TOWARDS A HEALTHY RUSSIA

HEALTHY NUTRITION: PLAN OF ACTION TO DEVELOP REGIONAL PROGRAMMES IN THE RUSSIAN FEDERATION

EUR/01/5018331
ORIGINAL: RUSSIAN
UNEDITED

ABSTRACT

This document is an important step towards developing healthy nutrition policies and practices for the Russian population. Several years of truly multisectoral work by a large group of individuals and organizations are represented. Principles and directions for practical work are formulated to establish and implement healthy nutrition programmes. This mode of work was relatively new in Russia and it is hoped that it will work towards improving public health in Russia. This initiative is part of the WHO First Food and Nutrition Action Plan 2000-2005, endorsed by the WHO Regional Committee for Europe in September 2000. It was developed in collaboration with the WHO programme CINDI (Countrywide Integrated Noncommunicable Disease Intervention), which helped the process and ensured the guide's development. The CINDI network also provides an infrastructure through which to disseminate the guide's recommendations. It is hoped that the guide will contribute to establishing healthy nutrition programmes in the Russian Federation.

Keywords

HEALTH EDUCATION
GUIDELINES
MANUALS
NUTRITION POLICY
PROGRAM DEVELOPMENT
REGIONAL HEALTH PLANNING
RUSSIAN FEDERATION

Contents

Resolution
of the All-Russia Conference
"Healthy Nutrition: Plan of Action to Develop
Regional Programmes in Russia"
19-20 September 2000, Arkhangelsk

Nutrition is a very important impact of public health in Russia. Now that the National Policy of Healthy Nutrition in the Russian Federation up to 2005 has been adopted, there is a need for more intensive action at the regional and local levels. For two years, a team of Russian and international experts have been working to draft a guidebook on the development of healthy nutrition programmes at the regional level. This guidebook was discussed at the all-Russia conference attended by 80 participants from 18 regions of Russia, as well as by representatives from the USA, Norway and Latvia. Among the conference participants there were also representatives of the Ministry of Health of Russia, the State Committee for Statistics, the World Health Organisation, and UNICEF.

The drafting of the guidebook went along in parallel with the development of the Food and Nutrition Action Plan for the WHO European Region for 2000-2005, and the guidebook is an instrument for implementing this Action Plan in Russia.

The guidebook discusses the key issues that need to be addressed in developing a nutrition policy: building a coalition and partnership; adopting legislation; teaching the general public the principles of healthy eating; training specialists in healthy nutrition; the role of health services; citizens' organisations; food production and processing; trade in food; public catering and breastfeeding.

The conference regards the proposed guidebook "Healthy Nutrition: Plan of Action to Develop Regional Programmes in Russia" is relevant, and approves of its main provisions. The conference recommends that it be used as a guide in developing and implementing healthy nutrition programmes in the regions of Russia.

Relevance of the problem

The development of concerted action, or a policy in the field of non-communicable disease prevention, has been an area of great importance for achieving a better public health in Russia in recent years. Thus, in 1997, a document entitled "Towards a Healthy Russia. A Policy and Strategy of Preventing Cardio-Vascular and Other Non-Communicable Diseases in the Context of Health-Care Reforms in Russia" was developed in collaboration with the Russian regions, organisations, institutions and individual experts. This document had a noticeable impact on the level of the regions' activity in this area. A number of regions have developed and are implementing regional preventive programmes.

One of subsequent steps taken in this direction was the process launched in 1998 to draft recommendations concerning the development of regional nutrition programmes. The guidebook " Healthy Nutrition: Plan of Action to Develop Regional Programmes in Russia" offers practical recommendations for implementing the Concept of the State Policy of Healthy Nutrition of the Population of Russia for the Period up to 2005.

The health status of the population is largely determined by nutrition, the optimisation of which is important to improve the health of the Russians. Concerted action is needed to be taken by all institutions dealing with nutrition. It is for this reason that the drafting of this guidebook involved numerous establishments and organisations from a number of Russian regions, as well as international organisations that, in collaboration with the World Health Organisation, are working to improve nutrition of the population in Europe.

We hope that this guidebook will help the regions and cities to develop and implement healthy nutrition programmes, which should ultimately promote the health of Russians.

G.G. Onishchenko,
First Deputy Minister of Health of Russia

Foreword

Nutrition has a significant impact on the health of the Russians. The urgent task is to make nutrition healthier and, thereby, to promote the health of the population. Therefore, the drafting of the guidebook "Healthy Nutrition: Plan of Action to Develop Regional Programmes in Russia" is very timely, indeed. It will help the regions to move towards better and healthier nutrition.

It is obvious that the implementation of programmes of healthy nutrition requires that the adoption of appropriate acts of legislation and administrative decisions be considered. This work should be undertaken both at the federal and at the local levels. In terms of the implementation of healthy nutrition programmes, it is very important that the development of this guidebook involved broad participation of experts and scholars from various institutions of our society. It is important to follow this principle in further activities.

I hope that the joint work in this area by the State Duma, the Government, the medical community, scholars and experts in the field of preventive medicine, aimed at improving nutrition will result in better health of the Russians.

N.F. Guerasimenko
Chairman of the Committee for Health Care and Sports,
The State Duma of the Russian Federation

About this guidebook

Publication of the guide "Healthy nutrition: Action plan to develop regional programmes in Russia" is a very important step on the road to developing healthy nutrition policies and practices for the Russian population. This document sums up several years of truly multisectoral work by a large group of individuals and organizations. Principles and directions for practical work were formulated to establish and implement healthy nutrition programmes. Such mode of work and its product are relatively new in Russia, and, I hope, will serve the purpose of improving public health in Russia.

The European office of the World Health Organization and its Food and Nutrition Policy Unit is proud to be a part of and to support the process to produce the guide. It considers this as a part of the overall effort in the European Region to develop and implement the Action Plan for the European Region of WHO for years 2000-2005. This plan was endorsed by a resolution during the 50th Regional Committee in September 2000.

It is also promising that the guide in Russia was developed in collaboration with another European WHO programme: CINDI (Countrywide Integrated Noncommunicable Disease Intervention), with its 17 Russian Regional members. This collaboration helped the process and ensured the guide's development. This collaboration will be important for the future, because the CINDI network provides an infrastructure through which to disseminate the guide's recommendations.

I hope that readers of the guide will find it useful in developing their nutrition programmes. I am sure the guide will contribute to establishing healthy nutrition programmes in Russia.

Aileen Robertson, Ph. D.
Food and Nutrition Policy Unit
World Health Organization
Regional Office for Europe

The Working Group

I. Glasunov		State Research Centre for Preventive Medicine of the Ministry of Health of the Russian Federation, Moscow - **The Working Group leader**
T. Kamardina	-	State Research Centre for Preventive Medicine of the MoH of the RF, Moscow - **the Working Group leader**
A. Baturin		Research Institute of Nutrition, RAMS, Moscow
L. Akimova	-	Regional SanEpid Centre, Perm
N. Antipina	-	Regional centre of Medical Prevention, Murmansk
A. Brazhkin	-	Regional SanEpid Centre, Perm
N. Vartapetova	-	John Snow Inc., USAID WIN Project, Moscow
E. Volkova	-	Urals State Medical Academy of Further Education, Chelyabinsk
N. Davydenko	-	Municipal Health Establishment, Electrostal
N. Danchin	-	Territorial Centre for Medical Prophylaxis, Krasnodar
T. Dinekina	-	Municipal Health Establisment, Maternity Home No. 3
O. Kalev	-	Chelyabinsk Medical Institute, Chelyabinsk
L. Kolominova	-	Mayor's Office of the City of Arkhangelsk, department of trade and catering
N. Kondakova	-	Arkhangelsk State Medical Academy
S. Konstantinova	-	State Research Centre for Preventive Medicine of the MoH of the RF, Moscow
L. Kudrya	-	Arkhangelsk State Medical Academy
T. Lebedeva	-	Regional SanEpid Centre, Perm
S. Levashov	-	Urals State Medical Academy of Further Education, Chelyabinsk
L. Lukicheva	-	Regional SanEpid Centre, the Murmansk Region
R. Oganov	-	State Research Centre for Preventive Medicine of the MoH of the RF, Moscow
L. Pestoun	-	Municipal Health Establishment, Electrostal
M. Popovich	-	State Research Centre for Preventive Medicine of the MoH of the RF, Moscow
A. Robertson	-	WHO Regional Office for Europe, Copenhagen, Denmark
L. Romanchuk	-	Municipal Health Establishment, Electrostal
L. Sokolova	-	SanEpid Centre, Arkhangelsk
D. Yanin	-	Confederation of Consumers' Societies of Russia, Moscow
M. Shraga	-	Arkhangelsk State Medical Academy

The Working Group would like to express particular gratitude to Dr Aileen Robertson, WHO Regional Adviser for Nutrition, for her advice and technical assistance in drafting this guidebook.

The participation of the members of the Working Group from Arkhangelsk and Murmansk was supported by the funds provided by the Government of Norway.

List of abbreviations

SRCPM MoH RF	State Research Centre for Preventive Medicine of the Ministry of Health of the Russian Federation
SanEpid	State Sanitary and Epidemiological Surveillance
NCD	Non-communicable diseases
CINDI	Countrywide Integrated Non-communicable Disease Intervention Programme
CVD	Cardio-vascular diseases
BMI	Body mass index

Executive summary of the guidebook

"Healthy Nutrition: Plan of Action to Develop Regional Programmes in Russia"

The present Guidebook is designed as a manual for developing regional programmes and strategies of healthy nutrition. It is intended for those who, in their activities, influence dietary patterns and public health: government authorities, health professionals, workers in the education, trade, agricultural sectors, food manufacturers, various NGO's: consumers', women's, veterans', students' organisations and others working towards improving the social sphere of society. It is hoped that this Guidebook should help invigorate public action for health promotion.

The Guidebook draws on the documents "The Concept of the National Policy of Healthy Nutrition of the Population of Russia for the Period up to 2005", " Food and Nutrition: their Impact on Public Health.A Case for an Action Plan for the WHO European Region for the Period 2000-2005", "The CINDI Dietary Guide".

This Guidebook is the result of a joint effort by the working group representing leading research institutions of Russia – the State Centre for Preventive Medicine of the MoH of the Russian Federation and the Institute of Nutrition of the Russian Academy of Medical Sciences (RAMS) of the RF, as well as administrative, scientific and practical institutions of several oblasts of Russia: Chelyabinsk, Moscow (the city of Electrostal), Perm, the Krasnodar Territory, the NGO "Health Promotion", the Confederation of the Consumers' Societies, and others. **Work in the Arkhangelsk and Murmansk Oblasts was supported by funds provided by the Norwegian Government**.

Nutrition is a major factor affecting public health. An inappropriate, unhealthy diet involving either insufficient or excessive consumption of certain nutrients and trace elements, may be a cause of various diseases: heart disease, cancer, diabetes mellitus, obesity, anaemia and other micronutrient deficiencies. Every year, over 1 million people die in the European region (14 percent of all deaths) because of the lack of access to safe and healthy foods.

The situation in Russia is characterised by a high rate of mortality from CVD and cancer. Animal fats and sugar dominate the diets of the population, while the consumption of vegetables and fruit is inadequate. Many regions are deficient in vitamins, minerals and trace elements (iodine and iron in particular). The prevalence of overweight is high, and an elevated serum blood cholesterol level is observed. A number of steps need to be taken to change the situation, so that the diets of the population can be healthier: providing for the growth, normal development and vital activities, promoting better health and preventing disease**.**

Twelve Steps to Healthy Eating

1. Eat a **variety of foods,** most of which should be **vegetable, rather than animal products**.
2. **Bread, bakery foods, cereals, potatoes** should be eaten several times a day.
3. Eat a variety of **fruit and vegetables**, preferably fresh and locally grown, several times a day (at least **400 g per day**).
4. **A moderate daily physical activity is needed** to maintain the body mass within the recommended range (**a body-mass index of 20 to 25**).
5. **Control your dietary fat intake** (it should provide not more than 30% of total daily dietary energy) and substitute **fat of vegetable oils** for animal fat.
6. **Replace fat meat and meat products** with pulses, cereals, fish, poultry, or lean meat.
7. Eat **low-fat milk** and milk products **with a low fat and salt content**, such as kefir, sour milk, yoghurt and cheese.
8. Select **low-sugar foods** and make your sugar intake moderate, limiting the amount of sweets and sweet drinks.
9. **Eat less salt.** The total content of salt in the diet, including the salt in bread, processed, cooked or preserved food, should not exceed **one tea-spoonful, or 6 grammes, per day. Iodised salt** should be consumed
10. **If you drink alcoholic beverages, the total amount** of pure alcohol in them should not exceed 20 grammes per day.
11. Cooking should ensure safety of food. Steaming, microwaving, baking or boiling will help **reduce the amounts of fat, butter, salt and sugar used in the process of cooking.**
12. Promote exclusive breastfeeding for 6 months. Complementary food should be introduced gradually, without stopping breastfeeding. ('**Feeding and Nutrition of Infants and Young Children. Guidelines for the WHO European Region with Emphasis on the Former Soviet Countries.'** ISBN 92 890 1354 0. 2000')

The principles of healthy eating to be followed (the twelve steps) are explained in the CINDI Dietary Guidelines.

To implement these principles in practice, all the agencies and organisations concerned with healthy nutrition need to work out a programme of concerted action: **a policy that is agreed among the partners as to which problems are to be resolved, and how, and through which strategies this is to be achieved.**

Implementation of the healthy nutrition policy requires **legislative measures and administrative decisions**, which may also be taken at the regional level.

Even though healthy foods may be available, public demand may be low. **Public education,** therefore, is the first step towards changing attitudes to nutrition and dietary habits. The family should become a major target in public education. In view of the important social role of the woman, **her involvement** in a healthy nutrition programme will make it possible to influence children and men, and society in general.

Other countries' experience shows that **mobilisation of the general public** in a prevention programme is an essential factor. Consumer organisations and others, such as farmers' associations or health clubs, could effectively influence the development of various healthy nutrition policies.

Breastfeeding is part and parcel of healthy nutrition of infants during the first year of their life, providing for effective growth, mental development and protection against infection, and it should

continue until the age of six months. Comprehensive measures are needed everywhere to support, encourage, protect and promote breastfeeding. Complementary food should be introduced cautiously, following special recommendations after six months but while maintaining breastfeeding. Pregnant and lactating women should follow the same twelve steps to healthy eating.

Public health services should be the initiators and co-ordinators of healthy nutrition programmes; be an indispensable partner in inter-sectoral co-operation; and be a source and disseminator of knowledge on the health effects of nutrition. It is important to **train specialists** in healthy nutrition both at the undergraduate and at the postgraduate levels. A new type of specialist is needed in Russia for this purpose.

The demand for healthy foods and, consequently, their production, will be determined by the level of public awareness of healthy nutrition. Officials must be made familiar with the principles of healthy eating. It is very important to explain to officials the social and economic benefits, in addition to health benefits, of **local food production,** with increased quantities of **vegetables and fruit and low-fat products.**

In monitoring and evaluating a programme, it is important to **evaluate its development.** This makes it possible to judge the progress and adjust the programme promptly, as opposed to waiting for **end results**, such as mortality and morbidity. For this years of observation will be required.

This Guidebook is primarily intended for the **regional level**, since many issues may and must be resolved within the regions of Russia.

1. Introduction

Nutrition is a major factor affecting public health. This is confirmed by scientific evidence and surveys showing that the general public views nutrition as a key health factor.

Although the government, the business sector, the systems of health care and education do pay attention to the issues of nutrition, their actions, as a rule, lack co-ordination. Concerted action by the regional and federal partners from various sectors and institutions in the area of a healthy nutrition policy is needed to improve and maintain public health.

This Guidebook discusses **what should be done, and how, to develop and implement concerted action for the healthy nutrition of the population** at the regional (oblast) level.

The Guidebook is intended for those who influence the dietary patterns and health of the population: health professionals, workers in the sectors of education, trade, agriculture, food manufacturers, etc. It is equally useful for various non-governmental organisations of consumers, women, veterans, students, etc. working to improve the social sphere of society. The Guidebook is also intended for government authorities, as it analyses and points out those problems and areas on which they should focus to establish a system of healthy nutrition in their Region. It is hoped that this Guidebook should help stimulate public action. It is obvious that both individual and organised public action in Russia needs to be stimulated. Without this, public health can hardly be expected to improve. Increased public pressure on the government is needed, to provide a healthier physical and social environment, including healthy eating.

This Guidebook on the development of a regional healthy nutrition policy is the product of a joint effort by the central research institutions of Russia - the State Centre for Preventive Medicine of the Ministry of Health of the Russian Federation and the Institute of Nutrition of the Russian Academy of Medical Sciences, along with various scientific, practical and administrative institutions of several regions of Russia – the Chelyabinsk, Moscow (Electrostal), Perm, and the Krasnodar Territory, and the Confederation of Consumers' Societies (ConfCS). **The active participation of experts from both the Murmansk and Arkhangelsk Oblasts was supported by the Norwegian government.** In drafting this Guidebook, international co-operation was maintained with the Programme for Nutrition and Food Security of the WHO Regional Office for Europe.

Four elements contributed to the drafting of the present Guidebook:

1. The Countrywide Integrated Non-Communicable Disease Intervention Programme (CINDI) in Russia provided a network of co-operation that enabled the efforts of several regions to be combined in the drafting of this Guidebook. Recommendations for healthy eating developed by this international programme were also used.[1]

2. The initiation by the WHO Regional Office for Europe of the drafting of the document "The First Action Plan for Food and Nutrition Policy. WHO European Regional 2000-2005".[2]

[1] CINDI Dietary Guidelines. WHO Regional Office for Europe, 1999.
[2] The First Action Plan for Food and Nutrtion Policy. WHO European Region 2000-2005.

3. The previous work co-ordinated by the SRCPM to develop a policy and strategy of preventing cardiovascular and other non-communicable diseases in Russia, in terms of both the experience gained in the process and the outcome.[3] [4]

4. The "Concept of the National Policy of Healthy Nutrition of the Population of Russia for the Period up to 2005" adopted by the Government of the Russian Federation.[5]

We hope that this Guidebook will be a useful tool in developing a regional healthy nutrition policy in Russia. The experience to be gained in the 3 to 5 years to come will allow both this Guidebook and the process of formulating regional policies to be further improved.

[3] The Policy and Strategy of Preventing Cardiovascular Diseases and Other Non-Communicable Diseases in the Context of Health Care Reforms in Russia. Towards a Healthy Russia. Moscow, 1997.

[4] How to Develop a Strategy of Preventing Cardiovascular Diseases and Other Non-Communicable Diseases. Towards a Healthy Russia. Moscow, 1997.

[5] The "Concept of the National Policy of Healthy Nutrition of the Population of Russia for the Period up to 2005". RF Government Resolution No. 917 dated August 10, 1998.

2. Why is a healthy nutrition policy needed

The notions of "policy" and "healthy nutrition" need to be explained, so that the meaning of these terms in the text of the Guidebook should be clear.

"Policy is agreement, consensus among partners as to which problems are to be resolved, and how, using what strategies, this is to be done". This is a definition contained in the CINDI Programme (1992), and it was adopted by the WHO European Conference on Health Policy in 1994.

Nutrition affects human health. Health is affected by both excessive and inadequate dietary intake of some nutrients. A nutrition policy needs to be developed to promote health and to prevent nutrition-related diseases. The adjective "healthy" (as an attribute to nutrition) is used throughout the text of this Guidebook instead of the adjectives "rational" or "balanced".

Healthy nutrition is such nutrition that provides for the growth, normal development and vital activity of man, promoting better health and disease prevention.

It is obvious that action in the area of nutrition of the population at the regional level should be undertaken by regional partners. It is they and their interaction that determine the assortment, quality and composition of foods, organisation of food sale and distribution, advertising, dietary habits of children and adults, and food safety. People decide on the composition and quality of food they buy and eat, and this determines their nutrient intake. The idea of developing a nutrition policy is about achieving agreement between all of these stakeholders on the aims and strategies of action.

It follows from the above that policy in this context implies not only action by the government, but action by all the stakeholders, by the entire community including the general public, and their interest in promoting better health through good nutrition.

The principal objective of nutrition policy is the health of the population, and so there is a need to agree how this can be achieved in different circumstances in a specific region. Sources of food supply in the region come from local agriculture, food industries and imports. The goals of nutrition policy can only be reached if food production, food quality, and imported foods meet these goals.

At the same time, dietary patterns of people are greatly influenced by the social sphere - information, advertisements, eating habits, organisation of public catering. Thus, for instance, the WHO recommendation to "eat at least 400 grammes of vegetables and fruit daily" largely depends on the social sphere, i.e. habits and attitudes, information and advertising, economic possibilities, etc., as do other principles of healthy eating. Population behaviour requires as much concerted effort as providing supplies of certain foods.

Co-ordination of aims, objectives, strategies and priorities, which is the core of any healthy nutrition policy, enables the principal aim of improving and maintaining public health.

3. Experience of developing programmes of healthy nutrition of the population in Russia and abroad

Clearly articulated programmes of nutrition have started to be developed quite recently, in the past two decades in many countries. In recent years, a number of countries have entered the stage of formulating a healthy nutrition policy at the national or regional level. These programmes are based on epidemiological evidence and modern health promotion concepts. It has been clearly shown that nutrition is one of the factors affecting public health and mortality rates. Changes in the dietary patterns are capable of either reducing or increasing mortality.

It has been established that an energy-dense diet with a high fat content and low vegetable and fruit content is a major single factor causing the development of cardiovascular disease (CVD), cancer, non-insulin-dependent diabetes, and obesity. The non-communicable disease (NCD) epidemic that has plagued Western Europe and North America was explained, among other things, by changes in the population dietary patterns after the second world war resulting in a significant increase in the proportion of meat and milk products in the diet. The lowest rates of mortality from CVD and cancer were observed in France and Mediterranean countries. Here there is a traditionally high consumption of grain products, vegetables and fruit and low animal fat content in the population diets.

In their attempts to reduce the damage done by the NCD to society, many countries have undertaken vigorous preventive measures against CVD. In the area of nutrition, the main objective was to reduce levels of blood cholesterol, both at the individual and at the population levels.

A number of countries have achieved remarkable success in reducing mortality:

- In the USA, mortality from CVD decreased by almost 50% in 20 years. Reduction of dietary fat intake by the US population, followed by a decrease in the blood cholesterol levels, played a significant role.
- The most striking example in Europe is Finland[6] where mortality from CVD has gone down by nearly 50%. Measures to reduce consumption of high-fat dairy products and meat, and to increase consumption of cereals, vegetables, fruit and berries contributed significantly to these changes.

Prevention programmes both in the USA and Finland had some features in common:

- A written agreement among health professionals on the main problems and ways to resolving them (the National Guidelines in the USA, and the North Karelia Project in Finland).
- Keeping the general public well informed through the media, ensuring an active participation of the public in matters of healthy eating.
- Changing all the elements in the chain of agricultural production, with a focus on low-fat foods, cereals, vegetables and fruit.

Comprehension of the results achieved has lead to realisation of the need to proceed from the concept of preventive intervention and risk factor control to the formulation of a healthy nutrition policy at various levels that would have an impact on the entire population by preventing NCD.

[6] Puska P., Tuomilehto J., Nissenen A., Vartiainen E. The North Karelia Project. 20 Year Results and Experiences, 1995.

In the US, the National Council for Nutrition Policy was set up to co-ordinate the activities by both government agencies and a great number of professional associations, NGO's and foundations in developing dietary guidelines, conducting nutrition education, research, monitoring the population nutritional status, food safety, and maintaining international co-operation in the area of nutrition. Nutritional aims and objectives were formulated as part of the national policy and included in the national Dietary Guidelines for Americans published every five years jointly by the US Department of Agriculture and Department of Health and Human Services. Healthy eating also became a big issue in the National Policy "Healthy People 2000".

In Europe, many countries started developing their national nutrition plans, strategies and policies. Norway is one of the pioneers in these activities. Norway has been pursuing a consistent policy of integrating agricultural production targets in the nation-wide nutrition and health objectives and environmental aims. Nine different ministries have been co-operating within the framework of this policy, under the overall guidance by the National Council for Nutrition and Physical Activity, co-ordinating efforts to resolve all the issues relating to healthy nutrition.

Scotland is an example of policy development at the regional level. In 1993, a policy document, "Scottish Diet: Eat to Your Health"[7] was adopted. The document recommended establishing the Scottish Nutrition and Food Council to be headed by the State Secretary for Scotland. The Council was to include key figures in the agriculture and fishing industry, trade unions, food industry, trade, local government, health care and education sectors, consumers' and other citizens' organisations. The Council, would when established, set up a number of working groups for the principal policy areas: agriculture, food production and processing, nutrition education, public catering and eating at work, health care, social services, economic aspects of the new policy, information technologies and research.

The document "The First Action Plan for Food and Nutrition Policy. WHO European Region 2000-2005" developed by the WHO Regional Office for Europe in collaboration with the leading European nutritionists and expert institutions, came as a logical outcome of the local and national initiatives in Europe.

Until recently, no healthy nutrition policy was developed in Russia in practical terms. There are some local activities in a number of regions aiming at eliminating micronutrient deficiencies, such as vitamin and iron fortification and iodination of foods. However, this process has not been very effective. For example, despite the fact that iodination is an issue of national importance, only 20 percent of salt on the market contains iodine.

The development of a breastfeeding promotion movement that embraced several regions, is a separate area in the healthy nutrition policy. To date, 38 hospitals have implemented the ten steps to successful breastfeeding and have been awarded the title of Baby-Friendly Hospital[8].

In 1997, at an international conference, "The Policy of Healthy Nutrition in Russia", research activities and international experience were summarised, and a task force was set up, including leading experts from the Ministry of Health, Ministry of Science, Ministry of Agriculture of Russia, the Russian Academy of Medical Sciences and the Russian Academy of Agricultural Sciences, to develop a Concept of Healthy Nutrition. In August 1998, the Government of the Russian Federation

[7] To Health via Nutrition. The Scottish Action Plan for Better Public Nutrition. The Department of Health at the Scottish Office. July 1996.

[8] Comparative Analysis of Implementation of the Innocenti Declaration in WHO European Member States. Monitoring Innocenti targets on the protection, promotion and support of breastfeeding. WHO Regional Office for Europe, Copenhagen, and Headquarters, Geneva. UNICEF, Geneva, 1999.

adopted the "Concept of the National Policy of Healthy Nutrition of the Population of the Russian Federation for the Period up to 2005"[5]. In 1997 work was started to develop the present Guidebook on the regional policy of healthy nutrition[9,10,11], in which practical suggestions are offered on how to develop a policy at the regional level.

[9]Regional Policy of Healthy Nutrition of the Population of Russia. Report on the Meeting in Moscow, April 1997.
[10] Regional Policy of Healthy Nutrition of the Population of Russia. Report on the Meeting in Chelyabinsk, May 20-22, 1999.
[11] Regional Policy of Healthy Nutrition of the Population of Russia. Report on the Meeting in Arkhangelsk, November 22-24, 1999.

4. Principles of healthy eating

To ensure that eating is healthy, certain recommendations should be followed. Such recommendations have been developed and presented in a large number of domestic and foreign publications. The principles of healthy eating have been effectively summarised by the international programme CINDI and the Programme for Nutrition Policy of the WHO Regional Office for Europe, and are set forth in the CINDI Dietary Guidelines[1] developed in collaboration with the programme CINDI-Russia. We suggest that while developing regional programmes of healthy nutrition, one should be guided by this common domestic and international experience.

Dietary guidelines **offer a practical model** that **may and must be adapted to** cultural traditions, eating habits and the environment in different regions. It is very important to emphasise that the guidelines we are following specify concrete **food groups** recommended for healthy eating, with an indication of their proportions, and not on **nutrients** (protein, fat, carbohydrates). Such an approach is more understandable and practical.

From these 12 principles of healthy eating it follows that:

- The diet should be diverse and contain mainly **foods of vegetable origin**. Vegetable foods contain biologically active substances and dietary fibre that prevent chronic diseases, particularly CVD and cancer (carcinoma of the rectum, breast, prostate). One should eat a variety of vegetable foods, to receive a complete spectrum of these protective substances, which makes it possible to exclude vitamin or mineral supplementation. This group of foods – bread, pasta, cereals, potatoes – should provide ***more than half of the energy requirements.***
- One should eat ***at least 400 grammes of fruit and vegetables*** every day, preferably ***fresh and grown locally.*** This recommendation has been developed on the basis of epidemiological studies that had shown that the prevalence of CVD, certain cancers, micronutrient deficiency was much lower among the population consuming daily 400 grammes or more of vegetables and fruit. Fruit and vegetables contain large quantities of vitamins, dietary fibre, micronutrients, metabolites and antioxidants.
- The extent to which dietary energy meets energy requirements, i.e. the level of physical activity of a given individual, determines the individual's nutritional status. The ***body-mass index*** (weight in kilograms divided by height in meters squared) is the most frequently used indicator of nutritional status. BMI values between 20 and 25 are the most favourable for health. If BMI is over 25, then the person is overweight and at risk for developing a disease, particularly NCD.
- One needs to ***control dietary fat intake in terms of the amounts and quality of fat***, trying ***to eat fat from vegetable oils.*** The body needs small amounts of fats, especially mono- and polyunsaturated fatty acids. Large quantities of saturated fatty acids increase the risk of thromboses, myocardial infarction, stroke and some forms of cancer. When the levels of physical activity are low, fats with their high energy content also promote the development of overweight - a risk factor for CVD and cancer.
- Meats and dairy products are an important source of protein and iron. While there is no protein deficiency to be observed in European countries, including Russia, ***iron-deficiency anaemias*** are widespread. At the same time, meats contain rather high quantities of fat, mostly saturated fatty acids, which increased risk of hypercholesterolemia and CVD. ***High-fat meats should be replaced*** with pulses, lean meat, chicken and poultry meat and fish which contain less saturated fats.

Twelve Steps to Healthy Eating

1. Eat a **variety of foods,** most of which should be **vegetable, rather than animal products**.
2. **Bread, bakery foods, cereals, potatoes** should be eaten several times a day.
3. Eat a variety of **fruit and vegetables**, preferably fresh and locally grown, several times a day (at least **400 g per day**).
4. **A moderate daily physical activity is needed** to maintain the body mass within the recommended range (**a body-mass index of 20 to 25**).
5. **Control your dietary fat intake** (it should provide not more than 30% of total daily dietary energy) and substitute **fat of vegetable oils** for animal fat.
6. **Replace fat meat and meat products** with pulses, cereals, fish, poultry, or lean meat
7. Eat **low-fat milk** and milk products **with a low fat and salt content**, such as kefir, sour milk, yoghurt and cheese.
8. Select **low-sugar foods** and make your sugar intake moderate, limiting the amount of sweets and sweet drinks.
9. **Eat less salt.** The total content of salt in the diet, including the salt in bread, processed, cooked or preserved food, should not exceed **one tea-spoonful, or 6 grammes, per day. Iodised salt** should be consumed
10. **If you drink alcoholic beverages, the total amount** of pure alcohol in them should not exceed 20 grammes per day.
11. Cooking should ensure safety of food. Steaming, microwaving, baking or boiling will help **reduce the amounts of fat, butter, salt and sugar used in the process of cooking.**
12. Promote exclusive breastfeeding for 6 months. Complementary food should be introduced gradually, without stopping breastfeeding. (‘**Feeding and Nutrition of Infants and Young Children. Guidelines for the WHO European Region with Emphasis on the Former Soviet Countries.’** ISBN 92 890 1354 0. 2000’)

- Milk products are an important source of calcium and protein. Calcium is especially important for women, children, adolescents and the elderly. However, the large quantity of saturated fats in milk products affects health negatively. One should eat ***low-fat milk and low-fat and low-salt milk products*** in which the amounts of the most valuable nutrients – calcium and protein – remain the same.
- Sugar and products with a high sugar content promote the development of caries and overweight. ***The consumption of such products, therefore, should be restricted,*** and preference should be given to low-sugar products.
- A high intake of salt is a factor contributing to the development of hypertension and cerebrovascular disease, therefore it is recommended that ***the consumption of salt be limited to 6 g a day.*** About 80 percent of this amount of salt is consumed with processed foods such as bread, sausage, canned and other foods. One should try and avoid adding salt to food, and eat foods low in salt. One should eat iodised salt to prevent iodine-deficiency disorders.
- The way in which food is cooked also has its impact on health. Methods of cooking that require no butter, fat, salt or sugar should be chosen, for instance, using teflon kitchen utensils, microwaving, baking, boiling, etc.
- Breastfeeding should be the main principle of healthy nutrition for newborns and infants, continuing until the age of 6 months, with complementary feeding not to be introduced before the age of months. **(Feeding and Nutrition of Infants and Young Children. Guidelines for the WHO European Region with Emphasis on the Former Soviet Countries.’** ISBN 92 890 1354 0. 2000’)

The principles listed above are shown graphically in the Healthy Food Pyramid (see Fig. 1). The pyramid uses the traffic light principle: green – "go ahead", yellow – "be careful", and red – "beware". The larger portion of the pyramid (the green light) includes bread, cereals, pasta, potatoes, vegetables and fruit. These products should form the basis of one's diet. A smaller portion (the yellow light) is divided into the left-hand and right-hand halves: meat and fish, and dairy products. These products should be eaten in considerably smaller amounts. The top of the pyramid (the red light) includes butter, sugar, pastry and sweets. Consumption of these should be restricted.

All the recommendations set forth in this Guidebook are based on the 12 Steps to Healthy Eating, and suggest ways of their practical implementation.

Figure 1. Healthy Food Pyramid

5. Situation analysis and needs assessment for the development of a policy of healthy nutrition of the population

To develop a healthy nutrition policy, the problems currently existing in the region need to be studied and analysed. This requires collecting available data of epidemiological studies, statistical data, reports, and other materials. Where necessary (which is almost always the case), special studies are undertaken. Thus, situation analysis and needs assessment include the following:

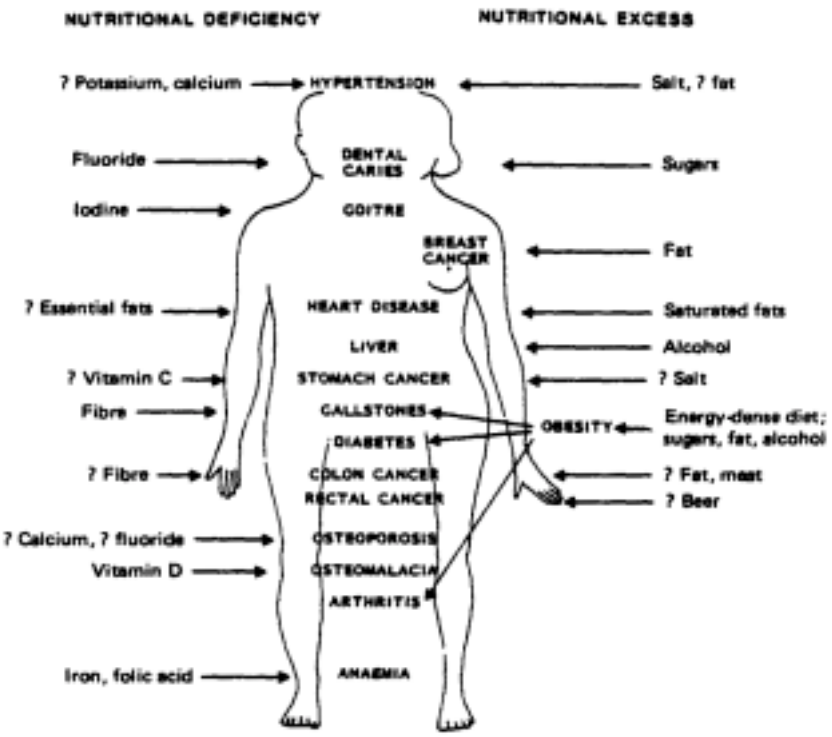
- **Analysis of the existing evidence of the effects of nutrition on human health.** To this end, we use international and domestic data from literature, reports, papers (see section 5.1).
- **Analysis of the official statistics available:** demographic data, medical statistics on mortality and occurrence of nutrition-related disease, children's growth indicators, data on the population dietary patterns, breastfeeding rates, as well as reports on food consumption by various populations. Useful information can be obtained from local reports on food trade, agricultural production, medical reports on the public health status (sections 5.1, 5.2).
- **Analysis of the existing data of epidemiological studies:** anthropometric measurements, prevalence of overweight, hypercholesterolemia, dietary habits and actual diets using the 24-hour recall, level of physical activity; assessing these data in various social groups (section 5.2).
- **Needs assessment to develop a healthy nutrition policy,** with a view to evaluating the problem as it is perceived by the general public and by officials in various agencies involved in policy development. It is essential to point out the aspects that favour the development of a nutrition policy, to identify the main barriers to it, and determine the most efficient ways and means of developing a healthy nutrition policy (section 5.3).

5.1. Nutrition and health

Inappropriate, unhealthy nutrition that takes the form of either inadequate or excessive intake of some nutrients, may cause various heart diseases, cancer, diabetes mellitus, obesity, anaemia and other disorders. Because of the lack of access to safe and healthy foods, more than 1 million people die in the European region every year (14 percent of all causes of death).

There is practically no organ or system in the human body that would not depend on nutrition for its normal functioning (Fig.2). Nutrition plays a vital role at every stage of life. Healthy nutrition in childhood and adolescence leads to better health in the future.

Figure 2. Effects of nutrition on human body



Nutrition of a pregnant woman has a considerable influence on the foetus. Malnutrition, deficiency of iodine and folic acid in a pregnant woman may, on the one hand, result in the child being born with a low birth weight or malformations, and, on the other hand, lead to the development of CVD in the child later in life.

Nutrition of newborns and young children not only affects their health in childhood, but in adult life, as well. Deficiency of protein, iodine, vitamin A, folic acid, calcium, iron retards growth and development, increases the risk of infection, greatly increases the risk of death, blindness, anaemia, abnormal bone mineralisation.

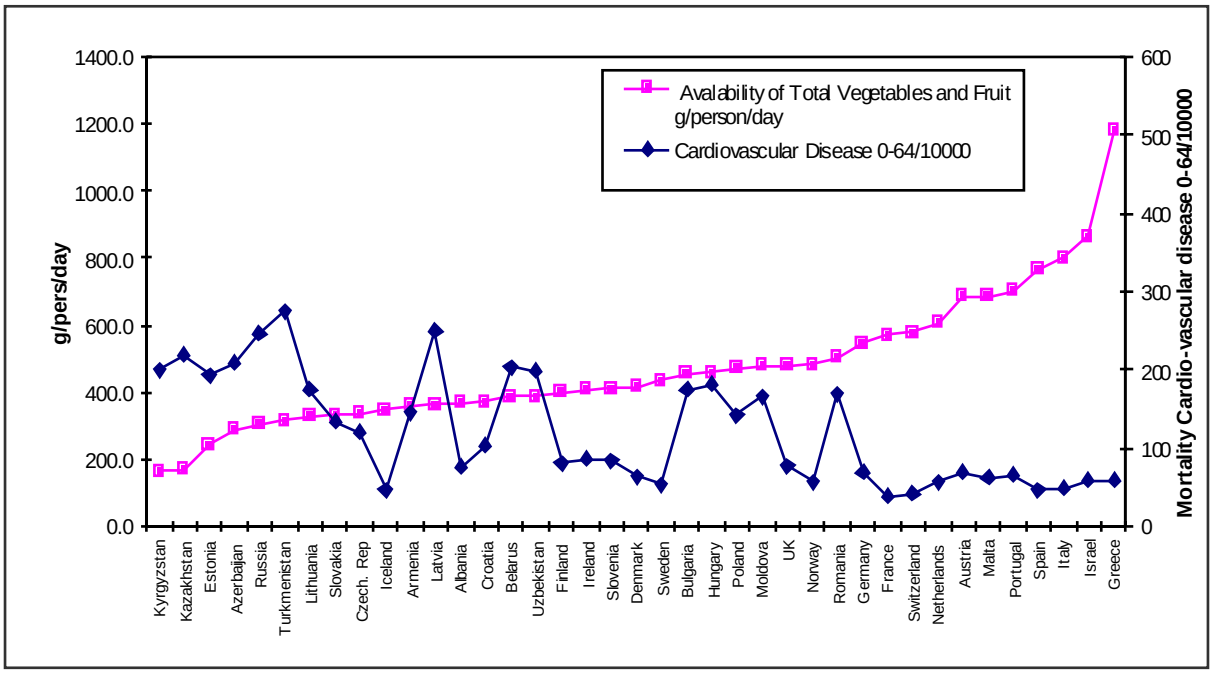
Nutrition of adolescents should meet high energy requirements of the body caused by the rapid physical growth. Quite often these requirements are met by consuming large quantities of products high in fats and sugars. Later this may result in overweight, dental caries and micronutrient deficiency.

For adults, nutrition is important to avoid the development of a number of diseases and to keep good health for later years in old age. Inadequate consumption of vegetables and fruit, excessive intake of dietary fat lead to overweight, hypertension, anaemia, CVD and cancer.

Health effects of various diets have been studied and supported by evidence in various kinds of epidemiological research. At present, there is ample scientific evidence to prove a relationship between the diet and cardiovascular and some oncological diseases that are the two major causes of premature death all over the world and in Russia. In the European Union alone, CVD causes about 1.4 million deaths annually, with over 30 mln. people suffering from heart diseases.[2] In Europe CVD accounts for 43 percent of all cases of death, in Russia – for 55 percent. The rate of mortality from CVD in Russia is among the highest in Europe and in the world.

A relationship between the availability of fruit and vegetables and CVD has been proven. Epidemiological studies have shown that countries with a higher availability of vegetables and fruit in shops have a lower prevalence of CVD, certain cancers and micronutrient deficiencies. A relationship is observed between the availability of fruit and vegetables and mortality from CVD (see Fig. 3).

Figure 3. Availability of fruit and vegetables as related to the rate of premature mortality caused by CVD, in European countries in 1993



Thus, in Greece the average daily availability of fruit and vegetables is 600 grammes, in Denmark, Sweden and Poland about 400 grammes, while in Russia only 300 grammes. Mortality from CVD in Russia is among the highest in Europe and is nearly 250 cases per 10 thousand in the population group of 0-64 years of age, whereas in Greece it is 60, in Sweden 50, in Poland 150 cases. An increase in the consumption of fruit and vegetables by 1 or 2 times a day reduces the risk of CVD by 30 percent.

There is a relationship between an elevated blood serum cholesterol level and the development of CVD. According to the WHO, a reduction of the average serum cholesterol level in the population by 10 percent reduces the risk of CVD by 30 percent. The elevated cholesterol level, in turn, is caused by excessive intake of animal fats, especially meats, sausages, high-fat dairy products and milk. The prevalence of hypercholesterolemia in Russia is very high. Thus, as many as 30 percent

of men and 26 percent of women between 25 and 64 years of age have their level of serum cholesterol above 250 mg%.

Besides, excessive intake of fat and simple carbohydrates leads to overweight and obesity, the prevalence of which is very high in Russia (30-60 percent for various populations). Overweight is becoming an increasingly serious problem for developed countries, and not only for adults, but also for children. Overweight is a major risk factor for CVD, non-insulin-dependent diabetes mellitus and various forms of cancer.

In the early 70's, with sufficient and convincing evidence already available to prove the effects of nutrition on health, some countries attempted to change their nutrition policy, to make nutrition more healthy by adopting recommendations for reduced consumption of fats and increased consumption of fruit and vegetables. A significant decrease in mortality from CVD has been achieved in these countries. For instance, in Finland the overall mortality has decreases by almost 50% over the past 25 years, while mortality from CVD has gone down by 75% owing to reduced intake of saturated fats and increased intake of fruit and vegetables (see Fig. 4). In Russia during the same period, since the 70's, when mortality was even higher than in Finland, there has been an increase in mortality from CVD[13]. No national nutrition improvement programmes have been implemented during this period, or national preventive interventions undertaken to reduce consumption of animal fats and increase consumption of fruit and vegetables.

About 30-40% of all cancers may be prevented by healthy nutrition, appropriate physical activity and maintaining body weight at a normal level.[14] A diet with a high content of vegetables and fruit may prevent 20% or more occurrences of cancer of the lungs, stomach, large intestine and rectum, oesophagus, and others.

A deficiency of iodine in the human body is a major factor causing brain damage, mental deficiency and cretinism, thyroid disease, deficient psycho-motor development of children. Iodine deficiency is particularly dangerous to pre-school age children and pregnant women. Iodine deficiency is observed in 130 countries, with 13 percent of the world population and 18 percent of the population of Europe affected.

Iron deficiency is a cause of anaemia and a problem facing both developed and developing countries. Nearly one-third of the world population suffer from anaemia: 39% of pre-school age children and 52% of pregnant women, on the average, have anaemia. In Europe the prevalence of anaemia among children of 0-4 years of age is 22%, and among pregnant women 24%. Studies conducted in Russia show that nearly 25% of children of pre-school age, 18% of women and 25% of pregnant women have anaemia. The prevalence of anaemia among children under 2 years of age is 50% (data of a study conducted in the Ivanovo oblast)[15]

Thus, nutrition has a significant impact on public health, either leading directly to the development of illness, or producing certain risk factors that in turn promote the development of disease.

---

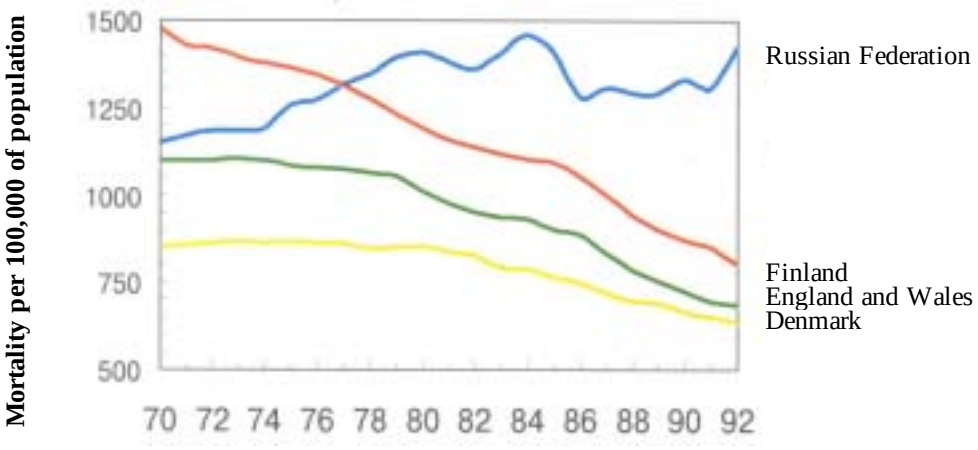
[13] The burden of CVD mortality in Europe. Task force of the European Society of Cardiology on cardiovascular mortaliy and morbidity statistics in Europe. S.Sans, H.Kesteloot, D.Krowhout on behalf of the Tasl Force. European Heart Journal; 1997, 18: 1231-1248.

[14] Nutrition for Health and Development. WHO/NHD/99.9.

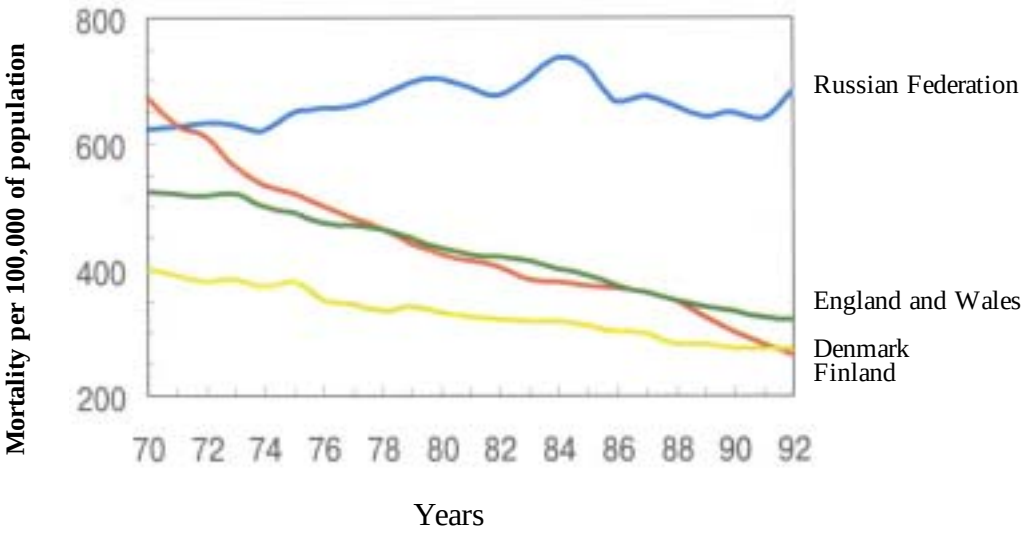
[15] Ivanovo Oblast Anaemia and Nutrition Survey – November 1998/UNICEF, CDC, Institute of Nutrition (Moscow), Sanitary Epidemiology Center (Ivanovo). I. Parvanta, CDC, Z. Mei, CDC.

Figure 4. Mortality from CVD in selected countries among men and women between 45-74 years of age (1970-1992)

Men 45-74 years



Women 45-74 years



Source: Sans et al. Eur Heart J, v.18, 1997

The development of dietary guidelines for the population and a healthy nutrition policy should be based on the knowledge of the dietary intakes of the population.

The comprehensive multiple-tier approach to the assessment of nutrition of the population of Russia during the 90's, adopted by research institutions in co-operation with international organisations, allowed the nutritional status of various populations, the quality and safety of foods and raw materials consumed by the population of Russia to be assessed in qualitative and quantitative terms.

Studies of nutrition based on the food balance prepared by the State Committee for Statistics of Russia (table 1) have shown a trend in 1990-1997 towards reduced availability of meat, fish, dairy products, vegetable oil. Availability of vegetables and fruit in 1990 was only 340 grammes per day per person, which is significantly below the WHO recommended actual intake of more than 400 grammes. During the same period, the level of availability reduced even further down to 300

grammes in 1997. There were no changes in the consumption of bread and bakery products, while that of potatoes increased. As a consequence of these trends, there occurred changes in the nutrient availability. Thus, dietary protein availability went down from 88 to 77 grammes per person, and fat intake from 125 to 83 grammes, or from 36 to 30% of total energy. Accordingly, there was a reduction in the availability of dietary energy from 3140 to 2520 kcal per day. Reduced fat availability can be viewed as a positive development. Healthy eating means that fat intake should not be more than 30 percent by energy of the total diet.

Table 1. Food balance of the Russian Federation

Foods	**(kg/year per person)**			
	1990	**1992**	**1995**	**1997**
Bread and bakery products	119	125	124	118
Potatoes	106	118	127	130
Vegetables and cucurbits	89	77	73	79
Fruit and berries	35	33	25	31
Sugar	47	34	31	33
Meats	69	55	55	46
Fish	20	13	9	9,4
Dairy products	286	281	257	226
Eggs	297 eggs	263 eggs	215 eggs	210 eggs
Vegetable oil	10	7	6	8,3
Chemical composition (per day per person)				
Energy value, kcal	3140	2650	2585	2520
Protein, g	88	81	76	70
Energy provided by protein, %	11,2	12,2	11,8	11,0
Fat, g	125	87	86	83
Energy provided by fat, %	36	30	30	30

Similar trends were revealed by calculating the chemical composition of foods available to the population at the household level. Such a study has been conducted by the State Committee for Statistics in more than 60 regions of Russia in the course of the household budget survey (table 2). From these data it appears that there is also a reduction in the availability of total carbohydrates .

Table 2. Chemical composition and energy value of diets of the population of Russia

Nutrients	**Daily availability*)**		
	1989	*1993*	*1996*
Protein, g	85.1	79.1	66
Fat, g	113	100.5	81.4
Energy provided by fat, %	36.2	33.4	32
Carbohydrates, g	355	366	319
Energy value, kcal	2799	2710	2290

Note: * Calculated on the basis of the materials of a sample household survey conducted by the State Committee for Statistics, without account of the nutrient losses through cooking.

Calculations of the chemical composition of foods consumed by the population, based on the actual intake using the 24-hour recall method (table 3) in a representative sample, confirm this tendency towards reduced consumption of fat[16] and protein and lower energy intake.

[16] Development of a system of assessment and characteristics of the dietary patterns and nutritional status of the population of Russia. Doctorate thesis by A.K. Baturin, Moscow, 1998.

Table 3. Nutrient and energy intake in 1994-1996 (per capita average)

Nutrients	1994	1996	Change in 1994-96, %
Protein, g	59,4	57,2	-4%
Fat, g	70,3	65,7	-7%
Energy value, kcal	1866	1830	-2%

A survey of low-income families in Russia showed that children in such families consume significantly less fruit, vegetables and milk products compared to families with higher incomes.

It is well-known that food may be a source and carrier of a great number of chemical and biological substances that are potentially hazardous to human health. Analysis of the quality and safety of raw and processed foods is done using data of the monitoring of raw and processed food contamination undertaken by centres of state sanitary and epidemiological surveillance of the Ministry of Health of Russia. There has been a decrease in the percentage of samples of raw and processed foods that do not meet the standards in recent years.

Low intakes of iodine and iron have been reported in many regions. Iodine intake with water or foods is two or three times below the recommended levels practically throughout the whole of Russia. Although the output of iodised salt in Russia increased from 5 to 85 tonnes between 1997 and 1999, it is still insufficient, as only 25% of the population regularly consume iodised salt, with 40% consuming it occasionally.

Thus, the data presented above on nutrition of the population of Russia, allow the following statements to be made:

- various methods can be used to assess the dietary patterns and trends within the population, such as analysis of the food balance, household budget survey, or 24-hour recall;
- all the methods of assessing dietary patterns in the population, presented above, identified similar trends regarding both the availability and intake of various nutrients;
- a reduction in the availability of vegetables and fruit and fat has been shown by all the methods.

5.3. Needs assessment for the development of a policy of healthy nutrition of the population

Assessment of needs for implementing healthy nutrition is the necessary first step in developing a healthy nutrition policy. Studies should yield as complete information as possible on the nutritional status of the population in the region and on the problems of nutrition management in the interest of public health.

When developing policies for healthy nutrition of the population, **it is strongly recommended that special studies be undertaken.** These should be aimed at assessing the opinions and attitudes of the general public and the officials involved in policy development.

These studies would highlight the aspects that favour the development of a healthy nutrition policy, the main barriers, and would help to determine the most efficient ways of developing a healthy nutrition policy. This chapter presents some examples of such a study.

When undertaking a needs assessment study, it is important **to identify the agencies dealing with nutrition in the region, and potential partners.** Studying their opinions helps to assess the understanding of the importance of the problem, the degree of possible involvement, and determine whether or not there is a **consensus** as to what needs to be done and how.

> *Example: In 1999, a study to assess the need for developing a healthy nutrition policy was conducted among various governmental and non-governmental institutions, in several cities in Russia: Electrostal,Chelyabinsk, Krasnodar, Perm and Arkhangelsk (**the latter with thanks to the Norwegian Government**). Representatives of these agencies indicated that **there was a need for a common policy in the field of healthy nutrition of the population,** and it would be useful to involve the departments of education and science, health and agriculture, the legislature, social institutions, food manufacturers, SanEpid Service, the trade sector, etc.*

The questions posed to the officials included:

- availability of healthy nutrition programmes or projects in the region;
- what are the priorities in these programmes;
- what is the degree of participation in these programmes by various health care and non-medical institutions of the region, and what is their role;
- what is the level of awareness of healthy nutrition issues among the officials of various agencies;
- what barriers are there to the implementation of the programme;
- what needs to be changed to improve the programme.
- the current needs of local healthy food producers;
- study of the food market.

The questions posed to the general public included:

- the level of awareness of the healthy nutrition issues;
- accessibility and affordability of foods to the public;
- the most important channels of communication to obtain information on healthy nutrition;
- issues of public catering management, etc.

In addition, depending on the local needs and conditions in the region, other issues might be studied. Given below are some examples from the needs assessment mentioned above.

Identification of the most important problems enables the **key nutrition policy areas** to be formulated.

Example: representatives of the agencies mentioned the following key policy areas in the field of healthy nutrition:

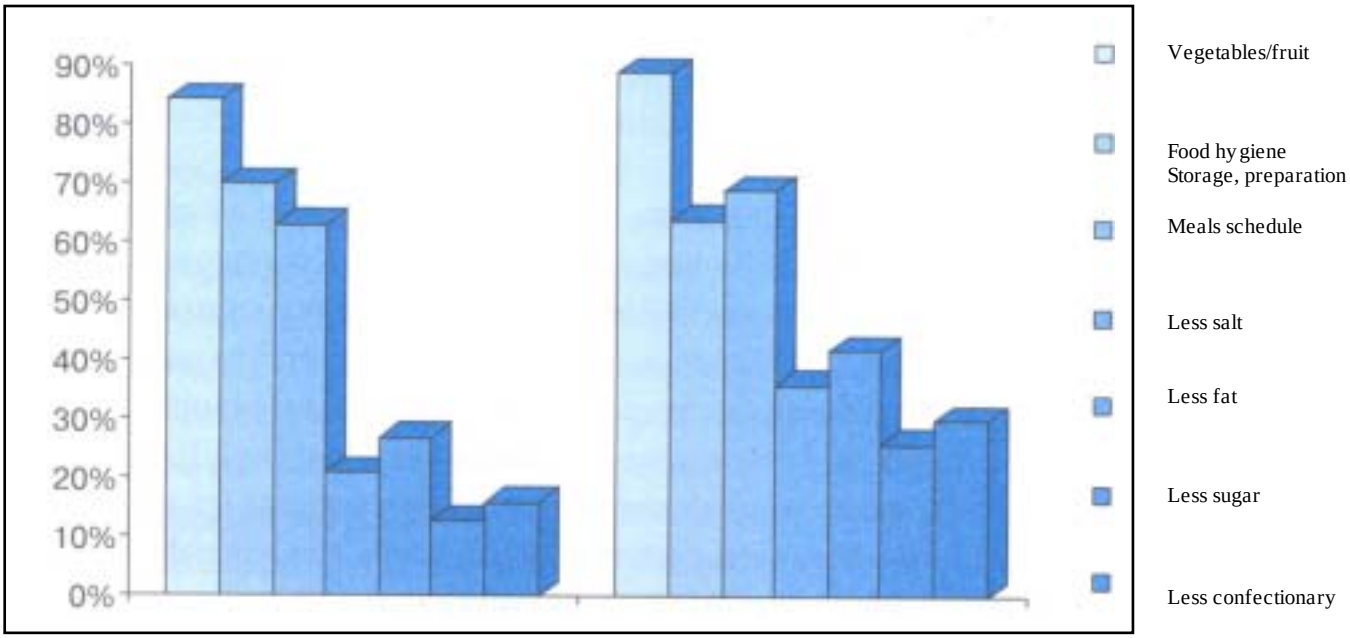
- *Raising public awareness in the field of healthy nutrition;*
- *Improving school catering;*
- *Supporting breastfeeding.*

An analysis of **the current legislation suggests that many legislative and administrative issues can be resolved at the regional level.**

The survey illustrates the degree of people's awareness of healthy nutrition issues and helps determine the extent to which people believe that inappropriate nutrition is a risk factor and realise the importance of nutrition for a healthy life-style, as well as determine their attitudes towards doctors' recommendations.

Example: It was found that over 90% of the adult population and about 80% of children in Electrostal believed that nutrition did affect health, and would like to have more information on healthy nutrition. Both schoolchildren and their parents attributed special importance to such principles of healthy nutrition as "eat more fresh fruit and vegetables", "observe best-before dates", and "practice good hygiene" (Fig. 5). These data show that nutrition is a priority for the general public, and so a degree of success can be expected as a result of prevention activities.

Figure 5. What is your idea of healthy nutrition? (Elektrostal, 1999)



In view of the important role of women in matters of nutrition (buying foods, cooking meals in the family, performing professional duties) and her influence on the nutrition of children and other members of the family and society, the level of their knowledge on healthy nutrition should be carefully studied

Health workers perform the role of the initiators, co-ordinators and trainers in a healthy nutrition programme. It is, therefore, **very important to study their level of professional training and education.** Such a study helps find out their level of awareness of the principles of healthy eating,

the doctors' interest and involvement in preventive activities, the availability of modern guidance documents on the issues of nutrition and the difficulties in carrying out preventive activities.

> *Example: In the regions where higher and secondary special medical educational institutions are located, such as Chelyabinsk, **Arkhangelsk** and others, training and certification of health professionals in healthy nutrition is conducted on a regular basis within the framework of mid-career training programmes for doctors and nurses. However the level of their knowledge of the key areas of healthy nutrition appears insufficient. Just slightly more than half of the doctors indicate that they received training related to dietary guidelines, but 40% believe these guidelines are outdated, and so, fortunately are not using them. Nearly 38% of doctors stated they had no time to carry out dietetic consultations with patients.*

Media involvement in public education and in promotion of healthy nutrition is a must. This is one of the most important channels of communicating information to the general public. According to surveys, the level of public awareness of healthy life-style and healthy nutrition is very low. The media can make an important contribution to large-scale educational programmes for the population.

> *Example: Studies showed that the media broadcast one-off programmes and publish uncoordinated and unconnected articles resulting from meetings with the health professionals, medical scientists, representatives of the SanEpid service. There is no systematic work with the media on the part of the health services, and the opportunities that exist in certain regions for reaching out to the local TV and radio channels, free of charge, are not used.*

The opinion of the general public on matters of nutrition is of paramount importance. It is recommended in dietary guidelines to reduce fat intake and to increase the consumption of fruit and vegetables. It is necessary to find out **why people do not eat enough fruit and vegetables .**

> *The respondents answered that they did not buy fruit and vegetables because they did not have enough money. But a simple calculation showed that it was cheaper to eat fruit and vegetables than meat or sausage. For example, in Moscow(2000) the price of sausages was in the range of 60 to 140 rubles per kilogram, while fruit prices were from 20 to 50 rubles per kg, prices of vegetables – from 10 to 20 rubles per kg. Milk with a fat content of 0.5% was 10-11 rubles per litre, and with a fat content of 3.2% was 13-14 rubles.*

It is also important to find out to what extent the family budget can afford a variety of foods.

> *<u>Example:</u> In 2000 Russians spent between 70 and 80 percent of their disposable income on food, compared with only 22 percent of income on food in the EU countries.*

The example above shows that a diet containing more fruit and vegetables and low-fat foods could be both healthier and less expensive. Thus, families would be able to spend less on food and this could be an incentive to improving their diet.

The minimal food basket developed on the basis of recommendations by the Institute of Nutrition and the WHO presents one example to illustrate how dietary guidelines can be followed even where income is low (table 4). The food basket contains a large amount of cereals and bread, smaller quantities of meat and dairy products, and 300 grams of vegetables and fruit, (which is somewhat lower than what is recommended by the WHO - >400 g).

Table 4. An example for calculating the minimum consumer "food basket"

Food	Kg per year	Roubles per kilogram		Cost	
		Minimum	Mean	Minimum	Mean
Bread and bakery products	119	5.6	8	666.4	952
Potatoes	90	4.5	5	405.0	450
Vegetables (cabbage)	97	10	12	970	1164
Fruit (apples)	14	23	20	252	280
Sugar	19	8	9	178	171
Meat products (beef)	23	43	55	989	1265
Fish (pollack)	15	12	50	180	750
Milk	200	5.5	7	1000	1400
Eggs	90	10	11	90	99
Vegetable oil	11	19	23	205	253
Others (salt)	3	2	3	209	253
				5797	7691
Cost, rubles per month + 30%				483	640
Other costs			30%	622	833

It appears that the experience of developing healthy nutrition programmes, and in particular, the experience of international co-operation in the area of healthy nutrition which has been gained in some regions of Russia, has not always been applied effectively.

> *The **CINDI Programme** is an example of international co-operation in disease prevention and health promotion in many regions. An important element of this programme is healthy nutrition. The main principles are set out in the "CINDI Dietary Guidelines. Twelve Steps to Healthy Eating."*

The existing infrastructure within a region, which could be used to implement the nutrition policy, **should be identified.** Experience shows that it is easier to develop new areas of prevention, such as healthy eating, where there is already some prevention programme in place, such as CINDI programmes.

> *Example: A Co-ordinating Council was set up at the municipal level in the city of Electrostal as part of the CINDI Programme implementation process, to implement the policy of breastfeeding promotion in the city.*

6. Recommendations for the development of a regional policy of healthy nutrition of the population

6.1. Coalition, reaching a consensus and building partnerships

Many organisations, services and individuals, most of whom are not health professionals, are concerned with nutrition of the population. They are engaged in production, processing, distribution and marketing of foods, and are responsible for their quality and safety. They also influence demand for and consumption of foods through marketing activities and public education. An agreement should be reached between these organisations as to the aims and strategies of nutrition of the population, and **partnerships** built. This agreement should be based on respect for the interests of all the stakeholders in the field of nutrition. For some partners, such as producers, it is mainly the economic interest or profit, for others, like health professionals, it is providing health. For the general public it is both cost and health.

Figure 6 shows potential stakeholders who could influence the policy of healthy nutrition in the region and whom one should try and get involved in the process of developing and implementing this policy.

As the partners are many, it is important to have a nutrition policy co-ordinating body in the region to co-ordinate their efforts - **a regional healthy nutrition council.** The function of this body would not be giving orders, but, rather, co-ordinate the work of the partners, finding opportunities for their mutually beneficial activities leading to better public health in the region.

> *Example: The Coordination Council set up in the city of Tver to develop and implement healthy nutrition programmes consists of 26 partners from various sectors of society.*

Partners can, through negotiations, meetings and discussions, reach a consensus on the goals and objectives of co-operation, on the top priorities and on ways of tackling them.

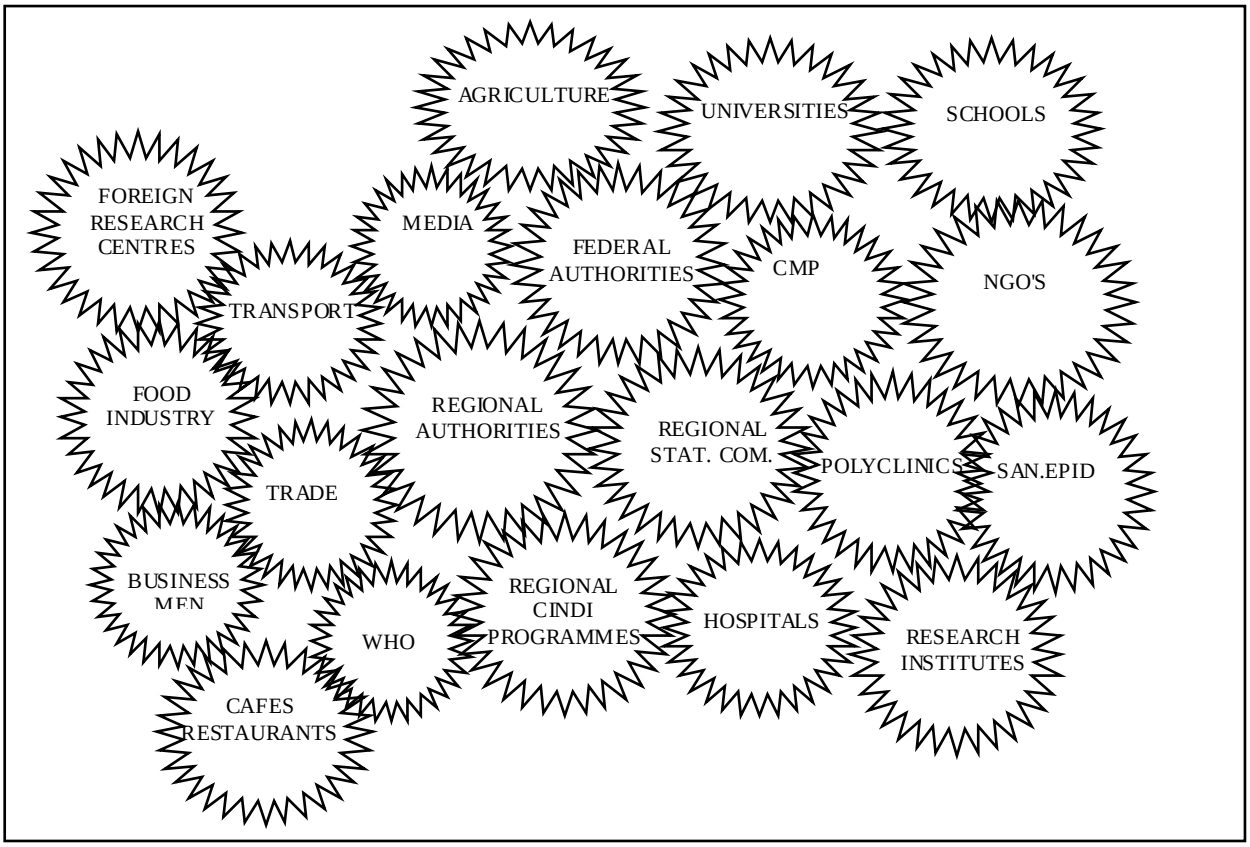
> *Example: The North Karelia Project (Finland), having established co-operation between scientists, health workers, local governments, farmers and the general public, succeeded in re-orienting a significant number of farms from dairy farming to growing berries, particularly, black currants. That affected the diets of the population quite substantially.*

After consensus has been reached between partners, a strategic action plan in accordance with the recommendations set forth in the document "How to Develop a Strategic Plan for the Prevention of Cardiovascular and Other Non-Communicable Diseases"[4] can be formulated

In this action plan, every partner should find his role, and offer to carry out concrete actions.

One of the most important stakeholders is the population itself, the people. People's attitudes toand opinions of diets and nutrition, their prejudices, lack of knowledge, and nutritional behaviour, form the main dietary habits.

Figure 6: partners in the regional policy of healthy nutrition



Health care services have an essential role including training of health workers, personnel in public catering, medical educational institutions, schools of general education, mass media, and all other relevant sectors.

Partnership also makes it possible to raise additional resources. It could be direct investment, and indirect through technical assistance, consulting services and providing human resources, etc.

> *A good example of raising additional resources for a programme through partnership is the American campaign to reduce fat intake. The programme involved 34 partners which significantly increased the campaign's resources.*[17]

The role of stakeholders in developing and implementing a regional policy of healthy nutrition will also be dealt with in other sections.

[17] Project LEAN – Lessons Learned from a National Social Marketing Campaign. Samuels S.E., January – February, 1993, v.108, no.145

6.2 Legislation. Administrative regulation

Adopting legislation which promotes increased production of healthy foods by agriculture and the food industry, and helps eliminate micronutrient deficiencies, is an integral part of implementing nutrition policy. Laws should provide favourable conditions for implementing healthy nutrition in a region.

In recent years, many laws have been adopted at the federal level, regulating health issues, including the nutrition of the population. The existing federal Laws "On the Quality and Safety of Foods" (1999), "On the Sanitary and Epidemiological Well-being of the Population" (1991), "On the Certification of Products and Services"(1993), and "On Protecting the Rights of Consumers" (1996), the RF Government Resolution "On Measures to Prevent Iodine Deficiency Disorders" (1999), aimed at securing a better quality of food and nutrition of the population, are often ineffective due to the lack of enforcement mechanisms, and sometimes are of a merely declarative nature. Another problem is that these laws are aimed more at ensuring food safety and less at providing healthy nutrition of the population. Food safety is controlled by the State Sanitary and Epidemiological Surveillance Service. Yet there is virtually no service dealing with healthy nutrition. The provisions relating to healthy nutrition at the population level are virtually neglected.

> *For example, article 2 of the fundamental Law of the Russian Federation "On the Protection of the Health of Individuals" reads that prevention activities in which healthy eating plays a leading role, shall be given the highest priority, as one of the fundamental principles of health care. However, in the present conditions all over the country, this law is of a declarative nature. It is more realistic to design clear and specific mechanisms of implementing and enforcing this law at the regional level.*

At the regional level, many population nutrition problems can be resolved by local governments. However, the local authorities do not receive sufficient requests from health care and education institutions. Regions can initiate their own laws and regulations. This is confirmed by a number of surveys undertaken in the regions. Regional authorities can develop healthy nutrition policies and adopt administrative and legal instruments to promote policy implementation.

> *Thus, in a number of cities and oblasts – in Chelyabinsk, Perm, Electrostal, **Arkhangelsk**, in the Krasnodar Territory, legislators approve programmes relating to healthy nutrition or draft legislation on fortifying food with iodine or iron. In the Ivanovo Oblast, the head of administration passed a resolution introducing vitamin and iron fortification of foods produced commercially. The governor of the Perm Oblast issued a decree on iodination of salt and other products.*

The list of laws to implement healthy nutrition programmes should be decided on by regions themselves. Listed below are some of the laws which are important for implementing the regional nutrition policy. Conventionally they may be divided into several groups:

- **Laws and administrative regulations relating to the production of healthy food in the region.** The laws should be aimed at increasing the local output of fruit and vegetables by expanding the private farming sector. The laws may encourage the production of low-fat foods, and the possible fortification of foods with essential trace elements such as iodine. The laws may provide for tax incentives and other measures of encouragement.
- **Laws and regulations relating to the marketing of healthy foods that provide for healthy nutrition.** Here, regulations are needed to encourage expansion of the sales of healthy foods, to ensure their quality and safety, and to promote the principles of healthy eating.

- **Laws and regulations determining the rules of marketing and advertising of infant formulas.** Since breast-milk is the most valuable and healthy food for infants, free distribution of formulas at maternity homes should be banned, and their free distribution through trade outlets should be controlled. Such products should bear a notice of the value of breastfeeding. The International Code of Marketing of Breast-milk Substitutes should be the basis for this law. These issues require support at the level of the Regional legislature. The former Soviet Republic of Georgia has a good example of legislation regulating the marketing of Breast Milk Substitutes. The Law was passed in 1997.
- **Laws and regulations relating to the activities in the area of healthy nutrition by health professionals or to training nutrition specialists.** To address these problems, legislative support is needed to introduce such specialisation, to make changes in the training programmes, etc.

6.3. Educating the general public in the principles of healthy eating

Public education is a very important component in any prevention programme. The effectiveness of the programme will depend on the level of public awareness of healthy nutrition and its effects on health. The extent to which people are prepared to accept change in their dietary habits is crucial. In chapter 2, a definition of "healthy nutrition" was presented, and in chapter 4 the principles of healthy nutrition were set forth. In this section recommendations on how best to communicate these principles to the general public are presented.

All steps towards educating the population should take account of the social marketing principles that are necessarily based on the interests of the population whose health would benefit from behavioural change. Without consideration of these interests, any strategy or programme is doomed to failure. Public education may be carried out through various channels: the media (a population-wide approach), health professionals, teachers, citizens' organisations (an individual and target-group approach).

Educating the general public in the principles of healthy eating will lead to a greater demand for healthier foods, thereby stimulating their increased production.

Public education through the media

Experience and surveys show that this is one of the preferred approaches to informing, educating and convincing the general public. According to a Russian-American study (1997), 34-46% of the population in Russia are known to get their information on health from the media.

Unfortunately, the information communicated by the media is not always to the benefit of public health. It is for this reason that using the media to inform and educate the public on health matters, including healthy eating, should be a priority.

- **Journalists need training in healthy nutrition.** It is very important that journalists have correct views on healthy eating.
- **It is desirable to establish contacts with the companies advertising their products.** If the advertisements' theme is related to nutrition, principles of healthy eating could be combined with the products being advertised. Thus, mutual benefits could be derived.
- Use opportunities **to have information on healthy nutrition included in other educational materials.**

  For example, in the recommendations for increasing physical activity, or preventing myocardial infarction. The principles of healthy eating can then be more effectively perceived and applied in practice.

- **Educational campaigns at the population level** could be one of the forms of working with the media. This form of public education is economically feasible, requiring no significant funds. **Such campaigns could be initiated in this country by centres for medical prevention and the State SanEpid Service.**
-

  An example of such campaigns could be the American nation-wide campaign to reduce fat intakes. During that campaign, over 35 million people received advice on fat intake reduction through the newspapers, 50 million through the TV.

Public education through the health-care community and non-medical agencies

Public education at the individual and target-group level includes counselling and consultations provided by the doctor to his/her patient in the polyclinic, education through health schools, teaching health issues to schoolchildren and university students in special courses conducted by teachers. It should be mentioned that individual counselling or group work requires much greater resources than education through the mass media.

➢ It is important to involve various agencies, **both medical and non-medical**, in public educational activities. These agencies include centres for medical prevention, the Sanepid service, polyclinics, health schools or clubs, citizens' organisations, the trade sector, restaurants, cafes, etc. It is important to start teaching principles of healthy nutrition to children at school or even kindergarten, so that they could develop appropriate dietary habits.

> *For example, contacts could be established with trade outlets to request them to use the information on healthy eating in shops, displaying the healthy food pyramid. This could attract more customers to the shop and make the shop interested in co-operation. Centres for medical prevention or health clubs could arrange classes on how to spend money on food in a more rational way, which would be interesting to many people.*

➢ The healthy food pyramid could also be used in polyclinics, schools, at work places. Here, very little training of trainers is required, as the recommendations are well-formulated in the 12 steps to healthy eating, and are easy to understand.

Working with **women** on an individual, group or population-wide basis could be a particularly important area of the public education effort. **Women are organisers of family nutrition**, and their education in the field of healthy eating will have a significant effect on the nutrition of the entire population[18]. Of course, the woman needs to understand her role as the organiser of healthy eating within the household. Eating habits have their main origins in the family. It is the "housekeeper", the woman that is the key figure in Russian families determining the type of diet the family eats. This includes both the type and quantity of foods, money allocation, schedule of eating, way of cooking, arrangement of dishes, etc. Therefore, in undertaking education and training activities, the focus should be on the family and especially on women. Special programmes and training courses are needed, i.e. a whole system of measures to ensure that the main housekeeper becomes an active advocate of healthy eating in the family. **This should be kept in mind also while working with the mass media, health professionals, educationists, NGO's and other services.**

[18] Report on the Working Meeting "Healthy Nutrition: the Role of the Woman and the Family." Murmansk, July 14-15, 2000.

6.4. Teaching healthy nutrition to professionals

Here we discuss training of both health professionals and other professional people working in the area of healthy nutrition. Health professionals working at medical schools, State Sanitary and Epidemiological Surveillance Services, centres for medical prophylaxis, in the primary health care system, play a key role in implementing nutrition programmes. They should also **pass their knowledge** on to educationists, employees in the public catering and trade sectors, agriculture and food industry, mass media, advertising business, etc.

Studies carried out in Chelyabinsk, Electrostal, Krasnodar, **Arkhangelsk** and Perm showed that doctors, feldshers, nurses have a vague idea of their role in dealing with the problems relating to the nutrition of the population. As a rule, they lack up-to-date scientific knowledge of nutrition and health, the relationship with chronic disease, and of the optimal food composition and principles of healthy eating. The issues of healthy nutrition are being gradually incorporated into the training programmes at universities in these five regions.

Nutrition education should also be offered to **non-medical professionals** working in the agriculture, food industry, public catering, education, and mass media, and in other sectors.

The principles of education and the functions of a **new health professional – specialist in nutrition,** need to be defined. The principles of education and the status of such a specialist could be developed in the course of international co-operation within the CINDI Programme. This specialist should be trained to perform the following functions in the field of healthy nutrition: situation analysis, policy development, programme planning, programme evaluation, public education, developing teaching materials, co-ordination of intersectoral co-operation.

Training of specialists could be conducted at medical and biological faculties of universities, An optimal solution to training specialists could be schools of public health that are emerging in Russia (Moscow, St.Petersburg, Chelyabinsk). A completely new area of professional training, which could combine state-of-the-art technologies and the best international experience, would contribute to the development of a new public health system. Specialists in healthy nutrition could be part of this new system.

6.5. The role of health services

Health services must be initiators of and active participants in the development of regional healthy nutrition programmes. Of great importance is the initiating and co-ordinating role of health administrators.

> *Example. Health services in Samara have initiated establishment of a Centre for Healthy Nutrition for children from 0 to 18 years of age at the premises of children's polyclinic No.6, while in Tomsk an information and expert service centre "Healthy Nutrition" has been set up for the population of the city.*

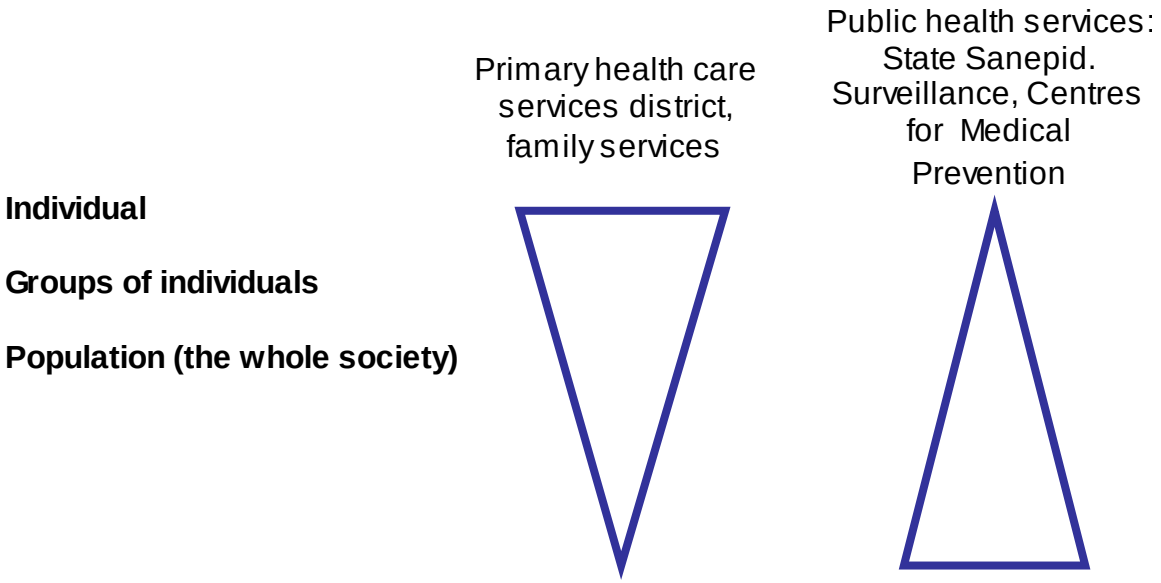
Health services are indispensable partners in the inter-sectoral co-operation in the area of healthy nutrition. The Sanepid Service and Centres for Medical Prevention mainly work with the population, whereas the primary health care system operates on the individual and group levels (Fig. 7).

There are two main areas of medical prevention in the field of healthy nutrition:

- dissemination of scientific medical knowledge and teaching healthy nutrition skills to the general public and various social and professional groups;
- systematic collection, consolidation, processing and interpretation of data on the nutritional status and diets of the population, including risk factors to which the population is exposed, and establishing the relationship between nutrition and health.

The experience of the Sanepid Service in designing regional target programmes of ensuring sanitary and epidemiological well-being of the population, protecting public health and the environment can and should be used in developing the regional policy of healthy nutrition.

Figure7: Interaction between health services and the general public



Doctors working in the primary health care system are dealing more closely with the public on an individual basis. Patients should be able to receive recommendations on healthy eating from doctors and other health workers. This calls for numerous organisational and professional training problems to be resolved.

A special role in disseminating scientific medical knowledge and educating the general public belongs to centres for preventive medicine.

Women account for up to 70 percent of the staff of health care services. They can influence their patients as professionals in addition to their role as care-givers within their families. Women who perform their professional duties, should be especially well-informed about healthy nutrition, and pass this knowledge on to their patients.

6.6. The role of citizens' organisations

The role of the citizen in promoting the regional nutrition policy is very important. Unfortunately, until recently, there were no active non-governmental organisations in Russia to influence the government's policy. Foreign experience shows, however, that their role in society could be extremely important.

> *In the US, for example, it is through NGO's that most of the disease prevention activities are carried out. Such organisations as the American Heart, Pulmonary Disease, and Cancer Associations have an extremely high status, both inside the USA and internationally. Not only do they take part in formulating health policies, but they play an important role in decision-making.*

Public participation may take the following forms:

- discussing regional issues and policies of healthy nutrition,
- discussing and lobbying laws, administrative resolutions needed for the implementation of the healthy nutrition policy in the region;
- raising awareness and educating other members of the public and administration, communicating their opinions on healthy nutrition;
- protecting the rights of food consumers;
- demanding information on healthy nutrition from health professionals;
- mobilising other members of society and ensuring their involvement in the healthy nutrition programme.

Such public participation may be effected either individually or via **various citizens' organisations** (e.g. "Confederation of Consumers' Societies", various women's organisations, health clubs, stout people's clubs, schools of diabetics, knowledge societies, professional associations, such as doctors' or farmers'), city gardening clubs, etc.

> *Example. In Orenburg, the Russian Public Health Association started a school of health to raise health awareness of various professional groups.*

> *Example: There are **more than 100 consumers' associations** in Russia today. Due to their activities, public awareness of the rights of consumers has increased. Since 1996, the Confederation of Consumers' Societies has been conducting a school educational programme for 8-9th-graders "Fundamentals of consumer knowledge"; it has published a textbook, guidelines, and a computer game on the subject. The Federal Law "On the Protection of Consumers' Rights" has been enacted. This is just one of the examples of the activities of the Confederation in the area of nutrition.*

- At the local level, contacts should be established with the existing NGO's and citizens' associations which could be involved in nutrition policy development.
- It is important to involve such organisations from the very beginning of the policy development process.
- They should be invited to take part in various projects and programme activities.
- Co-operation with NGO's in other regions and countries should be maintained.

> *Example. The project "Garden on the Roof" by the Centre of Russian-American Civil Initiatives , assisted by the US Civil Initiative Fund, resulted in a citizens' movement*

resulting in St.Petersburg to grow vegetables in a large city environment. This not only helped increase the output of vegetables, but also created new jobs.

Participation of the public and NGO's in the formulation of the healthy nutrition policy and preventive programmes and actions is a new concept for Russia. Development of this approach will significantly increase the effectiveness of prevention and nutrition programmes at the local level.

6.7 Food production, processing and trade

Many sectors are involved in food manufacturing, processing and marketing, such as agriculture, food industries, retail trade outlets. The coordinating role of the health sector (for example, the Sanepid service) would, therefore, be essential to coordinate activities and to encourage dietary guidelines to be followed.

Providing the population with safe foods that cause no harm to consumers' health as a result of chemical, biological or other contamination or pollution is an important precondition for healthy nutrition of the population. These issues have been dealt with by the SanEpid Service along with other services.

Along with food safety, the variety of foods produced, their availability on the market and their affordability are extremely important for healthy eating. Food production is determined , on the one hand, by the government policy and, on the other hand, by the level of demand and consumption. Food consumption is determined by the dietary culture and habits of the population, and by the level of knowledge concerning healthy nutrition.

In the period between the 50's and today, the production of cereals, potatoes, vegetables and fruit in Europe has decreased considerably, approximately by a factor of 2. During all these years, the output of meat and dairy products has been growing steadily and increased 2.5 times since the 50's.

Similar changes have taken place in Russia. In recent years, the production of vegetables and fruit has been going down. In 1998 alone the production of vegetables decreased by 5.3%, and potatoes by 15.2%. Potato growing is mainly concentrated on private farms which in 1998 grew **88% of the total harvest.** Interestingly, **the total area of land on which those potatoes were grown accounted for only 4%** of all arable land (an average land parcel is between 0.2 and 0.5 hectares). **Most of the vegetables (79.6%) are also produced by individuals.** The share of private farms is still very insignificant and is only 6-10% of the output of various products. Fruit and vegetables available in shops in Russia are mostly imported.

As a rule, meat and dairy products have a high fat content. Low-fat products have just started to appear in shops in recent years, but, according to surveys, the demand for them is still low.

What recommendations can be made to increase the production and purchase of healthy foods - fruit and vegetables, and low-fat products?

- Initiators of the healthy nutrition policy should communicate recommendations concerning healthy diets to the district and city administrations, and to people employed in the agro-industrial complex;
- an attempt should be made to build a coalition of various policy-making agencies that influence production and marketing of foods;
- the contribution of these agencies to the healthy nutrition policy could be through increasing production of foods low in fat, sugar and salt, as well as **local production** of vegetables and fruit. **Why is it important to increase local production of foods (especially vegetables and fruit)?** Increased local production of foods in general, and of fruit and vegetables in particular, allows several social and economic problems to be resolved at once (box 1), and leads to a better health status of the population[19].

[19] Urban food and nutrition action plan. Elements for local community action to promote local production for local consumption. WHO, LVNG 030102, October, 1999.

In a number of instances, such as in the northern areas, like the Murmansk oblast, where the production of fresh vegetables and fruit is limited, bread could be fortified with vitamins and trace elements.

- Local production and distribution of foods allows food prices to be lowered, as it eliminates the costs of transportation and storage of these foods.
- Development of the local private farming sector could create more jobs and allow the outflow of people from rural areas to be reduced. It is well-known that unemployment is higher in rural areas, with mostly elderly people remaining there.
- Development of the farming sector would yield increased tax revenues that could be used by the district to meet its own needs, including social ones.
- Increased local food production would lead to expanding trade. It could improve availability of fruit and vegetables to the population and would also create more jobs and more taxes from trade outlets.
- It would be much healthier for people to eat vegetables and fruit grown locally. Losses of vitamins and minerals, inevitable during transportation of foods, will be reduced considerably.
- Local production of fruit and vegetables could take various forms: by private farms, by gardening co-operatives.
- *Example. There are good examples of fruit and vegetables being grown on the roofs of buildings in St.Petersburg. This movement has been supported by the administration and is gaining popularity. The yield of radish, salad, green onions, tomatoes, cucumbers, dill, fennel is more than 2000 tonnes per year. The foods grown contain much less contaminants than those grown on the land.*

Quite often, companies or farms growing vegetables are unprofitable, or have marginal profits. If the public is made aware of healthy nutrition, the demand for vegetables and fruit will increase, and this could help to make such companies more profitable.

6.8. Public catering

Many people have to use the services of the public catering sector rather often, if not daily. For instance, at school, at work, on holidays, during celebrations, at hospitals and health resorts. Everyone has the same expectations from public catering: the food should be tasty, the setting clean and cosy. Unfortunately, the public catering sector does not always meet these expectations.

> *Example: when assessing the needs, it was found that 98% of the population and 64% of the health professionals believed that changes were necessary in the public catering system[20].*
> *A study of the nutritional problems of schoolchildren in the regions of Russia revealed that from **44% (Arkhangelsk)** to 80% (Krasnodar) of children and from **45% (Arkhangelsk)** to 66% (Electrostal) of parents were sure that improvements in children's nutrition should begin with changes in the school canteen.*

Very often food offered in canteens, cafeteria, and at pre-school children's institutions, schools or hospitals fails to meet the principles of healthy eating. Food may be unattractive and unpalatable. The diets lack fresh vegetables and fruit, or low-fat fermented milk products.

> *Example: In 1994, an assessment of menus at the canteens of pre-school institutions and in a school in Electrostal (Moscow Oblast) was carried out. It was found that the principles of healthy eating were not observed in putting together the menus. Children were offered food that contained too much fat and little complex carbohydrates, with little fresh fruit and vegetables, which resulted in very low intake of dietary fibre (3 times less than recommended) and vitamin C. In 1999, a survey of schoolchildren's diets was conducted in various regions of Russia. It was found that only 11% to 13% of children in Electrostal and Perm, **23% in Arkhangelsk**, 62% in Krasnodar had meals (breakfast or lunch) in the school canteen every day; from 21% (Krasnodar) to 38% (Electrostal) had meals there once or twice a week, from 6% (Krasnodar) to 34% (Perm) did not go there at all (fig.8). The main reasons for refusing to take meals at school were unpalatable food (from 22% to 50%), lack of time (from 20% to 45%) and lack of money (from 6% to 19%) (Fig.9).*

Public catering has a major effect on the development of dietary habits in the population. Lack of knowledge of the principles of healthy eating is one of the main reasons behind the unsatisfactory diets offered by the public catering system. Little attention is paid to the availability of certain foods, such as fruit and vegetables or low-fat meat and milk. Failure by the public catering system to follow the principles of healthy eating results in the public, and children especially, developing poor dietary habits and a habit of eating much fat and sugar, with little vegetables and fruit.

School catering is plagued with problems relating to the obsolete norms and former Soviet nutrition standards and with financial and institutional difficulties.

> *Vologda provided an example of resolving this problem. There is local legislation demanding that school breakfasts and lunches are purchased on the basis of a tender. Schools (and not government) select the most appropriate ways of purchasing meals for their canteens from what is offered by various shops and cafes.*

[20] Russian-American Co-operation. An assessment of needs for effective prevention of cardiovascular and other non-communicable diseases, their risk factors, and health promotion in Russia. Report by N.V. Vartapetova. Edited by I.S. Glasunov. Moscow, 1997.

How can public catering be improved?

- It is very important that professionals dealing with public catering be **fully aware of the principles of healthy eating** (chapter 4). The CINDI Dietary Guidelines and "healthy food pyramid" could be used for training purposes here. Such training could end with issuing a **"healthy nutrition specialist" certificate**.
- Public catering facitilities should help to develop healthy eating habits in the population, i.e. **it should be involved in mass awareness raising and teaching the principles of healthy eating. It is especially important at school.**
- **It is very important that the public catering sector follow the principles of healthy eating:** diets should contain enough vegetables and fruit, low-fat milk and dairy products, pulses, potatoes and cereals in adequate quantities. It is recommended that dishes and processes of cooking using large quantities of saturated fat, salt and sugar be reduced in the menu.
- **Appropriate management** is essential for school catering: it is extremely important to provide enough time for taking meals.
- Awarding a certificate of healthy eating establishment could be an incentive for public catering establishments to produce healthy meals. This could attract customers and increase sales.

Figure 8: Children eating in school canteens (Arkhangelsk, Krasnadar, Perm, Electrostahl, 1999)

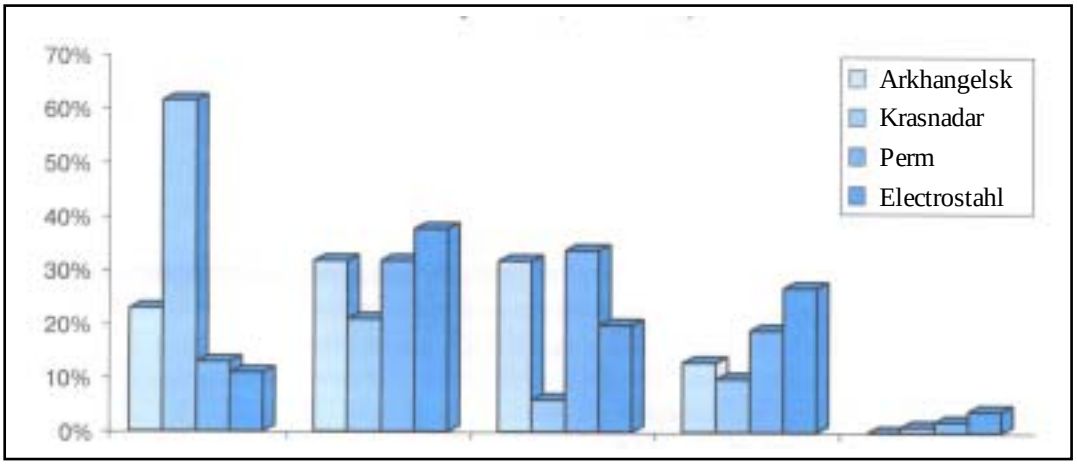
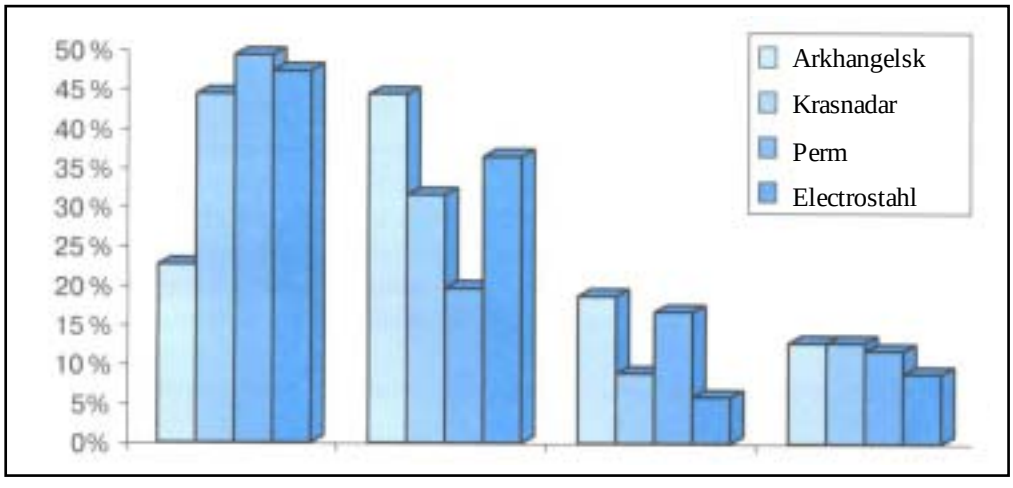


Figure 9: Children missing breakfast or lunch at school, and why?



6.9 Breastfeeding and complementary feeding

Breast-milk is the basis of infants' diet during the first year of their life. Breastfeeding ensures effective growth and development of the baby and protection against infection. All infants from birth until the age of 6 months should be fed exclusively with breast-milk. However, for a number of reasons, the rate of breastfeeding in Russia remains low (table 5).

Table 5. Prevalence of breastfeeding in Russia (%)*

	1995	1996	1997	1998	1999
Up to 3 months	45,1	44,8	43,5	43,4	41,9
Up to 6 months	32,5	32,3	32,3	32,4	27,6

*Maternity and child care service in 1999. Ministry of Health of Russia, Moscow, 2000.

One of the reasons of the low prevalence of breastfeeding is the current practice of infant care management and feeding recommendations. The decrease in the rate of breastfeeding calls for protecting and supporting breastfeeding. The WHO/UNICEF Declaration of 1989 set forth Ten Steps to Successful Breastfeeding:

1. Strictly follow the established rules of breastfeeding and have them routinely communicated to all health care staff and lying-in women.
2. Train all health care staff in skills necessary to implement the practice of breastfeeding.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be temporarily separated from their infants.
6. Give newborn infants no food or drink other than breast-milk, unless medically indicated.
7. Practice rooming-in – allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand, not on schedule.
9. Give no artificial teats or pacifiers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Example. The first maternity home to implement all the ten steps to successful breastfeeding and to be awarded the title "Baby-Friendly Hospital" was the one in the city of Elektrostal, Moscow Oblast. Between 1992 and 1998, the percentage of infants fed with the breast until 4 months of age there increased from 18 to 71%, and of infants breastfed until 1 year of age – from 2 to 19% (see Fig. 10). The real economic benefit, i.e. 584 thousand rubles saved between 1994 and 1995, is attributable to the fact that the maternity home avoided buying and using infant formula, bottles, teats and pacifiers. The central city hospital's pharmacy does not prepare oral rehydration solutions for newborns any longer, nor nitrofurazone solutions for the mothers to treat their breasts with. Funds are also saved through reducing costs of managing purulent and septic infections in newborns, purulent mastitis, illness in children under 1 year of age.[21]

[21] The UNICEF and WHO Baby-Friendly Hospital Initiative. Potential for Implementation in Russia. N. Vartapetova, L. Romanchuk, L. Shmarova. Disease prevention and health promotion. 1998, No.1, pp.24-29.

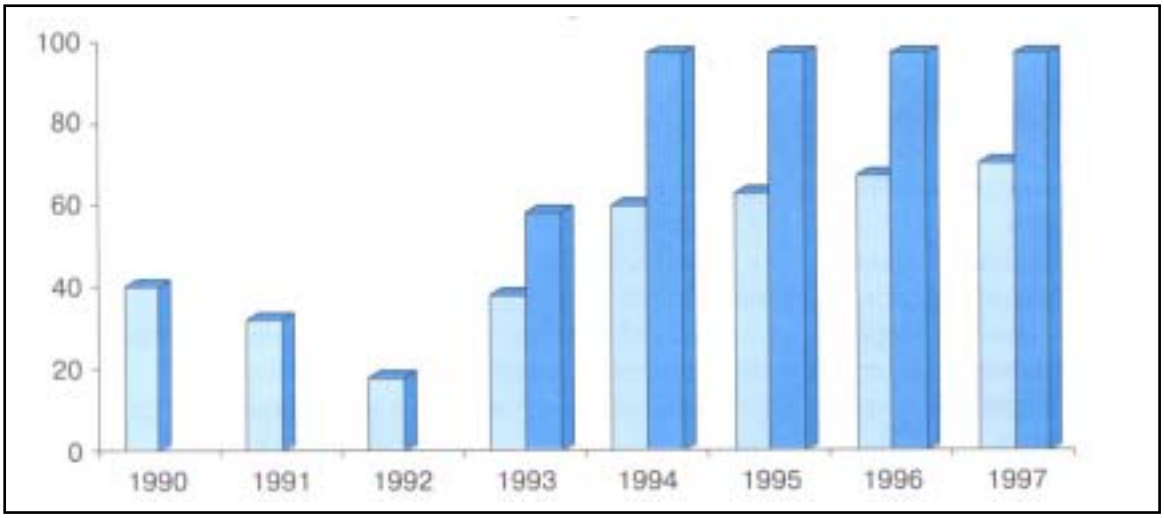
Development and implementation of a breastfeeding support programme in each region taking account of regional specific features of the problem will be of great practical value.

- It is advisable to use the key documents on supporting breastfeeding adopted at the federal level [22]
- To ensure consistency in the activities of health establishments, a breastfeeding support committee should be set up, and a regional coordinator should be appointed. The committee should be inter-sectoral, and should provide for inter-sectoral co-operation between maternity and child care services, government authorities, educational institutions, mass-media, NGO's in order to effectively implement the BF support programme. (This could be a sub-committee of the Regional Food and Nutrition Council.)
- Compliance with the rules of the International Code of Marketing of Breast-milk Substitutes (1981) and adoption of regional regulations to control distribution of baby milks is a precondition for success.
- Exclusive breastfeeding is ideal for infants during the first six months of their lives. Complementary feeding should be introduced not later than the sixth month. Breastfeeding can be continued until 2-3 years of age.[23]

[22] Protection, promotion and support of breastfeeding of infants on the Russian Federation (as a follow-up ot the WHO/UNICEF Joint Declaration). Guidelines by the MH of the RF, 1996.

[23] Feeding and Nutrition of Infants and Young Children. Guidelines for the WHO European Region, with Emphasis on the Former Soviet Countries. ISBN 92 890 1354 0. 2001. WHO, Copenhagen.

Figure 10. Prevalence of breastfeeding in Electrostal



Prevalence of breastfeeding of infants during the first 4 months of life

When discharged from the maternity ward*

***data not available for 1990-92**

Complementary Feeding of Young Children WHO European recommendations concerning infant feeding and introduction of complementary food:

It is recommended that a system of nutrition surveillance of infants and young children be established as an integral part of its health information system. Breastfeeding practices, feeding patterns and the nutritional status of infants and young children should be monitored regularly to enable problems to be identified and strategies developed to prevent ill health and poor growth.

Recommended nutrient intakes for infants and young children, based on international scientific evidence, should be used as the foundation of nutrition and feeding guidelines.

An adequate protein intake with a balanced amino acid pattern is important for the growth and development of the infant and young child. If the child receives a varied diet, however, protein quantity and quality are seldom a problem. It is prudent to avoid a high-protein diet because this can have adverse effects.

During complementary feeding and at least until 2 years of age, a child's diet should not be too low (because this may diminish energy intake) or too high in fat (because this may reduce micronutrient density). A fat intake providing around 30–40% of total energy is thought to be prudent.

Consumption of added sugars should be limited to about 10% of total energy, because a high intake may compromise micronutrient status.

Legislation on Universal Salt Iodization should be adopted and enforced.

Iron deficiency in infants and young children is widespread and has serious consequences for child health. Prevention of iron deficiency should there-fore be given high priority.

When complementary foods are introduced at about 6 months of age, it is important that iron-rich foods such as liver, meat, fish and pulses or iron-fortified complementary foods are included.

The too-early introduction of unmodified cow's milk and milk products is an important nutritional risk factor for the development of iron deficiency anaemia. Unmodified cow's milk should not therefore be introduced as a drink until the age of 9 months and thereafter can be increased gradually.

Because of their inhibitory effect on iron absorption, all types of tea (black, green and herbal) and coffee should be avoided until 24 months of age. After this age, tea should be avoided at mealtimes.

Optimal iron stores at birth are important for the prevention of iron deficiency in the infant and young child. To help ensure good infant iron stores, the mother should eat an iron-rich diet during pregnancy. At birth the umbilical cord should not be clamped and ligated until it stops pulsating.

COMPLEMENTARY FEEDING

- Timely introduction of appropriate complementary foods promotes good health, nutritional status and growth of infants and young children during a period of rapid growth, and should be a high priority for public health.

- Throughout the period of complementary feeding, breast-milk should continue to be the main type of milk consumed by the infant.

- Complementary foods should be introduced at about 6 months of age. Some infants may need complementary foods earlier, but not before 4 months of age.

- Unmodified cow's milk should not be used as a drink before the age of 9 months, but can be used in small quantities in the preparation of complementary foods from 6–9 months of age. From 9–12 months, cow's milk can be gradually introduced into the infant's diet as a drink.

- Complementary foods with a low energy density can limit energy intake, and the average energy density should not usually be less than 4.2 kJ (1 kcal)/g. This energy density depends on meal frequency and can be lower if meals are offered often. Low-fat milks should not be given before the age of about 2 years.

- Complementary feeding should be a process of introducing foods with an increasing variety of texture, flavour, aroma and appearance, while maintaining breastfeeding.

- Highly salted foods should not be given during the complementary feeding period, nor should salt be added to food during this period.

It is very important for pregnant and lactating women to follow the same recommendations concerning healthy nutrition. Pregnant women need no special diets, they should eat according to their appetite, avoiding both overeating and undernourishment. The erroneous belief that still exists, according to which the pregnant and lactating woman should eat much more, leads to overweight in women after childbirth, and this is, most of the time, a major cause of increased prevalence of overweight among women.

6.10. Monitoring and evaluation

Implementation of a healthy nutrition programme requires monitoring and evaluation of the effects of the activities undertaken. Changes in the population diets, and especially a reduction in morbidity and mortality caused by inappropriate nutrition, will take quite a long time to be achieved. Therefore, approaches should be used that allow a prompt evaluation of the **progress** in the programme development, an assessment of how fully the partners are involved in the programme, how agreement is reached between them on the aims and objectives, how experts are trained for the programme implementation, what role the media play and how they influence public education under the programme, and so on. This is made possible by **process evaluation**. Process evaluation enables one to predict to what extent one might expect the achievement of the end results of the programme, and to make amendments and improvements in the course of the programme within a short period of time.

Programme evaluation in the area of healthy nutrition, in particular, could be represented by several components shown in Chart 1. Evaluation starts with **the study of the problems in the field of nutrition and health, which are presented in detail in chapter 5.** This will require further research.

Based on the data obtained, solutions to the problem should be identified.[24] These studies will result in a detailed picture of the existing problems and possible solutions to them – **programme development strategies:**

- developing a healthy nutrition policy and co-ordination;
- legislation and administrative regulations;
- marketing and institutional framework development;
- teaching the healthy eating principles to the general public;
- involving the mass media;
- education and involvement of health professionals and non-medical professionals;
- developing dietary guidelines;
- ensuring public participation in the programme, mobilising the community;
- programme evaluation and monitoring, research.

Most of these strategies were mentioned in this Guidebook. The choice of a strategy will depend on the local conditions and needs, although it should be noted that all these strategies should be pursued to achieve good results in public health promotion.

For each strategy there are outcomes that are **intermediate** in terms of the programme as a whole - indicators of the programme development process. Obviously, the more successfully these intermediate outcomes are achieved, the more realistic it is to expect that the ultimate objectives of the programme will be attained. The intermediate outcomes may and should be evaluated **over relatively short periods of time** - months or 1-2 years. The list of all the indicators that could be used in the evaluation is contained in the WHO/CINDI Process Evaluation Guidelines.[25] [26] For Instance, the outcome of the strategy "developing a policy of healthy nutrition and coordination" would be development of a policy. This is not the ultimate goal of the programme. It is only an intermediate result, but if the policy has been developed, this in itself is very important, and one could expect that the end result of the programme – better public health – will be achieved. Another example could be a public education strategy. Raising awareness of the general public is an

[24] CINDI Position on the Prevention of Non-Communicable Diseases. CINDI 2000, WHO, Copenhagen.
[25] WHO/CINDI Guidelines for Evaluating Processes in Non-Communicable Disease Prevention. WHO Collaborating Centre for NCD Prevention Policy Development, Public Health of Canada, Ottawa, Canada, the WHO Regional Office for Europe, Copenhagen, Denmark, 1999.
[26] CINDI. The Protocol and Practical Guide. Revised in 1994. WHO European Regional Office, Copenhagen, 1996.

intermediate result of the programme that will ultimately bring about a change in the behaviour of the public towards healthy nutrition and, accordingly, better health.

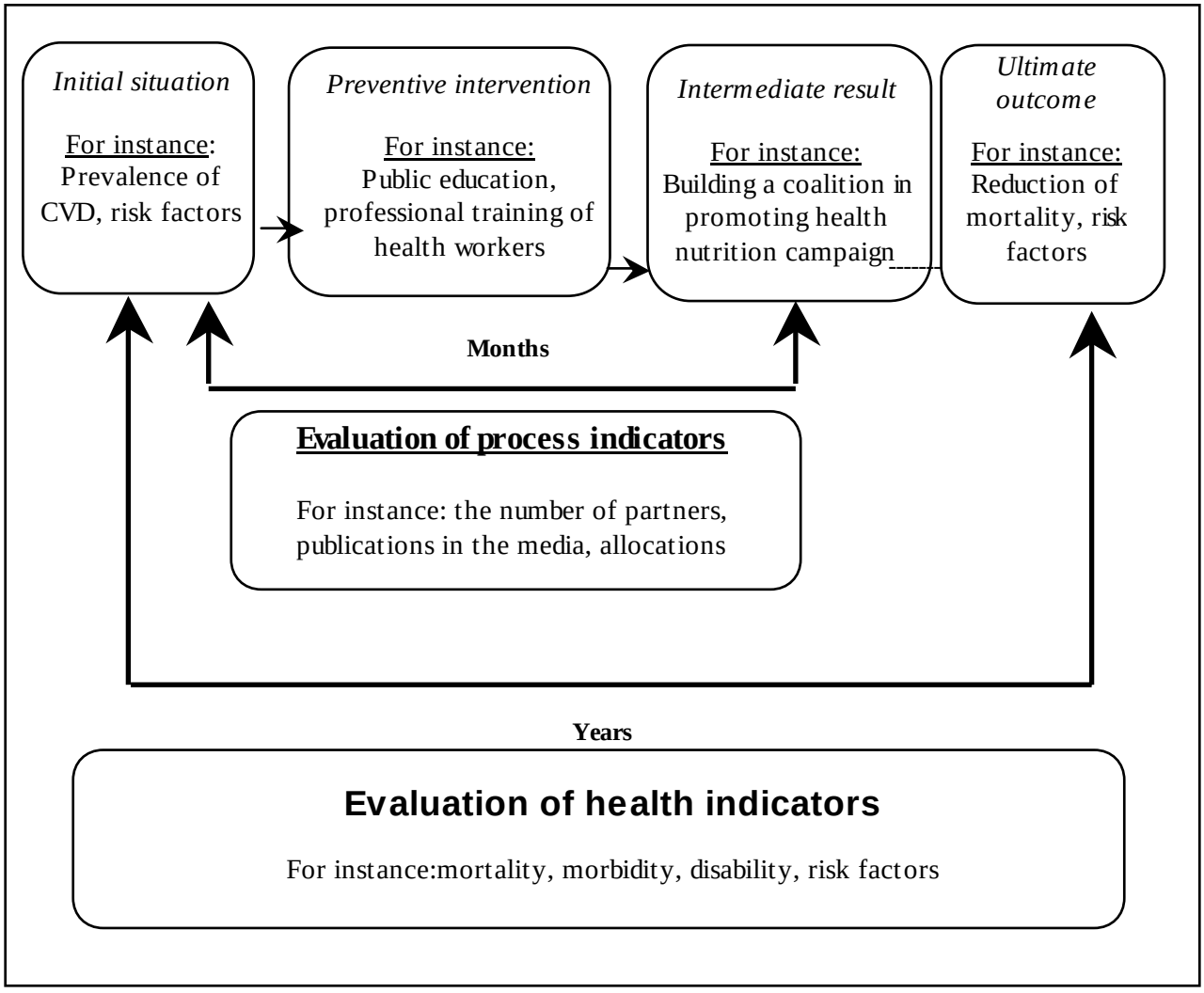
The ultimate outcomes of the programme could be:
- changes in the population dietary habits, changes in the dietary patterns;
- anthropometric indicators – body-mass index;
- blood cholesterol level;
- reduced mortality from CVD or cancer;
- reduced morbidity (iodine deficiency disorders, anaemia).

These ultimate outcomes require **a long period of observation** (years, five-year periods, decades).

The following recommendations can be given in respect of monitoring and evaluation of the healthy nutrition policy:

- Programme evaluation should be envisaged at the stage of elaboration of the healthy nutrition policy.
- Strategies, strategy development processes should be selected, and indicators of these processes should be identified, to be used in characterising intermediate outcomes of the programme.
- Ultimate programme outcomes should be selected, to be evaluated at a later stage.
- A programme evaluation protocol should be designed, with a detailed description of methods and exact time of evaluation of the processes and ultimate outcomes.

Chart 1. Prevention Programme Evaluation



7. Conclusions

The reader is offered a **guidebook** on how to develop **a healthy nutrition policy in the region.** In other words, how to reach an agreement on the aims and actions in the region in order to promote a nutrition programme that will have a positive effect on public health.

It is obvious that healthy nutrition in the region is affected by the federal nutrition policy. But the focus in the present Guidebook is on **the regional policy.** As the reader may conclude, much can be done at the regional level.

Let us summarise the **basic components** of making a regional policy of healthy nutrition:

- following science-based principles of healthy eating as summarised in the WHO/CINDI Dietary Guidelines;
- building a partnership (coalition) followed by reaching an agreement on aims and actions;
- studying regional needs using the available materials and special consultations and surveys;
- regional legislation and administrative regulation;
- public education and greater involvement of the general public in fulfilling the tasks of healthy nutrition;
- science-based method of feeding newborns, tested by practice - breastfeeding;
- involving all health services, taking initiative to organise healthy nutrition programmes, educating the public and the key stakeholders, co-ordinating partnership, participating in major projects;
- training health professionals and non-medical professionals in the principles and management of healthy nutrition, with a possibility of creating a new type of specialist in healthy nutrition;
- manufacturing and distribution of foods providing for healthy nutrition: appropriate actions by agriculture, food industry and trade;
- public catering based on the principles of healthy eating and oriented towards meeting public demands, including aesthetic ones;
- systematic monitoring of the population nutrition parameters, health indicators and system indicators ensuring healthy nutrition that were listed above, and using these indicators to evaluate the effectiveness of the programme being developed and implemented.

Here are the innovative features of the recommended actions once again:

- In providing healthy nutrition it is recommended to be guided mainly by **the quantity of foods** (bread, butter, vegetables), and not by **the quantity of nutrients** (protein, fat, carbohydrates). This is a more practical approach, as people buy foods, not nutrients, to eat.

- A great deal of attention in developing and implementing the policy is paid to the multisectoral partnership. Nutrition is not a medical problem, its solution depends on the interaction of many partners in the region.

- Elaboration of an effective nutrition policy calls for a careful preliminary study and analysis of the needs and problems. Such a study should be carried out in the same Region for which the policy is to be developed. Needs and problems of other regions and countries should only be used for comparison.

- It is not possible to introduce healthy nutrition in a region without an effective system of ongoing monitoring and evaluation. Without such a system vast resources and funds could be wasted.

The authors of this Guidebook hope that its application will be of practical use, will promote the development of inter-regional co-operation and will make it possible to gain experience in Regions in developing the policy of healthy nutrition.

GLOSSARY OF TERMS

HEALTH – a state of complete physical, mental and social well-being, and not merely the absence of disease or physical defect.

HEALTHY NUTRITION – nutrition that provides for growth, normal development and vital activities of man, enhancing health and helping prevent disease.

EXCESSIVE EATING – excessive consumption of foods (salt, fat, sugar, alcohol, high-energy diet) leading to the development of pathological conditions and diseases.

COALITION, BUILDING A COALITION – forming a temporary alliance between agencies, sectors, parties, factions, groups and individuals with a view to achieving certain aims, co-operating or supporting a programme or project.

INTERSECTORAL CO-OPERATION – an action in which the health sector and other sectors or agencies co-operate to achieve a common objective.

MONITORING – systematic observation of changes in a state or situation, or changes in activities to make sure they proceed according to plan. Information obtained from monitoring is used for evaluation.

EVALUATION – systematic analysis of relevance, adequacy, progress, efficiency, effectiveness and impact of prevention and health-promotion programmes.

PROCESS EVALUATION – analysis of the progress and development of a prevention programme, study and assessment of the most effective ways of implementing prevention activities.

POLICY – agreement, consensus among the partners on the problems to be resolved and on the method or strategies by means of which it should be done.

POPULATION – all the residents, or a group of people living in a given territory or working at a given place.

PREVENTION – activities aimed at reducing the likelihood of occurrence of a disease or disorder, stopping or slowing down the progression of disease, reducing disability.

STRATEGY – broad lines of action undertaken to achieve aims and objectives, including definition of suitable points of intervention, ways guaranteeing involvement of other sectors, a range of political, social, economic, management and technical factors, as well as constraints and ways of overcoming them.

HEALTH PROMOTION – the process assisting people in strengthening control over health and improving their health.

RISK FACTORS – factors of external and internal environment, behavioural factors increasing the likelihood of the development, progression and unfavourable outcome of disease.

Acknowledgements

The Working Group would sincerely like to thank the following colleagues for their assistance in developing this Guidebook:

L.Aleksandrova	State Sanitary and Epidemiological Surveillance, Chelyabinsk
L. Alexeyeva	**Centre of State Sanitary and Epidemiological Surveillance, Arkhangelsk**
V. Antonov	Urals State Medical Academy of Further Education, Chelyabinsk
P. Balakshin	**The Mayor's Office of the City of Arkhangelsk**
N. Baldina	Urals State Medical Academy of Further Education, Chelyabinsk
V. Belov	Chelyabinsk State Medical Academy
B. Belozerov	**City Clinical Hospital No. 4, Arkhangelsk**
S. Blumenthal	**Centre for the Child Development, Murmansk**
O. Bogomazov	Chelyabinsk State Medical Academy
M. Borovikova	Department of Health and Medicine Supply of the Kaluga Oblast, Kaluga
G. Bychkova	Secondary School No. 37, Chelyabinsk
I. Vohlonen	TACIS Project in Russia
A. Gobetz	Urals State Medical Academy of Further Education, Chelyabinsk
A. Goloshevskaya	Department of Health, Administration of the City of Chelyabinsk
V. Gubernatorova	Regional SanEpid Centre, Ivanovo
T. Gumina	Pitkaranta Central District Hospital, Pitkaranta
S. Gurvich	Department of Health, Samara
N. Goushchina	Urals State Medical Academy of Further Education, Chelyabinsk
N. Dolgoushina	Urals State Medical Academy of Further Education, Chelyabinsk
V. Dotsenko	St. Petersburg Medical Academy named after I.I. Mechnikov, St. Petersburg
G. Yevstifeyeva	Orenburg Medical Academy, Orenburg
G. Yermokhina	**Department of Health of the Arkhangelsk Oblast, Arkhangelsk**
A. Yefremov	**Administration of the Arkhangelsk Oblast, Arkhangelsk**
N. Zhelenko	**School No. 83, Arkhangelsk**
V. Kabakov	**Administration of the Arkhangelsk Oblast, Arkhangelsk**
N. Kaleva	Chelyabinsk Oblast Fund for Compulsory Medical Education
T. Karabak	Krasnodar Territorial Centre for Medical Prophylaxis
V. Kislov	Urals State Medical Academy of Further Education, Chelyabinsk
A. Kozlov	Department of Health of the Chelyabinsk Oblast
I. Kovaleva	Kindergharten No. 421, Chelyabinsk
S. Kolycheva	Kuban Medical Academy, Krasnodar
I. Konobeyevskaya	Research Institute of Cardiology, Tomsk
R. Korotenkova	**Department of Trade and Public Services, Arkhangelsk**
S. Kosareva	Uvildy Sanatorium
E. Krachko	Krasnodar Territorial Centre for Medical Prophylaxis
A. Kuzin	Urals State Medical Academy of Further Education, Chelyabinsk
Ye. Kuznetzova	Confederation of Consumers' Rights Societies
O. Kuznetsova	Medical Academy of Post-Diploma Training, St. Petersburg
O. Levasheva	Urals State Medical Academy of Further Education, Chelyabinsk
S. Lebedkova	Orenburg Medical Academy, Orenburg
O. Lukutz	Research Institute of Cardiology, Tomsk
I. Levit	Chelyabinsk Oblast Endocrinology Dispensary
S. Mazanov	Treatment and Prevention Complex, Verkhnaya Salda
R. Makushina	State Sanitary and Epidemiological Surveillance, Chelyabinsk
A. Menshchikov	Department of Sanatoria and Health Resorts, Chelyabinsk
N. Mineyev	Secondary Schools No. 37, Chelyabinsk
V. Mirgorodski	General Department of Health of the Chelyabinsk Oblast
S. Mishina	Territorial Centre for Medical Prophylaxis, Krasnodar

I. Myakishev	Urals State Medical Academy of Further Education, Chelyabinsk
P. Nefedov	Kuban Medical Academy, Krasnodar
Yu. Nikolayev	Institute of General Pathology and Human Ecology, Novosibirsk
V. Pankratyev	**Regional Centre of Medical Prevention, Murmansk**
V. Panteleyev	**the Mayor's Office of the City of Arkhangelsk**
I. Petruknin	Tver Medical Academy, Tver
S. Ponomaryova	Urals State Medical Academy of Further Education, Chelyabinsk
L. Potyomkina	Department of Health, the city of Chelyabinsk
N. Prikhodko	Territorial Centre for Medical Prophylaxis, Krasnodar
A. Reshetov	**Interpreter, Minsk, Belarus**
P. Sidorov	**Arkhangelsk State Medical Academy**
A. Sokol	St. Petersburg Club of City Gardening, St. Petersburg
A. Solovyov	**Arkhangelsk State Medical Academy**
L. Solovova	Goskomstat, Moscow
I. Solovyova	SRCPM MoH RF, Moscow
A. Syaglova	Treatment and Prevention Complex, Verkhnaya Salda
Yu. Tyukov	Department of Health, Chelyabinsk
A. Uzupova	Chelyabinsk State Medical Academy
M. Ukhanov	Pitkaranta Central District Hospital, Pitkaranta
V. Fokeyeva	**SanEpid Centre, Arkhangelsk**
Ye. Frolova	Medical Academy of Post-Diploma Education, St. Petersburg
T. Khairetdinova	Bashkir Medical Institute, Ufa
E. Hyninnen	TACIS Project in Russia
H. Howson	Know How Fund, U.K.
V.Khorunzhin	Urals State Medical Academy of Further Education, Chelyabinsk
N. Tsimbalenko	**Administration of the Arkhangelsk Oblast, Arkhangelsk**
S. Charnley	WHO Regional Office for Europe, Copenhagen
A. Chernev	**SanEpid Centre in the Murmansk Oblast**
A. Shabrov	St. Petersburg Medical Academy named after I.I. Mechnikov, St. Petersburg
A. Shatchkute	**WHO Regional Office for Europe**
N. Sheptunov	**Arkhangelsk**
O. Shishkina	Urals State Medical Academy of Further Education
L. Shkolnikova	Health Care Unit of the Oleum Factory, Bijsk
A. Shmarova	Chief Medical Officer, Children's Polyclinic No. 1
A. Shtrakhova	Chelyabinsk State Medical Academy
S. Emmanuilov	**Administration of the Arkhangelsk Oblast, Arkhangelsk**
L. Yashina	Chelyabinsk State Medical Academy

The Working Group would like to thank the following experts for their participation in the conference and assistance in preparing the Guidebook:

- Mrs. Galina Skvirskaya of the Ministry of Health of the RF, Moscow;
- Mrs. Irina Ryumina, senior research worker of the Institute of Paediatrics and Children's Surgery of the RAMS, chief neonatologist of the Ministry of Health of the RF, WHO consultant;
- Mr. Grigory Guerasimov of the UNICEF, Moscow;
- Ms. Yelena Zabina and Mr. Tom Schmid of the Centre for Disease Control, USA;
- Mrs. Elisabet Helsing and Mrs. Eli Heiberg of the Ministry of Health of Norway;
- Mrs. Iveta Pudule of the Health Promotion Centre, Latvia,
- Support from the Government of Norway that enabled the participation of experts from North West Russia. **Bold font** = participants support by funds from Government of Norway.

Nutrition and Food Security Programme
Division of Technical Support and Strategic Development
WHO Regional Office for Europe
Scherfigsvej 8
2100 Copenhagen
Denmark

Telephone: 45 39 17 13 62 Fax: 45 39 17 18 18
http://www.who.dk/Nutrition/main.htm Email: sal@who.dk