

**SCIENTIFIC COMMITTEE AND ADVISORY FORUM UNIT**

Parma, 10 March 2010  
EFSA/AF/DRV/M/2009/322/PUB/FIN

**Minutes**

National Experts Meeting on  
Dietary Reference Values  
Barcelona, Spain, 7-8 September 2009

**Chair:** *Riitta Maijala*, EFSA Director of Risk Assessment

Austria	<i>Petra Rust</i> <i>Alexandra Wolf</i>	Hungary	<i>Timea Ráczkevy</i> <i>Ágnes Szegedyne Fricz</i> <i>Maria Szeitzne Szabo</i>
Belgium	<i>Greet Vansant</i>	Ireland	<i>Mary Flynn</i>
Bulgaria	<i>Konstanza Angelova</i> <i>Veselka Duleva</i> <i>Stefka Petrova</i>	Latvia	<i>Lolita Neimane</i> <i>Gatis Ozolins</i>
Czech Republic	<i>Eva Gottvaldová</i> <i>Miroslava Slaviková</i>	Lithuania	<i>Sniegule Sceponeviciene</i>
Denmark	<i>Anja Pia Billoft-Jensen</i> <i>Harold Hansen</i> <i>Heddie Mejborn</i>	Netherlands	<i>Caroline Spaaij</i> <i>Joop van Raaij</i>
France	<i>Iréne Margaritis</i>	Portugal	<i>Isabel do Carmo</i> <i>Pedro Graça</i>
Finland	<i>Ursula Schwab</i>	Slovakia	<i>Katarina Kromerová</i>
Germany	<i>Helmut Heseker</i> <i>Gunther Wolfram</i>	Slovenia	<i>Mojca Gabrijelčič Blenkuš</i> <i>Cirila Hlastan Ribič</i> <i>Katarina Kromerová</i>
Greece	<i>Antonios Kafatos</i>	Spain	<i>Francisco Bermudo</i>

	<i>George Marakis</i> <i>Antonia Trichopoulou</i>		<i>Rossaura Farre</i> <i>Rovira</i>
		United Kingdom	<i>Paul Haggarty</i> <i>Alan Jackson</i> <i>Elaine Stone</i>

## Observers and Invitees

Norway	<i>Lars Johansson</i> <i>Helle Meltzer</i>	Switzerland	<i>Andrea Renggli</i>
NDA Panel	<i>Albert Flynn</i> <i>Karin Hulshof</i> <i>Ambroise Martin</i> <i>Hildegard Przyrembel</i>		

## Staff of the European Food Safety Authority

<i>Gian Luca Bonduri</i>	<i>Elena Marani</i>
<i>Georgi Grigorov</i>	<i>Jeffrey Moon</i>
<i>Juliane Kleiner</i>	<i>Slivia Valtuena-Martinez</i>
<i>Djien Liem</i>	

### 1 WELCOME AND OPENING OF THE MEETING

Riitta Maijala, EFSA Director of Risk Assessment, opened the meeting by welcoming the delegates and provided a brief introduction to the work of the NDA Panel and its Working Groups, outlining the background to EFSA's work in relation to Dietary Reference Values (DRVs) and the timeframes for completing the Opinions.

### 2 ADOPTION OF THE AGENDA

The Agenda was agreed without amendment or addition.

### 3 DECLARATIONS OF INTEREST

Members of the NDA Panel present at the meeting had complied with the Declarations of Interests (DoI) requirements.

### 4 EFSA DRAFT OPINION ON GENERAL PRINCIPLES FOR DERIVING DRVs

Ambroise Martin introduced the draft Opinion on General Principles for deriving DRVs, and outlined the main comments received from the public consultation.

The UK supported by Ireland raised the question on how evidence on relationships between nutrient intakes and health effects from certain population sub-groups could be extrapolated to others with different genetic background.

Finland noted the increasing availability of information on how genetic background modulates the health effects of diets.

The Netherlands questioned the reasons for setting the same age groups which had been used by the Scientific Committee on Food in 1993, noting that other organisations (e.g. the US Institute of Medicine) used different age groupings and noted that different nutrients may need different or additional age groups. The Netherlands also stressed the need to clearly distinguish between DRVs and dietary guidelines. Hildegard Przyrembel explained the importance of setting age groups which were based on physiological differences and not on harmonisation principles.

Slovenia supported by the Netherlands commented on the use of reference weights and heights which dated from 1993 rather than using more recent data. They also commented on the lack of evidence-based data for setting DRVs for most population sub-groups. EFSA indicated that the Panel is aware that the data are relatively old and will therefore recommend in its opinion the development of a database with reference weights and heights representative for the total European population.

Norway asked whether recommendations were made using optimal or real weights as reference weights. Ambroise Martin noted that the scientific evidence for choosing between optimal and real weights as reference weights was limited.

The UK raised the issue of reference values for labelling and where the line was drawn between risk assessment and risk management. Albert Flynn stated that EFSA had also issued opinions in relation to labelling reference intake values. However, in case of labelling reference intake values the NDA Panel evaluated whether the values proposed by the Commission in the context of different legislative proposals fit with existing recommendations in Member States (MS) and with intake data in EU countries.

Denmark raised the matter of how the work of EFSA in the area of DRVs can be accommodated with the work being done by WHO. Albert Flynn indicated that the NDA Panel considered the reports from WHO and noted that the remit of the WHO work was broader and could also include risk management issues.

Denmark, the Netherlands and the UK raised a question in relation to applying the assumption that nutrient intakes follow a normal distribution when setting Average Requirements and noted that for most nutrients this was not the case. Hildegard Przyrembel and Albert Flynn commented that information on the distribution of intakes in the population was often lacking, however using the assumption of normal distribution was a generally accepted approach for estimating the in-

takes that would meet the requirements of most individuals in the population from the estimates of Average Requirements. Ambroise Martin indicated that probabilistic modelling may be considered as a suitable alternative.

Bulgaria suggested giving consideration to the risk of development of chronic disease resulting from low or high nutrient intakes. Ambroise Martin informed that this would need a careful consideration on a case by case basis for each nutrient and specific national health priorities need to be taken into account when making recommendations at a national level.

## 5 EFSA DRAFT OPINION ON DRV FOR FATS

Hildegard Przyrembel gave an overview of the draft Opinion on DRVs for Fats, and outlined the main comments received from the public consultation.

Greece suggested that the results of the '7 Countries Study', could allow setting recommendations for saturated (SFA) and monounsaturated fatty acids (MUFA) based on their effects on LDL-cholesterol. Hildegard Przyrembel noted that it was not possible to define a value for saturated and monounsaturated fatty acids without considering the whole diet.

Slovenia considered that the recommendation 'as low as possible' (ALAP) for SFA and *trans*-fatty acids (TFA) could be misleading. Spain also raised concern that the adverse effects of high fat intakes on insulin sensitivity observed in some animal studies had not been taken into account in the Opinion. Hildegard Przyrembel responded that the ALAP advice had to be considered in the context of an adequate diet. This was also supported by the Netherlands.

The UK pointed out the difficulty to include both absolute and relative values in recommendations and also stressed that in their view the evidence for setting recommendations for a range of total fat intake was not strong. The UK also suggested including a reference to MUFA in the opinion.

Slovenia supported by France expressed concern on not setting upper intake levels for SFA and TFA. France also posed the question of why no differentiation was made between natural and processed sources of TFA, noting the different levels of intake from both sources. Greece offered to send data on TFA intake data and risk of morbidity and mortality.

The UK requested clarification whether data on supplement use in different countries was included in the intake data considered when formulating Average Intakes (AI) for alpha-linolenic acid (ALA) and linoleic acid (LA). Hildegard Przyrembel stated that the intake from supplements was mostly not considered in the intake data compiled from different countries. Regarding TFA, Hildegard Przyrembel indicated that at present there was not sufficient evidence to differentiate between natural and artificially produced TFA concerning their effects on blood lipids. Albert Flynn noted that intake of TFA from processed sources had been reduced in recent years and that the focus had shifted from TFA to SFA.

Germany questioned whether different levels of acceptance of evidence, as used in the German guidelines for fat should be used by the Panel. Germany also noted that the information that was available linking health effects from TFA was confused. Germany also stated that a lower limit of 20 E% total fat is too low since triglycerides will increase. Hildegard Przyrembel advised that the German report was known and welcomed, and although the Panel was familiar with the concept of indicating “levels of acceptance” of evidence, this was not indicated.

Finland noted the difficulty of meeting the lower limit of recommended total fat intake in European diets (except for vegetarians and vegans) due to consumption of dairy products and meat. Germany indicated that 25% as lower limit for total fat intake would be a more realistic value.

Norway and Bulgaria addressed the question of high intakes of polyunsaturated fatty acids (PUFA) and questioned whether an upper limit of intake shouldn't be established. Hildegard Przyrembel indicated the lack of sufficient data for setting upper levels for PUFA but risk managers might address the issue when setting food based dietary guidelines. The Netherlands suggested expressing a DRV for total cis-PUFA as a range of intake.

Greece requested clarification whether the term “total fat” included both fats and oils.

The UK noted the higher recommendations for eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) from the UK and France than the AI proposed by EFSA (450mg/d compared to 250mg/d), suggesting that the AI should be set higher. The UK also noted that the methodologies on which most of the nutrient intake data are based are known to underestimate intakes and that this could have a significant impact on conclusions based on absolute intakes.

Denmark suggested setting recommendations for fatty acid subgroups (SFA, MUFA, PUFA) as it is being done by FAO/WHO and in the Nordic Nutrition Recommendations.

Hildegard Przyrembel explained that the evidence was not sufficient for setting an AI higher than 250mg/d. Karin Hulshof stated that various methodologies were used in dietary surveys across the EU and that the best available data was used for the Opinion. The UK urged that a comment should be included in the Opinion on the limitations of data from dietary surveys currently available.

Hildegard Przyrembel summarised the discussion.

## **6 EFSA DRAFT OPINION ON DRV FOR CARBOHYDRATES AND DIETARY FIBRE**

Albert Flynn presented an overview of the draft Opinion on DRVs for Carbohydrate and Dietary Fibre and outlined the main comments received from the public consultation.

Greece, Ireland and Norway noted that in their views upper levels for total sugar intake in children should be established. Norway, however, disagreed with considering only total sugar intake rather than added sugar intake. Slovakia indicated

that it was important to harmonise upper levels for sugars at a European level as otherwise individual MS would set varying recommendations. France suggested that the recommendation for added sugar should be set as ALAP. Denmark supported the Dutch view that a reference value should be set for added sugar. Denmark also supported Ireland that the value for added sugars cannot be set at zero. Denmark suggested “backwards” calculation from the DRV for total carbohydrate in a healthy diet meeting the DRV for fibres. Derived from this, a DRV for added sugar could be set at a maximum of 10%. Albert Flynn indicated that the role of the NDA Panel was to consider the scientific basis for setting DRVs and that the panel considered that the available evidence is insufficient to set an upper limit for sugars/added sugars. However aspects like maintaining adequate nutrient density of diets, consumption of sugar-sweetened beverages and frequency of consumption of sugar-rich foods should be taken into account when establishing national food-based dietary guidelines.

Greece questioned the availability of data on dietary fibre intake for infants over six months. Albert Flynn indicated that there are no data available on dietary fibre intake for infants. The UK questioned the definition of dietary fibre used. Albert Flynn noted that the DRV is based on the effect of dietary fibre intake from mixed foods on bowel function (total quantity of fibre intake). The UK also raised the issue of whether fructooligosaccharides (FOS) and galactooligosaccharides (GOS) should be specifically included in the opinion. The Netherlands supported by the UK stated that isolated fibre added to food had less effect than naturally occurring fibres in food and that the definition of dietary fibre should be amended to only refer to dietary fibres naturally occurring in food. Albert Flynn noted that this was a risk management issue and could be dealt with when setting food based dietary guidelines. Ireland proposed to express DRVs for dietary fibre in adults as percentage of total energy intake instead of giving an absolute value.

Greece mentioned the work of the EURRECA project and asked how duplication of work would be prevented when undertaking the task of setting DRVs for micronutrients. Albert Flynn indicated that the NDA Panel was aware of EURRECA and that the outputs would be carefully considered by the Panel.

Switzerland supported by Norway noted the need for more practical recommendations for setting food based dietary guidelines.

The Netherlands proposed that the inclusion of a ‘decision tree’ for considering the evidence in the Opinion would be useful.

Albert Flynn summarised the comments made, noting that many of the issues raised were related to policy decisions.

Karin Hulshof presented the draft Opinion on food based dietary guidelines (FBDG) and outlined the main comments received from the public consultation.

Greece suggested to also include evidence from more recent data, e.g. folate and colon cancer. The UK reiterated concerns on taking into account genetic differences and the use of supplements and raised a further consideration on how to take into account novel foods. Karin Hulshof indicated that where there was evidence of supplementation and fortification, this was taken into account and agreed that novel foods needed to be considered particularly from a monitoring perspective.

Ireland noted that there was a lack of guidance on how to address energy intake for both children and adults and suggested this could be included in the section dealing with nutrients to be taken into account in setting FBDGs.

Portugal raised questions on the quality of the food consumption data and on the nature of food composition data used. Karin Hulshof explained which data were used and acknowledged the need to consider also other tools such as marketing reports which may provide information on consumption changes.

The UK supported by Bulgaria emphasised that the draft Opinion focused mostly on adults, but that other population subgroups such as children should also be considered outlining any differences with respect to deriving FBDG.

Greece posed the question of the impact of food consumed outside the home and its contribution to energy intake. Karin Hulshof agreed that this was important to consider and that FBDG had to be applied in a country specific context.

The Netherlands noted that harmonisation of FBDG across different countries would be difficult due to diverging food consumption patterns and questioned whether it was possible to meet all the reference values with a normal diet.

Norway agreed that it is a national task to develop FBDG, but felt that there was too little explanation on how to review and evaluate the evidence and data at national level and how to bridge the gap between DRVs and FBDG.

Bulgaria suggested that more information should be provided on physical activity and weight control. The Netherlands questioned whether reformulated foods (such as salt reduced foods) should be considered in FBDG.

Karin Hulshof summarised the comments made. The comments made would be considered in the finalisation of the draft Opinion.

## **8 EFSA DRAFT OPINION ON DRV FOR WATER**

Hildegard Przyrembel presented the draft Opinion on DRVs for Water and outlined the main comments received from the public consultation.

Greece requested clarification on the use of the term 'beverages' rather than drinking water and how water from composite foods like soup is considered. Slovakia agreed that drinking water was the main source of water intake. Hildegard Przyrembel stated that the definition of water in the opinion was adequately addressed, but acknowledged that priority to drinking water should be given over beverages. Denmark suggested that the values for total water should be reiterated

in the conclusions with the sources of water specified and the UK also suggested that clarification was needed in relation to water from food sources.

Norway suggested that water intake should be considered in relation to chronic disease risk. Hildegard Przyrembel noted that this had not been considered in detail because not enough data were available to set water recommendations on that basis.

## **9 FURTHER WORK PROGRAMME ON DRVs BY EFSA AND POSSIBLE COOPERATION WITH MEMBER STATES**

Juliane Kleiner provided an overview of the work programme for the rest of 2009 and outlined some of the work of the NDA Unit and Panel in the forthcoming year. The five draft Opinions on DRVs for Carbohydrates and Dietary fibre, Fats, Water as well as on Food Based Dietary Guidelines and on the General Principles will be finalised by the end of the year taking into account the comments received via the public consultation and the comments made during this meeting.

In early 2010, the draft Opinions on DRVs for Energy and Proteins are to be issued for consultation and work on micronutrients is to start in 2010 Possible priority maybe given to vitamin A, C, K, potassium magnesium and selenium. MS were asked to consider what other micronutrients should be dealt with on a priority basis and suggestions were welcomed.

Germany suggested that micronutrients relating to bone health (calcium, phosphorus, vitamin K and vitamin D) along with antioxidants should be prioritised.

UK suggested that EFSA should consider to carry out systematic review for selected micronutrients and suggested that Member states might contribute to this systematic review.

Juliane Kleiner reminded delegates of the EFSA expert database and encouraged those who had not already registered to do so.

## **10 CONCLUDING REMARKS**

Riitta Maijala provided a short summary of the discussions and welcomed comments in writing. Riitta Maijala thanked the participants for their attendance and input, the Panel members for their presentations and discussion and EFSA staff and closed the meeting.