

# **National Food Based Dietary Guidelines: Experiences, Implications and Future Directions**



**Summary Report of a Workshop  
held on 28 – 30 April 2004 in Budapest, Hungary**

Organised by the International Life Sciences Institute (ILSI Europe)  
with the technical collaboration of the Food and Agriculture  
Organization of the United Nations (FAO)

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This publication is made possible by support from the ILSI Europe Health Science in European Countries in Transition Task Force, which is under the umbrella of the Board of Directors of ILSI Europe. ILSI policy mandates that the ILSI and ILSI branch Boards of Directors must be composed of at least 50% public sector scientists; the remaining directors represent ILSI's member companies. Listed below are the ILSI Europe Board of Directors and the ILSI Europe Health Science in European Countries in Transition Task Force members.

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## **Foreword**

This is the summary report of a workshop on “National Food Based Dietary Guidelines (FBDG): Experiences, Implications and Future Directions”, which was organised by ILSI Europe, in Budapest, Hungary, from 28-30th April 2004. This workshop was organised with the technical collaboration of the Food and Agriculture Organization of the United Nations (FAO).

The workshop was a follow-up to previous workshops on the “Development of Local FBDG and Nutrition Education“, which took place in 1997 at Vilnius, Lithuania and Nitra, Slovakia at which 19 Central and Eastern European countries were participants. Six countries were invited to participate in the current workshop, including Bulgaria, Czech Republic, Hungary, Latvia, Romania and Slovenia.

The aim of this report is primarily to provide feedback to the participating countries, to acknowledge their achievements to date in the development and implementation of FBDG and to support their future efforts. Information on the background, organisation, content and outcome of the working groups, which were a significant part of the workshop, is summarised here, along with main points made by the expert speakers and individual country-specific reports. The annexes contain the programme, list of participants, abstracts of the presentations, summaries of the country reports and a list of relevant documents.

It is hoped that the workshop provided participating countries with an opportunity to share their recent experiences of developing, implementing and evaluating FBDG, to identify challenges for the future and to consolidate their shared expertise in the fields of nutrition, public health and nutrition education to address these challenges.

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## 1. INTRODUCTION

Poor nutrition, whether deficient or excessive, and diet-related, non-communicable diseases account for a major part of the morbidity and mortality that exist throughout the world. Considering that malnutrition is partly attributable to inappropriate dietary consumption patterns, correct and effective nutrition guidance is urgently required.

The International Conference on Nutrition (ICN) organised by the United Nations Food and Agricultural Organisation (FAO) and the World Health Organisation (WHO), in 1992 in Rome identified and encouraged strategies to improve nutritional well-being and food consumption throughout the world. The plan of action, adopted at the ICN, also included the strategy to promote healthy diets and lifestyles and to provide appropriate advice to the public through various means, including qualitative and quantitative dietary guidelines.

In pursuance of these goals and strategies, in 1995, WHO and FAO jointly convened in Nicosia, Cyprus, an expert Consultation on the "Preparation and use of food based dietary guidelines" where recommendations for the development and use of food based dietary guidelines (FBDG) were formulated and discussed. According to this consultation, FBDG should be based on current dietary practices and prevailing public health problems, rather than on nutrient requirements and recommended intake levels. Since FBDG are intended to provide nutrition education and dietary guidance for the general public, they need to be formulated in such a way as to make them a truly practical means of assisting people to reach appropriate nutritional goals.

However, in order to be effective and to achieve the desirable behavioural change, FBDG need to be communicated to the public through a variety of educational and motivational media, materials, and programmes. Reviewing past experiences and discussing and evaluating effective technologies in nutrition education and communication was the objective of an expert consultation on "Nutrition education for the public" which FAO convened in Rome, in September 1995. Many of the recommendations formulated by the group of experts at this consultation need to be considered in the implementation of FBDG.

In 1997, given the above-described situation and the new developments in the field of nutrition, ILSI Europe and FAO jointly organised two 4-day workshops on the "Development of Local Food Based Dietary Guidelines and Nutrition Education", which took place in Vilnius (Lithuania) and in Nitra (Slovakia). A total of 19 Central and Eastern European countries participated in these workshops, (Czech Republic, Slovenia, Hungary, Bulgaria, Romania, Slovak Republic, Macedonia, Yugoslavia, Poland, Russia, Lithuania, Latvia, Estonia, Albania, Bosnia and Herzegovina, Croatia, Ukraine, Belarus) which focussed on the provision of information through a series of lectures, individual country presentations and working group sessions. Topics included the current scientific knowledge on the relationship between food, nutrients and health, the concept of FBDG and information requirements for developing them and key technical aspects of nutrition education and communication. The workshops were well received by the participants, who rated the information provision and the interaction between participants as outstanding.

Seven years later, ILSI Europe's Task Force on Health Science in European Countries in Transition decided to hold a follow-up workshop on "National Food-Based Dietary Guidelines: Experiences, Implications and Future Directions". Six countries were invited to participate: Bulgaria, Czech Republic, Hungary, Latvia, Romania and Slovenia. The workshop was planned and implemented with the technical collaboration of FAO.

The goals of the workshop were to discuss the progress and status of FBDG in these countries, to share experiences in the development, implementation and monitoring of FBDG, to identify key learning outcomes, challenges and resources involved, to elucidate successful practices and to develop best practice guidelines and a foundation for the future of individual countries' continuing efforts in the area of FBDG.

This document is the summary report of this workshop, which was held in Budapest, Hungary on the 28-30 April 2004.

## **2. OBJECTIVES OF THE WORKSHOP**

The objectives of this workshop were to:

- Discuss the progress and status of development, implementation and evaluation of food-based dietary guidelines in six Central and Eastern European countries,
- Discuss procedures, key learning outcomes, challenges and resources involved in setting up national food-based dietary guidelines in these countries,
- Identify and describe successful practices,
- Develop best practice guidelines and provide a foundation for future national action plans in individual countries.

### **3. WORKSHOP ARRANGEMENTS AND PARTICIPANTS**

The two-day meeting was organized into three main sessions: development of FBDG, implementation of FBDG and monitoring of FBDG. Within each session, there were invited speakers, presentations from each country, working groups and final presentations summarising the outcomes of the working groups. The workshop provided a forum for professionals from different countries and institutions to share scientific and programmatic information, as well as experiences and lessons learned.

The workshop programme is attached (**annex A**)

The presentations from each country were based on the country reports, which were structured to address specific questions that had been circulated prior to the workshop by ILSI Europe and inputs from FAO. The reports were prepared in advance by each delegation under the responsibility of each of the country co-ordinators. This pre-workshop task was highly appreciated by the participants, as it gave them the opportunity at a national level to discuss the issues raised with different colleagues and institutions. It also enabled them to bring to the workshop the most up to date information on the activities undertaken in their country to develop, implement and evaluate FBDG and to discuss the way forward.

Three working group sessions formed part of the workshop programme. These allowed the participants to discuss further and analyse specific issues, exchange experiences and enable them to formulate recommendations on the way forward. Guidelines for working group sessions are attached (**annex B**).

The workshop involved 46 of professionals, including experts, participants and organisers (see List of participants, **annex C**). The group of participants included researchers and personnel from governmental agencies in six countries of Central and Eastern Europe: Bulgaria, Czech Republic, Hungary, Latvia, Romania and Slovenia. Other participants were representatives of local and international food industry companies. Staff members of ILSI Europe and FAO Headquarters also attended the meeting and assisted in the workshop organisation and facilitation.

The 5 speakers were mainly experts from universities and research institutions from Europe and America; one speaker came from WHO EURO.

A working document including the programme, list of participants and guidance notes for speakers and resource persons was provided to all participants at the beginning of the workshop.

The workshop was officially opened by Dr. Bujdosó, Chief Medical Officer of the National Public Health (Ministry of Health, HU).

Following the opening session of the workshop and presentation on FAO's work in the region was given by Ms. Kadlečiková, Mrs. Muehlhoff gave a presentation focusing on FAO's activities in nutrition education. Dr. van Belzen gave an overview about ILSI Europe and the workshop objectives.

## 4. PRESENTATIONS AND DISCUSSIONS

### **SESSIONS 1: DEVELOPMENT OF FBDG**

The objective of the session on Development of FBDG was to give the participants an opportunity to hear the experiences of a well-known practitioner in the development and evaluation of FBDG in the United States, to allow participants to engage in a question and answer session with her, and to discuss the issues raised in the context of the national situations in the working groups.

#### **Lecture: Development of FBDG: collection and use of data**

*Prof. Cheryl Achterberg*

Penn State University, USA

In 1977, the US Senate select committee on nutrition and human needs set up dietary goals, which have been regularly updated based on current scientific evidence. The history of food guides showed the evolution of the number of food groups represented as well as the recommendations given since 1916. More recent guides, including the food pyramid, have been evaluated *post hoc*. These evaluations showed that the food pyramid is an example of consumer misunderstanding: consumers did not know whether the top or the bottom of the pyramid was more important, they considered the white spots of fat and sugar spread on the different food categories as a printing defect and they did not understand the serving concept. The goal to promote variety and moderation failed. In addition, the pyramid did not give special attention to children (“one size did not fit all!”). It is important to test your assumptions!! A visual will not stand alone, but will have to be supplemented by text and education. There is a need for a strict process to determine the appropriate food content of the visual itself. FBDG have to be developed through a consensus building partnership (government, academics, health professionals, agricultural economics, food industry and consumers). Prof. Achterberg stressed the point on national economic and industrial policies and their role in influencing food consumption, using the example of fat in the American diet: more skim milk, less fat hamburger, but more salad dressings. Social, agricultural and economic factors interfere. The historical equation that wanted the scientific evidence to drive the policy recommendations is becoming weaker as the contextual features are becoming more and more important at individual, social, economic and historical levels. For example, the evolution of breakfast eating patterns: English “bacon and eggs” type in fifties, cereals in seventies, now back to the egg and bacon type due to the Atkins craze.

#### *Key lessons*

- Anticipate change
- Make periodic review a requirement
- Beware of market forces and external pressures or changes
- Take care with serving size
- Address physical activity
- Don't forget about food safety
- Address variety and moderation
- Address children

### *Recommendations*

- Address total diet, not just foundation diet
- Address beverages, not just solid food
- Adjust to various income levels, ethno cultural practices
- Minimize the changes for consumers
- Make the guidance meaningful, memorable and acceptable to consumers
- Try to have a vision: which will be the nutrition conceptual and physiological outcome in 10 years

### *Discussion*

The presentation was followed by a brief question and answer session between the speaker and the delegates. The adaptability of the food pyramid in relation to different countries, regions, household food budgets and ethnic groups was discussed. Professor Achterberg Dean confirmed that FBDG (illustrated using the pyramid) can be adapted to take consideration of these factors, without changing the core message. The example of fruit and vegetables was used to illustrate how of cheap alternatives can be recommended just as well as expensive options. For example, several delegates had expressed disapproval of canned fruit and vegetables and Professor Achterberg Dean emphasised the importance of not restricting the advice to fresh fruit and vegetables, but that frozen or canned could be considered. In addition, ideas of low cost balanced menus should be given, such as those in France where food tables include the cost and can provide proposals according to the budget.

A question arose on the impact of low carbohydrate diets on the pyramid, and the point was made that the Atkins diet (or a similar low carbohydrate version) comes and goes every decade or so. However, this time it is difficult to predict what will happen, how the food industry will react, as there is now an Atkins Foundation, and the whole enterprise is gathering momentum as it gathers profit. Clearly, FBDG and the food pyramid will reflect the scientific evidence at the time, not a commercial phenomenon.

### *Lessons learned from the US experience of developing FBDG (Prof. Achterberg)*

- Focus on priorities and prioritise carefully
- Persevere! “Success comes when you fall down 9 times out of 10”
- Be pragmatic – it is tempting to focus your efforts on young people but you also need to work with older adults, as your success will be reflected in lower mortality and increased life expectancy in these groups, increasing the credibility of your work and enabling you to build and develop. If you work only with schoolchildren, it will take too long to see a benefit, and you will lose the opportunity to make a demonstrable impact.
- Be patient. It will 10 to 20 years before changes are visible
- Consult with experts in communication, education and physical activity

### **Presentation on the Development of FBDG by each of the six countries**

Please refer to **annexes D and E**, and to Table 1 summarising the country presentations

Table 1. Summary of Presentations from Latvia, Slovenia, Hungary, Romania, Czech Republic and Bulgaria on Development of FBDG

	<b>Background</b>	<b>FBDG for Adults</b>	<b>Future Plans</b>	<b>Challenges</b>
<b>Latvia</b>	<p>1997 - Baltic Nutrition and Health Survey                      1998 - Dept of Nutrition Policy established                      2000 - National Nutrition Council working                      2001 - Latvian RDAs                      2001 - WHO CINDI guidelines translated and adapted for Latvia                      2002 - 12 FBDG based on CINDI approved by Ministry of Welfare                      2003 - 10 FBDG for 2-18 year olds                      2003 - 12 FBDG for 0-2 year olds</p>	<ol style="list-style-type: none"> <li>1. Breast feed exclusively to 6 months</li> <li>2. Eat a variety of food</li> <li>3. Be a healthy weight/ physical activity</li> <li>4. 2-3 l fluid/day, including water</li> <li>5. 400g fruits/day, especially local</li> <li>6. 800g whole grains and potatoes/ day</li> <li>7. 500-750ml low-fat milk/sour milk products</li> <li>8. 300-600g low-fat meat + fish 2/week</li> <li>9. Use vegetable oil rather than hard fats</li> <li>10. Limit sugar and salt</li> <li>11. Limit alcohol to 0.5l beer or 0.25l wine or 60ml vodka/day</li> <li>12. Keep food safe</li> </ol>	<p>To develop FBDG for:</p> <ul style="list-style-type: none"> <li>Adolescents</li> <li>Pregnant and lactating women</li> <li>Safe food at home</li> <li>Food pyramid for young children,</li> <li>Education tools for healthy food</li> </ul>	<p>Low priority given to nutrition by political leaders</p> <p>Lack of local expertise</p> <p>Lack of reliable food and data on food and nutrient intake and food composition</p>
<b>Slovenia</b>	<p><b>Current data on health status</b></p> <p>Rates of cardiovascular diseases, obesity, alcoholic liver disease, suicide very high relative to EU averages.</p> <p>Health inequalities:                      By region (east to west),                      By social and educational background,                      By gender and age.</p> <p><i>CINDI Slovenia 2001</i></p>	<p><b>Specific Nutritional Problems</b></p> <p>Low CHO intake (&lt;40% energy).                      High fat intake (~44% energy).                      Low dietary fibre intake.  <i>Koch questionnaire on 2183 adults.</i></p> <p>Recommended fruit &amp; vegetables higher than available supply.</p> <p>Poverty highlighted as major determinant of good nutrition and good health.</p>	<p><b>Current activity</b></p> <p><i>Led by Min. of Health:</i>                      Food &amp; Nutrition policy under development.                      Promotion of healthy lifestyle being integrated to all policies.                      Multisectorial collaboration based on WHO Health Impact Assessment.</p>	<p><b>Policy development</b></p> <p>Food &amp; Nutrition Action Plan 2003-2008.</p> <p>Agricultural policy.</p> <p>“Stable to table” approach to food production.</p> <p>Both NBDG and FBDG development and implementation.</p>
<b>Hungary</b>	<p><b>Overview of Health problems</b></p> <p>High rate of cardiovascular disease, which is increasing</p> <p>Very high mortality from cancer</p> <p>Increasing overweight and obesity</p>		<p><b>Dietary Guidelines: “The House of Healthy Nutrition” 2002</b></p> <ul style="list-style-type: none"> <li>• 4 food groups; cereals, vegetables &amp; fruits, low fat milk &amp; dairy, low fat meat.</li> <li>• Further recommendations on fat, salt, sugar, alcohol, body weight, exercise, food safety, application of guidelines in diet planning.</li> </ul>	

	<b>Current Health Status</b>	<b>Food and Nutrient Intakes</b>	<b>Dietary Recommendations</b>
<b>Romania</b>	<p><b>Adults:</b> Cardiovascular disease, cancer and diseases of the gut are primary concerns.</p> <p><b>Children:</b> Falling birth weights and reduced growth rates since 1991.</p>	<ul style="list-style-type: none"> <li>• Studies on dietary intake and nutritional status for the past 50 years.</li> <li>• Composition data (1979) on 281 foods.</li> </ul> <p><i>Findings of data from 1992-1997:</i></p> <ul style="list-style-type: none"> <li>• Low intakes of animal proteins, minerals especially Ca, Fe, Zn and I and vitamins.</li> <li>• Inadequate intakes of dairy foods, meat and fish, fruits and vegetables.</li> <li>• High intakes of eggs, animal fats, dry vegetables.</li> </ul>	<ol style="list-style-type: none"> <li>1. The Ministry of Health decided that nutrition education is an important part of the National Health Plan.</li> <li>2. “<i>Recommendations regarding the daily intake of principal food groups</i>” recommends quantitative intakes of 14 food groups according to age, sex, physiological condition and activity level.</li> <li>3. The National dairy organisation (APEL) has been promoting dairy foods since 2000.</li> <li>4. In 2003, a programme of “Education for Health in School” was launched, including a chapter on Healthy Food.</li> <li>5. Regional Depts of Health are using mass media to promote dietary advice for health gain.</li> </ol>
<b>Czech Republic</b>	<p><b>Steps to set up FBDG in Czech Republic (published in 1994)</b></p> <ol style="list-style-type: none"> <li>1. Setting objectives &amp; methods.</li> <li>2. Setting nutritional goals.</li> <li>3. Defining food groups.</li> <li>4. Defining portion sizes.</li> <li>5. Defining composition of food groups.</li> <li>6. Defining number of daily servings.</li> <li>7. Designing and presenting the guide.</li> <li>8. Preparing the implementation strategy.</li> </ol>	<p><b>Existing and Current Food Consumption Data</b></p> <ul style="list-style-type: none"> <li>• National weighed household budget surveys in 1990, '93 &amp; '97.</li> <li>• No individual intake data.</li> <li>• HBS foods poorly described.</li> <li>• Large differences detected between HBS data and FBDG, especially for vegetables.</li> </ul> <p>• <i>November 2003</i> – New food consumption survey started using 2 X 24h recalls, plus questions on eating habits and FFQ.</p>	<p><b>Key learning outcomes on processing, interpretation and evaluation of health status and food intake data</b></p> <ol style="list-style-type: none"> <li>1. Problem of poor reporting of health statistics.</li> <li>2. If health outcomes should be produced on the basis of research but feasibility of this approach queried.</li> <li>3. If food groups are aggregated according to their composition, will this not result in over-simplification of their nutrient profiles?</li> <li>4. Problem of defining portion and meal sizes.</li> <li>5. Problem of recommending portion sizes and meals in the absence of physical activity data.</li> </ol>

	<b>National Household Budget Surveys</b>	<b>Other Nutrition Surveys</b>	<b>Nutritional problems identified</b>	<b>Improvement Strategy</b>
<b>Bulgaria</b>	<p><i>N</i> = 3000 households annually since 1989</p> <p><i>+ve changes since 1989:</i> Increased availability of vegetables and fruits and greater variety. Decreased availability of added fats and sugared foods.</p> <p><i>-ve changes since 1989:</i> Shortage of breads, yoghurt, milk, eggs and meat. Fish consumption still very low.</p>	<ol style="list-style-type: none"> <li>2 National representative surveys on general population.</li> <li>4 National representative surveys on 7-19 yr olds, institutionalised infants, children, childbearing women.</li> <li>Various regional research studies.</li> <li>Methods include 24-hr recall, 3- and 7-day food records, FFQs.</li> <li>National photographic food atlas and household measures.</li> <li>National nutritional analysis software.</li> <li>Anthropometric data available.</li> </ol>	<ul style="list-style-type: none"> <li>High total &amp; saturated fat intakes.</li> <li>Inadequate fruit &amp; vegetable intake.</li> <li>Insufficient wholegrain bread intake.</li> <li>Low fish intake.</li> <li>Insufficient milk &amp; dairy intake especially in children.</li> <li>High salt intake.</li> <li>Inadequate micronutrient intakes in all vulnerable subgroups.</li> <li>High alcohol consumption.</li> <li>Low physical activity.</li> <li>Low breastfeeding &amp; poor weaning practices.</li> <li>CVD, dyslipidaemias &amp; cancer are common.</li> <li>Overweight &amp; obesity, type 2 diabetes increasing.</li> <li>Osteoporosis in older women.</li> <li>Dental caries in all, especially young children.</li> </ul>	<p>National Programme</p> <p>National System for Health Information to be updated and expanded.</p> <p>National Nutrition Monitoring System with adequate structure &amp; responsibilities.</p> <p>Updating of DRVs.</p> <p>Available data are adequate for development of FBDG, which should be targeted at general population, risk groups and to promote breastfeeding.</p>

## **Outcome of the working groups**

Participants were divided into working groups, based on the topics to be discussed. Mixed groups (working groups (WG) A1, A2 and A3) of 15 people representing different countries and institutions worked on the issue of the development of FBDG and data needs.

### *Findings of WGA1*

WGA1 focussed on Objectives/organisation/collection of data/methods.

- Why is there a need to develop FBDG? It does seem that the previous workshops in 1997 motivated the six countries represented to initiate the process. If the common objective is to improve the health of the general population and of risk groups, the rationale for setting FBDG differs from one country to another and is not always scientifically explained. This is because of partial information, regional surveys, out of date data, lack of relevant health indices. The available data are not always a sufficiently reliable basis to formulate FBDG. There is a real need to improve the information related to national nutrition situations and diet related diseases. Currently in most countries, there is no real national system for accurate health information with an adequate structure and clear responsibilities. Morbidity and mortality data adjusted to the national context, social awareness and the identification of the main health problems in the country are the common driving factors.
- Who has to be involved in the process? It was agreed that a multidisciplinary team has to be involved (Health professionals, nutritionists, food technologists, statisticians, economists, food retailers, education specialists, psychologists, sociologists, communication experts, multidisciplinary facilitators, food producers) driven by a national coordination body (e.g. national nutrition council in Latvia).
- How is this assessment done? A list of tools was discussed without real ranking due to national differences: Epidemiological surveys on food patterns, food availability, dietary intake (with adequate food composition & methodology), new methods in measuring biomarkers (for validation only as they are too expensive), lifestyles, attitude, anthropometry, income, education level, knowledge, behaviour of consumers, economical situation in the country, consumption of food away from home. Most of the countries collected a huge quantity of data but could not guarantee their quality. Intermediate and final endpoints were often missing in their studies.
- What have been the main difficulties during the development of FBDG? In each country, the same problems were identified: low priority given to nutrition by the government, the lack of local experts, lack of reliable data (individual intake, particular groups), no long term studies, comparability of data, old data, confusion of terms, consistency of methods, financing, inadequate food composition data, aggregation of foods into groups, definition of portions, food labelling (related issue), lack of evidence basis at the local and regional level.

### *Conclusions and key recommendations for development of FBDG WGA1*

- Need for a political and financial support of the government
- High quality food intake data collected on an individual (not household) basis: 3, 4 or 7-day intake plus food frequency data (depending on budget)
- Low budget: use food frequencies of specific target groups
- Harmonising different kind of data sets (e.g. food consumption and data from food retailers)

### *Findings of WGA2*

WGA2 focussed on the Data process/use of data collected/evaluation of data.

- What do we want to demonstrate? Relevant data could demonstrate the relationships between dietary patterns and health status of the population.
- What are the criteria used to evaluate collected/available data? The group agreed that it is important to carry out statistically based surveys for the different foodstuffs consumption. Comparison with data from other countries is perceived as valuable (Slovenia). The use of biomarkers was also mentioned. However, very few countries have this type of data. Lack of political support and funding was perceived as the major obstacle, as well as lack of local expertise. There was a perception that food consumption data collection was beyond the scope of many countries. This viewpoint was consolidated by the widespread opinion that food consumption data are extremely costly to collect. There was a general lack of knowledge and insight in this field among participants.
- How to combine individual sets of data/survey and how to rank (prioritisation) the data was not discussed. The drivers for a global assessment (cost/benefit, specific diseases or behaviour, etc...) were not stressed during the discussion, and it was not really clear how the data are put into perspective.
- What are the key health issues identified? In each country, the mortality, the diet related diseases rates, the life expectancy and the inequalities in health indicators versus the socio economic status were the key issues. The common trends found were a high intake of animal fat, salt, alcohol, and a low intake of fruit and vegetables, dietary fibre, whole grains and fish. The increase of a sedentary lifestyle is also well documented in each country.
- What are the difficulties identified in collecting data? To get the funding, to have a representative sample, to combine data from different sources, the lack of knowledge for carrying out national nutritional surveys, the absence of a national agency responsible for national surveys and the lack of political support appeared to be the most important problems
- And the lessons? An opportunity to combine this data with data on issues relating to food safety/hygiene seems feasible in a few countries. Getting political backing and the assistance of private companies to provide financial support was proposed as one possible option.

### *Conclusions and key recommendations for development of FBDG WGA2*

- Combine with food safety issues to maximise value
- Use existing networks
- Getting scientists elected as public representatives (e.g. Slovenia)
- Lobbying using health/disease data and relevant cost
- Get partly funded by food industry

### *Findings of WGA3*

WGA3 focused on key constraints in this first step of developing FBDG.

The group discussed a few questions:

- Do we need different FBDG according to the target groups? Currently the different countries have different scenarios e.g. Hungary has not yet developed different FBDG, Czech Republic has only FBDG for the population from 5 year old to the elderly, Latvia has different recommendations according to the age-groups, Romania has different nutrient recommendations according to age, Bulgaria has different FBDG and Slovenia adopted WHO CINDI guidelines.
- Do we need to develop FBDG for health professionals or final consumers? It was agreed that the best approach would be to start with health professionals, then to

target the messages to the different age groups (adults, children, youth, seniors). The core message could be the same, but the recommended portions have to be different. It was agreed that FBDG are mostly a prevention tool for healthy people. The vulnerable groups (CVD, diabetics, cancer, pregnant women...) have to refer to health professionals.

- The discussion around the best reference for the serving size: metric or portions did not reach an agreement.
- In contrast, the need to focus not only on food recommendations but also on behavioural recommendations was consensual (Meal patterns, breakfast, role of parents, psychology of consumers, food safety) as all representatives agreed that the food supply and exposure has more influence on eating behaviour than knowledge.
- The need to associate recommendations on Physical Activity was agreed.
- The key difficulty identified was the choice of communication: booklets, leaflets?
- How to issue a simple message, and to distribute it to each home

#### *Conclusions and key recommendations for development of FBDG WGA3*

- Target disease prevention in healthy people
- Focus on food plus behaviour recommendations
- Take into account energy balance and physical activity
- Start with training health professionals before communicating to the consumer

#### *General conclusions from the WGs on Development of FBDG*

Accomplishments: Significant progress was achieved since 1997: dietary guidelines and material have been developed; some countries have new data sets for health and nutrition status, as well as food composition. A multi-sectorial approach is generally accepted but seems difficult to implement as frequently non-nutritionists do not place nutrition high up on their agenda and budgets are allocated to different areas.

Remaining problems: Insufficient and old or unreliable individual food consumption data, inadequate food composition data in most countries. Insufficient local scientific evidence, reliance on studies from other countries, insufficient funds and local skills for data collection and synthesis, lack of longitudinal data, lack of resources to pre-test communication materials, lack of political support in most countries.

## **SESSION 2: IMPLEMENTATION OF FBDG**

The objective of this session was to hear about the experiences of implementing new FBDG in France and a theoretical overview of the Implementation of FBDG using health promotion strategies. Individual countries had the opportunity to outline their own implementation strategies and the relative successes and obstacles to success of these were discussed.

### **Lecture: Implementation of FBDG in France**

*Dr. Louise Mennen*

INRA / CNAM, FR

Dr. Louise Mennen introduced the Implementation phase of the French “Programme National Nutrition Santé” (PNNS) 2001-2005, which can be seen at <http://www.sante.gouv.fr>, of which the cornerstone is a 127-page information booklet called “La Santé Vient en Mangeant – Le Guide Alimentaire pour Tous”. This booklet was made available to the public through different types of retail outlets (cost €2) and through the health care system. So far, the usage of the booklets is very high and the knowledge base among consumers appears to be broad and reasonably accurate. However, the challenge appears to be in behaviour modification – consumers know the guidelines but that does not mean that they follow them. This information booklet is supported by other methods of communication throughout the dissemination phase of the 5-year plan.

### **Lecture: Implementation of FBDG: the evidence for effective and sustainable strategies**

*Ms. Lynn Stockley*

Food and Nutrition Consultancy, UK

Initially, Ms. Lynn Stockley gave an overview of the purpose of FBDG, the reasons for developing them and the scientific basis on which to formulate them. She then provided information on some of the ways of implementing FBDG using the health promotion framework of choosing settings to work in (e.g. workplace, schools), population groups to target (e.g. pre-school children, refugees) and some novel approaches (e.g. forming new alliances with volunteer groups thus receiving input from local people and sharing power). Some possible obstacles were also outlined, including optimisation bias (e.g. consuming a slice of lemon cake does not equate to a portion of fruit!), government sensitivities (e.g. many governments are worried about constituent backlash from accusations of being a “nanny state”), getting key opinion leaders on your side (e.g. parents) and lack of focus and follow-through in the arguments presented.

### **Presentation on the Implementation of FBDG by each of the six countries**

Please refer to **annexes D and E**, and to Table 2 summarising the country presentations

Table 2. Summary of Presentations from Latvia, Slovenia, Hungary, Czech Republic and Bulgaria on Implementation of FBDG

Country	Responsible Body(ies)	Target Groups	Approaches/ Methods	Integration/ Perceptions	Threats/ Weaknesses
<b>Latvia</b>	Basis of Latvian Strategy is the “Healthy Nutrition 2003-2013” paper from the Council of Ministers. Dept of Health particularly responsible but also Latvian Food Centre and Nutrition Council.	Infants, Children & Adolescents, Adults, Elderly, Low income groups, Sick people	Public Health Workers, Teachers, Dieticians, Food industry, Food retailers, Agriculture sector, Media.  Teaching and Lecturing, Booklets, Websites, interactive methods e.g. projects, competitions.	FBDG in National health & education policies, not in agriculture & food policies. Included in curricula of courses of nutrition & medical degrees, well perceived by well-educated groups, low socio-economic groups not yet targeted.	State funding not guaranteed, Selective targeting of higher educated groups?
<b>Slovenia</b>	CINDI FBDG adopted, “Hottest” message relates to 5 fruit & veg/day + 30 minutes/day of exercise. Ministry of Health responsible, with partnership from Education and Agriculture.	Lower social classes, Rural population, Males, Younger adults, aged 25-35, Lower educated.	Media, Kindergartens, Schools (through new standards, teacher training and training of cooks and food service operators), and Student Hostels, Public Health Institutes, Agricultural Advisory Service, NGOs, Youth & women’s societies in rural areas.	Integrated to curricula for kindergartens, primary & secondary schools and at university level: revisions ongoing. Very diverse activities, which will be supported by Slovenian Food and Nutrition Policy.	No Slovenian FBDG as yet, Activities not yet systematic, Aspirations rather than achievements described so far.
<b>Hungary</b>	National Institute of Food Hygiene and Nutrition.	General public – no specific target groups identified	Courses for medical doctors & health professionals (on request), Leaflets in GP waiting rooms, schools, public health and medical officer services.  Media campaigns, Articles etc, Face-to face training with schools and small community groups, <a href="http://www.ofe.hu">www.ofe.hu</a> .	Food Safety Office also involved. The public understood the FBDG booklet, Training programmes so far have been well received. Improved involvement of food industry & retailers required.	Inappropriate budget, No Hungarian Nutrition Council established yet, Nutritional evaluations of public not available.

Country	Responsible Body(ies)	Target Groups	Approaches/ Methods	Integration/ Perceptions	Threats/ Weaknesses
<b>Czech Republic</b>	Ministry of Health, National Institute of Public Health, WHO, Health promotion departments.	Risk groups, Schoolchildren.	Education: Professionals through 3 <sup>rd</sup> level education, primary school from years 1-3, 4-5 and 6-9. Printed materials with specific focus on fruit & veg 5/day, childhood nutrition.	Food consumption patterns (4 types) have been observed and identified. No monitoring yet. Structure & co-operation evident at a high level (e.g. between learned societies) but no description of implementation at a community level outside schools.	Central agency with direct responsibility for Nutrition lacking – need Nutrition Council with an appropriate budget and an agenda.
<b>Bulgaria</b>	Ministry of Health under National Food and Nutrition Action Plan currently using CINDI guide, but planning to develop Bulgarian FBDG.	General public, Obese, Children & adolescents, Pregnant and lactating women, Elderly, Medical students, Health specialists, Teachers, Canteen staff.	Nutritionists, Public health specialists, Teachers, Consumer Associations, NGO's, GP's.  Lecturing, Teaching at primary, secondary & tertiary level, Short-term campaigning through event organisation, Mid-term health promotion through school programmes etc, Media, Booklets & leaflets, Website.	Still waiting on Bulgarian-specific FBDG based on eating patterns and nutritional challenges in Bulgarian population.  Current communication strategies are well received by the public but there is no formal monitoring system.	Budget inadequate for formative research.

## **Outcome of the working groups**

Participants were divided into working groups, based on the topics to be discussed. Mixed groups (working groups (WG) B1, B2 and B3) of 15 people representing different countries and institutions focussed their discussion on the issue of implementing and communicating FBDG by identifying key constraints, keys to success and lessons learned from their own experiences.

### *Findings of WGB1*

- Key constraints: In schools there was a lack of collaboration with the Ministry for Education and this followed through then to availability of materials, school catering not in line with FBDG, etc; Health care providers knew little about nutrition and placed it low on their list of priorities; Inconsistent messages from a story-hungry media cause confusion.
- Keys to success: Development of health promoting schools, with education of school cooks and a life skills approach to learning; Target regions involving specialist physicians, pharmacists and nurses.
- Lessons learned: Multi-disciplinary approach to implementation; Media expertise in conveying “sexy” messages; Partnership approach; Collaboration with the food industry; Teaching children how to critically evaluate messages.

### *Findings of WGB2*

- Key constraints: Nutrition not a priority on the political agenda; Lack of communication between Ministries; Lack of nutrition expertise; Lack of funding; Influence of advertising, price, conflicting media messages – how to balance individual responsibility against collective responsibility in an adverse environment?
- Possible solutions: Obligatory training in nutrition for medical staff; Role models in the media messages – younger people see the benefits of looking good! Cheaper healthy alternatives in the supermarket – make the healthy choice also the easy choice; Maximise profit for large food companies with healthier options; Become advertising aware!; Use nutritionists and health professionals who are good at PR to maintain contact with journalists.

### *Findings of WGB3*

- Key constraints: Lack of political support and endorsement of FBDG by government; Lack of funds; FBDG not published or disseminated widely; Lack of official body to endorse messages and oversee their development; Environmental constraints make behavioural change very difficult; Some industries reluctant to co-operate (e.g. in salt reduction).
- Issue: Individual responsibility vs. Environment. There needs to be better balance instead of the individual struggling in an adverse environment. Make the right choice of food the easier and cheaper option.
- Opportunities: Establish National food and nutrition policies; Strengthen collaboration between Ministries; Target education of children to help change behaviour at home.
- Lessons learned: e.g. France – positive collaboration between schools, parents and community; e.g. Japan – exposure to variety of fruits and vegetables; Importance of children as a conduit for learning; Ensure government retains control over school lunches.

## *General conclusions from the WGs on Implementation of FBDG*

### Key messages:

- Importance of political backing and endorsement
- Importance of collaboration between ministries for coherent legislation on food issues and clarity in messages to consumers.
- Training of medical and paramedical staff should include public health nutrition to place these issues higher on the agenda of health professionals.
- Publication and widespread dissemination of FBDG required.
- Public relations needed from nutritionists also to clarify media messages.

### **SESSION 3: MONITORING THE EFFECT OF FBDG**

The objective of the session on Monitoring of FBDG was to give the participants an opportunity to hear the experiences of Finland, who have been active and successful in the development, implementation and monitoring of FBDG for the past three decades and to allow participants to discuss some of the issues raised with Professor Pietinen and the rest of the group.

#### **Lecture: Monitoring of FBDG**

*Prof. Pirjo Pietinen*

National Public Health Institute, Helsinki, FI

In her presentation Prof. Pirjo Pietinen shared the experiences of monitoring food based dietary guidelines in her country. In the early seventies, Finland established the National Nutrition Council with its members being appointed by the Ministries of Health and Agriculture. The Council members come from all stakeholders (government, academia, industry, consumers). In addition, the Council has the authority to consult topic-specific expert groups for scientific advice. Prof. Pietinen explained in detail the Finnish process for establishing nutrient guidelines based on several methods (for example an annual postal survey, anthropometric methods, blood sampling or 24 hours urine collection) and how these nutrient guidelines are converted into FBDG that are understandable and feasible for the population to implement. The annual postal survey is considered to be one of the most powerful tools as it is rather cheap, can be used on an annual basis and adapted quickly to changing conditions. The regular use of these surveys over many years has provided a rich information basis for trends and intervention options, also on a regional basis. Finland is using food balance sheets with caution and has stopped using household budget methods in the late eighties due to their unreliability.

The main Finnish successes are a significant increase of fruit and vegetable consumption over the last twenty years (with men still being a problematic group) and the replacement of full milk with low fat or skimmed milk. Finland also observed a significant reduction in salt intake (and excretion) with a corresponding reduction in blood pressure levels. Over the last twenty years also butter consumption went down but margarine intakes increased.

Areas that need further consideration in Finland are common to many countries and include:

- Decreasing levels of physical activity,
- Increasing levels of obesity,
- Increasing levels of type 2 diabetes
- Increasing saturated fat and beverage consumption,
- Separate data sets for adults and children for these variables.

## **Plenary Discussion**

Particular attention was given to the question of which institutions should be involved in the monitoring process and how success should be defined. Other areas of interest were behavioural changes in the population and the tools that are most appropriate to initiate and to monitor them. Finally, the question of resources (costs, time) was also discussed together with sharing examples of successful practices and barriers to success.

Prof. Pietinen elaborated on some specific questions, including the fortification of table salt with iodine, which is still mandatory in Finland, although the addition of iodine to fodder for pigs and cattle has resulted in additional iodine intake from the consumption of meat, milk and eggs. The issue of trans fatty acids arose, and she stated that due to the use of appropriate vegetable oils, trans fatty acids are not perceived as a problem in Finnish margarines.

The new EU member states showed considerable interest in the effects of Finland joining the European Union in 1995. Prof. Pietinen reported that food prices had not increased significantly but that imports of foods (e.g. bread with higher salt content) can sometimes be counter-productive to local interventions and guidelines.

## **Presentation on the Report of the WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases.**

*Dr. Aileen Robertson*

WHO Regional Office for Europe, DK

Dr. Robertson provided an overview of the recommendations of the WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases, which met in Geneva from 28 January to 1 February 2002 to examine the science base of the relationship between diet and physical activity patterns, and the major nutrition-related chronic diseases. This report makes recommendations to help prevent death and disability from major nutrition-related chronic diseases. Population nutrient intake and physical activity goals to contribute in the development of regional strategies and national guidelines to reduce the burden of disease related to obesity, diabetes, cardiovascular disease, several forms of cancer, osteoporosis and dental disease are included in the report. They are based on the examination and analysis of the best available evidence and the collective judgement of a group of experts representing the global scope of the WHO and FAO mandate.

Dr. Robertson brought several copies of the report with her along with many other materials from WHO and FAO, for delegates to take away with them.

#### **SESSION 4: CONCLUSION AND FUTURE IMPLICATIONS FOR NATIONAL FBDG**

This session afforded the country groups an opportunity to meet individually to discuss the outcomes from the sessions 1 to 3 and the relevance of these to their national circumstances. The groups had the task of outlining their country's strategy for the future of the development, implementation and monitoring of FBDG and of identifying the individuals or agencies with responsibility for key tasks.

##### *Bulgaria*

- Aim: To assist individuals to consume a diet that is nutritionally complete and health promoting.
- Need: To update existing FBDG with the help of an expert group established using a multisectorial approach to perform analysis of current nutritional problems and eating trends, to formulate new messages taking into account portion sizes and frequency of consumption of food groups, and focussing on at-risk groups.
- Implementation strategy: Use of a partnership approach, identification of gaps in knowledge and working at the national and regional level, closely with the food industry and using new communication tools.
- Monitoring: Variety of approaches including surveys and national morbidity and mortality data.

##### *Czech Republic*

- The Czech Republic compiled a list of the institutions responsible for FBDG and the Ministry of Health featured prominently in this, with the Ministries of Agriculture and Education also responsible for certain aspects of food safety and physical activity. The delegation see their priority in gathering political support to place nutrition higher on the national agenda and promoting collaboration between Ministries to ensure effectiveness of national policies.
- Growing health problems identified are obesity and cardiovascular disease and the Czech Republic is keen to target these areas specifically using FBDG.
- Identified children and young people as priority target groups.

##### *Hungary*

- Determined to establish a Nutrition Council to consolidate and co-ordinate activity.
- Priorities: Education of health professionals in nutrition and FBDG; improved formulation of FBDG and implementation for ordinary people; establishment of monitoring / nutrition surveillance system.
- Authorities were identified that would be involved in these processes.

##### *Latvia*

- Nutrition Council of 15 (+ *ad hoc* experts as required) has been established and a multidisciplinary approach was there from the outset as there are few nutritionists in Latvia.
- The Council of Ministers accepted "Plan of Action: Healthy Nutrition 2003-2013" in September 2003. This includes an evaluation of the impact of nutrition on health status in the population and in vulnerable and marginalized sub-groups, development of data on composition of foods, food consumption and health status, food safety, sustainable and environmentally sound agriculture, education and science and dissemination to the consumer.

### *Romania*

- Also determined to establish a Nutrition Council to approve the National Nutritional Health Programme, the aims of which are to increase consumption of milk and milk products, vegetables and fruits, minerals and vitamins and fish, to reduce the consumption of animal fats, eggs, dry vegetables and alcohol and to increase physical activity,
- Strategies to implement these aims are to establish nutrition research in Romania, to increase the local expertise in nutritional sciences, to publish FBDG, to educate the public of all ages and to involve the food industry in partnership.

### *Slovenia*

- Primary objective: To develop a food guide that can be effectively communicated using a multidisciplinary approach. A contextual issue is relevant here– the National Food Policy is currently under construction in collaboration between the Ministries of Agriculture and Health.
- Groups to be targeted with the new guide are the young, the disadvantaged and the rural population.
- There is a real need to establish an evidence basis with National data and monitoring was seen as important.

## **5. CONCLUSIONS OF THE WORKSHOP**

Mrs. Ellen Muehlhoff summarized the discussions and main issues which had emerged during the workshop (see **annex E**).

While levels of development of the FBDG varied, it was very evident that each country had made significant progress since the FBDG workshops in 1997 in the development and/or implementation of science-based FBDG. All of the countries are facing similar problems in terms of diet-related chronic diseases and they are attempting to shift dietary patterns to reduce the emphasis on foods high in saturated fats (i.e. meat and full fat dairy products), salt and sugar towards more varied diets (increased emphasis on fruits and vegetables) consumption).

Accomplishments include the establishment of new data sets for health and nutrition status and food composition data as a basis for developing and revising dietary guidelines for the public and monitoring their impact. Some countries have developed food guides and produced attractive educational material for consumer information and education. Work is ongoing in some countries to develop comprehensive communication strategies, targeting materials and messages to different age and population groups. In some countries dietary guidance and educational messages focus on the prevention and control of specific health problems, such as obesity and cardiovascular diseases. Generally, the multi-sectoral approach and involvement of stakeholders from different sectors is well accepted in the development and implementation of FBDG, although difficult to implement at times.

While tangible progress has been made in all countries some constraints still exist. These include lack of human and financial resource for data collection and analysis, especially on food consumption and food composition, thus limiting abilities to develop dietary guidance that is in keeping with current nutritional requirements. Equally, there is lack of adequate funds and expertise for consumer testing of the guidelines and complementary educational materials. The dissemination of available materials seems to be limited to the health and education sectors in most countries. In some countries, there is a lack of high level political support for the initiatives and weak coordination among different sectors and activities. Other factors impeding the implementation of FBDG are lack of adequately trained nutrition professionals and a weak focus on nutrition within the concerned sectors.

In order to strengthen broad-based support for FBDG, participants proposed that more attention be given to involving all the key stakeholders in developing and implementing FBDG. The need for targeting of messages and developing communication and education strategies was highlighted to ensure effective reach of different age and population groups. Dissemination of materials should not be confined to the health and education sectors but operate in all settings throughout the lifecycle, including health clinics, kindergartens, schools, worksites, homes for the elderly as well as through the mass media. Nutrition should be systematically integrated as a subject into school curricula and training courses for health personnel. Food manufacturers and retail companies should be fully involved by ensuring the supply of a range of healthy food products at affordable prices.

Participants identified future plans for strengthening the development and implementation of FBDG. Priorities include:

- Establish a nutrition council and scientific advisory groups
- Develop a more comprehensive data base
- Train health professionals in nutrition at all levels
- Refine the FBDG process to address issues of quantification (i.e. portion size)
- Pre-test FBDG and educational materials
- Develop food guides and educational materials for specific target groups
- Elaborate a communication and education strategy
- Involve all the relevant stakeholders
- Monitor and evaluate the impact of educational programmes
- For those countries, entering the EU, monitor the impact on food supply, prices, purchasing and consumption patterns

### **Feedback from participants**

The feedback from individual countries was very positive. Expectations were high at the outset, given that these were the countries that had made most progress since 1997 and could be regarded as leaders in the field of FBDG in Central and Eastern Europe. The provision of this workshop as a forum for networking and exchanging experiences was much appreciated and the role of ILSI Europe as a “bridge-builder” in this respect was lauded.

In general, country delegations expressed satisfaction and said that the workshop was very useful to consolidate the information base and to discuss progress with colleagues in other countries. In particular, participants said that the preparation of the report prior to the workshop provoked discussion at various levels in the individual countries. They felt that the whole experience would keep them motivated to continue with the work. Specific aspects that had not previously been a priority for some participants included the emphasis placed on using a multisectorial and multidisciplinary approach to development and implementation of FBDG and the need for consumer science and a better understanding of consumer needs.

Some of the expert speakers also reiterated key points, including a very warm congratulations to the participants for their thorough and impressive preparation for the workshop, and their active participation throughout the four sessions.

In addition, the need to establish a structure, e.g. a global body or Nutrition Council in each country to co-ordinate and oversee the work was emphasised, as was the prioritisation of key issues and a pragmatic approach to achieve particular aims instead of attempting to succeed across the board.

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# Annexes

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**WORKSHOP PROGRAMME**

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**Overall Chair:** *P. Biacs*  
**Overall Co-chair:** *E. Muehlhoff*  
**Overall Rapporteur:** *M. Kiely*  
**Overall Co-rapporteur:** *S. Chartron*

10.30-12.00	<b>Registration</b>	
<b>11.00-12.00</b>	<b>Briefing meeting with officers</b> (Overall Chair and co-Chair, Overall Rapporteur and co-Rapporteur, Sessions' Chairs and Rapporteurs, Working Groups' Chairs and Rapporteurs, Heads of Country Delegations)	
12.00-12.40	<b>Lunch</b>	

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**WEDNESDAY, 28 APRIL 2004**

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12.40-12.45	Welcome to participants	<i>P. Biacs</i>
12.45-12.55	Official opening	<i>L. Bujdosó</i>
12.55-13.05	Introduction to FAO and to the workshop	<i>M. Kadlečiková, E. Muehlhoff</i>
13.05-13.15	Introduction to ILSI Europe	<i>N. van Belzen</i>

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**Session 1 DEVELOPMENT OF FOOD-BASED DIETARY GUIDELINES**

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**Chair:** *Z. Brazdova*  
**Rapporteur:** *S. Chartron*

13.20-13.50	Development of food-based dietary guidelines: collection and use of data	<i>C. Achterberg</i>
	<i>Country presentations on Development of FBDG</i>	
13.50-14.05	Bulgaria	<i>S. Petrova</i>
14.05-14.20	Czech Republic	<i>J. Ruprich</i>
14.20-14.35	Hungary	<i>G. Zajkas</i>
14.35-14.50	Latvia	<i>I. Pudule</i>
14.50-15.05	Romania	<i>D. Nuta</i>
15.05-15.20	Slovenia	<i>C. Hlastan-Ribic</i>
15.20-15.50	<b>Coffee-Break</b>	
15.50-16.00	Introduction to parallel working groups on development of FBDG	<i>Z. Brazdova</i>
16.00-17.30	Parallel working groups (A)	
	Working group A <sub>1</sub>	Chair: <i>C. Achterberg</i> Rapporteur: <i>I. Pudule</i>
	Working group A <sub>2</sub>	Chair: <i>L. Mennen</i> Rapporteur: <i>J. Parizkova</i>
	Working group A <sub>3</sub>	Chair: <i>Z. Brazdova</i> Rapporteur: <i>G. Biró</i>
17.30- 18.00	Report back of working groups A to plenary (10 minutes each)	Working Group Rapporteurs
18.00- 18.30	Discussion and concluding remarks	<i>Z. Brazdova</i>
19.30	<b>Dinner</b>	

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**THURSDAY, 29 APRIL 2004**

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**Session 2 IMPLEMENTATION OF FOOD-BASED DIETARY GUIDELINES**

Chair: *L. Mennen*  
Rapporteur: *P. Pietinen*

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09.00-09.05	Introduction	<i>L. Mennen</i>
09.05- 09.30	Implementation of dietary guidelines: the evidence for effective and sustainable strategies	<i>L. Stockley</i>
	<i>Country presentations on education, health promotion, national implementation of FBDG:</i>	
09.30-09.45	Bulgaria	<i>D. Bajkova</i>
09.45-10.00	Czech Republic	<i>M. Kunesova</i>
10.00-10.15	Hungary	<i>M. Antal</i>
10.15-10.30	Latvia	<i>I. Pudule</i>
10.30- 11.00	<b>Coffee-Break</b>	
	<i>Country presentations on education, health promotion, national implementation of FBDG (cont'd):</i>	
11.00-11.15	Romania	<i>M. Graur</i>
11.15-11.30	Slovenia	<i>C. Hlastan-Ribic</i>
11.30-11.40	Introduction to parallel working groups on implementation of FBDG	<i>L. Mennen</i>
11.40-13.15	Parallel working groups B	
	Working group B <sub>1</sub>	Chair: <i>L. Stockley</i> Rapporteur: <i>I. Pudule</i>
	Working group B <sub>2</sub>	Chair: <i>L. Mennen</i> Rapporteur: <i>J. Parizkova</i>
	Working group B <sub>3</sub>	Chair: <i>Z. Brazdova</i> Rapporteur: <i>G. Biró</i>
13.15- 14.15	<b>Lunch</b>	
14.15-14.45	Report back of working groups B to plenary (10 minutes each)	Working Group Rapporteurs
14.45-15.00	Discussion and concluding remarks	<i>L. Mennen</i>
15.00-15.30	<b>Coffee Break</b>	

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**Session 3 MONITORING OF THE EFFECT OF FOOD-BASED DIETARY GUIDELINES**

Chair: *P. Biacs*  
Rapporteur: *A. Kadi*

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15.30-16.00	Monitoring of food-based dietary guidelines	<i>P. Pietinen</i>
16.00-16.45	Plenary discussion on monitoring of food-based dietary guidelines and conclusions	<i>P. Biacs</i>

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**Session 4****CONCLUSION AND FUTURE IMPLICATIONS FOR  
NATIONAL FOOD-BASED DIETARY GUIDELINES**

**Chair:** *P. Biacs*  
**Co-chair:** *E. Muehlhoff*  
**Rapporteur:** *M. Kiely*  
**Co-Rapporteur:** *S. Chartron*

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16.45-18.45	Country working groups on integrated approach to food-based dietary guidelines and future action plans	
	Bulgaria WG	Chair: <i>S. Petrova</i> Rapporteur: <i>L. Ivanova</i>
	Czech Republic WG	Chair: <i>M. Kunesova</i> Rapporteur: <i>J. Parizkova</i>
	Hungary WG	Chair: <i>G. Zajkas/M. Antal</i> Rapporteur: <i>G. Biró</i>
	Latvia WG	Chair: <i>V. Braznevisa</i> Rapporteur: <i>I. Pudule</i>
	Romania WG	Chair: <i>M. Graur</i> Rapporteur: <i>D.Nuta</i>
	Slovenia WG	Chair: <i>L. Pograjc</i> Rapporteur: <i>M. Gregoric</i>
19.30-end	<b>Dinner</b>	

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**FRIDAY, 30 APRIL 2004**

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09.30-10.00	Joint WHO/FAO Expert Consultation on 'Diet, Nutrition and Prevention of Chronic Diseases'	<i>A. Robertson</i>
	<i>Country working groups report back to plenary</i>	<i>Working Group Rapporteurs</i>
10.00-10.15	Bulgaria	
10.15-10.30	Czech Republic	
10.30-10.45	Hungary	
10.45-11.00	Latvia	
11.00-11.30	<b>Coffee-Break</b>	
	<i>Country working groups report back to plenary (cont'd):</i>	
11.30-11.45	Romania	
11.45-12.00	Slovenia	
12.00-12.30	Conclusion and Summing up of the workshop	<i>E. Muehlhoff and N. van Belzen</i>
12.30-14.00	<b>Lunch and end of the meeting</b>	
<b>14.00-15.00</b>	<b>Post-meeting with officers</b> (Overall Chair and co-Chair, Overall Rapporteur and co-Rapporteur, Sessions' Chairs and Rapporteurs, Working Groups' Chairs and Rapporteurs, Heads of Country Delegations)	

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## **GUIDELINES FOR WORKING GROUPS**

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The aim of the Working Group is to discuss experiences and to compare lessons learned in the development and implementation of FBDG in the participating countries.

Country representatives are the primary discussants in the WG's. They are urged to provide information about their experiences and to raise new questions, topics, etc.

Input from other participants is welcome. In particular, these participants are invited to provide relevant information and evidence about the FBDG process and impact.

Contributions to the discussion should be based on credible sources and refer to the relevant documentation and country needs. All discussions should be consistent with ILSI's and FAO's goals.

ILSI's mission is, to improve the well being of the general public through the pursuit of balanced science.

As part of FAO's overall mandate to improve the nutrition situation of people throughout the world, we have the following objectives:

- Putting information within reach.
- Sharing policy expertise.
- Providing a meeting place for nations
- Bringing knowledge to the field.

Through our work on Food-based dietary guidelines, FAO aims to assist countries to develop practical nutrition education tools for the general public. FAO workshops seek to facilitate exchanges of information and debate on current nutrition issues and priorities, including undernutrition, nutritional deficiencies and diet-related chronic diseases.

## DEVELOPMENT OF FOOD-BASED DIETARY GUIDELINES

### ***Objectives/organisation/collection of data/methods***

- Why is there a need to develop food-based dietary guidelines? What is the rationale for setting food-based dietary guidelines? Which are the key objectives? For which target groups (food groups' consumption or diseases, biomarkers' changes, intermediate/final endpoints)
- Why is there a need for assessment of nutritional needs and status important?
- Who has to be involved in the process? Which groups/structure/organisation/leaders (expert groups, working groups, ministries, partnership, research institutes, National/International, external organisations)
- Where has to be this assessment? (which is the geographical representativity for the country?)
- When has to be done?
- How is this assessment done? Which types of surveys? (epidemiology, biomarkers, food patterns, dietary intake)? What other information is available (e. g. lifestyles)?
- How to guarantee the quality, quantity of data?
- What was missing in your experience? (intermediate, final endpoints)
- What have been the main difficulties during the development of FBDG?
- What are the lessons learnt during this development of FBDG?
- Conclusion: key recommendation for this 1<sup>st</sup> step to develop FBDG

### ***Data process/use of data collected/evaluation of data***

- What do we want to demonstrate? How to match status and needs?
- What are the criteria used to evaluate collected/available data? Comparison of data to other countries data
- Who has to be involved in the process? (organisation/leaders/expert groups ...)
- How to combine individual sets of data/survey?
- How to rank (prioritisation) the data?
- What are the key health issues identified?
- What are the trends found?
- Which are the drivers for a global assessment (cost/benefit, specific diseases or behaviour, etc...)
- How is data put into perspective?
- What are the difficulties? And the lessons?
- Conclusions: give 5 key messages to collect and use the most relevant data

## IMPLEMENTATION OF FOOD-BASED DIETARY GUIDELINES

- Is there an official body responsible for the implementation of FBDG?
- List the methods of implementation according to short-term effect (campaigns), mid-term (projects/programs) and long-term/sustainable (education programs/types of schools)
- How is sustainability guaranteed?
- Are guidelines approved by government? When were they launched? Which ministries and stakeholders participated?
- Is there a strategy for the implementation of FBDGs? If yes, describe the basic elements of the strategy (target groups, settings, etc)?
- Which sectors/groups are involved in the implementation process? Health workers, schoolteachers, community educators, hospital nutritionists, food companies, supermarkets, worksites, consumer organisations, agriculture sector, etc?
- What methods of information and communication are used to promote dietary messages? Face-to-face communication, mass media? Campaigns? What materials have been produced? What educational methods are being used?
- Was a food guide and other educational tools developed to accompany the guidelines (food guide that provides appropriate information on quantities of food or portion sizes)
- What formative research was done among the public, different target groups?
- Are guidelines integrated with health and food related policies and programmes (e.g. food security strategies, agriculture, food industry, marketing, trade?)
- Have guidelines been integrated into curricula of nutrition courses in universities, medical degrees, in-service and pre-service training of dieticians and nutritionists?
- What training has been done for service providers?
- How are the guidelines perceived by the public? What efforts are made to target at risk and low-income households? What efforts are made to ensure that the guidelines can be used effectively by all population groups?
- What is the estimated budget for the development and communication of FBDG?
- Where did the funds come from and what were the difficulties obtaining them? Has government provided funds for implementation? Which sectors have set aside funds for their own education/communication campaigns? How much?
- What are the key constraints and opportunities?
- What are key factors of success? What are the lessons?
- Conclusions and Recommendations: which are the key messages to avoid failures and guarantee success stories?

## MONITORING OF FOOD-BASED DIETARY GUIDELINES

- Which institutes/sectors are involved in the monitoring process?
- How would success be defined?
- What examples would there be of success (Poland on cardiovascular diseases?)
- Was the population awareness/understanding evaluated? Were the behaviour changes in the population evaluated? If so, what were the tools used for this evaluations (food consumption, dietary surveys?)
- What are the tools for changing behaviour? What are the key barriers (availability of food...)?
- What is the time need it and the cost?
- What are the lessons?
- Give a concrete example of cost/benefit experience
- Conclusions and Recommendations

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**LIST OF PARTICIPANTS**


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Prof. Cheryl Achterberg	Penn State University	US
Ms. Janice Albert	Food and Agriculture Organization of the United Nations	IT
Dr. Magda Antal	National Institute of Food Hygiene and Nutrition	HU
Prof. Donka Bajkova	National Centre of Hygiene	BG
Prof. Dr. Maria Barna	Semmelweis University	HU
Prof. Peter A. Biacs	Ministry of Agriculture and Regional Development	HU
Prof. György Biró	Complex Committee on Food Science of the Hungarian Academy of Sciences	HU
Dr. Christine Bouley	Groupe Danone	FR
Prof. Zuzana Brazdova	Masaryk University of Brno	CZ
Dr. Velga Braznevicā	Latvian Food Center	LV
Dr. László Bujdosó	National Public Health and Medical Officer Service	HU
Mrs. Sylvie Chartron	Masterfoods	FR
Dr. Mariana Graur	University of Medicine	RO
Mr. Matej Gregoric	National Institute of Public Health	SI
Dr. Cirila Hlastan-Ribic	Ministry of Health	SI
Prof. Ludmila Ivanova	National Centre of Hygiene	BG
Mr. Andreas Kadi	Coca-Cola	AT
Ms. Mária Kadleciková	Food and Agriculture Organization of the United Nations	HU
Dr. Mairead Kiely	University College Cork	IRL
Dr. Ales Kuhar	University of Ljubljana	SI
Ms. Maija Kulakova	Ministry of Education	LV
Dr. Marie Kunesova	Charles University	CZ
Dr. Sigrid Mayer	Red Bull	AT
Dr. Louise Mennen	INSERM	FR
Mrs. Ellen A. Muehlhoff	Food and Agriculture Organization of the United Nations	IT
Dr. Dana Mullerova	Charles University, Medical Faculty of Pilsen	CZ
Dr. Daniela Nuta	Bucharest Institute of Public Health	RO
Dr. Regina Oberdörfer	Bayer CropScience	DE
Prof. Jana Parizkova	Laboratory of Health Promotion	CZ
Prof. Stefka Petrova	National Centre of Hygiene	BG
Dr. Pirjo Pietinen	World Health Organization	CH
Dr. Larisa Pograjc	Ministry of Defence of the Republic of Slovenia	SI
Mr. Jiri Prazan	Coca-Cola	CZ
Dr. Iveta Pudule	Health Promotion Centre	LV
Dr. Aileen Robertson	World Health Organization	DK
Dr. Imre Rodler	Institute of Food Hygiene and Nutrition	HU
Dr. Jiri Ruprich	National Institute of Public Health	CZ
Dr. Alexander Schoch	Südzucker	DE
Dr. Inga Smate	Ministry of Agriculture	LV
Ms. Lynn Stockley	Food and Nutrition Consultancy	GB
Dr. Maria Szabo	National Institute of Food Hygiene and Nutrition	HU
Dr. Gabor Zajkas	National Institute of Food Hygiene and Nutrition	HU

**ILSI EUROPE**

Dr. Nico van Belzen  
 Dr. Sonia Samartín  
 Ms. Arianna Bonazzi  
 Ms. Ruth Marquet

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**ABSTRACTS OF THE PRESENTATIONS ON  
DEVELOPMENT OF FBDG**

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**Development of FBDG: Bulgaria**

Prof. Stefka Petrova

The national household budget surveys are a basis to estimate the pattern of the Bulgarian diet and its changes. The economic situation after 1989 resulted in many positive trends in food consumption as well as in some important negative changes. Between 1990 and 2002 there was a shortage in most common foods: bread and bakery products by 24%, yogurt by 62%, milk by 52%, eggs by 17%, and meat and meat products by 38%. The seasonal differences in the consumption of raw fruits and vegetables have decreased, though still great (2.5-5 times in 2002). The average intake of vegetables had increased with 30%, and the variety of foods consumed has improved. The consumption of added fats, especially butter, has decreased significantly; comparison with corresponding data from nine European countries - included in the so-called DAFNE project - demonstrated that Bulgaria was in the middle of their range. The consumption of sugar and derivate products, soft drinks, and alcoholic beverages has decreased. Low fish consumption and high salt intake, however, have not yet changed. It is planned to include additionally data collection by the national household budget surveys in order to improve nutrition information.

In 1997-2000 nationally representative and regional surveys were conducted on nutrition and nutritional status on the general population (over one year old) and on risk groups. Dietary intakes were studied using "24-hour recall", "3-day Food record" and "Food frequency" methods. Food quantities and portion sizes were estimated using national photo album and adopted culinary measures. Data for foods consumed were transformed into energy and nutrient content by specially developed national software. Anthropometric nutritional status was assessed using measured weight and height of the subjects studied. In some surveys self-reported data for height and weight have been used. Validation studies that have been conducted revealed some overestimation of underweight among children and underestimation of overweight and obesity among adult women in these cases. So, the measurement of the anthropometric indices was adopted as recommendable reliable methodological approach in nutritional surveys. In the interpretation of nutrition and anthropometric data collected the international adopted indices, indicators and criteria have been implemented. The surveys provided a reliable basis to identify the main current problems in nutrition and nutritional status of Bulgarians, as well as to identify groups at risk. Data obtained revealed the following main unfavourable characteristics of the current diet:

- High total fat (35-40 E%), high rate of saturated fatty acids (12-15E%), high prevalence of people (62-71% from different population groups) with fat intake over 30 E% (32E% for children aged 1-10 years)
- Low intake of vegetables and fruits in winter and spring
- Low fish consumption (4-10 g per day)
- High salt intake (2-3 times the upper limits)
- Insufficient intake of milk and dairy products
- Insufficient consumption of whole grain bread
- Inadequate intake of most of the micronutrients, mainly iron and calcium, folic acid, riboflavin as well as vitamin C in the winter and spring in almost every studied population group but especially among children, adolescents, women in fertile age (45-80% of corresponding Reference Nutrient Values)
- High alcohol consumption in alcohol consumers, increase in use of alcohol by adolescents
- The population groups with the highest risk of inadequate dietary intakes are young children, adolescents, women in childbearing age and during pregnancy, and elderly people.

Reliable national representative data for breastfeeding and nutrition of infants have not been available but local data revealed serious problems in this risk group. Breastfeeding is applied less, current complementary feeding practices of infants do not correspond to international recommendations.

Together with other risk factors, the unhealthy patterns of the diet considerably contributed to increase the occurrence of non-communicable diseases. Cardiovascular diseases are very common and are the leading causes of death (65% of all deaths). Cancer is the second most frequent cause of death (13 -15 % of all deaths). Overweight and obesity are highly prevalent among adults (44% of men are overweight and 19% are obese, among women 33% is overweight and 24% obese). The same applies to children and adolescents. Of 7-18-year-old boys 19% is overweight and 4% obese, comparable figures for girls are 16 and 3%. Adverse level of blood lipids is common among adults, diabetes mellitus has become more prevalent, and osteoporosis has become a serious problem for menopausal women.

It was assessed that there was a need to improve the information related to nutrition situation and diet-related diseases, and a national program with the same tasks was developed. In its frames a national nutrition monitoring system with adequate structure and responsibilities is under establishment. The update of the Bulgarian Dietary Reference Values is imminent.

Available data are a sufficiently reliable basis to develop current FBDG. They are to be directed to both the general Bulgarian population and to risk groups such as children and adolescents; in addition they are a basis to promote breastfeeding.

## **Development of FBDG: Czech Republic**

Dr. Jiri Ruprich

### *Eight steps to set the FBDG*

Setting dietary guidelines for the healthy population of the Czech Republic has respected the methodical steps suggested by authors as follows: consideration of dietary guidelines was preceded by the consensus on general goals and methods (the first step), e.g. health and well-being promotion at the population level. The guidelines cover a total diet, not only a part of it and have to be realistic with respect to actual frequency of food in majority of population. The second step was the declaration of nutritional goals with respect to achieving the RDI. The third step was dividing the food into defined food groups according to the following criteria: the food contained in one food group had the same/similar nutritional characteristics with regard to achieving the adequate or decreased intake. Within the groups several sub-groups were set, associating foods with another specific nutrient content. The fourth step was setting the serving sizes as an equivalent for each food group. These equivalents must reflect typical average consumed amount of food and always within the group the content of the main nutrient has to be same/similar. The fifth step was setting nutritional profile of each group and/or sub-group. This profile represented the content of energy, proteins, lipids, carbohydrates, vitamins and minerals. The sixth step was deciding the daily number of servings of each food group, which must allow as much flexibility as possible – authors recommend the interval solution. The seventh step was decision about the form (textual and graphic) that presents the guidelines. The decision was preceded by a study on the acceptance of suggested possibilities. The last, eighth step was working out the strategy of implementation in practise, which means the summarising organizational, administrative and political arrangements with the aim to be positively accepted by the population who identify itself with the principles of the dietary guidelines. In the formulation of dietary guidelines in the Czech Republic, the authors accepted methods described above and each of the eight steps was supported by an adequately focused population study.

### *Food consumption studies and FBDG*

The development and introduction of FBDG in the Czech Republic has been accompanied by independent studies on food consumption during 90ties. Repeated national studies were organized for 1990, 1993 and 1997. The design of the consumption studies (Household budget survey with weight records) was not constructed primarily for development of FBDG but results could be used as a frame for development and introducing. The main objective for data collection was more generous – to get a picture about average food consumption for risk assessment studies.

Based on the official statistical system in the country, data were of relatively high quality and representative. The missing element was of course splitting into data for individuals / meals. The most frequent difficulties were connected with food item identification from the respondent side and their aggregation into groups. The lesson from the organization is obvious – data appropriateness are limited when the design of study is focused on the different target. Results of the latest HBS study were used also for a very general evaluation of the food-based intake in the Czech population. The highest negative differences were observed for vegetable (2,2 portions per person and day instead of 4 as recommended by FBDG), for fruit (1,8 portions instead of 3), and for milk and milk products (1,4 portions instead of 2,5). Groups of cereal foods were consumed in quantity similar to the FBDG (4,9 portions instead of 4,5). Resources of proteins were consumed in higher quantity than recommended by the FBDG (2,7 portions instead of 2). This very general evaluation of situation in the country will be now replaced by the new evaluation of food consumption.

The first national food consumption study for individuals has been launched in 2003. Used design (twice repeated 24 hours recall, sample size calculated for measurement of vegetable consumption with 95 % of confidence) and set of additional questions give us a new chance to analyse situation in specific population groups and recognize differences in comparison to FBDG. There also will be a new chance to evaluate portion sizes and other factors influencing implementation of guidelines. With new nutrient based dietary guidelines (in preparation) there will be a chance to improve the national FBDG also. Key recommendation on the first step of objectives/organization/data collection is that this kind of work is not possible to organize without ongoing political (also financial) support of the government. At least representative national food consumption studies are expensive and need to be repeated periodically. Five key messages on how to process, interpret and evaluate collected data are:

1. To define a set of major nutrition-related health problems can be a problem when reporting system for health statistics doesn't work adequately.
2. Basic data should be produced in statistically based epidemiological / clinical studies and processed in accordance with the hypothesis (often not true because of feasibility). During political and economical changes (transition period) data on nutritional habit / consumption should be collected more frequently – usually at the same time financial limitations can be expected (question of data validity for time period).
3. The critical step can be aggregation of foods into groups with similar nutritional profile. Usually this needs a certain level of simplification (key nutrients).
4. Definition of “portions” and “meals” can be a practical problem for communicating with the public.
5. Setting of intervals for nutritional a portion values for FBDG is not easy.

### **Development of FBDG: Hungary**

Dr. Gabor Zajkas

In Hungary around half of the total mortality is caused by cardiovascular diseases, and a quarter by malignant tumours. Mortality caused by cardiovascular diseases is high compared to other European countries and the mortality caused by cancers is one of the highest in the world. The prevalence of overweight and obesity in Hungary is rather high as well. The last nutrition survey 10 years ago showed 20 % of obesity in both men and women, and 42 and 29 % of them were overweight. Since then, the proportion of overweight and obese people has probably increased as in the rest of the world, together with the rate of obesity related diseases such as diabetes, hypertension and adverse levels of blood lipids.

Since in the development of diet and lifestyle related diseases it was obvious that we needed to look for the dietary risk factors and the reason of their presence in Hungary. The risk factors in the Hungarian diet could be identified in the last Dietary Survey: high intake of energy, fat, saturated fat, cholesterol and salt, and low intake of fibre, vegetables, fruit and whole grain cereals. In addition, physical inactivity is decreasing.

One of the causes of the unhealthy Hungarian diet is that healthy nutrition is generally low. For this

reason, the first step in improving the current situation was to develop Food-Based Dietary Guidelines. A committee of experts from medicine, food industry, mass catering, food safety, physical activity was appointed to work out the FBDG. The committee's goal was to prepare basic information on the healthy nutrition for health professionals working as dieticians, health nurses, different health professionals, teachers, food industry, mass catering etc.. From this material the same committee prepared a short version for the population as well: this are the Hungarian FBDG.

In the work of formulating the Hungarian FBDG, similar materials from other countries, together with the first Hungarian Dietary Guidelines issued in 1988, were of great help to the Committee. Nutrient intake was calculated on the basis of 3 x 24 hour dietary record; the sample (2541 adult, >18 year) was not representative. Calculation of the nutrient and energy intake was done by using an official Hungarian nutrient data bank. The main difficulties were to find out the clear, attractive and easily understandable messages for the population, for all age groups. Besides it was difficult to decide the recommended daily amounts of the different food groups. Regular revisions and corrections are to be made on the FBDG using the experiences of other countries, and using the new data of the literature.

*Five key messages on how to process, interpret and evaluate collected data:* Nutrition surveys in representative sample; micro-statistical (Household Budget Survey) data on the trend of food disappearance; modification of the messages on the basis of these above data; nutrition survey of different population groups (primary school, secondary school age children, elderly people; survey on the food choice of different population groups.

*Key recommendations on the first step of objectives, organization etc.:* Spreading FBDG to as many people, families as possible; making publicity with the help of the media.

### **Development of FBDG: Latvia**

Dr. Iveta Pudule

Up until 1996 neither a national nutrition policy existed, nor data on monitoring of nutrition or lifestyle was carried out. To support nutrition policy development and to provide detailed information on the food consumption patterns as well as health behaviours, the WHO Office of Europe initiated the Baltic Nutrition and Health Survey, which was conducted in 1997. The survey highlighted areas where further development and implementation of national nutrition policy and health promotion campaigns were most required.

Since 1998 various types of actions on nutrition have taken place. In 1998, the Department of Nutrition Policy, was established within the Latvian Food Centre. The Department is the national coordination body for food and nutrition. In 2000, National Nutrition Council (a national technical advisory body) under the Ministry of Health, started to work.

Two tools were needed to support national nutrition policy: i) a set of recommended nutrient intakes and ii) food-based dietary guidelines.

Following the development of the National Recommended Nutrient Intake on 23 August 2001, the Ministry of Health has established nutrient goals for the Latvian population. Policy makers can use dietary targets or goals to monitor and evaluate the population's nutritional health

Initially, to be understood by the population, the nutrient goals needed to be translated into food-based dietary guidelines at the national level. The Ministry of Health needed to develop dietary guidelines that are consistent and easily understood. The first example of dietary guidelines in Latvia was almost fully based on the WHO CINDI dietary guide and 12 steps of healthy eating developed by the WHO Europe. It was translated and adapted to local situation in 2001. They were circulated mainly among primary care experts and other specialists, such as paediatricians, obstetricians and cardiologists who have the opportunity to give advice to patients.

Recommended daily nutrient intakes for the Latvian population were developed and approved by the Ministry of Health in August 23, 2001. International standards were used WHO/FAO, EU and Nordic countries recommendations were adopted.

In October 30, 2002 Dietary guidelines for adults were developed and endorsed by the Ministry of Health. FBDG for 2-18 years old children, were approved by the Ministry of Health in July 25, 2003

and FBDG for infants (0 - 2 years old) were approved by the Ministry of Health in July 25, 2003. Posters and food selection guides developed to accompany the dietary guidelines were consistent with the conservation of national resources and included the promotion of local production for local consumption.

The main difficulties during the development of FBDG were: low priority given to nutrition by Government, lack of local experts and the lack of reliable data of food and nutrition.

### **Development of FBDG: Romania**

Dr. Daniela Nuta

In 1984 the Institute of Public Health of the Ministry of Health established a working group to create the Romanian recommended dietary allowances (RDA). Their work was based on nutritional status of the population, nutrients requirements of the Romanian population, scientific evidence in relation to nutrients and diseases, and WHO recommendations (RDA's) regarding nutrients need of healthy persons.

For assessing dietary intake of population we used the method of food records - food and beverages consumed for seven days ( in spring and in autumn ). To calculate nutrients intake we used Romanian's " Tables of food composition".

Using the final data we evaluated nutrient intake in relation with food-nutrient -diseases and identified the needs for the population expressed in food groups.

The working group studied the reports on the nutritional status of the Romanian population and concluded that in Romania there are many nutrients deficiencies: iron, calcium, iodine, vitamin C, B2, nicotinamid, animal proteins and vegetal lipids. The Romanian RDAs of 1984 did not provide recommendations for nutrients such as PUFA, acid folic, copper, selenium, flour, vitamin B12, vitamin K and vitamin E.

These RDAs or dietary guidelines at the nutrients level are useful when we want to know if the metabolic needs are fulfilled by the food daily intake. When we think in terms of foods we need food-based dietary guidelines (FBDG). Diet is made of foods; the word food – rather than nutrient - is easier for the population to understand. At the same time, FBDG can incorporate aspects of the socio-cultural environment that affect food availability and choices.

The Romanian FBDG represent the main groups of food in quantities expressed in grams, because most people think this way about their needs (and the foods they consume). Other recommendations are "Standardized portion size", multiples of which have to be consumed, and "Equivalents of food of similar origin or composition".

Experience indicates that for the population FBDG should be as simple as possible. For this purpose Romania most efficiently uses the representation of the food pyramid.

After 1990 the economic changes has had a big influence on the nutrition, and in some segments of the population new deficiency syndromes were discovered. As a result there is need for a new formulation and implementation of FBDG.

### **Development of FBDG: Slovenia**

Dr. Cirila Hlastan-Ribic

The Nitra Workshop on Food-based Dietary Guidelines in 1997 coincided with the beginning of a process for the preparation of Slovenian FBDG. The report of a Joint FAO/WHO Consultation "Preparation and Use of Food-Based Dietary Guidelines" (Technical Report Series 880, 1998) was of great importance for the development of the process because it has given the basic knowledge in a very systematic way.

At that time Slovenians were also dealing with a very limited amount of available precise data sources regarding nutrient intake and nutrient status of the general population and particularly of different sub-population groups. Slovenia as a whole is following morbidity and mortality trends, and a daily average intake of energy and macronutrients, comparable with other central European countries. Detailed mortality rate analysis in Slovenia from 1987 to 1996 (published in 2000) showed that West Slovenia is following the West European patterns and East Slovenia was more comparable with the East European patterns for cardiovascular mortality.

The Koch research study data and analysis (Nutritional habits of Slovenian adults in health protection aspect, 1997) was used as a basis for preparation of FBDG. The results of the study show a too high average of salt and of energy intake in Slovenia, especially energy intake of total and saturated fats. Dietary fibre intake is too low. The Slovenian Public Opinion Survey conducted in 1999 gave the first insight in the healthy lifestyle habits of the whole adult population. For basic calculation of “per capita daily intake”, Slovenian household budget survey data were used. The data are representative, but not precise enough, so we have joined as participants the DAFNE initiative in 2003.

National dietary recommendations can be compared with supply figures with the aim of assessing progress towards a defined nutrition policy. We made regression plots of intake survey data against supply data for fruit and vegetables and total fats. These analyses show that Slovenia has an inadequate supply of fruit and especially vegetables, but there is an over-supply of total and animal-derived fats.

The working group charged to develop the Slovenian FBDG was established at the ministerial level as a part of the Food and Nutrition Council at the Ministry of Health in 2001. Members are experts from different sciences, and temporary advisers are invited to give their input in the process: health, food and nutrition science, agriculture and food industry, education, communications and sociology. The experts based their activities on the WHO document “Preparation and use of Food-based Dietary Guidelines”.

Because of the lack of data and because of the mortality profile, Slovenia decided to use WHO (CINDI) FBDG temporarily and to create the conditions to formulate our own evidence based FBDG. Only now, thanks to several researches (health impact assessment of food and agriculture policies in Slovenia, regression models study for estimation of main food group intake patterns) and thanks to the participation in the DAFNE project, the collection of the basic data needed to prepare the Slovenian FBDG was made possible. The Slovenian Ministry of Health has adopted the decision to support the establishment of the necessary databases. At the same time it is important to mention that Slovenia is in the final stage of the preparation of the National Food and Nutrition Strategy and Action plans. The implementation of the FBDG is a part of this document.

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## **ABSTRACTS OF THE PRESENTATIONS ON IMPLEMENTATION OF FBDG**

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### **Education, health promotion, national implementation of FBDG: Bulgaria**

Prof. Donka Bajkova

Nutrition education in Bulgaria aims to assist individuals/ specific target groups to consume diets, which can satisfy nutritional requirements and alleviate health problems. Nutrition education in order to support healthy food choice at different population levels, is one of the most important objectives of several public health programs. The communication strategies are selected according to the target population - general public, high-risk groups (obese individuals, children and adolescents, pregnant and lactating women, elderly), medical students, health specialists, teachers, canteen staff etc. For the purposes of specific public health programs dietary guides have been developed/translated and introduced - CINDI dietary guide, osteoporosis, prevention of iodine deficiency, promoting breast-feeding etc.

An official body, responsible for implementation of FBDG only, has not been established. During the ongoing process of the National Food and Nutrition Action Plan a multisectorial working group was built up under the leadership of the Ministry of Health. A special expert group was established for developing the program on Nutrition Education. National specific FBDG will be incorporated into this program.

Despite the fact that an integrated national plan on nutrition education up to this moment does not exist, a lot of information/education activities has been directed on improving nutrition knowledge of population and specialists.

Food based healthy nutrition has been communicated regularly through mass media - newspapers, magazines, TV- and radio spot almost on weekly basis. The messages are addressed to general public and persons with some diet-related health problems - obesity, hypertension, constipation, diabetes, food allergy and others. Some specific information on health effect of functional food, cereals, fruit and vegetables has been discussed through *short-term* promotion campaigns. *Mid-term* effect on health promotion and disease prevention has been achieved through programs for improving school nutrition, for reduction of non-communicable diseases – CINDI, osteoporosis, labeling legislation etc. An integrated strategy for education/communication has been implemented.

Target groups in these projects are nutritionists, health specialists, producers, traders, and general public. Diet, translated into healthy food has been communicated through lectures, articles, leaflets, posters & stickers.

A new approach for improving nutrition information of general population was implemented last year by developing an interactive web site on all aspects of nutrition and diet. The project has been supported by qualified specialists in nutrition. To improve considerably the nutrition knowledge of health care specialists, long-term educational programs for medical doctors and health specialists have been developed. In the curricula of the three years postgraduate training program for medical doctors, FBDG is the headstone of understanding healthy nutrition.

A curricula of a new program for continuing education in nutrition and dietetics for nurses and midwives starting from the new academic year, incorporated FBDG and the promotion of breastfeeding. Educational/promotion tools are developed for the specific purpose - programs, projects, campaigns, training courses.

The FBDG used in CINDI regions are translated versions of the WHO guide. The more integrated national FBDG is under way, based on specific food patterns of the Bulgarian population. The promotion materials are funded by the budget of MoH, WHO (CINDI), food producers. No national funding for the FBDG has been planned for this year.

*Conclusions and recommendations:* The unified national specific, food-based dietary guidelines are required, based on food pattern and relevant to the main health problems of Bulgarian population. Specific messages, based on foods and portion size should be formulated. The FBDG will be incorporated into the national food and nutrition action plan and uniformly communicated through all channels.

## **Education, health promotion, national implementation of FBDG: Czech Republic**

Dr. Marie Kunesova

The Implementation of FBDG in the Czech Republic is guaranteed by the State Institute of Public Health. The Institute is directly governed by the Czech Ministry of Health. The topics of nutrition are covered by the Centre of Health and Environment and Centre of Environmental Health in Prague and by the Centre for the Hygiene of Food Chains in Brno.

There is a tradition of implementing FBDG in Czech Republic since 1985 when the first trends in nutrition were published by the Czech Society for Nutrition.

An Action Plan of Health and Environment in Czech Republic was set up by the Ministry of Health in collaboration with the Ministry of Environment and Ministry of Agriculture in 1998. One part of the plan is the improvement in the structure of food composition in population.

Education in health nutrition is included in the curriculum of pedagogical faculties. A Master degree in health sciences was created at the Masaryk University in Brno, as well as a Baccalaureate in nutrition at the Masaryk University in Brno, and in public health at the Charles University in Prague. These programmes are carried out by medical faculties. In the curricula of medical faculties, the education of nutrition has been underestimated for too long.

At primary schools, the training in health nutrition is carried out as a part of school subjects according to the age of the children (from 6 to 15 years of age).

Health professionals as nutritionists, dietary nurses, dietitians and physicians (specialists in public health, diabetologists and obesitologists); teachers, psychologists and also laymen are involved in the implementation of FBDG. Journalists and media play an important role in mediating the information.

Non-profit organisations participate in the implementation of FBDG. In the Society for Nutrition are associated all professions engaged in nutrition and food. The Journal "Nutrition" is published by the Society for Nutrition. "Nutrition" targets dietitians, health professionals dealing with nutrition, food technologists and the public interested in nutrition. It also contains a Report of the School Catering aimed at the staff of the school catering firms and subjects interested in nutrition at schools. Annual conferences are organised by the Society for Nutrition. The League for Lactation supporting breast-feeding which provides a help line, www pages, printed materials and a journal is an example of lay organisations.

Several food companies support the implementation of FBDG in relation to their products. Also health insurance companies support FBDG mostly targeted on specific populations suffering metabolic and cardiovascular diseases or neoplasma. Network of the weight reduction clubs, STOB propagates health nutrition in obesity.

The projects re. the implementation of FBDG are granted by the Ministry of Health (e.g. Fruit and vegetables 5 times per day, Health nutrition for risk groups of population, Health nutrition for school children 9-10 years, ABC of nutrition in children etc.).

To target the implementation of FBDG, we evaluated the food intake in subjects differing in BMI and fat distribution assessed by waist circumference.

A population survey was performed in a quota sample of the Czech population. 3053 subjects (1429 men, 1624 women) were interviewed. BMI was calculated and waist circumference was measured. Food frequency questionnaires (FFQ) were evaluated. Typical patterns of food consumption will be shown

Conclusion for effectively implementing FBDG: (1) Defining population groups with similar patterns of food intake and with similar environment could represent the first step for selection of appropriate target groups for implementing FBDG. (2) A collaboration of all subjects interested in health nutrition including government, state institutes, professional associations, non-profit and commercial organizations interested in nutrition, is necessary.

*Supported by the Czech Ministry of Health and by the grant NR/7782 – 4 IGA.*

## **Education, health promotion, national implementation of FBDG: Hungary**

Dr. Magda Antal

The Hungarian food-based dietary guidelines were developed under the direction of NCPH-NIFHN. Experts from the Ministry of Agriculture, Ministry of Education, the Presidiums of Hungarian Society of Nutrition and the Hungarian Society for Study of Obesity, the Central Institute of Food Research, the Institute of Sport Health were involved in the elaboration.

The manuscript was supervised and recommended for publication by the Special Board of Internal Medicine.

On the basis of our food chemistry laboratories results and epidemiological studies accumulated during many years, we were in the position to formulate appropriate FBDGs which are distributed as widely as possible among the general public. FBDGs were approved by the Ministry of Health, and were integrated with the Public Health Programme for a Healthy Nation.

Stakeholder of FBDGs is NCPH-NIFHN, namely Rodler I. MD, Director. Actual expenses were covered from the budget of the Public Health National Program at the very nominal level, and funding is still the major shortcoming. The preparation and distribution of FBDGs concern both professionals and the public at large. Our Guidelines received a favourable acceptance by the public since the preservation of health is everyone's concern.

There is no official body responsible for the implementation of FBDGs, however NCPH-NIFHN developed a strategy for the implementation of FBDG as follows:

1) Short-term program:

- a) 30000 leaflets (A/4 formula) were disseminated to the waiting rooms of family doctors,
- b) 15000 leaflets as a part of so called "Suli" - school calendar - were sent to schools,
- c) 20000 complete guide books and 7000 shortened form of FBDGs as a part of KÖZINFO were sent to the regional Public Health and Medical Officer Services.

1) Mid and long term programs:

- a) regular communication with media experts via the "Media Cabinet",
- b) all forms of Media are used to contact the population,
- c) participation in postgraduate teaching programs for dietitians, exercise therapists head of catering etc,
- d) personal consultation in schools,
- e) face to face education of small communal groups, with the help of Red Cross members.

The main difficulties involve the shortage of funds. Further success will depend on the establishment of an appropriate budget. The dissemination and efficacy of FBDGs could be more successful if an independent Hungarian Nutrition Council would be established.

## **Education, health promotion, national implementation of FBDG: Latvia**

Dr. Iveta Pudule

The Conception Paper of the Cabinet of Ministers '*Healthy Nutrition 2003 – 2013*' was accepted on September 4, 2003.

It places the main responsibility for the implementation of whole policy and food –based dietary guidelines on the Ministry of Health and it's subordinate institution, the Latvian Food Centre Nutrition Council.

A wide range of methods are used in the implementation of FBDG:

Short term effect: national healthy nutrition campaigns during Health Week held annually in May. Mid-term effects: projects and programmes including state programme on breastfeeding promotion, training programmes for health personnel and teachers. Long-term effects: education programmes for nutritionists, school health education and home-economics programmes.

The sustainability of the implementation of FBDG is not fully guaranteed by allocating appropriate financing for planned programmes and projects.

The FBDG have been approved by the Ministry of Health. They were launched in October 2002, with the participation of the Ministry of Health, the Ministry of Agriculture, the Ministry of Education, Universities and professional associations.

The FBDG implementation strategy is described in *Healthy Nutrition 2003 – 2013*, which identifies several target groups: infants, children and adolescents, adults, old people, low income groups, sick people.

Groups involved in implementation are: public health workers, school teachers, hospital dieticians, food companies, supermarkets, agriculture sector, mass media.

Various methods are used to promote dietary messages: pedagogical methods during classes at school, lecturing, mass media. Posters and booklets have been produced. The websites of the Latvian Food Centre and of the Health Promotion Centre are used to distribute messages and materials. Competitions, project writing, interactive methods, brochures have been used. The food guide and other materials: books for teachers, school children and medical personnel have been developed and are in the process of development.

Formative research of the public was included in the questionnaire of Health Behaviour Monitoring Survey of Adult population: several questions concerning nutrition practice, knowledge and beliefs were included.

The guidelines are integrated in the national health and education policies and programmes, but have not yet been integrated into the policy documents of the agriculture and food industry.

FBDG are integrated into curricula of nutrition courses in universities, medical degrees, in-service and pre-service training of dieticians and nutritionists.

The guidelines are well perceived by higher educated groups. Risk and low-income households have not yet been targeted.

There is a problem with state funding of the implementation of FBDG.

In the monitoring process the Ministry of Health and subordinate structures, the Ministry of Education and Science as well as the Ministry of Agriculture and Universities, are involved. The population understanding as well as behaviour changes are evaluated by regular health behaviour surveys of adult population and school children.

## **Education, health promotion, national implementation of FBDG**

### ***A very good experience for healthy eating in Romania – the healthy lifestyle promotion campaign***

Dr. Marian Graur

One of the most important issues for the Health Promotion department from the Ministry of Health in Romania is the healthy lifestyle promotion. This program is oriented to all the risk factors in public health. There are chapters dedicated to the tobacco, alcohol and drugs consumption, mental health

topic, health in relationship with the environment, the domestic violence etc. But the most important relates to nutrition. The healthy lifestyle promotion campaign, launched in October 2003 by a press conference in Bucharest, is coordinated by the Ministry of Health through IEC (information, education, communication) working groups. IEC working groups are composed by the representatives of all the institutions active in the field.

This campaign is carried out at a (1) national and (2) local levels. To understand this, some details regarding our governmental structure must be explained. At the Ministry of Health there is a special unit -the Health Promotion Department, under which we have the Health Promotion Centre at the Institute of Public Health Bucharest. The very important part of the structure is represented by the national health promotion network: Romania has 42 districts, and 42 Local Health Authorities in total (1 per district). Every Local Health Authority has an Office for Health Promotion and Health Education. All these 42 offices represent the national network coordinated by the Ministry of Health and are the channel to spread our programs in all the country.

As said, the same mechanism to implement the health promotion campaign exists at both levels, national and local. These levels work in partnership with different institutions, governmental and nongovernmental, interested in the field. We put together experience and funds in order to achieve the common goals.

The campaign is carried out thanks to the collaboration of the Ministry of Health with Institute the of Public Health, the Ministry of Education and Research, The Nutrition Institute (governmental institutions), "Messengers of Health", "Fresh Air", "Mental Health League", "Centre for Domestic Violence" (NGO's), UNICEF, JSI Research & Training Institute, UNFPA (International Agencies). The financial support for the 2003 campaign come totally from the Ministry of Health budget. For the second part of this campaign, planned for 2004, all partners will receive a financial contribution. At the local level our colleagues from the health promotion offices organized a partnerships involving the local city hall, the local Inspectorate of Education and the local NGO's.

The most important media channel used was the radio station (national and local levels). 11 radio shows (two of them on healthy nutrition) had an expert interacting with the public. At the end of the show, a contest with different questions related to the subject was launched offering one million lei to the winner. The audience expressed a very high appreciation for the campaign, and hundreds of letters were received from the population asking different questions about the healthy nutrition topics. In parallel we prepared a hundred leaflets and brochures and also posters on the topic of healthy lifestyle, with many important information for the population.

Another success was represented by a very useful web site ([www.viatasanatoasa.ro](http://www.viatasanatoasa.ro)), which gave links to the sites of the Ministry of Health and the Institute of Public Health in Bucharest, institutions that initiated the campaign. Other links are focused to the healthy-life subjects. A very active one is a discussion forum where the visitors can find questions and answers covering all the subjects of the campaign.

All this time, the national network of health promotion replicate the campaign at the local level in all the 42 districts of Romania. Our colleagues from the 42 health promotion services have organized very interactive activities with the population in the street and also with the students in schools. March is the evaluation month for this campaign. After the evaluation will we continue the campaign for the year 2004, including also the TV stations as partners.

For the year 2004, the target population will focus on the rural area and on small cities of all over the country. The goal for 2004 is to transform the IEC campaign in to a Behaviour Change Communication Campaign. The healthy eating topic will be discussed in details and the first step for the action plan will be to implement this program in kindergartens. The guidelines for healthy nutrition must then be adapted to this level of education. A new methodology to implement the program is needed as well as an active evaluation of the kids behaviour change.

So far, the message received by the target group population was that a healthy lifestyle represents a natural and harmonious way of life to avoid bad behaviours and health problems. Very soon we will have the final evaluation of this first part of the campaign. Maybe I will be able to present it during the meeting in Budapest.

*(NB: handouts not available)*

## **Education, health promotion, national implementation of FBDG: Slovenia**

Dr. Cirila Hlastan-Ribic

Slovenian Food-Based Dietary Guidelines are not accomplished, so WHO CINDI FBDG are used. On the basis of all data and analyses collected until now, we estimate that Slovenian FBDG is not going to be basically different from WHO CINDI FBDG. Our activities on education and health promotion are very diverse and are oriented to different population groups (in 2004 especially to school children), communities (successful project in rural communities) and supportive environments. The Ministry of Health is putting a lot of efforts in building healthy public policies in the field of agriculture, food and nutrition.

World Food Day on the 16<sup>th</sup> of October marked the start of the Ministry of Health 's promotion of eating vegetables and fruits 5 times daily and of exercise, through various media and through all professional institutions. The promotion campaign took place at national and local levels and also included inter-ministerial and inter-disciplinary activities involving the Ministry of Education, Science and Sport, the Ministry of Agriculture, Forestry and Food, the Ministry of Labour, the Family and Social Affairs, the Chamber of Agriculture and Forestry, the Agricultural Advisory Service, experts from the Institute of Public Health, CINDI Slovenia, regional healthcare institutes and health, and nutritional staff in health centres and hospitals. All activities have been supported by a uniform recognisable media image communicating a positive approach: an appeal to enjoy vegetables and fruits, a promotion of adequate exercise, in short »enjoyment!«. This campaign promoting vegetables and fruit 5 times a day, and exercise, has been carried out at various levels and in various environments (national and local media, national and local activities in schools, kindergartens and student hostels) as well as through several activities developed by health staff, institutes of public health, health centres and hospitals, through chemists, through the Agricultural Advisory Service, societies of agricultural women and rural youth, associated to non-government organisations.

Worst nutritional habits were found in lower social classes, rural population, male population, younger population aged 25 – 35 and lower educational status. That is why a project for education of the rural population "Live healthier" in rural area of Pomurje was funded. As a main educational tool the CINDI food pyramid was used and the whole project was very successful and extremely well accepted in the rural communities. In the year 2003 the project was expanded to the whole Slovenian territory. Evaluation of the project will be finished by the end of April 2004.

Based on the experiences from the Health Impact Assessment of Food and Agriculture Policies in Slovenia, an educational program for agriculture advisers (the educators of farmers and possibly of the whole rural population) was launched in 2004.

All programs (curricula) for nutritional education in kindergartens, primary schools, secondary schools and at university level were checked in 2003. The plans by the Ministry of Education for improving such programs are under preparation. A special program for enhancing physical activity as well as fruits and vegetables' intake in school environment is foreseen in 2004.

Special attention is oriented to one of the most important groups which provide population with the meals eaten outside - cooks and catering industry. It is foreseen to prepare a special education program for this group.

The Ministry of Health of Slovenia, responsible for the implementation of FBDG, has adopted the decision to support the establishment of the necessary databases. At the same time it is important to mention that Slovenia is at the final stage of the preparation of the National Food and Nutrition Strategy together with action plans established by the Ministry of Health. The action plan for the implementation of the FBDG is a part of this document.