Encourage breastfeeding on demand.
- 9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
- 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Reinforcing this, the 45th World Health Assembly (1992) urged Member States to encourage and support all public and private health facilities providing maternity services so that they become 'baby-friendly'. It should be recognized that mothers not choosing to breastfeed will also benefit from baby-friendly practices such as skin-to-skin contact, rooming-in, and feeding on demand.

The effect of the BFHI on the initiation and duration of breastfeeding, and the prevalence of infection has been examined in a large-scale study in Belarus (Kramer, 1999). Thirty two of the country's hospitals were randomized to either implement the BFHI training or to continue with traditional practices, for a 9–12 month period. 17 795 mothers were recruited and followed up at 1,2,3,6,9 and 12 months. The major outcome measures were duration of breastfeeding and episodes of gastrointestinal and respiratory infections. Results are due to be published in 2000.

9.5 Complementary feeding

As the baby grows and becomes more active, breast-milk alone is insufficient to meet the full nutritional needs of the infant. Complementary foods – foods and fluids given *in addition* to breast-milk – are needed to fill the gap in energy and iron and other essential nutrients, between what is provided by exclusive breastfeeding and the total nutritional requirements of the infant. Infants do not have the physiological maturity to progress directly from exclusive breastfeeding to family foods and specially adapted foods are therefore required. During the period of transition from exclusive breastfeeding to the cessation of breastfeeding, infants *gradually* become accustomed to eating family foods, and by about one year children are physically capable of consuming unmodified family foods.

The age during which complementary foods are introduced is a particularly sensitive time in infant development. This transition is associated not only with increasing and changing nutrient requirements, but also with rapid growth, physiological maturation and development of the infant. Poor nutrition and less than optimum feeding practices during this critical period may increase the risk of growth faltering (wasting and stunting) and nutritional deficiencies, especially of iron, and may have longer term adverse effects on health and mental development. Thus, timely introduction of appropriate complementary foods which promotes good health and growth of infants and young children, should be given a high priority.

Starting complementary feeding too soon has its dangers because:

- breast-milk can be displaced by complementary foods, leading to decreased breast-milk production and thereby insufficient energy and nutrient intake by the infant;
- infants are exposed to microbial pathogens present in foods and fluids, which are potentially contaminated thereby increasing the risk of diarrhoeal disease and consequently malnutrition;
- the risks of diarrhoeal and food allergic disease are increased because of intestinal immaturity, and these increase the risk of malnutrition;
- mothers become fertile more quickly as decreased suckling reduces the time period that ovulation is suppressed. This will lead to an increase in the number of births and a decrease in the interval between successive pregnancies, in populations where other methods of contraception are not readily available or acceptable.

There will also be problems if complementary foods are introduced too late because:

- inadequate provision of energy and nutrients from breast-milk alone may lead to growth faltering (e.g. stunting) and malnutrition (e.g. anaemia);
- micro-nutrient deficiencies may develop, especially iron and zinc, due to inability of breast-milk to meet requirements;

• the optimal development of motor skills, such as chewing, and the infant's acceptance of new tastes and textures may not be ensured.

It is therefore necessary to introduce complementary foods at the appropriate developmental stages. For the WHO European Region it is recommended that complementary foods are introduced at about six months of age. Some infants may need complementary foods before six months of age, but they should not be introduced before four months. Signs that complementary foods should be introduced before six months are that the baby, in the absence of obvious disease, is not gaining weight adequately, or shows hunger after unrestricted breastfeeding.

Energy and nutrient density of complementary foods

Infants and young children have an energy intake (per kg body weight) around two to three times greater than that of adults. Because they have to ingest such large amounts of energy, a key determinant of energy intake is the energy density of complementary foods. If the energy density is too low it may result in an energy deficit and consequently poor growth. Adding fat or sugar are ways of increasing the energy density without increasing the viscosity of the food and because fat is very energy dense, it is the most efficient. The average energy density of complementary foods should be higher than that of breast-milk (i.e. >2.8kJ/g), and ideally closer to 4.2kJ/g. Energy intake is also increased through more frequent meals and an increased intake of breast-milk. Conversely, energy intake will be reduced by a high viscosity of complementary food which is typically the result of a high starch content. The addition of water to reduce viscosity results in a reduction in energy density.

Energy intake is further influenced by gastric capacity which determines the volume an infant can ingest during one meal. If the energy density of meals is low, the infant will require a large volume of food to satisfy energy requirements and this may exceed the limit set by the infant's gastric capacity. It has been estimated that breastfed infants older than eight months should receive at least three meals of complementary foods per day and that if the energy density of the diet is less than 4.2kJ/g, more than three meals are needed. For those infants receiving little or no breast-milk (or suitable alternative formula), at least four meals per day, or very energy dense food, is required (WHO/UNICEF/ORSTOM/UCDAVIS 1998).

The quantity and bioavailability of micronutrients in breast-milk and complementary foods is also a vital determinant of infant and young child growth and development. Micronutrient density is defined as the amount of a nutrient per energy unit e.g. 100kJ, or per weight unit, e.g. 100g, while bioavailability is the absorbability of nutrients and their availability for utilization for metabolic purposes.

There are major differences between the nutrient density (amount/100kJ) and bioavailability of micro-nutrients in animal products and plant-derived foods. Per unit energy, animal products usually contain more of certain nutrients such as retinol, vitamins D and E, riboflavin, vitamin B_{12} , calcium and zinc. The iron content of some animal products is high (e.g. liver, meat, fish, and poultry) whereas that of others is low (milk and dairy products). In contrast, the density of thiamin, vitamin B_6 , folic acid, and vitamin C is generally higher in plants and some, like legumes and maize, also contain substantial amounts of iron. However, in general the bioavailability of minerals from plant products is poor, compared with that from animal products.

Micro-nutrients that have poor bioavailability when consumed in plant products include iron, zinc, calcium, and β -carotene in leafy and some other vegetables. In addition, the absorption of β -carotene, retinol and other fat soluble vitamins is impaired when diets are low in fat.

A diet with high nutrient bioavailability is diverse and contains generous amounts of legumes and foods rich in vitamin C, combined with small amounts of meat, fish and poultry. Diets with low nutrient bioavailability consist mainly of cereals, legumes, roots and negligible quantities of meat, fish, or vitamin C-rich foods.

9.5 Iron deficiency

Iron deficiency is one of the commonest nutritional deficiencies world-wide and it is estimated that 43% of the world's infants and children under the age of four years suffer from iron deficiency anaemia (WHO, 1989).

The main consequences of iron deficiency anaemia are shown in Table 9.1. In infants and young children (under two years old) the consequence of IDA of greatest concern is the possible impairment of mental and psychomotor development. This is likely to arise because the period of complementary feeding, which represents the peak prevalence of IDA in children, coincides with a period of high growth velocity and the latter part of the spurt in brain growth when cognitive and motor development takes place. It is unclear whether iron supplementation can reverse the developmental delay caused by IDA during infancy and childhood, and therefore prevention through dietary modification and other strategies, should be given a higher priority than detection and treatment.

Table 9.1. Sources and functions of iron and effects of iron deficiency

Important sources of iron	Iron pools and function	Effects of iron deficiency	
 ? Breast-milk ? Liver and organ meats ? Other meats and poultry ? Egg yolk ? Sardines and mackerel ? Wholegrain cereals and breads ? Legumes ? Spinach ? Iron-fortified infant foods 	 ? In the haemoglobin of red blood cells, which transport oxygen from the lungs to the tissues ? In the myoglobin in muscle which stores the oxygen needed for muscle contraction ? In the liver and reticuloendothelial system as an iron store 	 ? Higher risk of maternal mortality ? Fetal growth retartation ? Increased prenatal and perinatal mortality ? Lowered physical activity ? Reduced appetite ? Possible impairment of mental and psychomotor development ? Possible increased susceptibility to infection 	

Optimal iron stores at birth are important for the prevention of iron deficiency in the infant and young child. Iron stores are gradually depleted over the first six months of life after which the size of the infant's iron stores is dependent on dietary iron intake. If the mother has severe iron deficiency anaemia, infant iron stores at birth will be small (Singla *et al* 1996) however moderate iron deficiency in the mother does not seem to influence the iron status of the infant. Infant iron stores are also influenced by the amount of blood transferred from the placenta to the infant at delivery before ligation of the umbilical cord. Therefore to optmise infant iron stores at birth, women should be advised to eat an iron-rich diet during pregnancy, and at birth, the umbilical cord should not be clamped and ligated until it stops pulsating.

The young child is especially vulnerable to the development of iron deficiency during the period from 6 to 24 months, when the increased nutritional needs resulting from rapid growth, are combined with a diet that may be low in iron and vitamin C, with a high intake of unmodified cows' milk and other inhibitors of iron absorption. Dietary recommendations concerning iron are therefore particularly important during the complementary feeding period, and prevention of iron deficiency should be given a high priority by ministries of health.

Poor complementary feeding practices are a partial explanation of the poor iron status of infants and young children in the European Region, particularly in the countries of the former Soviet Union and CAR. The main findings of the surveys on feeding practices for infants and young children in countries throughout the WHO European Region are that:

- exclusive breastfeeding is not widely practised
- cows' milk is introduced too early
- liquids, particularly tea, are introduced too early
- semi-solid foods are introduced too early
- meat and liver are introduced too late.

The too early introduction of unmodified cows' milk is the most important nutritional risk factor for iron deficiency anaemia. This is because cows' milk has a low iron content and in contrast to breast-milk, its iron is poorly absorbed. Furthermore, several studies suggest that early introduction of unmodified cows' milk can provoke microscopic bleeding of the intestinal tract (Ziegler 1990; Sullivan 1993) and thereby have a negative effect on iron status. Therefore, unmodified cows' milk should not be introduced as a drink before the age of 9 months, but can be used in small quantities in the preparation of complementary foods from 6 to 9 months of age. Thereafter, if infants are no longer breastfed, cows' milk can gradually be introduced as a drink.

The early introduction of tea (black, green and herbal), which is common throughout the European Region, also has a negative effect on the iron status of infants and young children. Teas contain tannins and other compounds which bind iron thereby reducing its bioavailability. Therefore, tea should be avoided until at least 2 years of age, and thereafter it should be avoided at mealtimes.

9.6 WHO/UNICEF guidelines on infant and young child feeding

The previous sections have highlighted the importance of good complementary feeding practices in achieving optimum health, growth and development of infants and young children. A review of current infant and young child feeding practices in the WHO European Region, focusing particularly on countries of the former Soviet Union and central Asian republics (CAR), has identified a number of nutritional recommendations from the former Soviet era which differ from international standards. Other countries have no nutrition and feeding guidelines for this age group. A WHO Working Group was therefore established to produce updated recommendations on complementary feeding, which are appropriate for the WHO European Region. The publication "Nutrition and feeding guidelines for infants and young children in the WHO European Region, with emphasis on the Former Soviet Countries", is due to be published in 2000.

The main aim of the publication is to provide the scientific rationale for the development of national nutrition and feeding recommendations from birth to the age of three years. These guidelines, if implemented, will have a positive impact on the health, growth and development of young children.

The publication is primarily intended for ministries of health and paediatricians and other health professionals, interested in nutrition, who are concerned with the public health of young children. Much of the information contained in this publication is relevant for most healthy young children living in the WHO European Region. However, the publication focuses on the prevention of the major public health problems that are found predominantly in the eastern part of the Region, but which are also common in ethnic minorities or children living in low income families in the west.

The publication is organized in four main sections. The first section contains a summary and a list of the main recommendations regarding appropriate infant and young child nutrition and feeding; the introduction providing the rationale for the publication; and an overview of current infant and young child feeding practices from selected countries in the Region.

The second section deals with nutrient recommendations for energy and the macronutrients, and the most important vitamins and minerals. Because iron deficiency anaemia (IDA) is one of the major health problems throughout the Region an entire chapter is devoted to iron and the control of IDA.

In the third section, the importance of breastfeeding and the appropriate age for the introduction of complementary foods and fluids are reviewed. The important role of the caregiver is explored. Furthermore, the impact of the standard of care infants and young children receive on their growth and development is discussed. Additional issues – growth, dental health, and food safety – are discussed in section 4.

Because of the diverse cultural habits across the Region, the foods which constitute the customary diet of infants in the WHO European Region are extremely varied. In order to address these issues effectively it will be necessary for ministries of health to produce national guidelines that are suited to the local situation. However, before these guidelines can be developed, local conditions should be assessed. It is strongly recommended that ministries of health, possibly jointly with ministries of food and agriculture, initiate regular monitoring of the health and growth of infants and young children which become an integral part of the national health and nutrition information system.

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10. Diet. The neglected basis for public health problems in Europe

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Abstract

Over the past 30 years it has become increasingly clear that dietary abnormalities are a fundamental cause of many of the major public health problems dominating the mortality statistics of the WHO European Region. Specific nutrients are now known to modulate most of the pathophysiological processes leading to coronary heart disease (CHD), hypertension, stroke, obesity, many cancers, diabetes mellitus and many other noncommunicable chronic conditions.

Despite this growing body of epidemiological, clinical and experimental evidence, nutrition continues to be neglected by the medical profession and policy makers, who persist in focusing on deficiency diseases and on taking an individual high risk, rather than a population, approach. This needs to change in order to reduce the future burden of nutrition-related disease.

The burden of dietary-based diseases in Europe today is dominated by circulatory disorders and cancers. Circulatory diseases (CHD, high blood pressure and strokes) are fundamentally related to diet.

For example, the atherosclerotic process is dependent on serum cholesterol levels. Saturated fatty acids, particularly lauric and myristic acids, affect the ability of the liver to metabolise and clear low-density lipoproteins and their contained cholesterol from the blood. A diet high in saturated fat results in high blood cholesterol levels which fuel the atherosclerotic process.

Individuals exposed to high fat diets together with physical inactivity, put on weight. This leads to reduced concentrations of protective high density cholesterol lipoprotein, and can also induce high blood pressure. High blood pressure, which is exacerbated by a high salt and a low fruit and vegetable diet, amplifies the atherosclerotic thickening of blood vessel walls.

Circulating lipoproteins are most likely to damage the artery wall if they are oxidised. This is particularly likely to happen in individuals with low antioxidant intakes resulting from low fruit and vegetable intakes. Blood clotting processes are also affected by a number of dietary factors. For example, total dietary fat activates Factor VII, a pro-clotting agent, and low intakes of n-3 essential oils (found in fatty fish and some vegetable oils) increase clotting by elevating levels of lipid triglycerides in the blood.

These processes are why diet is fundamental in explaining the pattern of circulatory diseases across Europe. While smoking is often highlighted as the principal promoter of heart disease, research has demonstrated that smoking only has a marked impact when combined with diets that raise blood cholesterol levels.

It is possible to reduce the impact of diet on CVD in Europe. Research in the USA by Ornish has shown that the basic atherosclerotic processes which damage the blood vessels supplying the heart, can be reversed when the diet and exercise patterns of patients are transformed. Progressive public health policies relating to diet in Finland have led to important changes in the national diet and a 75% reduction in the risk of stroke and heart disease since the 1970s.

The importance of taking a population approach was highlighted by WHO in 1982. More recent work by Malcolm Law has estimated that a 10% reduction in the population average cholesterol level would halve the risk of CHD in younger adults and reduce the risk by 20% in those aged 80. The medical profession had produced guidelines to reduce the risk of CVD in individual patients, but the challenge now is to change government policies that impact on the public's nutritional health.

Improvements in fruit and vegetable intake will also impact on cancer in Europe. It has been estimated that doubling the fruit and vegetable intake in most parts of Europe would reduce epithelial cancers (including breast, lung and stomach cancer), by a third.

General population strategies are also needed to enhance physical activity levels, which are declining across Europe. Obesity, diabetes, CVD and several cancers could be limited by such action. We need to re-organize the environment so that individuals are involved in physical activity in everyday life. Simply suggesting people take more leisure exercise is not enough.

Our future challenge is to succinctly present the burden and costs of disease attributable to diet and to identify how best to deliver a new public health strategy to encourage far more appropriate diets.

10.1 Introduction

For the last 30 years it has become increasingly clear that dietary abnormalities are a fundamental cause of many of the major public health problems which dominate mortality statistics in the WHO European Region. The medical profession and policy makers seem unable to take this on board. This is because they have a perspective dominated by deficiency diseases and the mistaken belief that all one has to do is to teach people to choose a varied diet and the proper "balance" of nutrients will be achieved. These views maybe appropriate for the era of vitamin deficiency discoveries but they neglect more recent intensive epidemiological, clinical and animal research which has unravelled many of the causative pathways relating to the development of adult chronic disease. Specific nutrients are now known to modulate many, if not all, of the pathophysiological processes leading to coronary heart disease (CHD), hypertension, stroke, obesity, many cancers, gallstones, the principal intestinal diseases, anaemia, diabetes mellitus and many other chronic conditions.

WHO's recent global analyses of the causes of death¹ have shown that infectious and parasitic diseases have diminished substantially in the developing world and, with the exception of malaria and AIDS, are also being progressively reduced in most parts of the developing world. What is not recognized in these analyses is that nutritional adequacy is fundamental to enhancing the capacity of children and adults to combat infections. Limiting the penetration and capacity of bacteria and viruses to attack the integrity of the epithelia and the maintenance of the capacity of the cellular and humoral immune system to combat infections is highly dependent on a whole range of nutrients. Furthermore new evidence now shows that a modest deficiency of some nutrients, e.g. selenium, can fundamentally alter the evolution of the genomic structure of viruses, to produce markedly pathogenic forms instead of benign commensal organisms. Thus we now understand a new fundamental interplay between nutrition and infection which was originally established, in broad epidemiological terms, in the Third World half a century ago. The huge reductions in infant mortality and deaths from infection in European countries this century occurred a long time before antibiotics, immunisation and modern drugs emerged. The remarkable improvements in public health occurred because of improvements in hygiene, housing and diet. This is something we have neglected in both the developed and developing world.

10.2 Coronary heart disease

The burden of dietary-based diseases in Europe is now dominated by circulatory disorders and cancers. Coronary heart disease, high blood pressure and strokes are fundamentally related to diet. CHD, for example, has been linked to 20 or more nutrients. The atherosclerotic process is very dependent on factors which increase the serum cholesterol levels (shown by Keys and his colleagues in the Seven Country Study conducted after the second world war). We now know that the saturated fatty acids differentially alter the sensitivity of receptors in the liver which clear low density lipoproteins and their contained cholesterol from the blood. Thus, down-regulation in receptor uptake increases blood cholesterol levels if saturated fatty acids are eaten. Lauric and myristic acids, saturated fatty acids particularly found in cows' milk, are especially conducive to suppressing the LDL receptor and thereby increasing blood cholesterol levels.

If people are exposed to high fat diets and are physically inactive they tend to put on weight. This not only increases the total cholesterol level, but also selectively reduces high density cholesterol lipoprotein concentrations which are now known to be protective. The atherosclerotic thickening of the artery is amplified if the vessel walls are subjected to the stress of high blood pressure which induced by weight gain and a high salt diet. High blood pressure is also amplified by a low vegetable and fruit intake (with its important potassium content) and physical inactivity is again a feature of individuals with this problem.

When the artery wall is subjected to stress, circulating lipoproteins are particularly likely to induce damage if they are oxidised. This is particularly likely to occur in individuals with low antioxidant intakes resulting from inadequate fruit and vegetable intakes. When this occurs the clotting tendency of the blood also affects the thickening of the vessel wall, this clotting being amplified by complex effects of dietary trans fatty acids on the level of the pro-thrombotic lipoprotein a. Total dietary fat also increases the tendency to clot through its impact on the activation of a pro-clotting agent, Factor VII. The clotting effects are amplified if the blood levels of the lipid triglycerides are amplified, this again reflecting an inadequacy of exercise or/and a poor intake of the n-3 essential fatty acids which we find in fatty fish and some vegetable oils.

All these interactions of the different dietary components involve effects on different genetic controls of the clotting and atherosclerotic processes leading to heart disease. It is therefore no wonder that individual patients, doctors and nutritionists look at the problem of disease and highlight the particular familial or genetic factor which makes them susceptible to the disease. From a public health point of view, however, it is the diet that is so striking in explaining the extraordinary range of disease incidence across Europe and indeed across the world.

Recent analyses of the burden of disease show that CHD and strokes are extraordinarily important causes of premature death in central and eastern Europe. Thirty years ago Scandinavia had extraordinarily high rates of cardiovascular disease (CVD) but by sustained and progressive public health measures relating to dietary change, there has been the most remarkable reduction in the disease burden in these countries. The importance of looking at the population rather than the individual is vividly shown in Fig. 10.1 which is taken from the original WHO 1982² report setting out the minor contribution of medical therapy in coping with the disease burden in society. Today cardiologists are constantly highlighting the value of drugs to reduce CVD and fail to recognize the results of the trials which clearly demonstrate, without any doubt, the importance of dietary change in limiting the societal impact of CVD. The problem with many government policies is that there is a temptation for politicians to gain credit for spending a lot of

money on drugs and coronary by-passes for treating CHD when in practice it would be far more cost-effective to tackle the population problem of inappropriate diets. Unfortunately some food industries make substantial profits from selling foods rich in total fat, saturated fats, free refined sugars and salt. Thus it is tempting for politicians to ignore the public health message, particularly when there is so much industrial pressure.

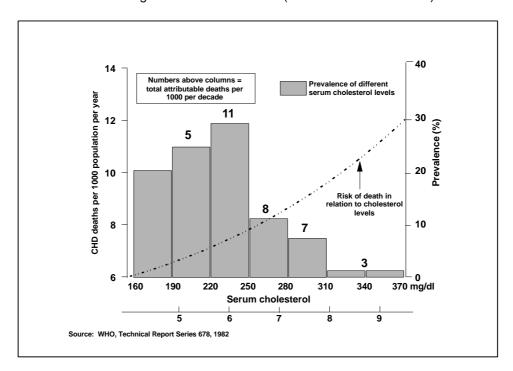


Fig. 10.1. Dominance of deaths from coronary heart disease in people with average levels of a risk factor (serum cholesterol levels)

The problem of smoking is often highlighted as the principal promoter of heart disease. Smoking is indeed a terrible societal scourge, but one needs to remember that in the original international Seven Country Study the effect of smoking on the risk of CHD was only important in the United States and northern Europe. In the Mediterranean countries and Japan the impact of smoking was very modest. Now the Chinese and Japanese have some of the highest rates of smoking and high blood pressure, but despite having these two major risk factors for CHD, they have some of the lowest CHD rates in the world. In practice high blood pressure and smoking really having their marked impact on CHD only when inappropriate diets are being eaten such that the average cholesterol blood concentrations of the population rise.

Two further issues relate to CVD. First the extraordinary discrepancies within societies as well as across the WHO European Region. Those living in disadvantageous conditions with social deprivation are particularly prone to CHD and this is now increasingly seen to be not only dietary-based but also dependent on the way in which the poverty and social exclusion of these groups limits their capacity to cope and alters their metabolic and hormonal responses to their already inappropriate diets. We may therefore now have to think in a much more coherent, socioeconomic way about how best to help the most disadvantaged communities to relieve their burden of CVD.

This problem is amplified because of new evidence which shows that babies born to relatively inappropriately nourished mothers are often of low birthweight and also thin for their height. This seems to programme the child's susceptibility to later diabetes, heart disease and stroke. Low birthweight babies seem particularly prone to developing abdominal obesity later in life and this selective accumulation of fat in the abdomen is particularly hazardous. We may therefore have to think long term if we are going to tackle the problems of the early programming of babies to the susceptibility of adult diseases.

This picture may seem gloomy, but the work of Ornish in the USA has helped to emphasize the amazing changes one can induce in people even if they already have appreciable CHD. He has transformed the diet and exercise pattern of patients such that not only can he induce a striking reduction in heart disease and death over a five to ten year period, but he can actually demonstrate the reversal of the thickening of the principal arteries supplying the heart and brain. In Finland the population changes have led to a 75% reduction in the risk of stroke and CHD and Malcolm Law has calculated that a 10% reduction in the average cholesterol level will halve the risk of CHD in younger people and reduce the risk by 20% even in individuals aged 80. The medical profession can therefore now be supplied with systematic guidelines such as those produced by the National Heart Foundation of New Zealand, the European Cardiological Society and the British Heart Foundation. These guidelines provide a systematic approach to the individual risk of patients in clinics but the challenge for those of us in public health is to change government policies so that they make a material difference to the wellbeing of the majority of the population.

This approach is true for such specific conditions as high blood pressure. Law showed in 1991 that the most benefit came from shifting the average blood pressure of the population down by reducing the overall salt intake and not by concentrating on drug therapy for high risk individuals. This does not mean that individual therapy is useless, but simply that this must not side-track us from general population strategies.

10.3 Cancers

The principal environmental problems emerging in relation to cancers in Europe are the impact of smoking and poor vegetable and fruit intake. It has been estimated that doubling the fruit and vegetable intake in most parts of Europe would reduce epithelial cancers (e.g. of the pancreas, stomach, larynx, mouth, oesophagus, lung, bladder, colo-rectum, breast and prostate) by a third. Evidence is accumulating of the subtle gene changes during the development of cancer and emerging evidence shows how both smoking and inadequate diets amplify the chances of gene instability and therefore of the cumulative genetic damage which is so conducive to the age-dependent development of cancers. Much more is likely to occur in the near future.

10.4 Physical inactivity

There is remarkably coherent evidence that obesity, diabetes, CVD and several cancers can be substantially limited by enhancing physical activity levels. Most European populations have become increasingly sedentary and this is enhancing the risk of these diseases very substantially³. We need to take a more sophisticated approach to physical activity than simply suggesting that people take more leisure exercise. We have to reorganize our school curriculum, our road systems, our traffic policies, the provision of pedestrian precincts in town planning and the involvement of public health strategists with local government planning, so that individuals

are automatically involved in physical activity as part of their everyday existence. It is a mistake to assume that one can persuade the whole population to simply exercise at weekends. If one can move to a Norwegian cultural change where all sectors of society perceive everyday leisure activity as an intrinsic part of life, then this will be an additional bonus.

10.5 The future

There will be intense pressure to identify the genes which make us susceptible to particular dietary-related diseases. The challenge for us is how to succinctly present the burden of different diseases, their costs and the proportion attributable to diet, as well as identifying how best to deliver a new public health strategy to encourage far more appropriate diets. This will bring huge cost benefits in terms of premature disability and death, and the emerging evidence from the US is that it need not necessarily mean that the costs of caring for the elderly escalate out of hand. Many of the problems of the elderly and of aging are brought about by poor diets and inadequate exercise, so there is a great need to be much more proactive about the dietary basis of disease than we have so far been in our public health work.

References

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- 2. WHO (1982) Technical Report Series 678, Geneva.
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11. Situation analysis and mechanisms to create and implement policy

11.1 Group work sessions

On days two and three of the consultation, participants were invited to contribute to 5 working group sessions to consider the current situation in each Member State, and, to debate a number of key mechanisms available to implement policy.

Working groups sessions covered:

- 1. Situation analysis (country reports)
- 2. The need to develop/strengthen national food and nutrition councils or equivalent national infrastructure/mechanism
- 3. The need for a European food and nutrition committee or equivalent mechanism
- 4. The need to develop a WHO food and nutrition action plan for Europe
- 5. The need to develop and strengthen national food and nutrition actions plans.

11.2 Working group 1. Situation analysis – Presentation of country reports

Participants worked in seven sub-regional groups (Balkan, southern Europe and Turkey; Baltic and Nordic countries; CAR; CCEE; CIS (excluding CAR); and western Europe). The country representatives were asked to summarize the situation in their country in five key areas:

- inequity and poverty leading to lack of food and nutrient deficiency
- food safety
- infant, young child and maternal nutrition
- noncommunicable diseases and related factors
- sustainable production and distribution.

For each of these areas Member State representatives presented:

- an overview of the main problems related to each issue;
- a summary of current dietary and food problems, as well as trends and practices that need improvement in their country;
- the policy guidelines and approaches being used to solve the problems mentioned;
- the key ministries/institutions involved in developing policy and programmes as well as health education;
- the main problems encountered in the development of policies and guidelines.

The country reports were rich and varied in content. Participants heard about the huge variety of food and dietary problems across the WHO European Region and consider the broad range of current policy responses. The reports will be summarized in a separate report.

11.3 Working group 2. The need to develop/strenthen national food and nutrition councils or equivalent national infrastructure or mechanism

Participants worked in four sub-regional groups (Balkan, southern Europe and Turkey; Baltic and Nordic Countries; CAR and CCEE; CIS –excluding CAR- and western Europe) for working group 2 to discuss (a) whether each countries currently had a national food and nutrition council or an equivalent national infrastructure or mechanism, (b) the role and potential achievements of these Councils of equivalent infrastructure or mechanism, and (c) the possible obstacles to establishing and maintaining national food and nutrition councils or equivalent infrastructure or mechanism.

Current situation

The existence of a national food and nutrition council or of an equivalent national infrastructure or mechanism varied considerably among and within each geographical region (Table 11.1). In some sub-regions, all or most countries had a council or an equivalent mechanism or were in the process of implementing one. In other sub-regions, having a national council was the exception.

The role and potential achievements of national food and nutrition councils or equivalent infrastructures or mechanisms

It was agreed by all Member States that national food and nutrition councils (or equivalent infrastructure or mechanisms) play a major role in the promotion of food and nutritional health issues in a country (Table 11.2). The most consistently reported potential achievement of a national food and nutrition council was its advisory role. Participants from each sub-region agreed that the council should be a leading source of expertise for governments. It was also suggested by different Member States that the councils should develop and coordinate food and nutrition policies, initiatives and activities at the national level. However, other Member States indicated that since the national council can not legislate, it would not be able to set governmental priorities in the field of food or nutrition. Lobbying the governments thus becomes another major role of the national food and nutrition councils.

Table 11.1. Summary of existing national mechanisms

Balkan, southern Europe and Turkey	Of the 10 countries included in this region, 4 have established formal national food and nutrition councils (Albania, Israel, Portugal) or equivalent mechanisms (Croatia). The others are currently on the way to create a Council.
Baltic and Nordic countries	 Except for Sweden (which has a National Food Administration), all countries have a national food and nutrition council or an equivalent mechanism: National Nutrition Council (Finland, Iceland, Denmark); National Council on Nutrition and Physical Activities (Norway); National Council on Food Policy (Estonia); Food Council (Latvia); National Nutrition Centre (Lithuania). The Councils or equivalent mechanism are under the ministry of health or the ministry of food or agriculture.
	 In some countries, the coordinating bodies include scientists from the food, nutrition and/or medical arenas. In other countries, the members are representatives (civil servants) from different ministries (health, trade, environment, agriculture, etc), from the food industry, NGOs, organizations of producers, food control and research institutions, etc.
CAR and CCEE	 Except for Kazakhstan, the countries of this region do not currently have established National Food and Nutrition Councils or equivalent structure. There is currently no formal food and nutrition policies adopted officially by the governments of this region, but there are nutritional programmes, activities, etc. In some countries some mechanisms exist for the development of Food and Nutrition projects, programmes and strategies, and for their implementation and coordination. These are usually under the Ministry of Health.
CIS (excluding CAR) and western Europe	 Switzerland, Belgium, Azerbaijan currently have national Food and Nutrition Councils or equivalent mechanisms. Russian Federation have around 12 regional Food and Nutrition Councils, and Belarus and Germany report equivalent mechanisms at the regional level. Several countries has similar mechanisms with a particular focus on food safety: Austria has a National Codex Commission, Ireland a Food Safety Authority (with a nutrition subcommittee), and the UK is currently setting up a Food Standards Agency (with overall responsibility for food and nutrition shared between government departments of health and agriculture). France has a temporary group of experts advising on food and nutrition.

Table 11.2. Summary of the role of national food and nutrition councils or equivalent mechanisms

Advisory	Provide expertise on issues related to food and nutrition (including food safety and health-related nutrition issues)
	Advise governments on a proactive basis
	React to current food and nutrition issues
	Identify priorities of actions in public health nutrition
Development of policies or	Develop and implement a national food and nutrition action plan, and monitor its progress
initiatives	Develop food and nutrition policies
	Develop food and nutrition initiatives and activities, and ensure the good coordination of these initiatives among ministries, the academia, and other organizations
Lobbying	Encourage the governments to take a public health approach on issues related to nutrition and food
	Propose the need for legislation on important food and nutrition issues
	Encourage the governments to promote existing national initiatives related to food and nutrition

Obstacles to establishing and maintaining national food and nutrition councils or equivalent infrastructure or mechanism

There was a general agreement among regions that there are several difficulties in the way of establishing and sustaining national food and nutrition councils or equivalent infrastructures or mechanisms (Table 11.3). The main issues discussed by the Member States concerned primarily the composition and structure of the council, the lack of political interest, and the lack of resources.

Table 11.3. Summary of the potential obstacles to success

Composition of the council	 The nomination of the members of the council (eg civil servants, scientific experts, members from other organizations or from the food industry, etc) can be a source of disagreement in some countries The decision as to the size and structure of the council is sometimes problematic The potential achievements of the council will depend on its size and composition There can be some conflicts of interest between different ministries or between the Council and the private sector For EU Member States, the role of the EC needs to be taken into account
Lack of political interest	 The short term vision of the politicians and/or policy makers is often associated with a lack of political will Problems associated with economic changes and agricultural development in some Member States will often take precedence over health issues The unstable political environment in some countries is not conducive to bringing food and health issues on the political agenda Changes in governments in some countries is sometimes translated into poor continuity of the realization of food and nutrition programmes
Resources	The lack of funds allocated to establishing or maintaining a national food and nutrition council can be a major limitation to its activities

Recommendations

The participants strongly supported the establishment of national food and nutrition councils or equivalent infrastructure or mechanism in each Member States of the WHO European Region. They also generally agreed on recommendations for the successful implementation of National councils and their sustainability (Table 11.4). However, there were some diverging views regarding the composition of the councils. Some Member States suggested that they should be science-based and include only scientists, others thought that they could be formed by a core of civil servants, while other countries believed that they could include a combination of experts, civil servants and/or representatives from non-governmental organizations. It was also suggested by some Member States that national food and nutrition councils should be multidisciplinary and have an intersectoral structure. Finally, some participants thought that the inclusion of representatives from the food industry should be discussed.

11.4 Working group 3. The need for a European food and nutrition committee or equivalent mechanism

Participants worked in four sub-regional groups (Balkan, southern Europe and Turkey; Baltic and Nordic countries; CAR and CCEE; CIS –excluding CAR- and western Europe) to discuss: (a) the role and potential achievements of a European food and nutrition committee or equivalent mechanism, and, (b) the possible obstacles to establishing a WHO European Committee or equivalent mechanism.

Table 11.4. Summary of recommendations

Overall recommendation	National food and nutrition council (or equivalent infrastructure or mechanism) should be established in each country, and their activities maintained
Composition of the Council or equivalent mechanism	 The Councils or equivalent mechanisms should be independent of government, with a permanent secretariat The composition and size should be discussed at the national level. Member States should consider the different possibilities for membership The Councils or equivalent mechanisms should have sufficient knowledge and expertise in the field, and be able to demonstrate their credibility
Roles of the Council	 The objectives and expected roles should be clearly defined within each country The Councils or equivalent mechanisms should have an advisory role at the national level
Lack of political interest	 It was suggested by some Member States that WHO could encourage national governments to develop, maintain and support National Food and Nutrition Councils (or other equivalent mechanism). However, WHO should not be prescriptive about the implementation process. Governments should be encouraged to take account of the recommendations of the Council or equivalent mechanisms and respond to the recommendations
Resources	Sufficient funding should be allocated at the national level to support and maintain the Council or equivalent mechanisms

The potential role and achievements of a European food and nutrition committee or equivalent mechanism

The development of a Committee for Food and Nutrition Strategies in Europe was viewed favourably by each sub-regional group. However, it was suggested by some countries that its roles and priorities would need to be defined precisely before it is developed.

The possible roles and functions that a European food and nutrition committee could take were discussed by the Member States. It was acknowledged that the Committee would have three main roles (Table 11.5).

Some Member States suggested that the European food and nutrition committee should have a strong role at the European level, particularly with regards to highlighting which actions will best support public health in relation to nutrition and food safety. However, other countries were more cautious. They believed, correctly, that although the Committee could advise governments, WHO cannot enforce action on any of these issues.

However, until now, food and nutrition policy has been a low priority within WHO. The issue has never been on WHO's political agenda or discussed during any Regional Committee where the delegations of the ministry of health represent the 51 Member States of WHO EURO. Hopefully this trend will be reversed during the Regional Committee 2000. However following the Regional Committee in September 2000, the challenge will be to maintain momentum and visibility. For example three of the four programmes collaborating to develop this initiative, Food Safety, Child Health and Nutrition, have either just been re-opened after being closed for five years or the regional adviser's position is frozen. In the face of continuing resource limitations within WHO and the UN generally this situation could arise again. Thus the recognition of the vital role food plays in relation to public health could disappear from the health agenda and notably WHO's agenda. A committee structure would ensure that national counterparts and governments would still have a mechanism to address food and nutrition policy issues through the WHO Regional Committee even if regional adviser posts were vacant, frozen or abolished.

Table 11.5. Summary of main roles of a European food and nutrition committee

Help to share expertise between Member States and advice to national food and nutrition councils or equivalent mechanism
Create an official/acknowledged forum for discussion on the implementation of the WHO Food and Nutrition Action Plan (FNAP) at the national level
Support the work of the national councils on food and nutrition
Support and encourage countries in their application of the WHO FNAP at the national level
Monitor the application of the WHO FNAP and other food and nutrition initiatives at the national level
Encourage and help European countries develop their own national food and nutrition plans of action and other initiatives on food and nutritional issues relevant to health
Help countries disseminate information on food and nutrition
Assist in forming an European consensus on difficult issues concerning health
Act as a forum for countries to share experiences and develop informal networks.
Mediate food and nutrition activities among European countries, and between EU and non- EU Member States
Help bring food and nutrition issues on the European political agenda
Sustain food and nutrition issues on the European political health agenda
Provide evidence for National Food and Nutrition Councils and to governments to help them consider and respond to food and nutrition issues, and develop intersectoral cooperation
Help governments make informed decisions about which policy options to chose and which to develop and implement to protect public health

Obstacles to establishing and maintaining a European food and nutrition committee or equivalent mechanism

Despite the general agreement for the need to develop a food and nutrition committee at the European level, all regional working groups expressed some concerns about the success of its establishment. These concerns were related primarily to the composition of the committee, to possible conflicts of interest with existing organizations, and to the lack of resources available to set up the committee (Table 11.6).

Table 11.6. Summary of the potential obstacles to success of a European food and nutrition committee

Composition of the committee	 The composition and size of the committee will need to be defined carefully It is not clear whether WHO will act as the secretariat of the Committee
Possible conflicts of interest	 Conflicts of interest between the European Union, WHO, and other organizations are possible: Other international organizations also have a remit in this area (eg European Community, Council of Europe etc) Risk of overlap with the activities of other WHO bodies which have similar roles, leading to a duplication of tasks and efforts Mechanisms to coordinate different existing bodies and organizations at the national level will be needed National interests could prevent an efficient coordination of the activities of the committee The activities of the committee may be in conflict with some of the interests of the food industry
Lack of resources	 The costs of setting up the committee and of coordinating its activities will need to be met – these may be high The lack of manpower at the WHO secretariat to set up and maintain the committee may be a limiting factor

Recommendations

There was a generally strong support for the establishment of a Food and Nutrition Committee at the European level (Table 11.7). Some Member States suggested that WHO should set up and coordinate the activities of this Committee while others believed that this should be discussed further.

Table 11.7. Summary of the general recommendations formulated by the Member States

Overall recommendation	Support the establishment of a European food and nutrition committee
Composition of	Discuss how the committee members will be selected
the committee	Discuss whether WHO will act as the secretariat of the committee
	Clarify whether other organizations (eg EU, other UN bodies, nongovernmental organizations, etc) will be involved in the Committee and in its activities
	Ensure that the activities of various organizations will be coordinated in order to avoid duplicating efforts
	Clarify how the committee will collaborate with national food and nutrition councils or equivalent mechanisms.
	Discuss the possibility of setting up sub-committees that would look at specific issues
	Promote the active participation of each Member States in the process of decision-making
Roles of the	Define the roles of the committee
committee	Take into account regional differences in needs and resources when defining the roles of the committee
	Plan adequately the activities of the committee
Resources	Consider the costs that will be incurred to establish and maintain the committee
	Define how these costs will be met
	Ensure that the resources are used appropriately

11.5 Working group 4. The need to develop a European WHO food and nutrition action plan

Participants worked in seven sub-regional groupings (Balkan, CAR, CCEE, CIS, Nordic and Baltic, southern Europe, western Europe) to discuss (a) the potential role and achievements of a WHO European food and nutrition action plan, and (b) the possible obstacles to establishing and maintaining such a plan.

The potential role and achievements of a WHO European food and nutrition action plan

There was general agreement that a WHO European food and nutrition action plan could achieve a range of beneficial outcomes. Participants felt such a plan would act as a model to help Member States develop high quality national action plans. It would also raise the profile of food and nutrition to the highest political level, and encourage governments to see the links between food safety, the environment, nutrition and health. In addition, the plan could help promote a coordinated response to the growing number of shared problems which require international solutions and action (for example, food safety scares, GMOs).

Nordic and Baltic Member States were particularly positive about the development of a WHO European plan. They felt such a plan could achieve more than the sum of all the national plans together, and even more if supported by a European food and nutrition committee (Table 11.8).

Table 11.8. Summary of what a WHO European food and nutrition action plan could achieve

	-
Improve public	Promote access to a safe, healthy diet for all
health	Stimulate action to reduce inequalities in health
	Help prevent noncommunicable disease
	Support efforts to promote exclusive breastfeeding
	Improve national food control mechanisms
Help with the	Serve as a framework/model for national plans (with country adaptations)
development of	Promote the development of national plans
national plans	Support the inclusion of "politically sensitive" topics in national plans
	Help set the priorities for national plans
	Provide up-to-date scientific justification for food and nutrition policy
Promote/	Increase European intersectoral collaboration and communication
facilitate	Facilitate coordination between countries and relevant international agencies
coordination and	Make explicit the links between food safety, environment, nutrition and health
communication	Support the development of regional networks
within Europe	Foster harmonization of food and nutrition-related legislation across Europe
	Enable Member States to consider common positions on emerging (eg GMOs) and emergency (eg food safety scares) issues
Initiate under-	Commit all governments to addressing food and nutrition issues
developed/new areas of work	Stimulate appropriate new/improved European and national legislation if necessary
areas of work	Encourage governments to address environmental aspects of food and nutrition, including pollution and contamination
Raise	Assist in placing food and nutrition on the highest level of the political agenda
awareness	Increase the visibility and priority of food and nutrition
	Highlight the importance of food and nutrition to public health
	Sensitize professionals and policy makers
	Raise awareness in the public via media, communications and education programmes
Support the	Stimulate the development of better information systems (on nutrition and food safety)
development/	Help standardize data collection methods between countries
improvement of national and	Allow more efficient sharing of information on unsafe products and their source
European	Promote monitoring and evaluation
information systems	Compare national policies to identify which methods are the most effective and successful policy options.

The strength of enthusiasm for the draft WHO European food and nutrition action plan as it stands, however, did vary considerably across the Region, with western Europe most cautious about the applicability of the present plan to their situation. A number of suggested changes to the current draft were proposed (see recommendations).

Obstacles to establishing and maintaining WHO European food and nutrition action plan

Barriers to the successful establishment and future maintenance of a WHO European food and nutrition action plan were discussed. There was agreement that lack of political will, opposing vested interests and limited resources were key issues. Another major obstacle which emerged during group discussions and the plenary feedback session, was the lack consensus between Member States themselves about the content, scope and wording of the draft plan (Table 11.9).

Table11.9. Summary of the potential obstacles to establishing the WHO European food and nutrition action plan

Lack of political will	 Lack of awareness/commitment/political will: At the highest levels of government In national delegates at WHO decision making meetings Over-politicization of some food and nutrition issues Lack of capacity in the voluntary sector Poor democratic structures
	Need to increase community participation and highlight the human right of consumers
Opposing/ conflicting interests	 Opposition from transnational food industry Lobbying from private sector Conflicting interests of other sectors (such as agriculture, trade and industry etc.)
Differences between Member States	 Lack of consensus between Member States Different regional and national food and nutrition priorities Differences in economic development
Resources	 Lack of human and financial resources at WHO Secretariat Lack of funding for programme implementation – very limited in some countries Lack of support from relevant international agencies
Lack of coordi- nation and communication	 Problems with European intersectoral collaboration/ communication Administrative barriers between countries

Recommendations

There was strong overall support for the need for a WHO European food and nutrition action plan. It was felt a European plan had an important role to play. However, Member States also expressed a general view that the current draft plan needs to be revised – to be shorter, less prescriptive and worded more appropriately – so that all countries can feel able to adopt it. A number of specific suggestions and recommendations were made (Table 11.10).

11.6 Working group 5. The need to develop/strengthen national food and nutrition action plans

Participants worked in seven sub-regional groupings (Balkan, CAR, CCEE, CIS, Nordic and Baltic, southern Europe, western Europe) to discuss (a) the potential role and achievements of national food and nutrition action plans, and (b) the possible obstacles to establishing and maintaining such plans.

The potential role and achievements of national food and nutrition plans

Member States have widely different experiences of working with national food and nutrition action plans. Most currently have no such plan, whilst others, most notably the Nordic countries, have had plans in place for many years (in Norway since 1975). Overall national food and nutrition action plans were viewed very positively as having the scope to facilitate changes to improve public food and nutrition-related health. Participants identified a broad range of roles and potential achievements for national plans (Table 11.11).

Table 11.10. Summary of recommendations related to the WHO European food and nutrition action plan

Overall recommendation	Support for the need for a WHO European food and nutrition action plan
WHO needs to:	Continue the process of consultation with Member States and relevant agencies to develop a final plan
	Revise draft plan and present it to the SCRC in March and then the WHO Regional Committee in September 2000
	Plan future European food and nutrition consultations and conferences
Member States	Send comments on Action Plan within 30 days
need to:	 Inform and involve key people and institutions through national counterparts; WHO liaison officers; WHO delegations participating both at the annual WHO Regional committee (September) and the four yearly meetings of the Standing Committee of the Regional Committee (SCRC).
Revising the	Maintain general character of the document but shorten considerably
draft plan	Call recommendations "resolutions" and express in a less prescriptive manner
	For example, "Between 2001–2005 we will identify diet-related inequalities and develop and implement strategies to reduce them"
	Recommendations on time-scales, legislation and financing should be less prescriptive to give Member States options for action
	Gather resolutions/recommendations together in the document
	Include annexes which provide more scientific evidence in support of the plan
	Improve wording of the title in Russian version – the translation is poor
	Make the plan more relevant to western Europe by incorporating:
	Over-nutrition, preconception diets and functional foods
	 A stronger focus on inequalities, cost-effectiveness of interventions, the role of consumers, links with the wider public health agenda, and the need for better databases on nutritional status/deficiencies
	Present the importance of breastfeeding more prominently
	Include training of caterers
Other	Utilize current current political interest in food safety to introduce nutritional issues to politicians, professionals and public, by focusing on children
	Set up a European Observatory to anticipate new developments (such as GMO's) and keep governments better informed

Obstacles to establishing and maintaining national food and nutrition action plans

Barriers to establishing and maintaining national plans will vary considerably between Member States, depending on their current political and economic position. Some already have well established plans. However a number of key themes emerged. Participants from the majority of Member States expressed common concerns about the lack of political commitment to improving food and nutrition-related public health and the limited level of resources available for such work (Table 11.12).

Recommendations

Overall, participants strongly supported the development and implementation of national food and nutrition action plans in each Member State of the WHO European Region.

Table 11.11. Summary of the role of national food and nutrition action plans

Improve public health	Improve overall population health
neaith	Contribute to reducing inequalities in health
Provide a	Set national/regional priorities
framework for action	Define national targets and guidelines
action	Identify gaps in existing policies and programmes
	Outline the economic burden of inaction
	Provide a focus for the mobilization of resources
Promote/	Involve all relevant actors/agencies/sectors
facilitate intersectoral working	Identify the responsibilities and contribution of all relevant sectors to the improvement of food and nutrition-related health
working	Facilitate intersectoral coordination
	Promote inter-regional coordination/networking
Initiate	Source of appropriate new/improved national legislation
underdeveloped/ new areas of	Stimulate national and regional policy development in food production, agriculture, food control, nutrition etc
work	Promote better national education on food hygiene, nutrition etc
Promote/	Provide a link between all those involved in food and nutrition (producers, retailers,
facilitate	consumers) and public health
communication	Provide a link between all those involved in food and nutrition (producers, retailers, consumers) and government
	Encourage intersectoral communication
	Encourage the sharing and use of best practice e.g. quality control in food safety
Raise awareness	Highlight the importance of food and nutrition to public health
	Raise public awareness and interest in health-related food and nutrition issues
	Raise awareness in the media, amongst professionals and policy makers
Encourage the	Highlight the need for high quality national data on nutritional status, food poisoning
development/ improvement of	episodes, the effectiveness of interventions etc.
data on food and	Address the importance of monitoring and evaluation of policy and action Stress the pood to develop date on cost offectiveness of different interventions.
nutrition	Stress the need to develop data on cost-effectiveness of different interventions
Provide advoca-	Support those working in the field of food and nutrition
cy and support	Create a positive environment for the implementation of new policy/legislation etc

To address the potential barriers and increase the likelihood of successfully implementing national plans, participants formulated a number of recommendations for action nationally and by WHO (Table 11.13). It was agreed that joint effort (by WHO and national counterparts) was needed to build up national level support and capacity for such plans. It was also suggested that Member States should continue to share their experiences in this field possibly through regular meetings of national counterparts (see evaluation section). Some specific recommendations on the content and form of national plans were made.

Table 11.12. Summary of the potential obstacles to establishing national action plans

Lack of political will	 Not enough attention paid to issue by top decision-makers- they need convincing of economic burden of poor food and nutrition Lack of ability/will to work across Ministries Not a priority of the government
Possible conflicts of interest	 Opposition from certain sectors, most notably food industry/private sector Possible conflict of inter-agency interests Possible conflict of interest between regions
Availability of resources	 Lack of human and financial resources to develop and implement national action plans Money very limited in some countries
Lack of appropriate structures	 Problems with working across sectors even within governments Difficulties in dissemination and implementation of plan at local level Administrative barriers Absence of appropriate structure at the Ministry of Health to initiate and implement plan
Involving all sectors/key stakeholders	 Lack of participation by individuals, communities and groups Limited history of intersectoral collaboration/ communication
Relevant health data/ information	Lack of data on food and nutrition (food intake, dietary deficiencies, inequalities, food poisoning episodes etc)
Political instability	In some regions

Table 11.13. Summary of recommendations related to national action plans

Overall recommendation	National food and nutrition action plans should be developed and implemented in each country
Member States need to:	 Foster cooperation and coordination between relevant agencies at a national level Establish a process intersectoral consultation Build up or strengthen existing structures and capacity to implement an action plan Through Ministries of Health lobby government about the need for and role of the national plan Determine responsibilities (and resources) regarding the development of the plan Share with each other their experiences in developing and implementing plans Identify some "quick fixes" to sell plans to governments
WHO Europe Office needs to:	 Continue to support and advise Member States on the development and implementation of national plans Work with national counterparts to organize conferences and meetings at the country and sub-regional level
National food and nutrition action plans need to be:	 Realistic, specific and address overall goals No longer than 10 pages (plus annexes) Utilize (as much as possible) evidence-based cost-effective interventions Should include evaluation and monitoring

12. Conclusions and recommendations

The consultation process provided strong scientific evidence that poor nutrition and unsafe food are responsible for a great many deaths and considerable suffering in Europe. Participants agreed there is a strong need for sustained and coherent intersectoral action, at the regional, national and European levels, to reduce the burden of food-related ill health. Table 12.1 lists the recommendations of the Meeting.

Four specific policy mechanisms to improve public health were debated; namely, national food and nutrition councils, national food and nutrition action plans, a European food and nutrition committee and a WHO European food and nutrition action plan.

Participants felt that all four mechanisms were important tools and could make a considerable contribution to the improvement of public health in the European Region.

There was unanimous and strong support for the need for a WHO European food and nutrition action plan. It was suggested that the existing draft plan be amended and developed to incorporate feedback generated by the working groups and the new draft be presented for comments and review in 2000.

Table 12.1. Summary of the general recommendations from the Malta Consultation

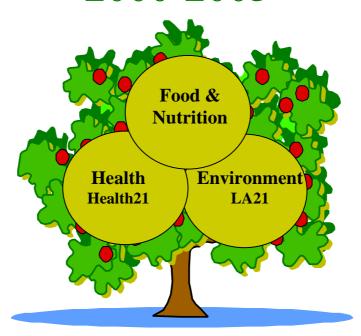
Overall recommendations	Further recommendations
A national food and nutrition council (or equivalent infrastructure or mechanism) should be	Councils should have clear role/aim, be independent of government, able to demonstrate credibility, have a permanent secretariat and be adequately resourced.
established in each	Size, composition, which sectors to include, and exact role/aim should be decided at national level.
country, and their activities maintained	WHO should continue to encourage national governments to support national Food and Nutrition Councils.
A European food and nutrition committee should be established	WHO should continue the process of consultation with member states to further clarify the form and role the Committee should take (for example, it's membership, role of WHO, amount and sources of funding, relationship to national councils etc.).
	Strong efforts should be made to avoid duplication with other committees.
A national food and nutrition action plan (or	Member states should actively support this process by lobbying government and encouraging intersectoral consultation and communication.
equivalent infrastructure	WHO should continue to support and advise member states.
or mechanism) should be developed and implemented in each country	 Plans should be concise, evidence-based, realistic and include monitoring and evaluation.
A WHO European food and nutrition action plan	WHO should continue the process of consultation, revise the draft plan and aim to present it to the Regional Committee in September 2000.
should be developed and implemented	The revised plan should be shorter, less prescriptive, present breastfeeding more prominently, and embrace a stronger focus on inequalities.
	Member states should inform and involve key people and institutions and feedback comments on draft plan to WHO.
	Focus on food safety and to gain maximum political, professional and public support.

Annex 1

FIRST FOOD AND NUTRITION ACTION PLAN

WORKING DRAFT
May 1999
Please do not cite

FIRST FOOD AND NUTRITION ACTION PLAN FOR EUROPE 2000-2005



Growing, buying and eating the right kinds of foods can reduce the risk of major diseases and simultaneously promote a sustainable environment



TARGET 1&2 EQUITY BETWEEN AND WITHIN COUNTRIES TARGET 3 HEALTHY START IN LIFE TARGET 6 IMPROVING MENTAL HEALTH TARGET 8 REDUCING NONCOMMUNICABLE DISEASES TARGET 10 A HEALTHY AND SAFE ENVIRONMENT TARGET 11 HEALTHY LIVING TARGET 14 MULTISECTORAL RESPONSIBILITY TARGET 18 DEVELOPING HUMAN RESOURCES FOR HEALTH TARGET 19 RESEARCH AND KNOWLEDGE FOR HEALTH TARGET 20 MOBILISING PARTNERS FOR HEALTH TARGET 21 POLICIES AND STRATEGIES

ABSTRACT

Keywords

NUTRITION POLICY
INFANT FEEDING
FOOD SAFETY
FOOD SECURITY
REGIONAL HEALTH PLANNING
PROGRAM EVALUATION
EUROPE

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Summary

Food inequity, the lack of a safe healthy diet for all, may be responsible for over 1 million deaths (14% of all deaths) yearly in WHO's European Region. Access to safe healthy food is a human right underpinned by Health21. Food is also a commodity that contributes to a country's national economy therefore enormous economic interests are at stake in food production, processing, marketing and distribution. Global economic stakes in food have increased dramatically since the World Trade Agreement in 1994, which for the first time included food.

The role of the health sector is to help all stakeholders, whose main priority may not necessarily be health, recognize the important role food plays regarding health. The health sector can only fulfil this by developing evidence based strategies that ensure health is central to all food policies. The WHO Food and Nutrition Action Plan outlines a possible strategy to assist Member States. It outlines strategies that protect the most vulnerable, including infants, children, pregnant and lactating women, low income groups and older people. Unless food and nutrition plans are implemented, unsafe food and poor nutrition will be responsible for an increased economic burden from food related morbidity and premature mortality.

Heart disease accounts for up to 1.4 million deaths in the EU alone each year and over 30 million people have heart disease resulting in a tremendous burden to health services. WHO estimates that reversing the decline in breastfeeding could save the lives of 1.5 million infants in the world every year. In 1995 it was estimated that each year around 130 million Europeans are affected by episodes of food-borne diseases. However it is not possible to give an estimate of the real magnitude. Some food related disease only become manifest after a long period of exposure, consequently, many health problems do not figure in national statistics.

Strategies which improve availability, access and consumption of a safe and healthy variety of nutritious food should be developed and implemented. Production and consumption of food should: reduce the risk of both food-borne and non-communicable diseases and prevent micro-nutrient deficiency. It is a bonus that a safe healthy diet can be environmentally sound. Growing the right kinds of foods for health can reduce fuel consumption, pollution, transport and packaging costs and promote biodiversity, especially if grown near to where it is consumed. This can help create local jobs, improve food security and promote a sustainable environment.

It is proposed that each Member State establish or strengthen inter-sectoral food and nutrition councils or install mechanisms to secure better coordination between different ministries – seeing to it that public health concerns are duly taken into account. These councils are responsible for overseeing food and nutrition action plans. One of the main aims is to reduce inequalities related to food and nutrition. Responsibility for the food system is divided among various ministries, therefore, unless actions are coordinated there is a risk of duplication or, even more likely is the risk that certain public health concerns could be overlooked.

To achieve effective action in the WHO European Region, it is proposed that a Food and Nutrition Committee for Europe is set up, to support the development and implementation of national food and nutrition action plans and advise on international aspects of food control and nutrition policy. The Regional Office offers to act as secretariat to the Food and Nutrition Committee for Europe. Access to a safe healthy diet is one of the most important public health actions that a country can take to improve health and increase economic gain.

The need for action in Europe

1. Social inequity leading to an inadequate intake of healthy safe food and nutrient deficiency

Poverty and inequality is increasing throughout Europe. Low pay, unemployment and too little social benefits all contribute to the fact that vulnerable groups such as the homeless, large families, single parents and older people cannot afford a healthy variety of safe food. Safe healthy food may not be accessible to those most in need yet access to a safe and varied healthy diet is a fundamental human right and policies are needed to address this.

Figure 1 represents a summary of conditions that relate to diet. Each of these conditions should be considered during the development of National Food and Nutrition Action Plans and appropriate policies established depending on the health priorities in each country. Vulnerable groups, such as older people, low income groups, children and pregnant women should be considered as requiring specific action with a view to reducing inequalities and implementing Health21.

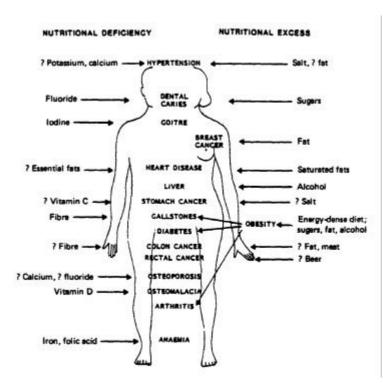


Figure 1: Some health problems in Europe related to diet.

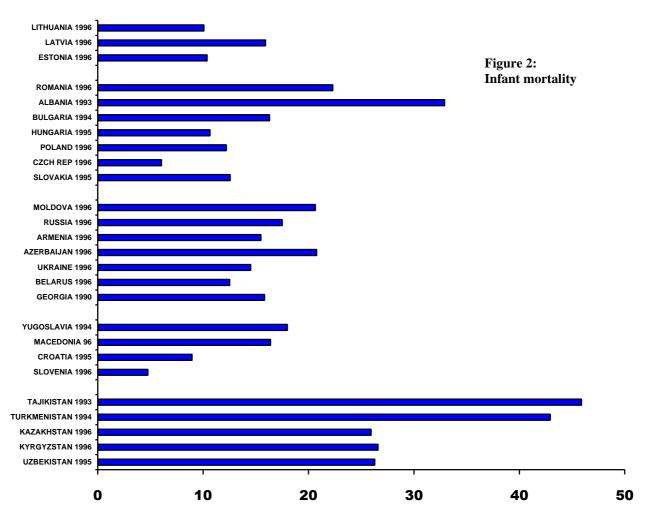
Micro-nutrient deficiency

The two major micro-nutrient problems in the region include iodine deficiency disorders (IDD) and iron deficiency anaemia. IDD affects around 16% of the European population and is a major cause of preventable mental retardation. Iron deficiency anaemia impairs cognitive development in children and increases the risk of health problems in women of child bearing age.

2. The best start for infants, young children and maternal health

Exclusive breast feeding levels are increasing in some countries, particularly Nordic ones, but decreasing in others. In some, less than 1% of women are exclusively breastfeeding their infants for the first month. Economic analyses done in some Member States demonstrate how exclusive breastfeeding can reduce health care costs significantly.

Infant mortality rates in some countries are much higher than the targets set by WHO. These high levels (Figure 2) are due to increased risk of infection combined with reduced immunity.



Increased levels of exclusive breastfeeding; timely introduction of appropriate complementary foods; and changes in ante- and post-natal care could significantly improve the health and well-being of infants and their mothers.

Infant foods prepared under unhygienic conditions are frequently heavily contaminated with pathogens and thus are a major cause of diarrhoeal diseases, associated poor nutrition, and the high prevalence of anaemia and stunting in some parts of the region. Therefore specific education for mothers in food safety principles, taking into consideration also socio-cultural factors, need to be integrated into all infant and young child feeding guidelines.

The impact of poor nutrition before and during pregnancy cannot be overstated. Failure to provide a safe, healthy variety of food to mothers has social and economic consequences for families and societies. In order to provide the next generation with the best start in life as advocated in Health21, much can be done to invest in maternal and child health through access to a safe healthy variety of food.

3. Food safety

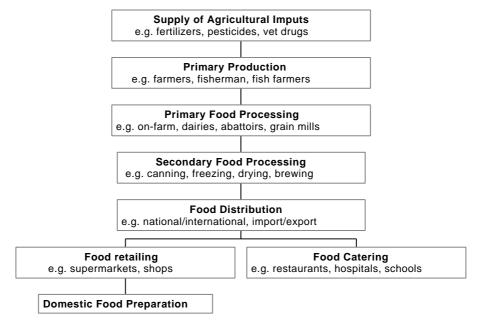
The food supply must not endanger consumer health through biological, chemical and other contaminants and it must be presented honestly. Food safety and quality control ensures that the desirable characteristics of food are retained throughout the production, handling, processing, packaging, distribution and preparation stages. This promotes healthy diets, reduces losses and facilitates trade. Consumers have the right to a good quality and safe food supply, and government and food industry actions are constantly needed to ensure this.

Effective food quality and safety control systems as well as programme for the surveillance of foodborne diseases are essential. Surveys show that concern focuses on different areas:

- (a) The microbiological safety of food where problems such as Campylobacter, Salmonella, *E.coli*, Listeria. The modern food chain means that infection on a single farm can become widely distributed (see Flow chart 1).
- (b) The chemical safety of food with concerns about pesticides and heavy metal contamination.
- (c) Genetically modified organisms, novel foods and new processing techniques.

In addition veterinary drugs and agro-chemicals require constant surveillance to prevent new phenomena such as antibiotic resistance.

Sources of contamination of food, both biological and chemical, range from agricultural practices, to industrial and human activities, food storage and processing, packaging and final preparation. Flow chart 1, illustrates the many links and stages of food production in the food system.



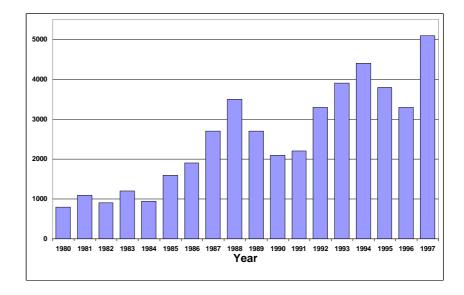
Flow chart 1: Principal stages of the food supply chain

Food control is interdisciplinary. At regulatory level, a number of government departments or agencies are concerned with food safety. Starting from health and agriculture, the list extends to trade, labour, tourism, education, finance, environment and even further. In some countries the health sector plays a leading, in others only a marginal role. As sectors, other than Health, have interests primarily in promoting economic activity, this may be detrimental for food safety, health and consumer protection.

In addition, global food trade will make it more difficult to contain food-borne diseases within national borders, so effective public health strategies are needed. In rich and poor countries alike food-borne

diseases impose substantial health burdens, particularly on the poor. Salmonella outbreaks are one of the main causes and in some countries the incidence is increasing (figure 3).

Figure 3: Number of registered salmonella infected cases in Denmark 1980-1997.



Governments, industry and the public are all major stakeholders who influence the food system therefore strong interaction is needed between the three sectors.

4. Non-communicable diseases (NCD) and risk factors

In some countries, the percentage of saturated fats eaten has decreased and intake of vegetables has increased over the last 10 years. Whereas in others the so-called healthy "Meditteranean" diet appears to be threatened. Moreover throughout Europe there has been a 25% decrease in the availability of cereals, potatoes and other root vegetables between 1961 and 1991.

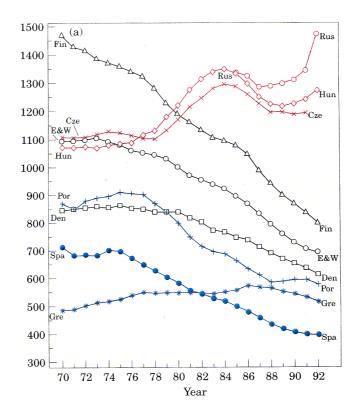
Cardiovascular disease mortality in CCEE and NIS is responsible for more than half the east-west gap and inequality in life expectancy. The victims are usually the poorest countries and the poorest people living within a country. Within the EU if all Member States were to have the same mortality rates as the lowest for cardio-vascular disease (France) and for cancer (the Mediterranean countries) then around 150,000 lives years could be saved in the EU annually. Mortality in the West, especially in Finland, has decreased dramatically over a 20 year period (figure 4).

Other NCDs and risk factors related to diet, include non-insulin dependent diabetes mellitus, high blood pressure, cerebro-vascular disease, obesity and cancer. New estimates suggest that 30-40% of certain cancers are preventable by dietary means. Smokers who have a particularly poor diet are at higher risk of cancer than smokers consuming high levels of vegetables and fruit. A high saturated fat, energy dense diet, low in vegetables and fruit is a major cause of this pan-European epidemic in NCDs.

Obesity has been estimated to cost the health service around 8% of the total health costs in some European countries, costing as much as programmes for cancer and AIDS and its prevalence is continuing to increase rapidly in most Member States.

Figure 4: Time trends in mortality from cardiovascular diseases in selected countries. 1970-92.

Men aged 45-74 years



5. Sustainable food production and distribution

The new food chain (Flow chart 1) reflects changes: in the food supply system (intensive agriculture and animal husbandry, mass production and distribution); in the new health and demographic situation (population growth, mainly urbanised and more vulnerable); and in the social situation, behaviour and lifestyle (increased travel, ethnic foods and increased food trade).

Recent evidence strengthens the argument that a safe healthy diet can promote a sustainable environment. If food is grown using sustainable agricultural methods, this will help reduce pollution, create more jobs in rural areas and possibly slow the pace of rapid urbanisation. This will help to stimulate rural economies, promote social cohesion and improve mental well-being within rural societies. There is an urgent need in some countries to address the high rates of suicide in rural communities, especially amongst men.

It is an additional bonus that a safe healthy diet can be environmentally sound. Growing the right kinds of foods for health can help reduce fuel consumption, pollution, transport and packaging costs and promote bio-diversity, especially if food is grown as near as possible to where it is consumed. This can help create local jobs and improves food security in addition to promoting a sustainable environment. A Food and Nutrition Action Plan demonstrates concrete ways of implementing the recommendations made in both the Health21 and Local Agenda21 initiatives to promote sustainable development.

Policy response in Europe to Date

Country-based action

In general the Nordic countries and some western European countries have developed comprehensive food and nutrition policies. Some countries in Central and Eastern Europe and Newly Independent States (NIS) are also active in strengthening public health through food and nutrition policies (reference Comparative analysis of food and nutrition policies).

Amsterdam Treaty

The Amsterdam Treaty of European Union states that health considerations will be considered in all EU policies and that public health should be ensured. Once ratified the Amsterdam Treaty will provide the opportunity for each EU country to push for health impact assessments on EU policies relating to food production, distribution and control.

Health21

At least twelve of the 21 targets of Health21, calls on Member States to increase inter-sectoral activities carried out by the health sector. The development and implementation of food and nutrition plans provides a concrete example of how Health21 can be implemented and demonstrates the importance of inter-sectoral policies.

International Conference on Nutrition

In 1992, the International Conference on Nutrition (ICN) adopted the World Declaration and Plan of Action for Nutrition. Since then action on nutrition has been supported by over 30 resolutions of the World Health Assembly. In one of these (1993) entitled "The ICN: Follow-up Action" member states requested the DG "to report by 1995 on progress regarding implementation of the World Declaration and Plan of Action for Nutrition". In 1996 a follow-up consultation was held in the European Region to review progress.

Food control

In most European countries basic food laws, and supportive regulations incorporating detailed provisions, are in place. Effective legislative, administrative and technical measures for the control and surveillance of food contamination at all stages of farming, slaughtering, harvesting, food processing, distribution, storage and sale have not been introduced in all countries.

The different models, adopted to deal with food standards and food safety, vary greatly in terms of their remit, powers, scope, functions, constitutional status, governance and accountability. Therefore, especially in response to growing public health concerns, a multisectorial approach is needed to develop the most health-conscious, cost-effective systems.

The shortcomings in traditional approaches, limited to inspection and testing of end-products, and a lack of resources highlight the need for new cost-effective food control systems. In 1993 the Joint FAO/WHO Codex Alimentarius Commission endorsed the Hazard Analysis and Critical Control Point (HACCP) System as a preventive, cost-effective approach.

Obstacles to Food and Nutrition policies

We must strive to ensure health has a place in all food related policies. Lack of information on food patterns and nutritional status presents a major draw-back. Fortunately many countries have included information on food-borne disease and nutrition as part of their health information systems.

The role of public health services in relation to food safety has diminished in many countries and this trend must be reversed. Food control legislation has to move away from end product testing to the Hazard Analysis and Control of Critical Points (HACCP) system based approach. Countries in the eastern part of the Region are in need of considerable investment in their food-manufacturing sectors in order to bring

them in line with international standards. This presents both opportunities and challenges for public health.

As countries move away from traditional food hygiene inspections to a more preventive HACCP approach, strategies for its implementation should be harmonised. The role of government, voluntary and private sectors must be understood and clearly defined.

Free Trade and the market economy demands a specific type of food legislation relating to food composition, labelling etc. Compounding this problem is the lack of health promotion activities, health education and a lack of understanding of how the market economy operates. The health sector is just learning how to develop good collaboration with the private sector in support of public health. One of the mechanisms is through the Codex Alimentarius Commission.

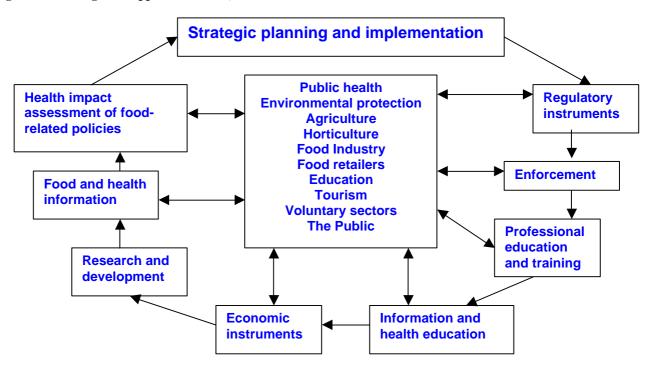
Food is of such an inter-sectoral nature that it is difficult to reach a consensus by all the stakeholders who produce, distribute, manufacture, retail and eat food. Therefore it is not easy to develop food and nutrition actions plans that are focused on health. One of the obstacles is the lack of a European food policy that highlights the importance of health.

Role of Member States

An integrated inter-sectoral approach

Health21 and other public health policies recognize that all sectors have to share the responsibility for achieving better health. This is especially true if better health is to be achieved through a safe and healthy diet. However this can only be achieved if a mechanism is established in each country to address food and health issues. A national infra-structure needs to be developed and a strategy delineated on how the different issues relating to food and health can be addressed by different sectors. Figure 5 outlines one some of the lead sectors. It also illustrates how an approach to developing and implementing a food and nutrition action plan could be integrated

Figure 5: An integrated approach to food, nutrition and health

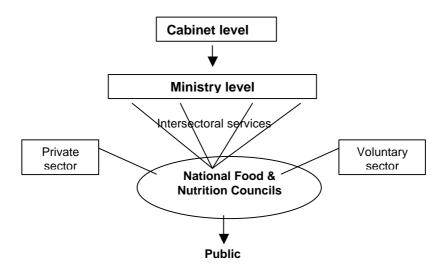


It would be naïve to suppose that intersectoral partnerships are easy. Constitutional and many other reasons may exist which make intersectoral developments difficult. However if controversial issues are to be solved these have to confronted to allow lasting improvements to be achieved. One way of addressing this is to establish forums where discussions can take place, such as National Food and Nutrition Councils.

National Food and Nutrition Councils

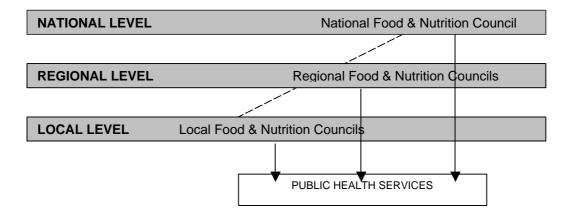
Within each country, there is a need to ensure effective intersectoral co-operation at every level. The establishment of a National Food and Nutrition Council could help to focus government and political parties on effective community based developments. It is proposed that each Member State establish or strengthen inter-sectoral food and nutrition councils or install mechanisms to secure better coordination between different ministries – seeing to it that public health concerns are duly taken into account. The Councils should develop national action plans based on the Health21. Thus they will have to assess the effectiveness of public/private initiatives and foster community based action. The formation of a National Food and Nutrition Council will also help to promote interdepartmental co-operation within government (figure 6).

Figure 6: Intersectorality of National Food and Nutrition Councils



In countries with a federal constitution it would be useful if Regional and Community level Food and Nutrition Councils could be formed (figure 7). Such an institutional mechanism will help to promote broad based coalitions to support healthy nutrition and improve access to safe food.

Figure 7: Decentralized role of National Food and Nutrition Councils



A major aim of the local level councils will be the conversion of generic national level programmes and targets into specific ones based on local conditions. Such Councils can help to impart a horizontal dimension to numerous vertically structured sectors.

By the year 2005, appropriately funded National Food and Nutrition Councils should be operational in all Member States to help reduce inequalities in diet-related diseases and foodborne diseases

National food and nutrition action plans

Food and nutrition action plans should be comprehensive and include policy elements of proven effectiveness. The action plans should have a clear timetable for implementation and comprehensive food and nutrition policies need to be adequately funded.

By the year 2003, funded national food and nutrition action plans should be drawn up in all Member States, taking into account the need for specific targets for vulnerable groups.

Effective action for a European food and Nutrition strategy

Health information systems

Successful implementation of food and nutrition action plans requires effective monitoring and evaluation. Data on food intake, nutritional status and incidence of food-borne diseases must be included as part of the national health information system to support appropriate food and nutrition policy development. Monitoring and evaluation should cover action at the international, national and regional/local levels, be inter-sectoral and address both governmental and nongovernmental action. Research into effective policy development and implementation should be supported by independent sources the results widely disseminated.

In the period between 2001 to 2005, each country in the European Region should produce a comprehensive report on food intake and food –borne diseases , nutritional status and dietrelated public health problems.

Social inequity leading to an inadequate intake of healthy safe food and nutrient deficiency

Price. There could be attempts to make essential foods affordable, especially vegetables and fruits, and encourage their consumption through different financial mechanisms. Partnerships with food retailers and mass catering agencies should be strengthened by promoting public health objectives.

Availabilty. WHO recommends more than 400 grams of vegetables (in addition to potatoes) and fruits per person/day. In 1995, more than 600 grams of vegetables and fruit per person/day was available only in one fifth of countries (figure 8). National production levels should be geared to at least 600 grams per person/day to allow for spoilage and ensure sufficient availability.

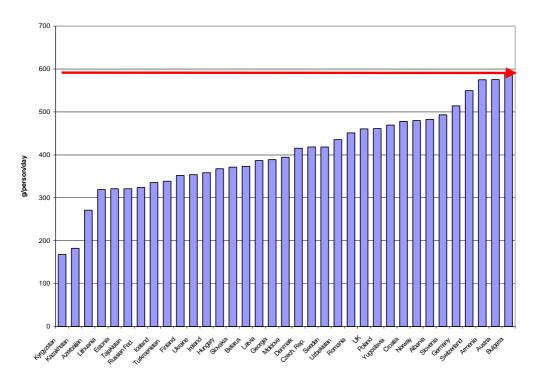


Figure 8: Availability of vegetables and fruits in 1995 in selected countries

The development of local food co-operatives, farmers markets and increased access to vegetables and fruits in mass catering institutions and schools should be encouraged. Eating preferences are formed in childhood and efforts should be targeted to encourage school children to eat more vegetables and fruits.

By the year 2005, all countries should have implemented policies to increase access to vegetables and fruit especially for low income groups, older people and most vulnerable.

Advertizing. The role of children as opinion leaders, in influencing what their families buy, should not be underestimated. Unfortunately much of the marketing aimed at young people is for high-fat energy-dense snack items and very little money is spent on promoting consumption of vegetables and fruits. Laws that do not permit advertisements on television to be directed towards children under 12 and do not permit advertising during children's programmes should be developed.

By the year 2005, all countries of the European Region should have introduced legislation to control advertising of high-fat energy-dense foods to children.

Nutrient deficiency. While many nutrient deficiencies can be solved by eating more vegetables and fruits one of the main nutrient deficiency in Europe, iodine, cannot. Proven public health measures exist to eliminate iodine deficiency and these should be implemented. Anaemia resulting for iron deficiency is also a problem in the region again recommendations exist to alleviate the health consequences. All nutrient deficiencies require an intersectoral approach to ensure optimum nutrition for everyone as a human right (figure 6).

By the year 2005, all countries of the European Region should have introduced legislation to eliminate iodine deficiency disorders through universal salt iodization.

2. The best start for infants, young children and maternal health

Targeted activities for pregnant women can lead to significant health gain for neonates and infants. The number of Baby-Friendly facilities should be increased and the *Innocenti Declaration* strengthened. In 1991, the 44th WHA welcomed the *Innocenti Declaration* as a basis for international health policy (resolution WHA44.33). At the 45th WHA Member States were urged to give full expression to the operational targets contained in the *Innocenti Declaration*. Some companies continue to market infant formula in ways that undermine breastfeeding. The International code of Marketing of Breastmilk substitutes (annex 2) and subsequent Resolutions of the WHA were established to counteract the harmful affects of commercial initiatives by restricting marketing practices.

It is difficult to overstate the impact of poor nutrition on maternal health. Failure to provide a nutritionally adequate diet has both social and economic consequences for families and society. Yet, research demonstrates that most countries could invest more to ensure the next generation the best start to life.

By the year 2005, all countries should strengthen the four operational targets outlined in the Innocenti Declaration (annex 3) and increase their number of Baby Friendly Hospitals.

3. Food safety

Food control. Most countries in the WHO European Region are already members or are lining up to join either the WTO or the EU or both. Therefore their national food legislation must be harmonized with the international standards of Codex and EU directives. Moreover efficient food control systems (with its administrative, inspective and laboratory components) must be in place to properly enforce legislation. It is essential that health professionals, especially those working in public health, become more informed about international agreements relating to food. Ministries of health should endeavour that health professionals are represented in the delegations attending the Codex Alimentarius Commission on Sanitary and Phytosanitary Measures (SPS Committee).

Much of food-borne illnesses remain unaffected by the current approaches to food safety. Possibly because current approaches apply only to the food which passes through commercial channels and so does not address domestic handling of food. Much of the food consumed in rural areas and sold on streets and in markets may also escape control. Health education is needed to raise the level of public awareness of the factors leading to the spread of food-borne diseases. One of the best ways is through the primary health care system, basing training activities on both scientific knowledge and local food-related customs and behaviour.

By the year 2005, all countries of the European Region should ensure that public health specialists attend Codex and EU meetings regularly. Efficient Food Control Systems must be in place to properly enforce legislation based on international standards.

¹ WHO, Food safety and globalization of trade in food: a challenge to the public health sector, WHO Geneva, 1997 (WHO/FSF/FOS/97.8)

4. Non-communicable diseases (NCD) and risk factors

Dietary guidelines. Dietary guidelines form the corner-stone of food and nutrition action plans and should simultaneously support sustainable development of the environment.

By the year 2005, all countries of the European Region should have developed national dietary guidelines for children and adults, targeted to help the most vulnerable.

Support for dietary change and increased physical activity. Surveys show that the majority of people believe that diet is important for health. The primary health care setting can provide an opportunity for supporting dietary change and advising on increased physical activity, especially for the most vulnerable. Increased physical activity improves both general physical health and mental wellbeing, helps prevent NCD and will help to halt the pan-European obesity epidemic.

By the year 2005, all countries of the European Region should introduced training in dietary change and increased physical activity techniques, for primary health care providers, with mechanisms for monitoring the impact.

Health education and community action. Intensive campaigns are effective in promoting increased consumption of a safe and healthy diet along with increased physical activity. Reviews of school-based education (particularly skill-based learning) have a positive impact on behaviour and should therefore receive greater emphasis in the school curriculum. It is important to mobilize popular movements, supported by media advocacy, to promote health messages and create a climate which is more supportive to achieving affordable changes. The mass media are effective in setting the public agenda and stimulating public discussion.

In community action, the emphasis should be on participation. Comprehensive community programmes help to improve health by encouraging consumption of a safe healthy diet along with increased levels of physical activity. (See WHO Urban Food and Nutrition Action Plan for more information on community participation).

By the year 2005, coordinated and sustainable campaigns should be mounted to promote public support for a safe healthy diet and increased physical activity. Effective school education should be implemented in all schools in the European Region.

5. Sustainable food production and distribution

A sustainable environment. European food production policies have encouraged farm intensification leading to adverse environmental effects such as water pollution, soil erosion, and reduction in biodiversity. Health impact assessments demonstrate that modern intensive agriculture has resulted in both ecological and social problems, including increased urbanisation. Safe, healthy and reliable food supplies can only be achieved through sustainable food production systems in which the EU has a crucial role to play.

By the year 2005, policies should be enacted in all countries of the European Region to ensure that sustainable food production is promoted by rewarding farmers for pioneering sustainable techniques and giving positive incentives.

The 1998 UN/ECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ("the Århus Convention") provides a legal framework for ensuring public participation in decision-making processes related to the environment. At the Third Ministerial Conference on Environment and Health (London, 1999), the ministers of health and ministers of environment of WHO's European Region jointly affirmed their commitment to giving the public effective access to information, improving communication, securing the role of the public in decision-making and providing access to social justice, in environment and health matters.

By the year 2005, all countries should make information widely available on the public human right to effective participation in decision-making processes relevant to sustainable food production and access to a safe healthy variety of food. The public's human right and entitlement should reflect the principles of the Århus Convention.

Committee for Food and Nutrition strategies in Europe

It is proposed to set up a Committee for Food and Nutrition Strategies in Europe (FNSE), to support the development and implementation of national plans of action. The FNSE should become operational with effect from ???, with WHO offering to act as the secretariat.

The FNSE should comprise representatives designated by the WHO Regional Committee for Europe and – subject to the agreement of the respective institutions to being members of the FNSE –Ministry of environment representatives possibly coordinated by the European Environment and Health Committee (EEHC); Ministry of Agriculture representatives possibly coordinated by FAO and/or DG VI of the European Commission; other DGs from Commission (XXIV, III, V etc); Ministries of Education, the Council of Europe, UNICEF, and other intergovernmental and nongovernmental organizations, including representatives from the private sector.

The FNSE should also have responsibility for regularly reporting on both the implementation of national action plans and international action on food and nutrition issues. The FNSE could report to both the WHO Regional Committee and the UN/ECE Committee on Environmental Policy through the EECH and to Agriculture Committees at FAO or DGVI. Terms of reference would be developed jointly and would include a first review of achievements and future potential after 5 years.

The Committee can help in reaching a European consensus, where none already exists, on which indicators are the most appropriate for assessing health in relation to food and nutrition issues. In its membership, the FNSE needs to reflect the increasing opportunities to place food and nutrition at the centre of sustainable development. By making decisions and taking actions which promote the growing, buying and eating of the right kinds of foods, this will reduce the risk of major diseases and simultaneously promote a sustainable environment.

International partners for action

Integrational and intergovernmental organizations (IGOs)

WHO will continue to work with its sister UN agencies, UNICEF and FAO, to work in partnership to improve health through joint food and nutrition strategies. The Amsterdam Treaty will create opportunities to view food as a health issue within the European Union (EU), rather than just an economic issue. The WHO Food and Nutrition Action Plan can be enhanced through actions at an EU level e.g. Food laws, control of advertising which affects child health and assessing the health impact of European agricultural policies. Labelling regulations and nutrition information on food products could all be strengthened at EU level.

Nongovernmental organizations (NGOs)

Throughout the Region, an extensive array of nongovernmental organizations and networks have experience and competence in advocating for food and nutrition policy. These organizations and networks include: those with a baby food industry advocacy function; heart and cancer organizations; environmental NGOs (especially involved with sustainable food production); Food and Public Health Alliances and consumer organizations. NGOs have a specific role in mobilizing civil society and they have a mandate to report on government policy and to lobby for policy change and implementation.

Health care professions

Through their public health expertise, health care professions have a special responsibility to mobilize their members and lobby for effective action on safe food and healthy nutrition. At the regional level there are European fora of national public health, medical, nursing, dental and pharmaceutical associations in collaboration with WHO. Members of these associations make up a considerable workforce which needs to set its own example, provide support for sound dietary principles and promote both food safety at the domestic level and increased physical activity. Health professionals can do a lot to advocate for food and nutrition action plans at local, regional and national levels.

Role of the WHO Regional Office for Europe (WHO EURO)

Support for national action plans and country networks

WHO EURO will continue to support the development and implementation of national food and nutrition action plans in the Region. One of the mechanisms this is achieved is via national counterparts, present in all countries and nominated by ministries of health. They are health professionals with responsibility for food safety and/or nutrition of adults, infants and young children.

EURO will support national action plans through its networks including:

- Countrywide integrated noncommunicable disease intervention (CINDI) programme;
- WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe:
- GEMS/FOOD European Programme;
- Regions for Health network;
- Healthy Cities project;
- Health Promoting Schools project; and
- Health professional associations, especially if dealing with food hygiene and nutrition.

Another mechanism of supporting national action plans is with WHO Liaison Officers, appointed by WHO in CCEE and NIS to work as the interface between ministries of health and WHO.

Countries may find it difficult to decide which indicators to choose for monitoring the food and nutrition situation and which are most cost-effective. WHO will advise on which indicators are most appropriate for assessing food intake, food borne diseases and nutritional status. WHO EURO will also advise on how to assess the effectiveness of national action plans, taking into account national perspectives.

Committee for Food and Nutrition Strategies in Europe and collaboration with partners

EURO will offer to act as secretariat to the FNSE as well as taking the lead to implement the WHO Food and Nutrition Action Plan, in line with its mandate. In so doing, it will be supported by its Member States, collaborating centres, programme advisers and its international partners, including UNICEF and FAO and many others.

EURO will continue to update its information database on foodborne disease, on chemical contamination of food, food intake, nutritional status and Member States' policy responses, through its database and questionnaire surveys to Member States, and will report to the FNSE on a regular basis.

EURO will continue to develop a research and science base for effective policy through meetings and publications. It will actively disseminate information, in printed and electronic form, throughout its networks of policy-makers and those responsible for implementing policy at international, national and local levels.

Media advocacy

Through its media and communication activities, EURO will ensure that the public receives information about food and nutrition issues. Policy initiatives will be supported through media advocacy and joint work with the European Health Communication Network and NGOs working in Europe.

Conclusion

Access to a safe and healthy variety of food is a fundamental human right and it is one of the greatest public health challenges facing Member States of the WHO European Region. Some solutions are well known but others less so. What is needed is to develop or strengthen existing action plans in every Member State and to mobilize civil society. Ministries and government departments need to put the correct mechanisms in place to support the availability, access and consumption of a safe healthy diet as a human right.

The WHO Food and Nutrition Action Plan for Europe aims to create a European movement to promote a safe and healthy variety of nutritious food for all age groups. In addition to reducing levels of disease, protecting and promoting health, it has the benefit of protecting the environment and stimulating socioeconomic and sustainable development.

Concerted action by all sectors is needed to develop national inter-sectoral Food and Nutrition Action Plans. The new dynamic global food system will create many opportunities as well as challenges for Ministries of Health. There will be an increased need to interact with other sectors in order to implement the best strategy.

This initiative of the WHO Regional Office for Europe is developed jointly by two Departments: Health Promotion and Disease Prevention and Environmental Health. Four programmes have contributed to its development: CINDI, Child Health and Development, Food Safety and the Programme for Nutrition Policy, Infant Feeding and Food Security. The development of a WHO Food and Nutrition Action Plan is another step towards more concerted intersectoral action. Health21 provides the ideal platform from which to launch this initiative which combines both public health and sustainable development.

Annex 1: Food and nutrition policies in Europe: comparative analysis of policies in Europe in 1996

Annex 2: Summary of the International Code of Marketing of Breastmilk Substitutes

Summary of Articles 4 to 11 of the

International Code of Marketing of Breast-milk Substitutes²

- Governments should have the responsibility to ensure that objective and consistent information is provided on infant and young child feeding
- Educational materials should include information on the benefits and superiority of breastfeeding; maternal nutrition and the preparation for and maintenance of breastfeeding; the social and financial implications and health hazards associated with the use of infant formula
- No advertising or other form of promotion to the general public of products within the scope of the Code
- No free samples of products within the scope of the Code to pregnant women, mothers or members of their families
- No gifts of articles or utensils to pregnant women or mothers of infants and young children which
 may promote the use of breast-milk substitutes or bottle-feeding
- No promotion of products covered by the Code in any facility of the health care system
- No company "mothercraft nurses" or "professional service representatives" permitted in health care system
- No brand names on donated equipment and materials
- Information provided by manufacturers and distributors to health professionals regarding products within scope of the Code should be restricted to scientific and factual matters
- No financial or material inducements should be offered to health workers or their families to promote products within scope of the Code
- No samples of infant formula, other products or equipment or utensils should be provided to health workers, unless it is for professional evaluation or research
- Personnel employed in marketing products within scope of the Code, should not, as part of their job, perform educational functions in relation to pregnant women or mothers of infants and young children
- The message on the label should include: the words "Importance Notice" or equivalent; a statement of the superiority of breastfeeding; a statement that the product should be used only on advice of a health worker as to the need for its use and the proper method of use; instructions for appropriate preparation, and a warning against the health hazards of inappropriate preparation,
- "Humanized" and "maternalized or similar terms should not be used on container nor label
- Containers nor labels of infant formula should not have pictures of infants, nor other pictures or text which may idealize the use of infant formula
- All products should be of a high recognized standard as the quality of products is an essential element for the protection of the health of infants
- Governments should take action to give effect to the principles and aim of the Code
- Governments should seek, when necessary, the cooperation of WHO, UNICEF and other agencies of the United Nations system
- Manufacturers and distributors should take steps to ensure that their conduct at every level conforms to the principles and aims of the Code
- NGOs, professional groups, institutions and individuals should draw the attention of
 manufacturers or distributors to activities which are incompatible with the principles and aim of
 the Code
- The Code calls for annual reporting by Member States to the Director-General and by the Director General to the World Health Assembly, in even years, on the status of its implementation

² These principles are not all laid down in the Code in this form, but have been distilled from the various provisions of the Code

Annex 3: Summary of the Innocenti Declaration

The Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding was produced and adopted by participants at the WHO/UNICEF policymakers' meeting on "Breastfeeding in the 1990s: A Global Initiative" in Italy in 1990. The Declaration sets a global goal and has become a guide for governments aiming to protect, promote and support breastfeeding. The Declaration affirms the importance of breastfeeding for the healthy growth and development of infants and stresses its contribution to women's health by reducing the risk of breast and ovarian cancer, reduction of bleeding by helping the uterus return to its previous size, delay of new pregnancy and by providing social and economic benefits. The Declaration sets a goal for achieving optimal health for infants and mothers:

All women should be enabled to practice exclusive breastfeeding³ and all infants should be fed exclusively on breast-milk from birth to 4-6 months of age. Thereafter, children should continue to be breastfed, while receiving appropriate and adequate complementary foods⁴, for up to 2 years of age or beyond.

In order to attain these goals, governments should have developed national breastfeeding polices and appropriate targets for the 1990s which should further be monitored and evaluated.

By 1995 all governments should have achieved the following operational Innocenti targets:

- 1. Appointed a national breastfeeding coordinator and appropriate authority, and established a multisectoral national breastfeeding committee composed of representative form relevant government departments, non-governmental organizations, and health professional associations;
- 2. Ensured that every facility providing maternity services fully practices all *Ten Steps to Successful Breastfeeding* set out in the joint WHO/UNICEF statement "Protecting, promoting and supporting breastfeeding: the special role of maternity services"; ⁵
- 3. Taken action to give effect to the principles and aim of all Articles of the International Code of Marketing of Breast-milk Substitutes and subsequently relevant World Health Assembly resolutions in their entirety; and
- 4. Enacted imaginative legislation protecting the breastfeeding rights of working women and established means for its enforcement.

The Innocenti Declaration calls upon International Organizations to:

- 1. Draw up action strategies for protecting, promoting and supporting breastfeeding, including global monitoring and evaluation of their strategies;
- Support national situation analyses and surveys and the development of national goals and targets for action; and
- 3. Encourage and support national authorities in planning, implementing, monitoring and evaluating their breastfeeding polices.

In 1991, the 44th World Health Assembly (body deciding WHO's policy) welcomed the Declaration as a basis for international health policy and action and requested the Director-General to monitor achievements in this connection (resolution WHA44.33). At the he 45th World Health Assembly (1992) Member States were urged to give full expression at national level to the operational targets contained in the Innocenti Declaration.

³ "Exclusive breastfeeding" means that no other drink or food is given to the infant, with the possible exception of small amounts of medical supplements (medicines and vitamin drops)

⁴ "Complementary food" means any food, whether manufactured or locally prepared, suitable as a complement to breast-milk or to infant formula, when either becomes insufficient to satisfy the nutritional requirements of the infant (Article 3 of the International Code of Marketing of Breast-milk Substitutes)

⁵ A joint WHO/UNICEF Statement WHO, Geneva, 1989

Annex 4: Comparative analysis of Iodine Deficiency Disorder (IDD) in the WHO European Region

Annex 5: Resolution EUR/RC50/?? First Food and Nutrition Action Plan for Europe 2000-2005

Annex 2

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Annex 3

PROGRAMME

Sunday, 7 November

16.00 - 18.00	Registration
19.30 – 21.30	Welcome Reception Hosted by Maria Ellul, Director of Health Promotion, Ministry of Health, Malta and Aileen Robertson, Viviana Mangiaterra and Marco Jermini from the WHO Regional Office for Europe and David MacLean from CINDI Canada.

Monday, 8 November

16.15 - 17.00

Day 1 theme. Opening and setting the scene

Chairperson: Ms Maria Ellul, Malta Vice-chairperson: Professor T. Sharmanov, Kazakhstan 09.00 - 09.30Opening Honourable Dr Louis Deguara, Minister of Health for Malta WHO Regional Office for Europe 09.30 - 09.45Introduction to the consultation process Dr Aileen Robertson, WHO Regional Office for Europe 09.45 - 10.30Inequity and sustainable food consumption and production in the WHO Region for Europe Professor Tim Lang, Centre for Food Policy, Thames Valley University, London 11.00 - 11.45As Europeans reduce salt intake, what public health measures are needed to ensure iodine deficiency is eliminated in Europe Professor F. Delange, Executive Director, International Council for Control of Iodine Deficiency Disorders, Brussels 11.45 - 12.30Food safety and globalization of trade in food Dr Yasuyuki Sahara, Scientist, Food Safety Programme, WHO headquarters 14.00 - 14.15Discussion 14.15 - 15.00Reform of food control services: strengthening enforcement, revitalising research and development, improving communication Mr Raymond Ellard, Chief Specialist, Environmental Health, Food Safety Authority of Ireland 15.30 - 16.15A healthy start for infants and young children in the WHO European Region Professor Kim Fleischer Michaelsen, Research Department of Human

Nutrition, The Royal Veterinary and Agricultural University, Denmark

WHO Region for Europe

Scotland

Healthy nutrition policy to reduce risk and prevent noncommunicable diseases in the

Professor W.P.T. James, Former Director of the Rowett Research Institute, Aberdeen,

17.00 – 17.30	General discussion and conclusions
17.30 – 17.45	Consultation process over next two days Dr Aileen Robertson, WHO Regional Office for Europe
19.30 20.30	Reception hosted by Dr Ray Busuttil, Director General for Health, Malta Dinner
Tuesday, 9 Nove Day 2 theme. Sit	ember tuation analysis and mechamisms to create and implement policy
Chairperson: Pro	fessor Anna Ferro Luzzi, Italy Vice-Chairperson: Dr Maria Tarus, Moldova
08.30 - 08.45	Global overview of follow-up to the International Conference on Nutrition (ICN) Ms Chizuru Nishida, Nutrition Programme, WHO Headquarters
08.45 – 09.00	Food Safety Programme in the WHO European Region Dr Marco Jermini, Regional Adviser for Food Safety, WHO Regional Office for Europe
09.00 - 09.15	Child Health and Development Programme in the WHO European Region Dr Mikael Østergren, WHO Programme for Child Health and Development, WHO Regional Office for Europe
09.15 – 09.30	WHO Countrywide Integrated Noncommunicable Diseases Intervention (CINDI) Programme Professor David Maclean, WHO Collaborating Centre on Cardiovascular Diseases, Clinical Research Centre, Dalhousie University, Halifax, Canada
09.30 – 10.30	Group work 1 Situation analysis – brief presentation of country reports 7 Groups No feed-back in plenary
11.00 – 12.30	Group work 2 The need to develop/strengthen National Food and Nutrition Councils or equivalent national infrastructure/mechanism 4 Groups
14.00 – 15.00	Group work 3 The need for a European Food and Nutrition Committee or equivalent mechanism 4 Groups
15.30 – 17.00	Feed-back in plenary from Group work 2 and 3 One presentation from each of the 4 groups
17.00 – 17.30	Conclusions and close of day
18.30	Dinner
19.30	Valletta by night – sightseeing excursion

Wednesday, 10 November <u>Day 3 theme. Develop and strengthen Food and Nutrition Action Plans in Europe</u>

Chairperson: Dr Laufey Steingrimsdottir, Iceland Vice-Chairperson: Dr Maria Szabo, Hungary

08.30 - 09.00	Summary and conclusions from previous day
09.00 - 09.30	View points from UN and other Agencies
09.30 – 12.30	Group work 4 (a) The need to develop a WHO Food and Nutrition Action Plan for Europe 7 groups.
	Group work 4 (b) The need to develop and strengthen Food and Nutrition Action Plans in Europe 7 groups.
14.00 – 15.00	Feed-back in plenary of group work 4(a) and 4(b) One presentation from each of the 7 groups
15.30 – 16.30	General Discussion, Main Conclusions and Recommendations
16.30 – 17.00	Closure WHO Regional Office for Europe Dr R. Busuttil, Director-General for Health, Malta
19.45	Bus departs for dinner and evening entertainment hosted by Maltese Government

Annex 4

GROUP WORK 2–5. FEEDBACK BY SUB-REGION

Group work 2. The need to develop and strengthen national food and nutrition councils (or equivalent national infrastructure/mechanism)

Group	Role of national food and nutrition councils or equivalent mechanisms	What national councils can achieve	Major obstacles to establishing/ maintaining a national council or equivalent mechanisms	Recommendations
Balkan and southern Europe	Secure a public health approach by the ministries on issues related to nutrition and food provision Advise governments on a proactive basis Coordinate initiatives nationwide Propose the need for legislation Foster capacity building Prioritise actions	More transparency Harmonization and coordination Prioritization Communication Alliance building and multisectoral approach Documentation	Budget Conflicts of interest Short term vision of policy makers Unstable political environment	Budget Structure Competence Affiliation with ministries of health Transparency Accountability
Baltic and Nordic countries	 Discussion of themes Advisory body giving guidelines and formulating policies Scientific expertise (groups of experts on nutrition, health, food safety) Reacting body to current issues Consensus-forming body of more or less independent assembly In defining the tasks and forms of the food and nutrition council the following questions should be asked: why a country needs a council? What are the needs of the country, policy makers, planners and other actors? 			Strong support for the establishment of National Councils The councils should: Have credibility Be independent Be science-based Be multidisciplinary Have knowledge/expertise from basics to implementation

Group	Role of national food and nutrition councils or equivalent mechanisms	What national councils can achieve	Major obstacles to establishing/ maintaining a national council or equivalent mechanisms	Recommendations
CAR and CCEE	 Develop and implement food and nutrition policies and action plans Achieve effective realization of action plans through different mechanisms Coordination of activities Initiation of the activities of different ministries/institutions involved Promotion of cooperation with government Monitoring the efficacy of the programmes and making corrections if necessary 	Can achieve: Better definition of the responsibilities of different ministries/institutions Engage all the different ministries and institutions involved, including the Government as a whole, by representation on the Council Better coordination of activities and avoid doubling of activities (save efforts and money) Cannot achieve: Cannot overcome the problems related to financial limitations of the countries of the region or the political problems	Great problems in the economic and agricultural development in some countries mean that governments focus their efforts on these problems Common changes of government in some countries mean that time is lost in the realization of programmes Lack of political interest	National food and nutrition councils to be established (legally) in the countries of the region NFNC to have intersectoral structure (character) NFNC to be just advisory, although governments should be obliged to listen and respond in some way to the Council NFNC to help as a tool for the preparation of EU membership
CIS (excluding CAR) and western Europe	There were different views over the size (small or large) and membership of the Committee (outside experts or civil servants). What the Council will be able to achieve will depend on both size and membership. A list of potential stakeholders was suggested. It was agreed that it is not possible to be prescriptive about membership. The Council could bring together a national plan and monitor progress but could not legislate. Boundaries are an issue.	Cannot achieve: If the Council only has an advisory role, it is the government that will decide on priorities.	Lack of political interest – the governments need to be convinced that food and nutrition interventions are cost-effective Funding Competition between ministries Difficulty in measuring the outcomes Some difficulties in having appropriate legal bases	Support the WHO proposal (the existence of a Council or of a similar organization) — if WHO is not prescriptive Agree funding at nationally State the objectives and expected outcomes WHO could help with the evaluation and outcomes Suggest that Member States should consider the different possibilities for membership For EU countries, the role of the other European bodies (such as the Commission) needs to be taken into account.

Group work 3. The need for a European food and nutrition committee or equivalent mechanism

Group	Role of WHO European food and nutrition committee	What a WHO European food and nutrition committee can achieve	Major obstacles to establishing a WHO European food and nutrition committee	Recommendations
Balkan and southern Europe	Lobby for European nutrition and food issues Support and/or advise National Councils on food and nutrition Advise other relevant bodies as necessary Assist in reaching an European consensus where relevant	 Foster direction - recommend and advise Foster dynamics Developments Lobby with governments Communication Transparency Will not strive to achieve transnational consensus 	 Food industry Conflicts between EU, WHO, and other organiza- tions Lack of manpower at the secretariat (WHO) Selection of members 	Promote the countries' active participation In order to be effective the Committee should take care to acquires the right resources and to plan adequately
Nordic and Baltic countries	Support and encourage member countries to make their own adaptation of the plan Forum for sharing experience Follow-up, evaluation			Support the establishment of a European Food and Nutrition Committee WHO should act as the Secretariat
CAR and CCEE	Lobby for European nutrition and food issues Support and/or advise National Councils and other relevant bodies		Determining who will take part in the Committee Principle of rotation Taking into account regional and sub-regional particularities Risk of overlapping with other WHO bodies already existing and that may be similar (e.g., WHO Programmes)	Support the WHO proposition for a European Food and Nutrition Committee but: Clarify whether WHO will act as a secretariat (as presented in the FNAP) Clarify whether WHO will be the forum where food and nutrition-related problems are discussed Clarify whether other international organizations (e.g., EU, UNICEF, FAO, NGOs) will participate in this Committee Clarify the links between this committee and the National Councils

Group	Role of WHO European food and nutrition committee	What a WHO European food and nutrition committee can achieve	Major obstacles to establishing a WHO European food and nutrition committee	Recommendations
CIS (excluding CAR) and western Europe (WE)	 There is a current need to define its role and priorities There were different views over its roles. CIS suggested a stronger role than WE who deal with a number of other organizations (e.g., European Council (EC)): CIS: 1) this Committee would bring pressure to bear on National Councils to help member states prepare legislation and to force governments to take notice; 2) it could act as a speedy 'taskforce' on food safety issues, acting where national governments cannot – coordinate actively. WE: 1) this Committee could have an advisory role, bring influence to bear on member states but it could not make governments do things; 2) the task of implementation is for the member states, not WHO; 3) WHO does not have a mandate to legislate while the EC does, especially in food safety Some countries wanted the Committee to have a role in food safety 	The Committee could help member states develop national plans, implement and monitor, bring member states together to share experiences and to offer expert advice It could influence member states, help implement, evaluate, and disseminate information The Committee could not make the governments take actions	No legislative basis for WHO to intervene National interests could prevent coordination Funding (including the cost of setting it up) – is this the best use of WHO resources? Other international organizations have a remit in this area (e.g., EC) Lack of political will	Set up a sub-committed to promote breastfeeding, Baby Friendly Hospitals, and WHO Code on marketing of breastmilk substitute Set up a sub-committee on noncommunicable diseases Insure that the Committee makes links with other Committees and organizations (to avoid duplicating efforts) Consider the cost of such a Committee when setting it up Make the Committee science-based Discuss whether this Committee should be the best use of WHO resources

Group work 4. The need to develop a WHO European food and nutrition action plan

Group	Role of WHO European food and nutrition action plan	What WHO European food and nutrition plan can achieve	Major obstacles to establishing and maintaining WHO European food and nutrition plan	Recommendations
Balkan	 To help develop and implement national food and nutrition plans To sensitize and advocate policy-makers and professional society To support national and intercountry food and nutrition information systems To foster harmonization of food and nutrition-related legislation in countries Coordination between countries and relevant international agencies To serve as a framework for development of national food and nutrition action plans (with country adaptations) 	All the "roles" can be achieved	International food industry Transnational private companies Finances and lack of manpower at the Secretariat Lack of awareness of policy makers participating at WHO decision making meetings	WHO to revise targets set in the European Food and Nutrition Action Plan to be more realistic (target dates) WHO to finalize the European Food and Nutrition Action Plan To plan European Food and Nutrition Conferences To sensitise the policy makers through national governmental counterparts; WHO Liaison Officers and national delegations from their ministries of health who attend WHO Committees
CAR	 To coordinate national food and nutrition action plans To facilitate provision of methodological assistance in assuring availability (energy contents, vitamins, macro and micr nutrients, proteins, fats, carbohydrates), affordability, and equality among the people in food supply both at the international and national level To ensure appropriate control of manufacturing, sales and import of foods at international and national level To provide for organizational and methodological assistance in implementing national action plans at international and national level To ensure access of newborns to exclusive breastfeeding To recommend national governments to ban production of food in environmentally unsafe countries and to improve the environmental situation Implementation of intersectoral commitments (integration) in resolving problems 		Lack of target oriented funding for the implementation of the related programmes Lack of coordination between customs authorities of various countries and the imperfection of customs which results in the importation of law quality foods Inadequate cultural level of the general public in the area of food and nutrition Inadequate level of technology in food manufacturing at national level; in CAR — uncontrolled production and sales of alcohol beverages by private operators Lack of harmonized rules and standards to control quality of food	

Group	Role of WHO European food and nutrition action plan	What WHO European food and nutrition plan can achieve	Major obstacles to establishing and maintaining WHO European food and nutrition plan	Recommendations
	 Improvements of international information systems aiming at preventing sales of unsafe products and establishment of information exchange on the sources of unsafe products Development of harmonized international standards and methods of determining pollution To promote establishment of national committees to develop common food quality standards based on sanitary and hygiene regulations To ensure high level of medical hygienic awareness of the general public and to introduce educational programmes into schools and university curricula FAO – establishment of regional units/departments 			
CCEE	Guidelines/Umbrella for national FNAPs Help to put politically sensitive topics into national FNAPs Political document: agriculture & food production policies should be friendly to health Promotion of feasibility of national FNAPs at national level	Standardization of data collection and methods Stimulation of legislation process and of information system Agreement about general recommendations	Lobbying against – conflict of interests	 Maintain general character of document Provide more updated annexes Plan to prepare annexes focused on specific issues Support of scientific research about relevancy of priorities
CIS	Coordination for Europe Basis for national action plans – selection of priorities Bridging nutrition and food safety Prevention of NCD Improvement of population health Regular consolidation of scientific knowledge on food safety and nutrition	Common recommendations for country use Food safety: reactions to emergencies in Europe Population health improvement	Differences in economic development Conflict of interests between food producers and consumers Excessive politicization of various issues	Breastfeeding should be presented more prominently, including the code of marketing breast-milk products As a whole recommendations should look less prescriptive As an example recommendations on budgeting and financing require some editing in the above direction Russian title needs better translation
Nordic and Baltic	 Model for national plans Raises the priority of food and nutrition Increases intersectoral collaboration and communication Supports regional collaboration/networking 	 Continuing process and progress A follow-up system A network 	Lack of awareness and political will Resources Conflict of interests	Inform and invlove key people and institutions All countries should send their comments on the Action Plan within 30 days (maximum 1 month)

Group	Role of WHO European food and nutrition action plan	What WHO European food and nutrition plan can achieve	Major obstacles to establishing and maintaining WHO European food and nutrition plan	Recommendations
Southern Europe	 To assist in placing food and nutrition in political agenda To address problems at highest levels i.e. ministries To highlight issues in food and nutrition To present a framework for the development of a national strategy To develop evidence-based strategies that emphasize role of food and nutrition to public health 	 Food and nutrition issues acquire visibility Create link between food safety, environment, nutrition and health Commit governments Enable countries to consider common positions on emerging issues in order to strengthen public health 	Inadequate sensitivity to food and nutrition issues Industry Lack of consensus from Member States Contrasting interests of different sectors Lack of support from relevant international agencies Funding	Base on scientific evidence and relevant risk exposure to risk management Continue consulting Member States and agencies to develop final version of document Provision of tools to assist countries to coordinate development of national action plans (note: refer to WHO Euro framework by Professor Lang)
Western Europe	Western Europe identified a number of issues that they would want to be incorporated into a European food and nutrition action plan relevant to western Europe over-nutrition preconception diets inequalities links with environment role of consumers cost-effectiveness data functional foods		- 1 driding	 Use current interest in food safety to introduce nutritional issues, with children as key focus A European Observatory should be set up, to anticipate new developments and keep government better informed about nutrition issues and food safety Action plan must be worded appropriately to all Member States. Legislation is not necessarily best option for all countries. Voluntary codes may be better. Call recommendations resolutions and express them in a non-prescriptive way eg "Between 2001–2005, we will identify diet-related inequalities and develop and implement strategies to reduce them." Shorten the document and gather objectives/resolutions together

Group work 5. The need to develop and strengthen national food and nutrition action plans

Group	Role of national food and nutrition plans or equivalent mechanisms	What national food and nutrition plans can achieve	Major obstacles to establishing and maintaining national food and nutrition plans	Recommendations
Balkan	There is a clear need to develop a national food and nutrition action plans To review existing plans and programmes and to identify issues not covered To review existing plans and programmes and to identify issues not covered	Involve and coordinate different relevant actors Raise awareness/advocacy to policy makers, professionals and media Initiate undeveloped activities Improve information systems Foster appropriate food laws	Political will Budget Conflict of interests Food industry/private sector Political instability	To create a national food and nutrition council or similar mechanisms To create subregional meetings and networks National counterparts together with WHO to organize conferences at country level To foster cooperation and coordination between relevant agencies on country level To bring national food and nutrition action plan to the parliament To reallocate financial resources and to build capacity WHO to highlight the implementation of national food and nutrition action plans among the donor community
CCEE	Links between all responsible bodies and Public Health Source of national legislation Support all existing ideas connected with health and food and nutrition Improve intersectoral coordination Initiate and stimulate development of appropriate agricultural, food and nutrition policies Monitoring and evaluation of the process of implementation	 Public awareness, postitive attitude to health-related food and nutrition-related issues Positive environment for national legislation for implementation Coordination between "money" and "power" Intersectoral coordination 	Lack of relevant health data (in some countries) Administrative barriers, such as wellestablished processes Acceptability by Ministries of Health, Agriculture etc	To be specific – realistic – cover overall goals To determine responsibilities regarding the development of plan To cover monitoring and evaluation The form: max 10 pages plus annexes
CIS	Priority setting Intersectoral coordination Inter-regional coordination between and within a country	Improvement of Legislation Improvement and harmonization of norms and methods (quality control and food safety).	Money (budget) Conflict of inter-agency interests Conflict of regional interests Top decision-makers: not enough attention to nutrition	Regular meetings of CIS countries on food and nutrition under auspices of WHO to share experiences in developing national food and nutrition action plans

Group	Role of national food and nutrition plans or equivalent mechanisms	What national food and nutrition plans can achieve	Major obstacles to establishing and maintaining national food and nutrition plans	Recommendations
	Stimulus to regional food and nutrition policy development Stimulus to education on nutrition Food production policy development Tool of connection to government Legislation development	Improvement of education on nutrition Improvement of population health	Population does not participate (individuals, community, groups)	AZB, ARM, GEO, BEL,MOL,RUS, UKR are ready to be hosts
Southern Europe	To define national targets and guidelines Provide a framework for local health systems Assurance of intersectorality, harmonization, communication at local level	 Awareness Mobilization of resources Capacity building 	Lack of political will Pressure groups from certain sectors Lack of collaboration Difficulties in dissemination and adoption of plan at local level Lack of appropriate structure in ministry of health to implement the plan Limited human and financial resources	Build up or strengthen existing structures and capacity to implement the programme To establish a process of multi-sectoral consultation Minister of health to address higher government authorities re. national action plan and council Adopt tools as provided by WHO
Western Europe	 Plans can help start making changes Can identify the responsibilities of all relevant sectors and their contribution Food and nutrition-related economic burden is a powerful argument to government 			Plans should address effectiveness of interventions and use evidence-based effective interventions Identify some "quick fixes"

Annex 5

EVALUATION

DAY 1

How would you rate the overall scientific programme of the Consultation

Excellent 17 Good 32 Average 1 Fair

Supplementary remarks

It could be better with more time for discussion.

First day very useful for setting the scene. Copies of first day presentations and slides useful.

First day very useful to get an overview of the fields to be covered during later discussions.

How would you rate the specific presentations

Presentation by Professor Tim Lang Inequity and sustainable food cons

Inequity and sustainable food consumption and production in the WHO European Region

Excellent 25 Good 21 Average 1 Fair 4 Poor

Supplementary remarks

The broad multidisciplinary view was the main reason for the "excellent" rating.

The production of vegetables in urban areas of Europe seems to be mostly in the developed part of Europe.

Good material and philosophy = excellent presentation.

Interesting but too early in the process and too many things to take in.

Presentation by Professor François Delange Action plan aiming at the sustainable elimination of iodine deficiency in Europe

Excellent 26 Good 21 Average 3 Fair

Poor

Supplementary remarks

Role and usefulness of bio-transformed forms of iodine in prevention of IDD.

Good comprehensive presentation of didactic value. Not very relevant to our country.

Good and exhaustive material.

Presentation by Dr Yasuyuki Sahara Food safety and globalization of trade in food

Excellent 6
Good 22
Average 18
Fair 4
Poor 1

Supplementary remarks

More debate re ERB and WHO position in relation to GMOs and in particular labelling problem.

Simple information provided on present situation. Presentation described history and current system but did not have any scientific value.

So so – well known things, except the philisophical aproach. How to stop globalization in food safety. Suppressed the dissatisfaction of consumers with Codex.

Presentation by Dr Raymond Ellard

Reform of food control services: strengthening enforcement, revitalising research and development, improving communication

Excellent 22 Good 22 Average 5 Fair Poor Supplementary remarks

New conception, new solution.

Congratulations!

Too closely linked to Ireland – of limited interest/value for other countries.

Presentation by Professor Kim Fleischer Michaelson

A healthy start for infants and young children in the WHO European Region

Excellent 19 Good 28 Average 3 Fair

Poor

Supplementary remarks

Correct presentation of a greatly important issue

Good material and evaluation – excellent.

Presentation by Professor W.P.T. James

Healthy nutrition policy to reduce risk and prevent noncommunicable diseases in the WHO European Region

Excellent 30 Good 15 Average 3 Fair 1 Poor

Supplementary remarks

An excellently documented presentation of high scientific level.

Very good slides.

Very stimulating.

Too concentrated on clinical and biochemical costs of noncommunicable diseases.

Presented in an excellent way but scientifically not convincing.

DAY 2

How would you rate the working groups and feedback sessions

GroupWork 1: Situation analysis

Excellent 14
Good 21
Average 10
Fair 2
Poor

Supplementary remarks

Time was too short for presentations (some reported that 10 minutes is needed, others that 15–20 mins is needed for each country).

Important to have more time as it was the most interesting part of the meeting.

Too short time, no possibility for discussion and preparing recommendations.

All participants should receive copy of country report from each country.

The time was so short that representatives often couldn't present the most essential facts.

Too many questions to be answered within the time.

A discussion of the problems in countries from the same regions could be stimulating.

Group Work 2: The need to develop/strengthen national food and nutrition councils or equivalent national infrastructure/mechanism

Excellent 15 Good 25 Average 9 Fair

Comments on the fact that group sessions comprised of different European sub-regions

Better to concentrate on each region separately for EU countries.

The issues and problems in CAR and CCEE are highly different and should therefore not be for one group.

CAR and CCEE – difficulties in getting agreement on comments.

Problem of differing experiences between CAR and CCEE – therefore difficult to find consensus. This is a long process but worthwhile.

It is a good idea, but the group could have better structure – for example ex-Soviet republics together.

Language was an issue.

OK – difficult to imagine any better grounds for grouping the participants and this was better than a random grouping.

Very good idea and successful group formation. Group was established from two types of countries with two separate problems.

Consecutive interpretation was very disturbing. Positive but more time is needed to discuss the large differences.

Group Work 3: The need for a European food and nutrition committee or equivalent mechanism

Excellent 13 Good 21 Average 9 Fair 3 Poor 1

Comments on the fact that group sessions comprised of different European sub-regions

As above plus:

There were a lot of misunderstandings regarding the aim and the structure of the new committee.

CAR and CCEE – very different points of view to general need of WHO committee Group was conducted in Russian much of the time.

DAY 3

How would you rate the working groups and feedback sessions

Group Work 4 (a): The need to develop a WHO food and nutrition action plan for Europe

Excellent 14 Good 19 Average 4 Fair 2 Poor 1

Supplementary remarks

No doubts

Sessions lengthy and repetitive.

We could have had some better leads on the discussion.

The time was very limited for discussion. Well organized, well chaired session and interesting discussion

GroupWork 4 (b): The need to develop or strengthen national food and nutrition action plans in Europe

Excellent 17 Good 17 Average 4 Fair 2 Poor 1 Supplementary remarks
There is no other alternative.
Sessions lengthy and repetitive

Do you intend to take action on any aspects raised during the Consultation

Yes 37 No 3

If yes, which aspects do you intend to take action on

Develop/strengthen national food and nutrition
Council or similar mechanism 25
Develop/strengthen comprehensive national food and nutrition action plan 25
Develop/strengthen components of national food and nutrition action plan 15

State which components:

Legal aspects of marketing of some food items Food safety and education

Nutrition issues

Regional policy on nutrition and food Dietary guidelines, nutrition education Breastfeeding

A clearer statement on diet-related inequalities

Development of a European committee for food and nutrition strategies in Europe. 11

Develop/strengthen national guidelines e.g. dietary guidelines for adult population. 14

Other, please state:

Establish common health information systems (communication system).

Micronutritional deficiency.

Coordination and finalization of a national food and nutrition action plan and development and implementation in the Czech Republic.

Increase consumption of fruits and vegetables Increase cooperation between nutrition and food safety.

Update food and nutrition policy.

Try to strengthen this area in the interest of our National Health System.

Although not an official governmental delegate I will inform my colleagues on discussions and decisions of this Consultation and use the documents as background material in teaching and research.

Please indicate the most useful aspects of the Consultation, i.e

1 the most important,

2 second most imporant 3 least important

	Rated 1	Rated 2	Rated 3
Networking	14	12	7
The scientific facts	8	10	9
Developing the concept of food and nutrition action plans in Europe	22	11	2
Developing a European committee for food and nutrition strategies	15	14	6

Did you attend the previous WHO/FAO Member State Consultation in 1996 in Warsaw, Poland

Yes 11 27 No

What is your opinion about the opportunity to network with colleagues in the WHO **European Region**

Excellent opportunity 15 Good opportunity 16 Average opportunity 6 Fair opportunity 2 Poor opportunity 0

Supplementary remarks

Keep in touch by all possible means (email

More attention should be given to what all participants have to say and not only what UK people say

Methods of communication are currently lacking.

The personal contact is the basis of effective collaboration in the future.

Should this become a regular (every two or three years) networking event to enable experiences to be shared

Yes 39 No 0

Other suggestions: Better every 2 years If not annually

Plus sub-regional meetings Maybe every year.

Try to ensure that the same governmental counterpart participates and make sure they are representatives of the government and capable of effective feedback.

What were the strengths of the present Consultation

Right on time

Organization perfect and excellent preparation (consultation materials etc.)

Number of countries present, opportunity to discuss, UNICEF/FAO presence, intensive working environment.

The working group sessions.

Many countries were able to work together. We learned what was going on in other countries concerning food and nutrition policy

We learned where we are concerning food and nutrition policy development

Development of general plan of action Appropriate presentations, working together, sharing experiences and opportunities Work in the working groups and consultation about many problems between countries. Opportunity to share different views and experiences

Innovative initiative, WHO Regional Director nominee intervention, large forum providing excellent opportunity to exchange ideas. To get to know each other and each others' opinions

Comprehensive approach

Integrate power to realize very important aims Well-defined tasks for work

Well organized work with realistic expectations. Effectiveness and common agreement

Interesting and important topics. Joint information on nutrition. Interesting discussions. Good organization and display of publications

The establishment of a consensus around the importance of establishing a WHO Committee and a European Action Plan.

Opportunity to be involved in lively discussions, informality, mixing of working groups most interesting.

The collection of useful ideas.

Flow of communication, the balance between formal presentation and feedback from working groups. Interesting. Clear focus of interest. Enthusiasm, friendly supportive atmosphere

What were the weaknesses of the present Consultation

I was not able to find any – apologies!

Conference room

Nothing

Language barriers

Involvement in this process, such as ILSI and NGOs and professional societies as well as FAO.

Technical facilities

A little too organized during discussions No presentation of a country "model" plan or programme

Lack of time to exchange own experiences and problems with each other.

Different level of countries in relation to previous work in the area

Shortage of time to prepare countries reports The working groups were not very clear in objective. We should have concentrated only on key points and just discussed the Action Plan itself.

Talking to "the converted" – difficult to present individual country presentations and individual issues e.g. a council.

Representation was uneven in terms of capacity for government feedback.

WHO should have been present in all working groups to clarify uncertainties about the tasks, the processes, the required outcomes.

Too many facts in plenary lectures – and not enough time to digest.

Heavy load of information and long working days.

Did you display materials

Yes 22 No 12 Good idea 11 Not suitable 0

Suggestions to improve the opportunity to display nationally produced materials Good idea but difficult to transport materials. Notify us earlier please

WHO could assist with some well-designed food and nutrition plans or policies to be distributed among countries starting such activities.

Would you rate the variety of topics at the Consultation as:

Right number 31
Far too many 2
Too few 2
Too many 3
Far too few

Supplementary remarks

Any more would have been unmanageable – hard work!

Not too many topics but too many details on 1st day and in group work 1.

What additional topics do you believe should have been included

None 21

Missing topics/suggestions

More philosophical topics and topics arising from new varieties of food-born diseases.

Scientific basis of physical activity

Concepts, legislation and directives

presentation of a country "model" plan or programme

More attention to food safety.

More attention to nutrition education

EC/ DGV and XXIV presentations (on programme but cancelled at last minute)

The Action Plan itself – structure, priorities, evaluation

The problem of functional foods in terms of dietary guidelines.

Examples of successes and failures – for analysis and discussion in meeting.

The role of alcohol in food and nutrition policy, public health.

Would you prefer the Consultation to last for a shorter time

Yes 2 No 35

If yes, explain

The workshops dragged out.

The last day should finish in time for departure that night rather than waste another day.

Your opinion on the hotel facilities

Excellent 16 Good 17 Average 6 Fair 1 Poor 0

Supplementary remarks

The Conference Room was not very healthy, without natural light or air. Lots of noise from air-conditioning system.

Group work room not very good conditions – noisy.

Living facilities good.

Interpretation excellent but difficult to concentrate when listening to interpretation at the back.

Small lecture room and bad system for interpreters

Conference room too small

Taste of meals should be improved. Meeting room not very comfortable with interpreters at the back of the room. Some meeting rooms too small.

Microphones should be improved.

Annex 6

ABBREVIATIONS

CAP: Common Agricultural Policy CAR: Central Asian republics

CCEE: Countries in central and eastern Europe CIS: Commonwealth of Independent States

EC: European Community
EU: European Union

DGSANCO:

DAPHNE: Data Food Networking project FNAP: Food and Nutrition Action Plan

GATT: General Agreement on Tariffs and Trade

ICCIDD: International Council for Control of Iodine Deficiency Disorders

IDD: Iodine deficiency disordersIIH: Iodine induced hyperthyroidism

IR£: Irish pound

JECFA: Joint FAO/WHO Expert Committee on Food Additives
JMPR: Joint FAO/WHO Expert Meetings on Pesticide Residues

NIS: Newly independent states

UNDP: United Nations Development Programme

UNICEF: United Nations Children's Fund

USI: Universal salt iodization