



How can science support policy makers in addressing the nutritional challenges of Europe ?

A workshop organised within the frame of the JRC Enlargement and Integration Action programme

Sandra Caldeira, Petros Maragkoudakis & Jan Wollgast



The mission of the JRC-IHCP is to protect the interests and health of the consumer in the framework of EU legislation on chemicals, food, and consumer products by providing scientific and technical support including risk-benefit assessment and analysis of traceability.

European Commission
Joint Research Centre
Institute for Health and Consumer Protection

Contact information

Address: Sandra Caldeira, 19/20i-TP 202, Joint Research Centre, Via E.Fermi 2749, 21027 Ispra (VA), Italy
E-mail: sandra.caldeira@ec.europa.eu
Tel.: 0039 0332 78 3887
Fax: 0039 0332 78 9059

<http://ihcp.jrc.ec.europa.eu/>
<http://www.jrc.ec.europa.eu/>

Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

***Europe Direct is a service to help you find answers
to your questions about the European Union***

**Freephone number (*):
00 800 6 7 8 9 10 11**

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server <http://europa.eu/>

JRC 67808

EUR 25165 EN
ISBN 978-92-79-22724-0
ISSN 1831-9424
doi:10.2788/55770

Luxembourg: Publications Office of the European Union, 2012

© European Union, 2012

Reproduction is authorised provided the source is acknowledged

Printed in Italy

Table of contents

1. PREFACE.....	3
2. EXECUTIVE SUMMARY.....	4
3. INTRODUCTION.....	5
4. CURRENT NUTRITIONAL ISSUES AFFECTING THE E&I COUNTRIES.....	6
5. INTERVENTIONS AND POLICIES TO PROMOTE HEALTHY AND SUSTAINABLE EATING	7
5.1 PAST AND PRESENT NUTRITIONAL INTERVENTIONS AND POLICIES	7
5.2 NUTRITIONAL INTERVENTIONS AND POLICIES: THINKING OUTSIDE THE BOX	9
6. PROVIDING THE SCIENCE-BASED EVIDENCE NEEDED FOR POLICY MAKERS TO ADDRESS CURRENT NUTRITIONAL CHALLENGES: SUITABLE RESEARCH AND SCIENTIFIC APPROACHES IN THE CASE OF OBESITY.....	13
6.1 ADDRESSING LIMITATIONS COMMONLY FOUND IN NUTRITION AND LIFESTYLE INTERVENTIONS AND TRIALS	14
6.2 ASSESSING THE EFFECTIVENESS OF OBESITY CHILDHOOD INTERVENTIONS	14
6.3 RESEARCH INTO FURTHER REDUCTION OF PORTION SIZE AS A MEANS TO LIMIT CALORIC INTAKE	15
6.4 EXPLORING AND IDENTIFYING EFFECTIVE MEANS TO TRANSLATING OBESITY RESEARCH FINDINGS INTO ACTIONS AND POLICIES	15
7. ADDED-VALUE OF EU-WIDE INITIATIVES.....	16
8. CONCLUDING REMARKS.....	17
9. ANNEX I. WORKSHOP PARTICIPANTS	18
10. ANNEX II WORKSHOP AGENDA	23
11. ANNEX III: SUMMARY OF THE PRESENTATIONS ON THE NUTRITIONAL ISSUES AND POLICIES OF THE PARTICIPANT COUNTRIES	25
12. ANNEX IV. WORLD CAFÉ BRAINSTORMING SESSION	27
13. ANNEX V. PRESENTATIONS	30

1. Preface

The Joint Research Centre (JRC) is the scientific and technical arm of the European Commission. Within the frame of its Enlargement and Integration Action (E&IA) it also aims to give scientific and technical support to countries on the road towards EU membership, new member states and associated countries¹. As the organisers of the E&IA funded workshop "**How can science support policy makers in addressing the nutritional challenges of Europe?**", one of our objectives was indeed along these lines as we sought to present the EU strategy on nutrition, overweight and obesity-related issues as well as other European initiatives and successful nutrition interventions to the invited E&IA country participants. E&IA workshops are also intended to facilitate scientific and technical exchange and therefore we also gathered information on the nutritional issues affecting these countries. We capitalised on the participant's expertise to identify nutrition-related concerns where there is need for additional science-based evidence supporting effective implementation of measures to address those concerns. Fulfilling the latter objectives was only possible given the vast and broad knowledge of the workshop participants and their active and enthusiastic participation throughout the sessions. We are grateful for their contributions, invaluable discussions and their commitment to the success of this workshop.

¹ In 2011 the E&I action contemplated the following countries: Albania, Croatia, Iceland, Montenegro, Switzerland, Bosnia and Herzegovina, FYR of Macedonia, Israel, Serbia, Turkey

2. Executive Summary

There is a clear albeit complex link between nutrition and health. This workshop brought together nutrition and public health experts from EU-Enlargement and Integration Action (E&IA) countries as well as current member states to discuss this link and attempt to answer the question "**How can science support policy makers in addressing the nutritional challenges of Europe?**". In line with one of the workshop aims, this report summarises the nutritional issues that affect the E&IA countries and that, not surprisingly, are similar to those affecting EU-27 nations and other developed countries. The most obvious examples are nutritional excesses such as high energy, salt or fat intake but several countries also reported micronutrient deficiencies, *e.g.* Vitamin D or iron. While there are many actions already in place to promote healthy and sustainable eating at all levels, from European to local level, the fact that nutrition challenges like obesity still prevail indicates that there is a need to further refine and improve these actions. Focused and targeted research is needed both on the effectiveness of particular measures or interventions as well as on how to best implement them. The participants of the workshop identified four areas where further research is required to successfully refine and improve obesity-targeting measures in a way that is based on scientific methodologies and conclusive results. These four areas are 1) Addressing limitations commonly found in nutrition and lifestyle interventions and trials 2) Assessing the effectiveness of obesity childhood interventions 3) Research into further reduction of portion size as a means to limit caloric intake 4) Exploring and identifying effective means to translating obesity research findings into actions and policies. It was not the aim of the workshop nor of this report to propose these as four priorities for research but rather to alert to the gaps in these areas and present them as four possible directions where research efforts could converge.

3. Introduction

Understanding the links between nutrition and individual and public health is of extreme importance as it could deliver new strategies in disease prevention or treatment. Paradoxically, on a global scale there are clear and serious health issues arising from both under-nutrition and energy over-nutrition. Indeed, while approximately 20% of the world is overweight², other 15% were still hungry in 2010³. In Europe, energy or protein deficiencies are not common and the most pressing issue in the past decades has in fact been the opposite - high energy intake and consequent obesity. Nevertheless, nutritional deficiencies, in particular at the level of vitamins or minerals still occur, mostly in specific populations or particular groups such as children, the elderly or pregnant women. Epidemiologists, nutritionists and other health experts work together to identify both over and under-nutrition issues and their health consequences as well as to present possible solutions to tackle these problems. The workshop "**How can science support policy makers in addressing the nutritional challenges of Europe?**" brought together such experts from mostly EU-Enlargement and Integration Action (E&IA) countries with the aims of:

- *pinpointing current and anticipated future nutritional issues affecting these countries*
- *sharing experts' knowledge, experiences and ideas on their health consequences and possible interventions and policies to avert them, including the latest developments in EU nutrition policies.*
- *identifying opportune research and scientific approaches to provide science-based evidence needed for policy makers to address these fore identified nutritional challenges.*

More information on the workshop can be found in its dedicated website⁴. This report summarises the outcome of the workshop's sessions and their main conclusions.

² <http://www.who.int/mediacentre/factsheets/fs311/en/index.html>

³ <http://www.fao.org/docrep/012/al390e/al390e00.pdf>

⁴ http://ihcp.jrc.ec.europa.eu/events_workshops/workshop-nutrition-2011

4. Current nutritional issues affecting the E&I countries

One of the objectives of the workshop was to identify current nutritional issues and anticipate any future ones in the E&I countries. The participants were invited to report on the nutritional issues that affect their countries and a copy of each presentation along with a bullet point summary is presented in Annex II. While geographical and cultural differences could impose specific nutritional concerns to these countries, most of the issues pinpointed by the participants (listed in Table 1) were common to other E&I and EU-27 countries.

Table 1: Summary of the nutrition-related problems identified by the workshop participants.

<i>Nutritional issues in E&I countries</i>
<p>Excessive intake</p> <ul style="list-style-type: none"> High energy intake and low energy expenditure High NaCl intake High trans-fatty acids intake
<p>Deficient intake</p> <ul style="list-style-type: none"> Vit D deficiency Iron deficiency Iodine deficiency Folic Acid deficiency Selenium deficiency
<p>Other issues</p> <ul style="list-style-type: none"> Exclusive Breastfeeding for first 6 months is not implemented in its entirety Eating disorders Food safety Food labels are not effective as consumers fail to extract important information from them

The problem of high energy intake and low energy expenditure is present in nearly all the countries targeted in this workshop with consequent alarming levels of overweight and obesity. National or WHO surveys in the participant countries indicate that often more than 50%, and in some cases even 60%, of their populations is overweight or obese. Similarly, salt and trans fatty acids excessive intake was also reported by several of the participants. Other cases of malnutrition that were reported by the participating countries were vitamin deficiencies (in particular Vit D and folic acid) or mineral deficiencies such as iron or selenium. Again, some of these nutritional challenges are being faced by many other nations. In addition, issues such as eating disorders (e.g. bulimia, anorexia or orthotexia) were also

discussed as new or possibly upcoming challenges. Importantly, in light of the recent EU-legislative impetus given to the topic, was the fact that many of the participants indicated that consumers in their countries could not make proper use of food labels and failed to extract the important information they convey.

5. Interventions and policies to promote healthy and sustainable eating

5.1 Past and present nutritional interventions and policies

It is worth noticing that several of the presenting countries have ongoing or planned actions to respond to the nutritional concerns identified and so do EU-27 member states and the European Commission. A brief overview of these actions is presented below, while a more extended summary and the corresponding presentations can be found in Annex IV.

The European Commission hosts the EU platform for Action on Diet, Physical Activity and Health⁵ since 2005, providing a common forum for stakeholders such as industry, research and civic organisations dealing with food and health to propose and develop actions and campaigns (commitments) to promote health through nutrition and physical activity. A coherent and comprehensive Community Strategy to address the issues of overweight and obesity was then put forward in 2007 by adopting the White paper entitled "The EU strategy on nutrition, overweight and obesity-related health issues"⁶. This white paper focuses on actions that can be taken at the EU level to improve nutrition and health related issues and establishes six main priority areas: better informed consumers, making the healthy option available, encouraging physical activity, children and low socio-economic groups, evidence to support policy making and monitoring systems to evaluate the progress.

The European Commission has also set up and leads a High Level Group⁷ on nutrition and physical activity, a group of European government representatives dealing with Nutrition, Physical Activity and Health. The group offers an overview of all government policies on nutrition and physical activity and serves as a common platform for governments to share policy ideas and practices. One of the achievements of the High Level group has been the EU

⁵ http://ec.europa.eu/health/nutrition_physical_activity/platform/index_en.htm

⁶ http://ec.europa.eu/health/nutrition_physical_activity/policy/index_en.htm

⁷ http://ec.europa.eu/health/nutrition_physical_activity/high_level_group/index_en.htm

framework for salt reduction initiatives describing a common vision for a general European approach towards salt reduction⁸.

To illustrate a success case in the history of nutritional interventions in Europe, a Finnish set of actions and policies that responded to the high rates of mortality due to chronic heart disease seen in the seventies were presented. These included several interventions such as the North Karelia Project (NKP). The NKP was particularly successful due to, among others, well defined targets, appropriate epidemiological framework, good monitoring, support from the community, media and WHO, as well as long term and dedicated leadership. The NKP has shown that prevention of major chronic diseases is indeed possible and pays off, not only in the long run but also surprisingly quickly. Furthermore, population based prevention is the most effective and sustainable public health approach for chronic disease control, and including lifestyles in the prevention is a key issue in achieving success.

A more recent campaign was presented by Romania, 'Campania Viata' or 'Campaign for Life'⁹. This is an example of a multi-disciplinary, science-based project prepared with limited funding that aimed at launching a primary prevention program targeting non communicable diseases in children and adolescents through a behaviour change campaign. Epidemiologists, psychologists, media experts, as well as scientists identified four relevant behaviours (when thirsty drink water, eat breakfast every day, eat 5 pieces of fruit and vegetables a day, 60 min of intense physical activity a day) and produced a toolkit for health and education professionals detailing scientific and evidence-based support of for these behaviours. Five hundred schools and kindergartens are implementing micro-projects based on Campania Viata.

As noted above, several of the participating countries are implementing or have implemented measures to tackle their own nutritional problems (See Annex II for details on each country). There are national action plans and measures to combat obesity and diet-related non communicable diseases in all countries targeted in our workshop. Salt reduction programmes (*e.g.* Croatia), food fortification and supplementation schemes in the case of vitamin or minerals' deficiencies (as in Iceland), as well as national food and nutritional labelling schemes (*e.g.* Serbia) are other examples of areas where national health authorities are investing to promote health.

⁸ http://ec.europa.eu/health/nutrition_physical_activity/high_level_group/nutrition_salt_en.htm

⁹ <http://www.comunitate-sanatoasa.ms.ro/>

While state-implemented nutritional actions are important, it was noted that health promoting nutritionally-based measures will thrive only if they succeed in shifting consumer behaviour towards a healthier one. In the case of food choice, behaviour is influenced by many factors related to the food, the person making the choice and the overall societal and economic context. The interplay of all these factors and their inherent complexity is a great obstacle to the understanding and promotion of a healthy behaviour. Markedly, consumers in different countries often display different and even opposite attitudes to the same initial stimulus, for example in the case of food labels or health claims. Such factors must be taken in consideration and should be actively exploited to promote healthier diets among consumers. The unifying theme of the workshop was science and how science and the scientific methodology can be applied and be useful to policy making. Research is at the heart of scientific activities and the EC has several programmes in place to promote and fund research in many areas including Nutrition and Health. Examples are the Health Programme or the 7th Framework Programme (FP7) in which also E&IA countries may participate.

5.2 Nutritional interventions and policies: thinking outside the box

While there are certainly examples of lifestyle interventions that resulted in successful prevention or reversion of 'unhealthy' indicators or behaviours (some of which were discussed above) there is much room to further promote healthier and more sustainable eating behaviours. The workshop participants were challenged to propose measures that could be implemented to achieve this by answering the following questions:

- *How can we ensure that the **consumer has the necessary level of information and knowledge** to freely make healthy and sustainable choices?*
- *How can we **create an environment that will change consumer behaviour** towards healthy and sustainable choices?*
- *What is the **role of the private food sector** in supporting healthy and sustainable eating?*
- *What measures can **state authorities** take to promote healthy and sustainable eating?*

The measures proposed are summarised in Table 2 and presented in detail in Annex III. The authors of this report welcome any additional suggestions from readers and examples of cases where similar measures have been implemented (successfully or not).

Table 2: Measures to promote healthy and sustainable eating suggested during the workshop

Measures	Ideas	Stakeholders involved								
		Authorities	Food Industry	Retailers	Consumer organisations	Food service business	Schools/ Kindergartens	Consumers	Social & Medical Services	Research & Development (public or private) and Nutrition Societies
Information	Information must be available at the moment of choice of food product									
	Mandatory Food Labels	x	x							
	Keyhole or other symbols to highlight healthier, more ecological or more ethical food choices	x	x	x	x	x				x
	Nutrient and energy content declared per portion in restaurants	x			x	x				x
Education and Awareness	Education should focus on quality of diets but also on quantity and portion sizes. Other topics are how to read labels, develop a sense of healthy and balanced diets, link between food and global sustainability. Education should also explore health and social consequences of unhealthy diets. Education should reach all levels: from teachers to doctors, other social workers, children and their families.									
	Mandatory nutrition and health teaching in all schools curricula	x					x			
	Education at early stage in order to form healthier habits in children	x					x		x	x
	Recommendations should be food-based rather than nutrients based								x	x
	Promotion of local education actions at the level of communities (include target groups such as grandparents as well as parents)	x			x		x	x	x	x
	Periodic controls with personalised feedback to the individual on anthropometric measures and blood parameters to increase awareness, keep motivation and learn by doing	x					x	x	x	x
	Increase awareness about healthy habits using better targeted, personalised approaches, e.g. using social networks and exploring the power of idols (sports, music, TV, cinema, cartoons, books, computer games, etc).	x	x	x	x	x	x	x	x	x
	Provide guidelines to schools and canteens on meals quality and quantity	x				x	x		x	x
	Consumers to be more socially engaged and report malinformation to consumer associations							x		
	Promotion of campaigns against 'eat as much as you want'	x	x	x	x	x	x		x	
Promote and fund nutrition-related research	x	x		x				x	x	

Measures	Ideas	Stakeholders involved								
		Authorities	Food Industry	Retailers	Consumer organisations	Food service business	Schools/ Kindergartens	Consumers	Social & Medical Services	Research & Development (public or private) and Nutrition Societies
Food production, marketing and retail	Food production and marketing should be made in a truly responsible manner, following nutritional recommendations and guidelines issued by authoritative institutions. To this end, individual and public health should be seen as a strategy in the food private sector and not as a side bonus									
	Food reformulation	x	x		x	x		x		x
	Appropriate clinical trials supporting valid claims for consumer		x							x
	Adapt products to the characteristics of different markets (e.g. food labels) but 'Healthier' measures should be implemented in all countries equally (e.g. same product should not have different amounts of sugar depending on country)		x							
	Reinforce the role of scientists & nutritionists in industry, in management positions-not only R&D		x							
	Research in private companies should go beyond technology, safety, costs and include the nutritional needs of the consumer.	x	x							x
	Display healthier products in privileged, more accessible/exposed locations	x	x	x	x	x		x		
"Nudges"	Based on behavioural economics and psychology these are soft measures that can gently (or nearly unconsciously) push the individual towards a healthier choice									
	Advertisement rules should be stressed and associations of retailers should act as catalyst and bridge between different stakeholders.	x	x	x	x					x
	Promotion of local products and seasonal food.			x	x			x		
	Supermarkets promoting knowledge of health & sustainability–Health should inherent point of their strategy			x	x	x		x		
	Supermarket trolleys with large compartments for fruits & vegetables			x	x	x				x
	Canteen design (fruits presented in a more appealing manner or desserts made less available by placing them strategically as the last plate or far from sight)				x	x			x	x
	Reduce portion sizes		x	x	x	x	x		x	x
	Plate diameter no bigger than 20cm		x	x	x	x	x			x
	Promote slow eating		x	x	x	x			x	x
	Limit choice or promote structured choices		x	x	x	x	x	x		
Promote additional research on the application of behavioural economics to policy making	x		x	x					x	

Measures	Ideas	Stakeholders involved								
		Authorities	Food Industry	Retailers	Consumer organisations	Food service business	Schools & Kindergartens	Consumers	Social & Medical Services	Research & Development (public or private) and Nutrition Societies
Economic measures	Financial incentives or taxes to guarantee that a healthy diet is not more expensive									
	Taxing HFSS* foods	x	x	x	x	x				
	Subsidies to fruits and vegetables, fixed (low) prices	x		x				x		
	Tax on sugar sweetened beverages (SSBs)	x	x	x	x	x		x		
	Subsidizing local and sustainable food producers	x		x				x		
Legislative measures	State imposed measures to prevent access to unhealthier diets									
	Health infrastructures should implement, support but also monitor health parameters	x								
	Control advertisements on HFSS foods and beverages	x	x	x	x	x				
	Banning misleading information	x	x	x	x	x				
	Restrict the offer on supersized meals available in restaurants	x		x	x	x		x		
	Restrict the offer of toys in restaurants selling HFSS* meals	x		x	x	x		x		
Limitation of fats, sugars and salt	x	x	x		x		x		x	

*HFSS foods: foods that contain high levels of fat, sugar and salt.

6. Providing the science-based evidence needed for policy makers to address current nutritional challenges: suitable research and scientific approaches in the case of obesity.

As seen in Chapter 1, a 'challenge' that was identified by all countries was excessive energy intake and low expenditure leading to obesity. The workshop participants felt that this should be a priority and a roundtable was set to discuss it. It was noted that according to the latest revision of the WHO International Classification of Diseases (ICD-10) obesity is a disease. The implication of this classification is that governments should be obliged to implement measures to prevent and treat obesity.

Obesity is a highly complex multi-factorial disease but it was decided to pragmatically simplify this complexity for the purpose of the roundtable discussions and focus on energy surplus (high energy intake and low energy expenditure) as a cause for obesity. The pervasive view throughout the workshop is that in dealing with the energy surplus challenge, prevention should be the priority. In line with the view above, preventive measures should address the dyad energy intake *vs* energy expenditure. All the participants agreed that no additional research is necessary to prove the causal link between high energy intake/low energy expenditure and the development of obesity and hence research priorities should converge in evaluating and assessing the impact of preventive measures. A word of caution is nevertheless needed, as given the current numbers of obese individuals throughout the EU there should also be investment and research in obesity treatment.

Many of the measures proposed in Table 2 can be applied to obesity. Importantly however, there is also a need for additional research to assess and firmly demonstrate their impact and effectiveness so allocating additional funding to such research projects is in itself an important measure in this regard. Building on the many ideas and discussions detailed before, the round table identified four key issues in which research and implementation efforts should converge.

6.1 Addressing limitations commonly found in nutrition and lifestyle interventions and trials

Nutrition and lifestyle interventions are commonly characterized by multiple parallel measures. In such cases, it is legitimate to ask whether there was one or more defined elements of the intervention that contributed to its success, *i.e.* the 'best-buys'. In terms of evidence-based, cost-controlled policy making, a careful analysis can potentially define whether the ratio cost/benefit is favourable to the implementation of measures that are not essential or that contribute only marginally to the success of the intervention. However, to design studies that define the contribution of each of the measures may be very difficult and dramatically increase the size, time and cost of the interventions.

Another critical issue in the interpretation of the results from many of the intervention trials tested thus far is the lack of adequate controls. This is essential for a clear interpretation of the findings, although the inclusion of control cohorts is not always simple, applicable or even ethical especially in public health interventions where the control population would be excluded from any possible benefits. Trial cohorts are often characterized in depth at the beginning, during and immediately after testing a particular intervention. There is lack of evidence in what concerns the long-term effects of these measures. The lack of follow up studies that can provide a longer term assessment of the impact of the measures is a critical issue identified by the participants. Long term assessments should be part of the design of such studies but depending on the study, the length and costs of the follow up may be prohibitive. Integrating the research studies with National monitoring schemes could partly cover for this.

6.2 Assessing the effectiveness of obesity childhood interventions

The participants felt that in what concerns prevention, the priority target group should be children. Reasons for this are that kindergardens and schools are organized structures where controlled interventions can be more easily implemented. These interventions can be far-reaching encompassing all socio-economic levels and other family members. In addition, early interventions may translate in 'healthy behaviors' later in life. These assumptions are legitimate and logical, but concrete evidence that children are the most effective group to target when considering obesity preventive measures is lacking. Additional research in the form of comparative meta-analyses or cost/benefit calculations for example could formally

demonstrate that indeed childhood interventions are to be given priority in obesity prevention implementation plans.

6.3 Research into further reduction of portion size as a means to limit caloric intake

Reducing caloric intake was seen as the most straightforward solution to prevent the energy surplus associated with obesity development. This can be achieved in different ways including reducing the size of the portions. The roundtable focused mostly on this measure as there was a general agreement that there is a need to propose novel strategies to reduce portion sizes. The measures discussed range from actions to be taken by the food or dishware industry to retailers and importantly consumers. Examples are:

- *reduce portion sizes of pre-packed food*
- *reduce size of meals offered in restaurants, cafeterias, canteens, etc*
- *reduce size of plates*
- *provide estimates of time or intensity of physical activity needed to dissipate the amount of energy given by the meal or the product being ingested.*

Clearly, it is crucial to develop creative and effective means to reduce the amount of energy ingested during a meal, in particular in the middle aged population. In addition, it is important to have concrete data on how much food is consumed pre-packed or with prepared portions and how much is prepared and served at home in order to understand which of the stakeholders would be best targeted. Also, these measures must be duly tested for their efficacy in tackling obesity as satiety regulatory mechanisms or consumer behaviour could oppose the effectiveness of these measures.

6.4 Exploring and identifying effective means to translating obesity research findings into actions and policies

While there are a reasonable number of successful experimental interventions and of data highlighting the value of particular measures, there appears to be a gap in applying these experimental observations into wider social actions or policies. Often small scale behavioural studies have individuated effective measures that can guide consumer behaviour towards healthier actions and indeed both behavioural and experimental economics should be

developed in the new research agenda. Importantly too, there is difficulty in translating the effective measures identified in such studies into concrete actions to be taken by private or public stakeholders. There is a need for research to focus on bridging this gap with a multi-disciplinary approach that brings together nutritional sciences as well as social and policy sciences. The example presented in the workshop dealt with banning energy dense confectionery items at supermarket checkouts. Is this a truly effective measure to combat childhood obesity for example? How can it be measured? What are other possible consequences of such a measure? What could be the motivations for retailers to voluntarily withdraw them from these spots where consumers are forced to stand in line? Would legislative measures be appropriate? Which sort of measures? Regardless of the example discussed, these are the sort of questions where additional research appears to be needed.

7. Added-value of EU-wide initiatives

One point to highlight in the analysis of the workshop outcome is the added value of EU-wide initiatives. There are cultural differences between European countries and these differences can greatly affect consumers' behaviour and nutritional choices. This is well illustrated by the HEALTHGRAIN¹⁰ data on the effect of wholegrain labelling in the likelihood of buying the labelled product; wholegrain labelling decreases likelihood of buying in the sampled Italian population whereas it increases the likelihood of buying in the Finish population¹¹. The fact that different country populations may react in such divergent ways to a similar measure should be kept in mind if considering implementation of particular measures on an EU-wide scale. Many of the measures listed on Table 2 are Health or Education-related and, in what concerns EU-27 countries, may fall under the principle of subsidiarity. Member States would be responsible for their implementation, targeting them to their specific populations and needs. These two points cannot however be seen as obstacles to combined efforts to a common objective. A major EU-added value can come from concerted joint initiatives and actions. There are several directly relevant examples such as the EU framework for salt reduction initiatives or the many (over 300) voluntary commitments made by the European Platform for Action on Diet, Physical Activity and Health members. Research joint programming initiatives (JPI) such as the JPI – "A healthy diet for a healthy life"¹² are also

¹⁰ <http://www.healthgrain.eu/pub/>

¹¹ Annex V of this report, presentation by Prof. Richard Shepherd

¹² <https://www.healthydietforhealthylife.eu/>

useful tools to pool national research efforts to tackle challenges such as obesity more effectively.

8. Concluding remarks

Nutritional excesses such as high energy, salt or fat intake are the most pressing nutrition-related problems in the E&I countries that participated in the workshop. Other problems that occur, to a much lesser extent, relate to micronutrient deficiencies, such as Vitamin D or Iron. These are all familiar issues to EU-27 nations and many other developed countries and there are multiple ongoing actions to tackle them at many levels. The workshop participants heard about the latest developments in EU nutrition-related actions and policies as well as other national health and nutrition-related actions, interventions and policies. These inspired a new round of discussions on measures to promote healthy and sustainable eating that are listed in Table 2 and Annex IV. Having identified the current nutritional challenges and listed a series of measures that may be adapted to tackle them, the stage was then set to answer our workshop question "**How can science support policy makers in addressing the nutritional challenges of Europe?**". The question was re-focused towards obesity and the participants discussed what additional evidence is required to guide the development and implementation of effective anti-obesity measures by policy makers. The 4 major issues in which the participants identified important gaps to be filled by additional research were:

- *Addressing limitations commonly found in nutrition and lifestyle interventions and trials*
- *Assessing the effectiveness of obesity childhood interventions*
- *Research further on reduction of portion size as a means to limit caloric intake*
- *Exploring and identifying effective means to translating obesity research findings into actions and policies.*

The discussions during this workshop evolved freely and materialised into the concrete points reported here but were unfortunately limited by the time available. Hence, these points should not be taken as four priorities for obesity research but rather as suggestions of four possible lines of further investigation. The authors of this report would welcome additional feedback on other gaps that need to be tackled to obtain the sort of evidence needed at an EU, national and local level to develop and implement successful anti-obesity measures.

9. ANNEX I. Workshop participants

Speakers

LAURA ALEXANDRESCU

European Commission, DG RTD
Square de Meeus 8
1049 BRUXELLES (Belgium)
E-mail: laura.alexandrescu@ec.europa.eu

Laura Alexandrescu is a Scientific Officer in unit Food-Health-Well-being, Directorate Food Agriculture and Biotechnologies of DG Research and Innovation. She

CAMILLA SANDVIK BØRVE

European Commission, DG SANCO
HITEC building 01/184 - 11, Rue E. Ruppert
LUXEMBOURG (Luxembourg)
E-mail: camilla.sandvik@ec.europa.eu

Camilla Sandvik Børve currently works as a policy officer for the European Commission, DG SANCO, in the Health Determinants unit, where she forms part of the nutrition team. She has a particular responsibility for following the EU platform for diet, physical activity and health. Before

RICHARD SHEPHERD

University of Surrey, Department of Psychology
tel: +441483689449
E-mail: r.shepherd@surrey.ac.uk
Gu2 7XH GUIDLFORD (United Kingdom)

Richard Shepherd is Emeritus Professor of Psychology at the University of Surrey, UK. Prof. Shepherd's research is mainly concerned with understanding the reasons for people's choice of foods. This has involved the development and application of social psychological models of attitudes and beliefs to understanding food choice, risk perception, risk communication and public engagement. He is currently involved in several EU projects, including one on food labelling (FLABEL,

LIISA VALSTA

University of Helsinki, Department of Food and Environmental Sciences,
P.O.Box 66, 00014 University of Helsinki (Finland)
E-mail: Liisa.VALSTA@efsa.europa.eu

Dr. Liisa Valsta, PhD, Adjunct Professor at the University of Helsinki since 2001, received her PhD in Human Nutrition from the Univ. of Helsinki, Finland 1996 and has a MSc in Food Science and Technology/Food Toxicology from Oregon State University (USA). She has long experience in food consumption and risk factor

joined the Commission in 2008 and is currently monitoring projects in the nutrition and food safety field. Previously, she worked for the Romanian National Veterinary and Food Safety Authority as an official responsible for food safety during Romania's accession to the EU. She holds a medical doctor degree from the University of Medicine, Timisoara, Romania and a specialisation in Hygiene (Preventive Medicine) at the Institute of Public Health Timisoara.

working for the European Commission, she worked as a senior adviser with the Ministry of Health and Care Services in Norway, in the Division for International Cooperation and Preparedness. She has also worked as a research fellow at the Department of Nutrition at the Faculty of Medicine, University of Oslo, Norway, and as an adviser at the National Institute of Public Health in Norway. Camilla completed her Master's Degree in Psychology at the Norwegian University of Science and Technology in 1998, and holds a PhD in public health nutrition.

www.flabel.org), one on the use of scientific information in the development of policy (EURRECA, www.eurreca.org), and one on communication of risks and benefits associated with foods (FOODRISC, www.foodrisc.org). He has published widely, with over 120 refereed papers and an additional 250 publications. He has directed research funded by a number of UK bodies, in addition to several collaborative European projects funded by the EU. He is a Chartered Psychologist, a Fellow of the British Psychological Society and a Fellow of the Royal Society of Medicine. Richard sits on the Food Standards Australia New Zealand (FSANZ) Social Science Expert Advisory Group and is an FSANZ Fellow.

monitoring surveys, food composition databases as well as human dietary interventions and nutritional risk assessment. She has served as a senior researcher of the National Institute for Health and Welfare of Finland THL for over 15 years. Currently, she is working for the European Food Safety Authority, Dietary and Chemical Monitoring Unit (EFSA/DCM). Among other tasks she is responsible for the planning and preparations for the pan-European Food Consumption Survey (EU Menu). Liisa Valsta has published around 70 peer-reviewed and 80 other publications on foods, dietary interventions as well as monitoring nutrition and health.

CRISTINA VLADU

Center for Community Policies
12 Stefan Greceanu
020109 BUCHAREST (Romania)
tel: +40212121304
fax: +40212121304
E-mail: cvladu2002@yahoo.com

Cristina Vladu, M.D, M.A, has been trained as a medical doctor specialized in Public Health at the University of Medicine in Bucharest and has a M.A. in Health Services Management from the University of Manchester. Cristina has more than 15 years of experience as a health reform expert, working as a World Bank/European Commission expert or as a national expert, from an NGO perspective or from the position of a Deputy General Director in the

Ministry of Health. Cristina has special interest and extensive experience in managing, implementing, monitoring and evaluating effective, evidence based policies. She has done so in strategic areas for the Romanian health and social development systems, working to manage change processes in areas of strategic importance, *i.e.* Foundation for Community Care Services, addressing poverty in rural areas by discovering and developing social capital, or designing and implementing a behaviour change campaign promoting healthy lifestyles – healthy nutrition and physical activity in children. Cristina has also field experience in countries such as Georgia, Moldova, Tajikistan, Kazakhstan, Kyrgyzstan, Switzerland, United Kingdom, Latvia, Lithuania, Estonia, Bulgaria, Albania.

Participants

ANDREAS AESCHLIMANN

Research Station Agroscope ALP
Schwarzenburgstrasse 161
3003 BERN (Switzerland)
tel: +41 31 323 81 13
fax: +41 31 323 82 27
E-mail: andreas.aeschlimann@alp.admin.ch

Andreas Aeschlimann is responsible for the research cooperations of the Agroscope Research Station ALP and Secretary of the Swiss National Committee of IDF. He is a member of the Management Boards of the Joint Programming Initiatives 'A Healthy Diet for a Healthy Life' and 'Antimicrobial Resistance'. His background is Food Sciences and Technology and more than 10 years experience in the Infant Nutrition and Functional Food area.

SEDEF AKGUNGOR

Dokuz Eylul University Faculty of Business
Kaynaklar Buca
35540 IZMIR (Turkey)
tel: ++90-232-4128223
fax: ++90-232-4535042
E-mail: sedef.akgungor@deu.edu.tr

has extensive experience on the economics of food safety and nutrition. She led research projects and has numerous publications on consumer's willingness to pay for food safety. She is currently involved in two European Science Foundation funded projects, one of which she is leading. She is the leader of the Turkish team (DEU) in a FP7 project titled Food Labelling to Advance Better Education for Life: FLABEL.

Sedef Akgüngör is a Professor of Economics at Dokuz Eylül University, Faculty of Business, İzmir, Turkey. She

IRENA COLIC BARIC

University of Zagreb, Faculty of Food Technology
Pierottijeva 6
10 000 ZAGREB (Croatia)
tel: 00385 1 46 05 093
E-mail: icolic@pbf.hr

and where she currently teaches and supervises undergraduate, postgraduate and PhD students. She is president of the Panel on dietetic products, nutrition and allergenics of the Croatian Food Agency and member of the Expert group on food consumption data of EFSA. Prof. Baric has coordinated/participated in national and international projects and is a member of different associations for food and nutrition. She is also in the editorial board of scientific journals and the author of various scientific papers and book chapters.

Irena Colić Barić is full Professor at the Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia, where she graduated and received her MSc and PhD degree in the Biotechnical science, branch Nutrition

ALESSANDRA GORINI

University of Milano
Via Festa del Perdono 7
20122 Milano (Italy)
E-mail: alessandra.gorini@unimi.it

Alessandra Gorini, MA, Ph.D. obtained her candidate diploma in experimental psychology in 2001 with a thesis on the functional neuroimaging of reasoning processes. In 2004 she obtained a Master in Clinical Neuropsychology at the University of Padua. In Maastricht, she obtained a second Master (2006) and her

IVANA JOKSIMOVIC

Institute of Public Health
Dzona Dzeksona bb
81000 PODGORICA (Montenegro)
tel: 0038220412888
fax: 0038220243728
E-mail: ivana.joksimovic@ijzcg.me

Dr. Ivana Joksimovic, hygiene specialist, graduated from the Medical Faculty of Belgrade, Serbia, in 2002. Initially she was employed at the Primary Health Care Centre of Podgorica (2003-2005), before being permanently

PAUL PISCOI

European Commission, Joint Research Centre, IHCP
21027 ISPRA (Italy)
tel: +39 033278 6768
fax: +39 0332 789963
E-mail: paul.piscoi@ec.europa.eu

Dr. Paul Piscoi has graduated as a medical doctor in 2003 from the Bucharest Carol Davila University. First he worked as project manager for the Romanian Food

SLADJANA SOBAJIC

Faculty of Pharmacy
450 Vojvode Stepe
11221 BELGRADE (Serbia)
tel: +381 11 3951 326
fax: +381 11 397 2840
E-mail: sobajic04@yahoo.com

IGOR SPIROSKI

Institute of Public Health
50. Divizija 6
1000 SKOPJE (Former Yugoslav Republic of Macedonia)
tel: 0038923125044
fax: 0038923223354
E-mail: igor.spiroski@gmail.com

Dr. Igor Spiroski is Medical Doctor and Master of Public Health. He works as a researcher at the Institute of

PhD in Affective Neuroscience (2010). She worked as researcher on a European Project regarding the use of virtual reality for the treatment of anxiety disorders. Her growing interest in virtual reality has produced a significant number of international peer-reviewed publications. Dr. Gorini currently has a research position at the University of Milan where she studies the decision-making processes from a cognitive perspective. She is the author of more than 30 scientific papers published on indexed peer-reviewed international journals and of two monographies.

employed at the Institute of Public Health (IPH), of Montenegro in Podgorica. She has completed Postgraduate studies in hygiene at the Medical Faculty in Belgrade. Ivana has been engaged as a teaching assistant in Hygiene with Medical Ecology at the Medical Faculty in Podgorica since 2011. Currently she is the Head of the Department of Nutrition and Human Ecology at the Centre for Environmental Health, participating in the EU FP-7 project Focus Balkans, where the IPH is a partner. She has published several scientific papers at national and international professional conferences and can speak English and Russian.

Federation and for the Food Bioresources Research Institute. After this, he became a public servant within the Romanian Sanitary Veterinary and Food Safety Authority where most of his working experience has covered regulatory affairs and enforcement of food control at national level. In 2008 he joined the Joint Research Centre of the European Commission as a Seconded National Expert, where he is working in the human health section of the team dealing with the biocides review programme.

Sladjana Sobajic is a professor and Head of the Department of Bromatology, Faculty of Pharmacy at Belgrade University. Her main scientific interests are lipids in food and nutrition, food ingredients in health and disease and functional foods. She is an expert for the Serbian Accreditation Body, president of the Serbian Nutrition Society from 2008, president of the Serbian Food Chemists Association, and a member of several councils at the Serbian Ministry of Health.

Public Health of the Republic of Macedonia. His main professional occupation is health risk assessment related to nutrition. He is a member of several national and international professional networks and worked in the implementation of projects funded by the EC and UN agencies. Dr. Spiroski is also teaching the subject of Public Health at the Faculty of Medicine, Ss. Cyril and Methodius University in Skopje.

LAUFEY STEINGRIMSDOTTIR
Faculty of Food Science & Nutrition
University of Iceland
Asvallaagata 60 101 REYKJAVIK (Iceland)
tel: +354 5431416
fax: +354 5434824
E-mail: laufey@hi.is

MARIA TABERNERO URBIETA
Hospital La Paz Health Research Institute
Paseo de la Castellana 261
28046 MADRID (Spain)
tel: +34625075688
E-mail: maria.tabernero@salud.madrid.org

María Taberbero Urbieta, PhD, obtained her Bachelor in Biological Sciences at University of Salamanca (Spain) in 2000. She started her PhD studies at the Institute of Food, Science, Technology and Nutrition (Spanish National Research Council) and in 2008 she was awarded with the degree of "European Doctor" in Biochemistry and Molecular Biology by University Complutense of Madrid. In 2009 she participated in the

INGA THORSDDOTTIR
Unit for Nutrition Research, University of Iceland & University Hospital
Eiriksgata 29 IS-101 REYKJAVIK (Iceland)
tel: +354 5438410
fax: +354 5434824
E-mail: ingathor@landspitali.is

Prof. Inga Thorsdottir dr.med.sci. is a full professor in human nutrition at the University of Iceland and director

NADJA VASILJEVIC
Institute of Hygiene and Medical Ecology
Faculty Dr Subotica Street 8
11 000 BELGRADE (Serbia)
tel: +381113612762
fax: +381113612762
E-mail: nvas@eunet.rs

VALENTINA VELKOSKA NAKOVA
University Goce Delcev
Krste Misirkov bb.
2000 STIP (Former Yugoslav Republic of Macedonia)
tel: 389 32 550415
E-mail: valentina.velkoska@yahoo.com

Laufey Steingrimsdottir is a professor in the faculty of Food Science and Nutrition at the University of Iceland. During her engagement as director of Icelandic Nutrition Council, she directed National nutrition surveys in 1990 and 2002 and was involved in formulating food policy and nutrition recommendations for Iceland. Research areas include vitamin D, nutrition and cancer, food culture and nutrition in pregnancy and old age.

European Nutrition Leadership Platform (ENLP) and since then, she participated actively in the Alumni Newsletter Initiative. From September 2009, she works as a postdoctoral Researcher at Hospital La Paz Health Research Institute (Madrid, Spain) where she manages the performance of pre-clinical and clinical trials to test the potential health benefits of bioactive ingredients and functional foods. Her publication record is available at Thomson Reuters Web (specific ResearchID: ID F-2661-2011). Maria has also received a Marie Curie Industry host fellowship as well as a Marie Curie European Reintegration grant and has been employed in the past in major food industries (Unilever, Kraft) doing research in the functional foods/health claims field.

at the Unit for Nutrition Research and Department of Clinical Nutrition at the University Hospital. Currently (2008-2012) she is also the dean of the Faculty of Food Science and Nutrition. She has extensive experience in managing projects, scientific collaboration and nutrition recommendations and policy work e.g. as former head of the Icelandic Nutrition Council. Prof. Thorsdottir is one of the most productive scientists at the University of Iceland in terms of publishing in peer reviewed journals.

Professor Dr. Nadja Vasiljevic is a full time professor at the Medical Faculty, University of Belgrade. Prof. Nadja Vasiljevic is a specialist in Hygiene, subspecialist in Nutrition and has PhD in Nutrition. Dr Vasiljevic is teaching at undergraduate and postgraduate studies, she is engaged in scientific work and is working as a therapist at Counseling office for diet and nutrition. She is also participating in numerous projects in the nutrition field.

Valentina Velkoska Nakova, doctor of medicine, master of medical science (scientific area endocrinology), research assistant on Faculty of medical science, University "Goce Delcev", Stip, R.Macedonia. At this moment I am on the last year of specialization of internal medicine

DONATELLA VERBANAC

University of Zagreb School of Medicine
Salata 3 10 000 ZAGREB (Croatia)
tel: ++385 1 4566 972
fax: ++385 1 4566 724
E-mail: donatella.verbanac@gmail.com
fax: +381113612762

Donatella Verbanac is an assistant professor in the Center for Translational and Clinical Research in the School of Medicine in Zagreb, Croatia. Prof. Verbanac holds a PhD in Biochemistry from the University of Trieste, Italy and has pursued post-doctoral studies in

the University of Ancona, Italy. She has worked at the School of Medicine, University of Rijeka for more than 12 years and has more than 10 years of experience in the pharmaceutical industries as Program and Project manager in new drug development. Prof. Verbanac is a co-inventor on one patent and has published more than 30 scientific papers and book chapters, as well as many popular texts/books about dietetics and nutrition. In addition, she participated in the release of an iPhone application as an author. She is member of the Croatian Biochemical and Molecular Biology Society, the Croatian Chemical Society and the British Biochemical Society.

Organisers

SANDRA CALDEIRA

European Commission, Joint Research Center, IHCP
21027 ISPRA (Italy)
tel: +39 0332 78 3887
fax: +39 0332 789963
E-mail: sandra.caldeira@ec.europa.eu

Sandra completed her PhD in Biomedical Sciences at the German Cancer Research Center in Heidelberg and then

worked as a researcher and Assistant Professor in the Institute of Molecular Medicine at the Faculty of Medicine, University of Lisbon. In 2005, she moved on to the European Molecular Biology Organization (EMBO) working as a Science Editor for the journals EMBO reports and EMBO Molecular Medicine. She joined the European Commission last year where she focuses on Nutrition and Health in the Institute for Health and Consumer Protection.

PETROS MARAGKOUKAKIS

European Commission, Joint Research Centre, IHCP
21027 ISPRA (Italy)
tel: +39 0332 785226
fax: +39 0998 789963
E-mail: petros.maragkoudakis@ec.europa.eu

Petros Maragkoudakis is a Scientific/Technical project officer in the Joint Research Centre, European Commission, focusing on Nutrition and Health in the Institute for Health and Consumer Protection. Petros

holds a BSc on Microbial Biotechnology and an MSc on Medical Microbiology from the University of Liverpool, as well as a PhD on Food Science/Microbiology from the Agricultural University of Athens. He has previously worked as a researcher in various EU, national or industry funded projects publishing peer reviewed articles on probiotics, functional foods and microbial food & feed safety. Additionally he has worked as a Lecturer for the Technical University of Kalamata, Greece and as a free-lance associate for a consultant company in food safety.

JAN WOLLGAST

European Commission, Joint Research Center, IHCP
21027 ISPRA (Italy)
tel: +39 0332 789096
fax: +39 0332 789963
E-mail: jan.wollgast@ec.europa.eu

Jan Wollgast graduated in Nutrition and Home Economics from Justus Liebig University, Giessen, Germany in 1998. He subsequently carried out research on cocoa polyphenols in collaboration between the European Commission Joint Research Centre (JRC), Kraft Foods Europe and the Justus Liebig University, Giessen where he also obtained his PhD on:

"The contents and effects of polyphenols in chocolate: qualitative and quantitative analyses of polyphenols in chocolate and chocolate raw products as well as evaluation of potential implications of chocolate consumption in human health". Since 2002 he has been working as a Scientific Officer in the JRC's Institute for Environment and Sustainability (until 2009) and Institute for Health and Consumer Protection, where he recently started a newly established nutrition activity with the aim to provide scientific and technical support to EU policy makers in the field.

10. ANNEX II Workshop Agenda

THURSDAY, 29TH SEPTEMBER 2011

9:00 - **Welcome** (Building 58, Room 12A/B)

Elke Anklam, Director, Institute for Health and Consumer Protection (IHCP), Joint Research Centre (JRC), European Commission

9:10 - **Workshop objectives & presentation of participants**

9:45 - Break (Foyer)

MORNING SESSION – PLENARY LECTURES (BUILDING 58 AUDITORIUM)

10:00 - **THE EU STRATEGY ON NUTRITION, OVERWEIGHT AND OBESITY-RELATED HEALTH ISSUES**

Camilla Sandvik Borve, Policy Officer, C4 Unit (Health Determinants), Health and Consumers Directorate General (DG SANCO), European Commission

10:45 - **A Successful Nutrition & Lifestyle intervention**

Liisa Valsta, Adjunct Professor, University of Helsinki, Finland

11:30 - **Nutrition and Consumer behaviour**

Richard Shepherd, Emeritus Professor of Psychology, Co-director of the Food, Consumer Behaviour and Health Research Centre, University of Surrey, UK

12:30 – Lunch: *La Saletta* hall, JRC mensa facilities

AFTERNOON SESSION - PRESENTATIONS & WORKING GROUPS (BUILDING 58 ROOM 12A/B)

14:00 - **Current and Future Nutritional issues across Europe**

Participants reporting on issues such as

- Obesity, nutritional deficiencies and other issues relevant in their home countries
- Discussion of policies and best practices
- Data on health/nutrition indicators and food consumption or availability

15:40 - **Tackling childhood obesity in Romania: "Campania Viata"**

Cristina Vladu, Health Policy Expert, Centre for Community Policies, Romania

16:00 - **Research opportunities and funding by the European Commission**

Laura Alexandrescu, Research Programme Officer, Food and Nutrition, Directorate General for Research & Innovation (DG RTD), European Commission

16:20 - Break (Foyer)

16:40 – **Towards healthy and sustainable eating**

World Café debating the following:

- What measures can state authorities implement to promote healthy and sustainable eating?
- How can we ensure that the consumer has the necessary level of information and knowledge in order to freely make healthy and sustainable choices?
- What is the role of the private food sector in supporting healthy and sustainable eating?
- How can we create an environment that will change consumer behaviour towards healthy and sustainable choices?

18:00 - End of the first workshop day

Walk or take the Bus to the hotel

20:30 - Dinner at the Restaurant of the Conca Azzura Hotel

FRIDAY, 30TH SEPTEMBER 2011

MORNING SESSION – WRAP UP AND DISCUSSION

09:00 - **Wrap-Up**

Rapporteurs presenting main points of the sessions of the previous day

10:00 - Break (Foyer)

10:20 - **Roundtable: Science supporting policies**

Using the information gathered in "*Current and Future Nutritional issues across Europe*" and the discussions during "*Towards health and sustainable eating*", we will try to answer our workshop question: "**How can Science support policy makers addressing the nutritional challenges of Europe**".

12:00 - Lunch: buffet

13.00 - End of the workshop

11. ANNEX III: Summary of the presentations on the nutritional issues and policies of the participant countries

Croatia

According to a WHO survey (2000-2008), Croatia is one of the countries with the highest obesity rates, ranking 9th with 61.4% of overweight and obese population. As a response, the Croatian government has approved an action plan to combat obesity, to be implemented by 2012. This plan includes various measures, such as encouraging healthy lifestyles, raising awareness about obesity, eliminating junk food from vending machines and labelling healthy foods. In addition, Croatia has adopted an Action on Salt and Health, which includes a salt reduction programme. Another issue identified in Croatia is that about 60% of the population rarely (or never) reads nutritional labels on foods.

Iceland

Obesity rates in Iceland were at 20% in 2007. The country has a National Food & Nutrition policy since 1987 aiming to decrease intake of saturated fats and increase consumption of fruits and vegetables. This is coupled with various national nutrition surveys from 1979 to 2011. Food based dietary guidelines and recommendations for nutrients exist, and as a result an increase in fruit and vitamin C consumption was observed. In addition effective school based multi component interventions including financial incentives have been applied to promote healthy eating and increased fruit and vegetable consumption. Unfortunately, the 2008 financial crisis reversed this favourable trend in fruit consumption. Iron deficiencies were an issue in the country, but fortification of milk has reduced iron deficiency from 20% to 1.4%, low iron stores from 41% to 5.8% and iron deficient anaemia from 2.7% to 0%. Concerning breastfeeding, 70% of women breastfeed up to 6 months (45% up to 9 months), while exclusive breastfeeding rates start at 60-70% during the first three months and decline to 5% at 6 months. Vitamin D deficiency, a major issue in Iceland, was addressed by cod liver supplementation in schools up to 1956 and via fortification in some foods and milk afterwards. Finally, a bread salt reduction action has been implemented mainly in bread and also in some other products from 2002, leading to a sodium intake decrease by 6% .

FYR Macedonia

Obesity is also a major issue in FYR Macedonia, with 65% of the population above normal weight (40% of overweight and 25% of obese). As a response the country has adopted the Second Action Plan on Food and Nutrition (2009-2014), resulting in an increased consumption of fruits and vegetables, but also meat, sugar and sweets. High salt intake is another major issue in the country, with a reported daily intake of 15.62g /day, accounting to 9 g of Na, which is more than 4 times the max recommended daily allowance. Finally, exclusive breastfeeding up to 6 months is low, amounting to 16% (UNICEF MICS 2005).

Montenegro

Montenegro has adopted an Action Plan for Nutrition and Food Safety (2010-2014), which aims to reduce diet related NCDs and obesity, micronutrient deficiencies and food borne infections, in line with FAO/WHO nutrition & breastfeeding recommendations. Obesity is an issue also in this country. In 2000, 47.6% of the total population were overweight or obese, increasing to 55% in 2008, while 21% of children are overweight or obese. Breastfeeding varies within the country, depending on education level or socioeconomic conditions. On average, 19% of infants are exclusively breastfed up to 6 months, while 35% are complementary breastfed from 6-9 months. Iron deficiency is also an issue, haemoglobin levels are less than 110g/l in 29% of children under 5 yrs of age (1996 data). As in the case of Croatia, understanding or usage of food labels is limited in Montenegro, since various levels of comprehension exist between younger and older consumers. Montenegro also faces food safety issues and campaigns focused on good hand washing and food preparation practices have been implemented to combat foodborne diseases such as Shigellosis and Salmonellosis.

Serbia

According to the National Health Survey (2006), 54.5% of the population in Serbia is overweight or obese. Several actions were designed to deal with obesity, such as working groups in the Ministry of Health, network of health care services focusing on prevention and treatment, obesity management centres in university hospitals, nutrition counselling, as well as a centre for treating obese children. The National Food Labelling Act was introduced in 2003 but as seen elsewhere there is limited understanding of food labels. The act has harmonized the permitted nutritional claims with the EC Regulation 1924/2006, but the effectiveness of this legislation appears to be hampered by the absence of a "traffic light" labelling system and by a lack of education programs for consumers on using and understanding nutrition labels. Finally, consumer protection organizations are quite active in Serbia, as they participate in preparing and improving consumer oriented regulations and are also active in surveying marketing towards children.

Switzerland

The presentation from Switzerland was based on the forthcoming 6th Report on Nutrition (to be published in 2012). The levels of macro and micro nutrients consumed are generally adequate, as is the ratio of protein: fat : carbohydrate intake. However, the average energy intake per person in Switzerland is 18-32% above the recommended levels, while vitamin D and folic acid intake are lower. Iron and iodine are also below the recommended levels, especially for specific population groups. The consumption rate of meat, milk and their products, was declining in the past but this decline has now stopped. Alcoholic beverage consumption is still declining; unfortunately, the same is seen for fruits. Vegetable, sugar and cereal consumption appears stable. Switzerland mortality for chronic heart disease and cancer is decreasing, but the concrete contribution of diet related risk factors (high blood pressure, type 2 diabetes) to this decrease is unclear.

Turkey

Wheat is the staple food in Turkey, and according to various National Surveys (1974, 1984, 2010), 44% of the energy consumed comes from bread while 58% from other cereals. As in the rest of the participating countries, obesity is a problem in Turkey. Fifty-eight percent of the population is either overweight (34%) or obese (24%), 2008 data). However, there are differences between rural and metropolitan settings, as well as regional variation between the western and the eastern part of the country. As a result, various obesity targeted actions have been designed, including nutritional guidelines for balanced diets and prevention programmes. Micronutrient deficiencies such as iodine, vitamin D and iron are also of concern in Turkey. Iron deficient anaemia in particular is affecting children and child bearing age women, and as a response national programs have been designed to increase iron intake.

12. ANNEX IV. World Café brainstorming session

The following tables are a collection of all ideas put forward during the World Café Session as summarised and presented by each rapporteur.

Coffee Table 1: What measures can state authorities implement to promote healthy and sustainable eating? (rapporteur C. Vladu)

	<i>Measures</i>
Financial Incentives	Subsidies to fruits and vegetables
	subsidizing local and sustainable food producers
Promote & Invest	Food based dietary guidelines rather than nutrient based guidelines
	Promote and fund research
	States should look at their own institutional capacity and assess and possibly reinforce their own health infrastructures in order to not only implement and support but also monitor health parameters
	Education and raising awareness
Taxes	taxes on sugared beverages
	Limitation of fats, sugars

Coffee Table 2: What is the role of the private food sector in supporting healthy and sustainable eating? (Rapporteur P. Maragkoudakis)

<i>Measures</i>	
Food Industry	Truly responsible production and marketing – following nutritional recommendations and guidelines issues by pertinent societies and public authorities
	Appropriate clinical trials to support valid claims that help the consumer
	Being aware of the peculiarities of different markets as highlighted for example by Richard Shepherd presentation on the "Healthgrain" results but also on the other hand companies should not treat different markets differently depending on the regulations (different levels of sugars for example)
	Health should be seen as a strategy in business not as a side bonus and this should be implemented in ALL countries equally
	Reformulation efforts are ongoing and should be extended to all products with emphasis also on low priced products.
	Reinforce the role of scientists in industry management and not only R&D
	The research in private companies has been focused on technology, safety, costs etc but should be shifted towards nutritional needs of the consumer.
	More products for healthy aging ranging from easier consumption e.g. softer products that aren't hard to eat to products that are directed towards specific needs of the elder population
	Big companies should show solidarity towards SMEs, hire nutrition staff in companies
	State owned food companies
Retailers	Supermarkets have a real power in their hands, possibly even stronger than industry, supermarkets should also be conscious of the power that product placement has and elect healthier products to be displayed in privileged, more accessible/exposed locations.
	Governments could intervene to fix prices in the supermarkets especially for fruits and vegetables?
	Advertisement rules should be stressed and associations of retailers should act as catalyst and bridge between different members.
	Marketing should also be directed to sustainability.
	Promotion of local products and seasonal food.
Use supermarkets to promote knowledge about health and also about sustainability – as in industry Health should be an inherent point of their strategy.	

Coffee Table 3: How can we ensure that the consumer has the necessary level of information and knowledge to freely make healthy and sustainable choices? (Rapporteur J. Wollgast)

Measures	
Information	Mandatory Food labels
	"Ethical" food information
	"Keyhole" or other symbols to highlight healthier choices.
	Eco-labels
	Nutrient and energy content declared per portion in restaurants etc
	Banning misleading information
	Control advertisements on high fat sugar salt foods and beverages
	Promotion of campaigns against 'eat as much as you want'
	Consumers to be more socially engaged and report misinformation to consumer associations
Consumer associations to pro-actively promote a constant dialogue between the consumer, the association and public authorities.	
Education	Increase awareness about healthy habits using better targeted, personalised approaches such as: - social networks - Idols (sports, music, cinema, etc)
	Education at early stage so it becomes an habit
	Increase nutrition and health teaching in all schools curricula – consider mandatory school lessons aiming at, for example: teach relation between portion size and daily needs teach how to read labels develop a sense of healthy and balanced diets teach link between global sustainability and food
	Schools or state to promote regular measures and feedback on anthropometric measures and blood parameters to increase awareness, keep motivation and learn by doing

Coffee Table 4: How can we create an environment that will change consumer behaviour towards healthy and sustainable choices? (Rapporteur R. Shepherd)

	<i>Measures</i>
Information & Awareness	Education should reach all levels: from teachers to doctors, other social workers, children and their families
	Parental (and grand-parents) education as they are very receptive and sensitive regarding their children
	Local educational actions at the level of communities
	Guidelines to schools and cantinas on meals quality and quantity
	Use TV, films, music, cartoons, books, computer games, social networks to not only promote healthy diets but also show health and social consequences of unhealthy diets
	Build healthy food habits in children
	Education should focus on quality of diets and also on quantity and portion sizes
Behaviour Economics	Supermarket trolleys with large compartments for fruits and vegetables
	Canteen design (e.g. fruits presented before desserts)
	Declare caloric content of dishes in restaurants, canteens, etc
	Smaller portion sizes
	Eat slow
	Smaller plates diameter 20cm
	Need for more research on behavioural economics and its application to policy making
Bans, taxes and subsidies	Prices of 'healthy' foods should be competitive
	Restrict the offer on supersized meals available in restaurants
	Restrict offer toys in restaurants selling HFSS meals
	Encourage public transport usage and biking e.g. by increasing cost of using car or parking
	Taxing high fat sugar salt foods
	Producers and food sellers obliged to inform about kcal/portion
	Better urban planning
	Create suitable environment for use of bikes
Others	Make healthy choice available
	Limit choice, structured choices
	Food reformulation

13. Annex V. Presentations

Due to the large number of slides, all presentations, from both invited speakers and participants, are provided as .pdf documents in a separate attachment on the workshop webpage [here](#).

European Commission

EUR25165 EN – Joint Research Centre – Institute for Health and Consumer Protection

Title: How can science support policy makers in addressing the nutritional challenges of Europe?

Author(s): Sandra Caldeira, Petros Maragkoudakis, Jan Wollgast

Luxembourg: Publications Office of the European Union

2012 – 35 pp. – 21 x 29.7 cm

EUR – Scientific and Technical Research series – ISSN 1831-9424

ISBN 978-92-79-22724-0

doi:10.2788/55770

Abstract

There is a clear albeit complex link between nutrition and health. This workshop brought together nutrition and public health experts from EU-Enlargement and Integration Action (E&IA) countries as well as current member states to discuss this link and attempt to answer the question "**How can science support policy makers in addressing the nutritional challenges of Europe?**". In line with one of the workshop aims, this report summarises the nutritional issues that affect the E&IA countries and that, not surprisingly, are similar to those affecting EU-27 nations and other developed countries. The most obvious examples are nutritional excesses such as high energy, salt or fat intake but several countries also reported micronutrient deficiencies, *e.g.* Vitamin D or iron. While there are many actions already in place to promote healthy and sustainable eating at all levels, from European to local level, the fact that nutrition challenges like obesity still prevail indicates that there is a need to further refine and improve these actions. Focused and targeted research is needed both on the effectiveness of particular measures or interventions as well as on how to best implement them. The participants of the workshop identified four areas where further research is required to successfully refine and improve obesity-targeting measures in a way that is based on scientific methodologies and conclusive results. These four areas are 1) Addressing limitations commonly found in nutrition and lifestyle interventions and trials 2) Assessing the effectiveness of obesity childhood interventions 3) Research into further reduction of portion size as a means to limit caloric intake 4) Exploring and identifying effective means to translating obesity research findings into actions and policies. It was not the aim of the workshop nor of this report to propose these as four priorities for research but rather to alert to the gaps in these areas and present them as four possible directions where research efforts could converge.

How to obtain EU publications

Our priced publications are available from EU Bookshop (<http://bookshop.europa.eu>), where you can place an order with the sales agent of your choice.

The Publications Office has a worldwide network of sales agents. You can obtain their contact details by sending a fax to (352) 29 29-42758.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.



