European Food Safety Authority

Dietary and Chemical Monitoring Unit

6th Meeting of Expert Group on Food Consumption Data

14 and 15 November 2011

Grand Hôtel de la Ville, Parma

Meeting Report

Attendees

Member States' representatives

Nowak Verena	Austria
Vandervijvere Stefanie	Belgium
Petrova Stefka	Bulgaria
Dofkova Marcela	Czech Republic
Trolle Ellen	Denmark
Kambek Liis	Estonia
Männistö Satu	Finland
Dubuisson Carine	France
Krems Carolin	Germany
Marakis George	Greece
Ambrus Arpad	Hungary
Thorgeirsdottir Holmfridur	Iceland
Evans Rhodri	Ireland
Sette Stefania	Italy
Vilcane Santare Dace	Latvia
Strottner Camille	Luxembourg
Busuttil Ingrid	Malta
Lillegaard Inger Therese	Norway
Calhau Maria Antonia	Portugal
Kromerová Katarína	Slovakia
Marcos Suárez Victoria	Spain
Nälsén Cecilia	Sweden

Renggli Andrea	Switzerland
Ocké Marga C.	The Netherlands
Bush Mark	United Kingdom

Hearing Experts

Nurk Eha	Estonia
Freisling Heinz	France
Naska Androniki (Ada)	Greece
Guiomar Sofia	Portugal
De Boer Evelien	The Netherlands
Foster Emma	UK

EFSA staff

Valsta Liisa	DCM-Chair
Fabiansson Stefan	DCM-HoU
Vernazza Francesco	DCM-Deputy HoU
Heppner Claudia	RASA Acting Director
Arcella Davide	DCM
Gergelova Petra	DCM-Rapporteur
Heraud Fanny	DCM
Ioannidou Sofia	DCM-Rapporteur
Merten Caroline	DCM
Roldan Ruth	DCM
Scaravelli Elena	DCM
Varga Eniko	DCM
Guescini Chiara	DCM- Secretariat
Dellapina Silvia	DCM- Secretariat

Apologies

Colic-Baric Irena	Croatia
Markidou Eliza	Cyprus
Kendrovski Vladimir	F.Y.R.O.M.
Satkute Rima	Lithuania
Sekuła Włodzimierz	Poland
Lis Valentin Cristian	Romania
Gregorič Matej	Slovenia
Pekcan Gulden	Turkey

Acronyms

DATEX	Data Collection and Exposure
DCM	Dietary and Chemical Monitoring
DG	Directorate-General
EGFCD	Expert Group on Food Consumption Data
FAO	Food and Agriculture Organisation
FCDS	Food Classification and Description System
FFQ	Food Frequency Questionnaire
FPQ	Food Propensity Questionnaire
HHM	Household Measurements
IARC	International Agency for Research on Cancer
MS	Member States
NDA	Nutrition, Dietetic Products and Allergies
PAL	Physical Activity Level
RAC	Raw Agricultural commodity
RIVM	National Institute for Public Health and Environment
SSD	Standard Sample Description
TDS	Total Dietary Studies
WG	Working Group
WHO	World Health Organisation

Agenda

Draft Agenda for the 14th of November 2011

Starting time: 13.00
Finishing time: 18.15

#	Items	Reference/ Comments
1.	**Opening, welcome and apologies for absence** **Adoption of the agenda** **Declarations of interest** **Administrative information**	Liisa Valsta Chiara Guescini
2.	**Welcome address**	Claudia Heppner
3.	**DCM – evolution of the unit**	Stefan Fabiansson
4.	**Highlights of DCM activities**	Francesco Vernazza Fanny Heraud Caroline Merten Elena Scaravelli
5.	**PANCAKE** Protocols and the pilot study for the assessment of nutrient intake and food consumption among kids in Europe Discussion	Marga Ocke, Evelien de Boer Stefanie Vandevijvere All
6.	**EPIC-Soft in the EU Menu pilots** Discussion	Heinz Freisling All

Draft Agenda for the 15th of November2011

Starting time: 09.00
Finishing time: 16.00

#	Items	Reference/ Comments
7.	**Day 2** **Opening of Day 2** Highlights of Day 1	Liisa Valsta

8.	**PILOT-PANEU** Protocols in the view of a pan-European dietary survey for adolescents, adults and elderly Discussion	Arpad Ambrus Ada Naska Stefka Petrova All
9.	**Towards the EU Menu era** **Member States' updates** France Estonia Round table on dietary survey plans (1-2 min/MS)	Davide Arcella Carine Dubuisson Liis Kambek All
10.	**Challenge of the year – Portion size estimation with picture books** Discussion	Emma Foster Ellen Trolle Heinz Freisling Sofia Guiomar All
11.	**Solid foundation for future action – next moves?** Final discussion, conclusions, closing of the meeting	All

• Opening session

Liisa Valsta opened the meeting and welcomed all participants. The apologies for absence of some members of the group were listed. The chair shortly presented the DCM members present and asked from MSs participants to introduce themselves.
The group adopted the agenda.

Chiara Guescini summarized the administrative procedures.

• EFSA Welcome address

Claudia Heppner (CH) gave an update on EFSA's activities. She referred to the reorganisation of EFSA started in 2011 and presented the new organigram by giving further details on the Directorates formed, their mission and units. CH talked about the EFSA's key strategic objectives for 2011-2016 and mentioned that the science strategy is under public consultation until the 21st of November 2011. She went through the data collection mandate, scope and activities and underlined the importance of collaboration between EFSA and the MSs.

• DCM-Evolution of the Unit

Stefan Fabiansson (SF) informed the EGFCD about the evolution of the Unit since the previous meeting of the EGFCD in means of the change of the name to Dietary and Chemical Monitoring Unit (DCM), staff increase, harmonisation and standardisation, food terminology, occurrence data, management of left-censored data, availability of consumption data, calculating exposure and reporting of results. Data submissions have gradually passed from unstructured manual submission to partially structured and are expected to be fully structured and automated using standard nomenclature in 2012. The food classification used in the Comprehensive Database has progressed into FoodEx 1, and now it is further developing into the FoodEx 2 which is a more harmonised hierarchical system and it is expected to be available at the beginning of 2012. Chemical data collection passed from ad hoc requests with different coding and irregular submissions to currently used systematic method characterised by standardised coding. SF presented the plan to use the TDS as an important tool for harmonised chemical data collection from 2014. Concerning left-censored data, it is still not decided how to implement the recommendations of the EFSA guidelines on the management of left-censored data. SF underlined the importance of developing a harmonised database on food consumption data. Calculating exposure has gradually moved from assumptions to currently used deterministic approach. The probabilistic approach is under evaluation as transparency problems may limit the move in this area. Related contaminants would probably be grouped in a common report and published in a bi-annual basis. SF underlined the importance of cooperation of all MSs in the regard of harmonised approach development.

- **Highlights of DCM activities**

FoodEx 2

Francesco Vernazza (FV) presented the new classification and description system for exposure assessment FoodEx 2 developed by the Food Classification WG. The new FoodEx 2 will include multiple hierarchies, allow a detailed description, include scientific names and be expandable when needed. He presented a summary of the development of the project highlighting the circulation of a Green Paper for the last comments before finalising the guidance and the system proposal. The scientific report with guidance elements and the technical report will be published on EFSA's website by beginning of January 2012. FV described the pillars and the details of the system; it is mainly intended to be used when transmitting data to EFSA, but might be attractive to MSs for data production as well. Coding should aim at the lowest possible level and composite foods should be disaggregated to single food ingredients. Translation tables will be set up in order to help MSs when reporting data. The overall process of implementing the new FCDS will follow a tiered approach; a draft proposal followed by consultation, pilot projects, implementation, refinement and adoption. FV demonstrated the system using the web browser. He underlined that is not currently a coding tool, but serves for navigation and familiarising purposes. It will be available at EFSA's website and will be open to comments and suggestions. The final status will be reached with the contribution of MSs.

Discussion:

MSs raised their concern whether it will be necessary to reclassify data already submitted for the Comprehensive database and how this will be accomplished. In response, EFSA pointed out that in February 2012 a kick off meeting will be organised in order to discuss what can be achieved regarding this field. Before the meeting, the MSs could have a first look and provide their views. It was underlined that FoodEx 1 codes are already included in the new system and a complete translation of FoodEx 1 to FoodEx 2 will be provided shortly.

RAC and recipes

Fanny Heraud (FH) gave a presentation on the European food conversion model, from food as consumed to raw agricultural commodities. She outlined the background, the principles, the steps followed, and the future perspectives. Regulation and monitoring for environmental contaminants and pesticides residues cover mostly raw agricultural commodities, though individual food consumption data target food as consumed. Therefore, there is necessity to apply a food conversion model. In this frame, food as consumed is disaggregated into individual ingredients, which are related to RAC by applying a food conversion factor. In 2011, RIVM institute carried out a project under Article 36 in order to draft the European food conversion model. This work was based on the Dutch food conversion model and focused on food and ingredients of plant origin. Missing food and ingredients are now being completed by EFSA. A public consultation on the first draft of the European food conversion model is planned in order to improve the representativeness of the model. It will be followed by a consolidation phase and publication of the model in 2012. Regular updates with new data input could be foreseen.

Discussion:

The chair asked the MSs dealing with RAC for their feedback.
Hungary uses national traditional recipes, some available conversion factors and limited data from the literature. In their food composition tables, is often applied a factor of 1.
Latvia uses an integrated model based on the EuroFIR project.
Denmark is currently following a conversion model moving from recipes to food ingredients and then to RAC.
In Germany the calculation of RAC is based on information out of the German Nutrient Database and amended by information from manufacturers and references.
Italy uses a recipe database only to transform the weight of prepared mixed (cooked or not) into the weight of raw single ingredients. A recipe database to transform food as consumed to raw agricultural is in progress.
Spain uses a picture book with different portion sizes in which conversion factors have been applied from dishes to raw commodities. Food consumption data have been obtained as RAC.
The Netherlands uses the conversion model with recipes and conversion factors that was applied in the EFSA article 36 project presented.
The United Kingdom has developed a recipe database over a number of years, and has recently begun evaluation work to ensure it is up to date and continues to provide a sound base for risk assessment.

Exposure Assessment in EFSA

Caroline Merten (CM) gave an overview of the evaluation on procedures for the assessment of dietary exposure to chemical substances currently used by EFSA, of which a report is planned to be published in December 2011. EFSA's activities are covering food additives and nutrient sources added to food, food contact materials, enzymes, flavourings and processing aids, pesticides and their residues, additives used in animal feeding, natural toxins and contaminants, nutrients and novel foods, and chemicals present in genetically modified organisms. CM summarised the exposure method, the food consumption and chemical source for each of the above mentioned areas.
EFSA does not have a harmonised approach to access dietary exposure and currently uses three different methods: a Tiered approach, a conservative screening method or a refined model based on individual food consumption input data. Data are still scarce on special target population groups. Cumulative exposure assessments and probabilistic distribution analysis is not performed yet on a routine basis.
In the field of food consumption, EFSA recommends to: (i) use data from the Comprehensive food consumption database to validate/crosscheck model diets, (ii) use sample designs with regards to chemical occurrence data, (iii) promote the SSD and TDS, (iv) always consider children populations regarding dietary exposure estimates, (v) harmonise modelling of high consumers, (vi) expand probabilistic assessment in case of acute scenarios, (vii) test statistical methodologies for the estimation of usual intake and (viii) explore cumulative assessment for all related chemical substances.

Discussion:

It was asked whether nutrient intake was of any interest. In response, Davide Arcella mentioned that the interest is limited to risk assessment, and nutrient intake as such is not covered. The chair added that when procedures and tools to cover nutrient intake information will be improved, the interest might expand to nutrient intake as well.

Total diet studies for harmonised data collection and exposure assessment

Elena Scaravelli (ES) gave an update on EFSA's activities regarding the TDS for harmonised data collection and exposure assessment. At the beginning of 2010, a Working Group of experts on TDS was formed with participants from European Member States, FAO and WHO The WG first ascertained the feasibility of a potential harmonisation of the TDS approach (feasibility statement published on line), then the activities of the WG focused on preparing a review of the state of the art on TDSs worldwide with a particular emphasis on activities in Europe and on developing a guidance document for a harmonised TDS approach. The documents were finalised and sent for external peer review in March 2011. By end of November 2011, the guidance document "Towards a harmonised Total Diet Study approach: a guidance document" and the supporting document 'State of the art on Total Diet Studies based on the replies to the EFSA/FAO/WHO questionnaire on national total diet study approaches' is planned to be published on the EFSA website as a joint publication between EFSA, FAO and WHO. A definition of TDSs as described in the guidance document was given. Moreover, it was highlighted how MSs can use the results and it was underlined the added value of the TDS methodology for obtaining comparable exposure values at international level. TDS is not meant to substitute the existing food monitoring and surveillance activities, but serve as a complement to them, or it can also be a stand-alone screening tool as a starting point for further analyses.
In the coming years, the European Commission´s Directorate-General for Research and Development will fund a Pan-European pilot project to harmonise data collection, identify typical foods in the overall diet and assess the dietary intake of chemical contaminants from these foods. EFSA is seeking for a possible collaboration.

Discussion:

Ten MSs are already active in the field of TDS.
MSs asked how it is possible to have a more refined exposure assessment by including extreme consumers. ES responded that depending on the degree of pooling, more samples can be analysed and this will allow the identification of specific sources of exposure and a better investigation on those food products more highly contaminated or more highly consumed. Different degree of pooling can be applied depending on the food consumption data available and the budget. In addition, it was also mentioned that if low degree of pooling is applied, information on the different processing of the food preparation need to be present.

- **PANCAKE**

Protocols and the pilot study for the assessment of nutrient intake and food consumption among kids in Europe

Evelien De Boer (EB) presented the progress of the PANCAKE project. She shortly described the aims and specific objectives, and introduced the coordinator and partners of the project. EB gave an update on the development of protocols/ procedures and tools, talked about the sampling protocol of the pilot studies in Belgium and Czech Republic, the quality control protocol and its steps, the data entry of questionnaire, the FPQ, height and weight measurement and the non-response questionnaire underlying that they are still under evaluation. EB went into more details on the pilot studies in Belgium and Czech Republic and their current status.

Marga Ocké (MO) presented the preliminary evaluation results. In order to estimate usual intake, two non-consecutive one-day diary are preferred over a three consecutive days' diary. If the quality of the first is higher or equal to the second, then the two non-consecutive one-day diary with EPIC-Soft will be recommended. An additional advantage is that the design for children would be almost similar to adults (two non-consecutive 24-h diet recalls). Additional positive comments related to the interview protocol were given.
Concerning the general questionnaire, the paper version can be used for EU Menu and no additional changes will be needed. An on-line version questionnaire is a possible option.
Survey participants commented that in the FPQ answer category "never consumed" was not present, there were some remarks about the definition of certain food groups and found it difficult in general. Interviewers thought that (i) it should include only items needed e.g. for infants' case, where certain foods are not applicable, and (ii) that is necessary to check for completeness of answers before the end of the interview period.

Stefanie Vandevijvere (SV) gave an overview of the general sampling guidelines. She presented the target population as defined by the NDA panel and the exclusion criteria. As it refers to the sampling frame, she recommended the use of the National population Register as a preferred option. Alternatively, list of schools and kindergartens, market research panel, list of general practitioners and telephone list can be used despite their disadvantages. Several methods of sampling can be combined within the sampling design. As a minimum, it was recommended to perform stratification by age group and sex. Inter-seasonal variation should be taken into account and include as many as possible holiday periods. It was recommended to include at least 260 subjects per age group in the sample size and allowed to use different ways to obtain the required number. It was advised to take measures to increase the response rate.

Discussion:

The presenters gave more information answering on the questions asked from the EGFCD:

- Almost no problems were noticed during the completion of the questionnaire by participants in terms of language.
- FPQ was the same in both countries.
- No particular approach was used to motivate mothers participate in the interview

because the pilot studies was aimed at feasibility.

- The limit of 14 days between the 1st and 2nd diary record was chosen for practical reasons in the pilot study. For EU Menu it is recommended to have a longer period in between the record days.
- In order to avoid home visits becoming annoying, the 2nd visit can be shorter and combined with a telephone interview. This option was available in the Czech pilot studies but few participants preferred this.
- Having only one home visit followed by two telephone interview could be an option to shorten the budget, but this method was not tested for its results. As DA pointed out, what EFSA is proposing is less expensive than other methods followed already in Europe and the quality of the data obtained should never be ignored.
- The age of 1-3 years old is very important as it is linked with setting the relevant nutrient recommendations. In addition, food consumption versus body weight at these ages is very high, so it makes them important for risk assessment. Because the NDA panel will set nutrient recommendations for 5 age groups of infants and children, the PANCAKE project recommended to recruit 260 subjects for each of those 5 age groups. DA indicated that the EFSA guideline indicated 3 age groups to reduce the study costs.
- In both countries participated in the PANCAKE project, no particular problems were faced targeting infant population over the age of three months from the National Register. In some countries though this might not be feasible, so other alternatives are proposed.

In their last survey, Bulgaria has used data from the National GP; the data obtained were reliable, they had a high response rate and the survey was successful.
Estonia suggested drawing the sample repeatedly, as infants were not registered from the 1st to the 2nd pilot in their case.

Action point 1: Feedback on the sampling guideline was asked to be sent to the PANCAKE coordinator by the beginning of December 2011 by e-mail.

- **Round table**

The EGFCD was invited to a round-table discussion to give comments, proposals or to raise questions on dietary surveys in children and the sampling guidelines.

Switzerland: The effort should be focused on increasing the participation rate; suggestion should be heard on how to achieve that.
Hungary: The sampling guideline protocol gives the possibility to every country to choose which the most appropriate method is. Hungary had a better experience in drawing samples from the National Statistical Office than from the National Register.
France: Their comment concerned whether to include or not pregnant women in the survey.
Germany: They drew their sample from the National Register for both last surveys on adults and children participants. The nutrition survey with children was conducted with a random sub sample (6 to 17 years) stratified by age and sample points. For the survey with adults Christmas and summer holiday's period were considered challenging.

Sweden: How were the 22 food groups chosen? MO answered that most were the food groups of the EPIC-Soft classification; some were modified based on public health relevance.
Latvia: Which part of the questionnaire should be filled in by the parents and how to check if the information reported is correct? Children attending a kindergarten should be indicated. Is physical activity level included in the questionnaire? MO answered, that physical activity is not yet included in the protocol, but could be an important issue for the future.
Greece: The increasing number of immigrants demands the investment of more effort into approaching them as they are not registered. Advice was asked on how to better approach them, select a suitable language and do the sampling.
Iceland: The household sampling is not recommended. Focusing in all ages of children should be considered.
Norway: They had a four day precoded food diary and express their wish to include aspects regarding all weekdays in the guideline. The number of participants (260) in each age group as proposed does not seem to be sufficient to perform risk assessment in all foods interested to EFSA.
Malta: The main problem was related to contact details, which were often outdated or inaccurate.
Slovakia: Are fortified food and dietary supplements included in the FPQ and to what extent? Both groups are collected through the food diary. Food supplements in the FFQ include only general type, i.e. Vit A, vit B, multivitamins, multiminerals, etc.
Estonia: There was no clear suggestion on how to target children of lower social economic groups, orphanages, who may not be included in the National Register. National Birth Register can also be an option in drawing the sample.
Czech Republic: As member of the pilot study, the sampling took six months approximately. The drawing of the sample was done by the staff of National Evidence in accordance to its protocol.
Portugal: The representative expressed her warm compliment for the very comprehensive work done in this field.
United Kingdom: The Register of Births may not include all children if used to draw a sample of the youngest children, potentially introducing bias. A recent survey of 4-18 month old children in the UK used child benefit records instead. Access to this data is strictly controlled, but it has good (95%+) coverage of the target population and was a very successful sample frame. Participants completing the survey received a small financial reward, which could help to maintain response rates.
Ireland: It is difficult to include in the sampling frame infants younger than six months.
Finland: How important is to include holiday period in the survey for risk assessment? Which is the lowest acceptable level of partial answering of the questionnaire? How to increase the participation rate?
Italy: In the last dietary food consumption survey, participation rate was 33 %. Protocols and sampling guidelines should include some suggestions on how to improve.
Bulgaria: Practical issues need to be discussed; time necessary to explain the procedure to participants, demonstration of the picture books and how it works etc. Regarding the holiday period, Bulgaria proposed to exclude it, as the study is focused on usual intake.
Austria: It is important to have updated National Registers. Alternative methods could be the mother-child booklets starting from the pregnancy period until the 5th year of life of the child, as well as paediatrician visits books.

Spain: The National Register is not recommended. Low participation was seen during holiday periods. In order to increase the participation rate, a financial support was proposed as a motivation.

- **EPIC-Soft in the EU Menu pilots**

Heinz Freisling (HF) updated the EGFCD on the EPIC-soft software, its customisation in view of the EU-Menu through the PANCAKE and PILOT-PANEU projects, and described the experience obtained from the training course held in Lyon in November 2011. HF presented the 'classic' interview steps of the application. As one of the main tasks of IARC in the PANCAKE project, an EPIC-Soft data entry version for dietary data entry as derived from food records was developed. Preliminary evaluation results related to the data entry version were presented. Training on the software came out to be really important in the use of the EPIC-Soft data entry version as tested in PANCAKE project.
Within the PILOT-PANEU project, EPIC-Soft has been customised according to requirements of the project mainly through the common files. It has been pointed out that its food classification cannot be changed because it is "methodology driven", but other classification systems can be used after the exporting of the data for analyses purposes. Foods, recipes and dietary supplements are described using a series of facets and descriptors defined according to the level of precision requested. HF presented the list of facets for all the above mentioned food groups in both PANCAKE and PILOT-PANEU projects. Finally, he referred to the latest 'train the trainers' course on the software held in Lyon and the experience obtained from it.

Discussion:

HF mentioned that the number of facets and descriptors to be used have been raised in the PILOT-PANEU in comparison to the PANCAKE project and asked MSs for their opinion on that.
MSs expressed their question on why not putting facets of flavouring and sweetening agent under one called as food additive. In response, HF said that facet of flavouring refers specifically to the flavouring agent and other additives will be captured by the brand name, though sweetening agent refers to added sugar or artificial sweetener. There was another question noted as to why to ask those facets separately and do not capture everything by the brand name information. HF responded that the information given might be contradictory to that provided by the brand name. LV underlined that it was according to EFSA's request, but everything will be tested in the PILOT project.
MSs wondered if all facets and descriptors are asked for all food groups and how easy it is to handle the long lists of descriptors. In response, HF noted that the facets and descriptors are customised to every food group and down to the level of single food (recipe) items. It is important for the interviewers to know the list of descriptors before going through with the interview in order to know the easiest way to search for the descriptor reported. Depending on the need of every MS descriptors most frequently reported could be on the top of the list.
Worries were expressed to what it is reported when subjects do not know or cannot recognise whether it was characteristic ingredient or flavouring and if this could burden the interview length. HF replied that the difference, as defined by EFSA, is when solid particles are visible to be considered as characteristic ingredient though when not as

flavouring agent. It was recommended to find a balance as interview's length is important to be kept to +/-30 minutes.
It was generally accepted the necessity to have very well trained interviewers so to be able to translate well the responses of the subjects and help them answering with the limitation of keeping a balance between helping and not being directive.

Opening of day 2

LV opened the second day and asked the MS representatives to discuss with the person next to them and report back the highlights of the first day.

Discussion:

PANCAKE project was an interesting subject and its close relationship with the PILOT-PANEU was discussed. The MSs stated that the use of the FPQ will complement the PILOT-PANEU and the EU Menu. They expressed their hope that the PANCAKE project will be feasible to be applied to other countries as well.
The on-going activities of EFSA draw the interest of the MSs. They also find very useful the round table conversation on the sampling guidelines. Finally, they appreciated the update given on the EPIC-Soft software which they characterized as a good harmonization tool for food consumption surveys.

- **PILOT – PANEU**

Protocols in the view of pan-European dietary survey for adolescents, adults and elderly

PANEU consortium

Arpad Ambrus (AA) presented the EFSA Pilot study in the view of a Pan-European dietary survey, started in December 2010 and estimated to end in December 2012. The goal of the project is to work out a standardised methodology for the EU Menu food consumption survey. The consortium consists of a team with expertise in risk assessment and nutrition at national and international level, is supported by an Advisory Board, and is in close cooperation with EFSA, IARC and related project teams. The Pilot survey will be performed in five European countries spread across Europe, out of the seven that are participating in the project. The mission of the consortium is to (i) develop appropriate tools and procedures for the collection of individual food consumption data through a two 24 hour recalls on non-consecutive days in randomly selected populations of adolescents, adults and elderly belonging to the age groups of 10-17, 18-64, 65-74 respectively, (ii) perform the pilot dietary survey and (iii) evaluate the results. Updating and adapting the EPIC-Soft software is done in collaboration with IARC. Additional information will be collected through additional questionnaires (FPQ, eating out, physical activity level, socio-demographic characteristics and evaluation of experience questionnaire). Anthropometric measurements will also be taken. AA referred to the roles of each partner and the activities done so far. An interim report concerning the general administration procedures, the protocols and questionnaires will be submitted by the first of December 2011. The challenges that need to be faced include the copyright issues of the data collected, the time management in terms of converting files from .end

into .xls and back, the preparation of country specific files, the respect of the deadlines, the heavy workload and the response rate. Additionally, food groups and food items and facets need to be linked to the FoodEx 2 classification system and the linkage with the food composition tables need to be considered.

Discussion:

A question on how the under and over-reporting will be dealt was raised. In response, AA said that the AM and the picture book will assist in this field. In addition, the data will be linked with a physical activity level questionnaire and the energy intake.
Another question referred to whether a prior training took place before the beginning of the preparation of the country specific files. AA replied that one day training was given and the English version of the EPIC-Soft software was made available. In addition, the third coordination meeting in Lyon in November 2011 was combined with a three days training on the software and an e-learning access was also given. Another e-training could be organised during the data cleaning phase.

WP3: Questionnaires to collect additional dietary and non-dietary information

Ada Naska (AN) presented the different questionnaires developed for the PILOT-PANEU project.
The questionnaire on the socio-demographic characteristics the health status and the lifestyle choices has two versions, one for adolescents and one for adults and elderly people. It is a short, self-administered questionnaire and includes a general, a health, and a smoking status module. In order not to burden the interview length, these would be included in the invitation letter to the subject and collected before the interview start.
The questionnaire on the usual physical activity aims to help identify mis-reporters of energy intake. It is a short version of the International Physical Activity Questionnaire, validated and available in twelve languages. Both a self-administered and an interview-administered version are available. It also allows the classification of individuals in three PAL categories; low, moderate and high.
The questionnaire on eating out aims to collects information on the place of consumption together with the place of food preparation. It uses as starting point the HECTOR questionnaire. Based on that, it was decided to adapt the information collected with EPIC-Soft accordingly using information on the ‘place of consumption’ together with the facet on ‘preparation/production/purchase’. The related lists of descriptors were shown in detail.
The FPQ used as a starting point the PANCAKE FPQ for breast-feeding mothers, which was revised to refer to the previous twelve months and include the answer ‘never’ among the options. It includes three parts; Part A is common for all countries, includes all groups of food, and aims on capturing background diet. Part B includes a country-specific section as well, focuses on foods relevant to risk assessment and nutritional interests in the country. Part C is common for all countries and includes dietary and nutritional supplements. Its final version was agreed during the last PILOT-PANEU coordination meeting in November 2011. It is expected to take about five minutes to fill it in as it does not require food quantification.
The questionnaire addressing non-responders is available in two versions, a telephone interview and a self-administered version. It includes three modules: in the first personal characteristics are asked, in the second the reason for refusal and in the last the evaluation of the survey procedures. A shorter version for adolescents is available.

Discussion:

The EGFCD asked for feedback on whether it was easy to get an answer from the non-responders. AN replied that experience showed that people answer easily to simple questions via the telephone.
It was asked on how it is planned to use the information obtained from the questionnaires. In response, it was said that the call did not specify the method of analysis, so MSs are free to decide what method they will use. The Multiple Score Method (MSM) that was published recently deals with more extensive questionnaires but it can also be applied to shorter versions.
It was asked if testing of the questionnaires should be done before the interview. With the FPQ is supposed to be essential. It is advised to have it tested among colleagues on its feasibility.
Another question concerning the country-specific section of the FPQ was expressed and how different questions are selected for inclusion. In response, AN said that sections will include items reported by at least three countries and that will be of particular interest to EFSA for risk assessment.

PILOT PANEU final draft protocols

Stefka Petrova (SP) gave a presentation on the developed protocols of the PILOT-PANEU project going into details for the sampling protocol and the identification of under- and over-reporting.
The Sampling Protocol aims to provide guidance and methodology for planning and implementing the selection of individuals representing the target population. SP presented the target population and the exclusion criteria and referred to the advantages and disadvantages of different sampling frames; population register, census data and others. SP underlined that the possibilities for defining the sampling frame for taking representative sample may vary among MSs. In addition, there is no method applicable to all MSs. Therefore, a multi-stages stratified random sampling method is recommended with the following variables: age class, gender, residence in regions, and residence in urban or rural areas. In case the census data are the only available, it is suggested to sample individuals in households.
A fully representative sampling cannot be aimed during the PILOT survey. The PILOT-PANEU requires a selection of minimum 200 responders from each participating country, equally distributed by age groups and gender, in total being 1000 individuals. The recommended minimum level of stratification includes three age groups, both genders and urban/rural residence. A random stratified sampling in the research regions by age groups and by residence type should be applied.
The protocol for the identification of under and over-reporting aims to identify those groups in a harmonized way and use unified criteria for assessment in order to obtain comparable and reliable data. Assessment will be performed using the method developed by Goldberg, Black et al. of comparison of the individual reported Energy Intake to the estimated Basal Metabolic Rate, and cut-off values should be applied.
As it refers to the management of the data, people with extreme and unusual food consumption should not be excluded as well as identified under- and over-reporters. A post hoc analysis of the data should be performed to assess the impact of inadequate reporting on overall food consumption data. The analysis of the data obtained from both 24-h recalls, background questionnaire, FPQ, anthropometric measurements and calculated PAL would give a basis to estimate inaccurate dietary reporters from under and over eating individuals. The prevalence should be calculated in every age/gender

group. An analysis of contribution of food groups and foods to energy intake should give a basis to identify foods that are more susceptible to under-reporting.

Discussion:

HF added that the EPIC-Soft software has a final quality check incorporated, where intake of energy and macronutrients is compared with standard requirements (based on subjects age, sex, weight and height). If energy or one of the macronutrients is out of expected calculated margins, a warning “too low” or “too high” is displayed and the interviewer has the possibility to correct possible errors while the participant is still present. For post-hoc analyses, reported “special diet” should be considered to identify possible under-reporting on 24-hour recalls.

Towards the EU Menu era

Davide Arcella (DA) gave a presentation on the EFSA activities related to the EU Menu project. He mentioned the two pilots, PANCAKE and the PILOT-PANEU and the EPIC-Soft dietary software, used in both projects. The EU Menu plan was discussed during the 5th EGFCD meeting last year. As funding from the European Commission seems challenging, EFSA has developed a new strategy in order to put this project forward using internal resources. In line with the new strategy, in 2011 EFSA issued a call for tenders titled as ‘Support to national dietary surveys in compliance with the EFSA guidance on general principles for the collection of national food consumption data in the view of a pan-European dietary survey’ having a budget of 400.000 euro. Within this framework Estonia and France were granted a contract and will organise a national dietary survey on children and whole population, respectively. A similar call for tenders will be issued in the following years, starting from 2012, with a higher budget so as to be able to fund more dietary surveys per year. EPIC-Soft will be the recommended software but other software giving comparable results will also be accepted. In accordance to this, EFSA has also issued an open call for tenders titled as ‘dietary monitoring tools for risk assessment’ with a deadline for application the 21st of November 2011. DA underlined that EFSA coordinates the EU Menu process, though the responsibility of the dietary surveys is at National level. An Advisory Board or similar will be nominated in late 2011 to provide strategic and scientific guidance and review the progress of the project. The board is planned to start their work in early 2012 and meet twice a year.

Member States’ updates

France-The Third French Individual and National Study on Food Consumption: The INCA3 survey

Carine Dubuisson (CD) gave a presentation on the next planned dietary survey (INCA3) in France. The aims of the survey are (i) to collect national data on individual food consumption and eating behaviours, (ii) to be used as a sampling frame for the French TDS and (iii) to compare the French food exposure within the European countries and identify possible over-exposure of the French population. The survey will use the methodology indicated in the EFSA guideline so to be integrated in the EFSA EU Menu project. The study population will include 5000 subjects divided in two population groups: from birth to 17 years old (n=2200) and from 18 to 79 years old (n=2800) living in

mainland France. A multi-stage stratified random sampling method will be followed; at a first stage, a random selection with stratification on regions and size of urban areas, at a second stage, a random selection of households using a telephone sampling procedure, and at a last stage, a random selection of individuals with an over-sampling of pregnant women. Data will be collected for three non-consecutive days, including two weekdays and one weekend day randomly selected upon a three-week period. For subjects aged 11-79 years old, dietary information will be collected using 24H recall via the telephone, using the EPIC-Soft software and a new developed picture book. For subjects aged 0-10 years old, a open-ended food record will be used, followed by a telephone interview using the data entry version of EPIC-Soft. Focus need to be given on the updating of the French version of EPIC-Soft. In addition, anthropometric measures will be taken during the home visit and a self-administered FPQ will be collected, adapted to the four age classes. The survey tool preparation started in March 2011 and will last in June 2012. The study is going to take place on the period of September 2012 to December 2013 and the data preparation and analyses from January 2014 to March 2015.

Estonia-National dietary survey among children in Estonia

Liis Kambek (LK) gave a presentation on the next planned dietary survey among children in Estonia. The aim of the survey is to update the food consumption database since the last conducted survey was in 1997. A dietary record method will be used, including two non-consecutive days and a FPQ filled in by the child's caretaker. In-house software Nutridata will be used as a data entry tool during the interviews. The target population will be registered individuals living in Estonia during the time period of July 2013 to July 2014, covering four seasons and weekdays. Infants will be drawn from the Birth Registry, though toddlers and children from the fresh census data from 2011. A random stratified selection method will be followed. The survey will be supported by an EFSA's procurement call. A pilot study will take place before the survey by March 2013 and the conversion of data to the format required by EFSA will be done by October 2014. Possible challenges that can be faced are the harmonisation of the food descriptors and when the new FoodEx 2 will be available, the Nutridata portion size picture book, and possible adjustments that could need to be made after the completion of analyses of the results of the PANCAKE project. Finally, she gave some information on the Nutridata software.

Round table on dietary survey plans

Spain: A new dietary survey on children and adolescents is planned for 2012. 3000 subjects will be enrolled and two 24 hours recalls by phone will be used as a tool. At regional level, a survey in Catalonia in planned for 2012. In both cases final approval are depending on the budget.
Bulgaria: Bulgaria has prepared a draft for a new action plan 2011-2015 and submitted to the Ministry, but it has not yet been adopted.
Italy: Italy plans to start their next survey in 2015 using the EU Menu protocol. In this regard, currently they are looking for a financial support from the Ministry.
Finland: Risk factor survey and dietary survey are done as a part of a routine health monitoring system within the National FINRISK Study. Their next survey will start in January 2012, focus in five study areas and draw the sample from the National Register; 2000 participants of 25-74 years will be included. The tools include two 24 hours recall,

dietary supplements consumption, FFQ, anthropometric measurements, blood, urine and DNA analyses.
Portugal: Portugal has planned a new National food consumption survey, submitted a financial request to the government but no answer has been received yet. The country is participating in the PILOT-PANEU project.
Netherlands: A new survey is planned to start in 2012. It will cover the majority of the population (1-79 years). A survey using FFQ is planned to be done in five ethnic groups; a food consumption survey among elderly non-institutionalized persons is on-going using a combination of record and recall approach.
Slovakia: Slovakia will initiate a new National dietary survey in 2012, which will use 24 hours recall, a FFQ, anthropometric measurements and physical activity questionnaire.
Iceland: A survey in 6 year old children is ongoing.
Greece: A new dietary survey including 4000 adults will be launched in 2012. The survey is co-ordinated by the Hellenic Health Foundation and supported by the Ministry of Health and Social Solidarity, through the European Social Fund, National Strategic Reference Network (NSRF) 2007-2013.
Sweden: A new survey is planned to start in 2014, but the age groups still need to be defined.
United Kingdom: The current National Diet and Nutrition Survey continue fieldwork until March 2013. There are plans to continue fieldwork from April 2013, but a contract for this work has not yet been set.

Austria, Iceland, Ireland, Portugal, The Netherlands, Norway, Denmark, Latvia and Hungary are in an ongoing phase of a dietary survey.
Belgium, Czech Republic, Malta, Norway, Germany, Luxembourg and Switzerland do not have any concrete plans for performing a dietary survey in the near future.

- **Challenge of the year- Portion size estimation with picture books**

Development and validation of portion size assessment tools for use with children

Emma Foster (EF) gave an overview on the development and validation of the portion size assessment tool for the use with children. The Pilot work included food photographs of 22 commonly consumed foods based on the National Diet and Nutrition Survey (NDNS) through and Interactive Portion Size Assessment System (IPSAS). For the majority of the foods seven different portions were available starting from the 5th to the 95th centile of weight served, in combination with the estimation of the leftovers. The Portion sizes are presented on a log scale this is because of because of evidence from visual perception research. The just noticeable difference (JND) is defined as the minimum difference between two stimuli that leads to a change in experience. As the magnitude of a stimulus increases, the JND increases, so for example the difference between 5g and 10g of baked beans is much more noticeable than the difference between 105g and 110g. Foods in predetermined amount were also included. EF continued with demonstrating a demo of the assessment system.
The absolute validation was done through a Pilot, which was tested to 596 children aged from four to sixteen years old. They were provided with known quantities of foods, through 5554 meals photos, and had to estimate the portion size and leftover 24 hours after the consuming of the food. 1806 portion size interviews were completed. The IPSAS method was comparable, in terms of accuracy, to the weighed method. Further

development will be done in the production of validated comprehensive tools for use in the assessment of portion size in total dietary assessment of children from one and a half to sixteen years old. Additionally, it will be extended to include 100 foods per age group, and foods for estimation of portion size consumed by children of pre-school age. Three sets of food photographs were developed for use with children of pre-school, primary and secondary school age. This decision was based on the practical application of the tool. Foods were identified based on the NDNS data and in order to cover approximately 85% of the weight consumed by children. The photos were developed by taking 2030 images of 104 different foods organized by type.
The relative validation was done on 360 children by a two four-day weighed food diary. Food photographs and IPSAS were used to estimate the portion size and interviews with both parent and child were performed. During school observations, children were observed at school, their intakes were recorded and foods were weighted.
In conclusion, it was seen that this method could be used as an alternative to weighed intakes in the case of children as the mean daily estimate for nutrients consumed were very close to those reported in the weighted food diaries and could increase participation rates as it was less onerous for participants.

Discussion:

EF indicated that no salt information was collected during the study.
In the question on how the food was weighted, EF replied that parents did it in case of small children, though those of 15-16 years old they did it with the help of the parents. Research teams were recording the information during school hours. In case of foods consumed from a package, certain types of packaging ware included in the pictures without any brand information.
Feedback on the reaction of the participants on the length of the interview was asked. EF said that no particular problems were faced. Parents and children found it easy to participate.

PANCAKE picture booklet development and validation

Ellen Trolle (ET) presented the work behind the preparation of the picture book used in the PANCAKE project. The picture book was developed with the cooperation of four countries, The Netherlands, Czech Republic, Belgium and Denmark. 36 common series of foods were included in addition to six specific cutlery series. Six portion sizes were chosen with a visible progression from one portion to the next. An in-house photo-trial was done prior to the photo sessions in order to avoid errors. An evaluation study was performed in order to examine how well the photo series and the single pictures can be used by the parents to estimate the portion size served. The participants were parents of children of zero to ten years old and they were given seven to nine plates that contained 15 different food items in 15 portions, the picture book a photo of a natural size plates. They were asked to estimate the portion size by pointing out the picture with the portion size nearest to the portion on the plate and fill in a qualitative evaluation questionnaire. Analyses of the results have followed and have driven to the conclusion that all series can be included in the picture book but with some reservations/specifications: (i) the series of baby food-fruit puree, vegetable and porridge are suitable only for soft and smooth variants, (ii) the series of salad and cakes are suitable only for food items similar to the depicted foods, (iii) it is suggested only to use the series of chicken if the portion sizes reflect the most common size of chicken eaten by the target group. The procedure

of the PANCAKE picture book is recommended for the development of new picture series. It is also recommended to validate new picture series.
The PANCAKE pictures are available through a web library.

EPIC-Soft picture book and guidelines

HF gave a presentation on the development of the EPIC-Soft picture book. It was developed within the EPIC-Soft study and the foods and portions selected are representative for the ten countries that participate in EPIC. It was not validated separately, but was part of the validation studies of EPIC-Soft. He also gave more details on the content of the book and the technical characteristics of the photos. Reference guidelines are available and include the preparation of the photos for food portion quantification in EPIC-Soft.

PILOT-PANEU picture book development and validation

Sofia Guiomar (SG) gave a presentation on the development and validation of the picture books planned to be used in the PILOT-PANEU project. The EPIC-Soft picture book was used as a starting point and it was updated with identified common and country specific food items, HHM, shapes and thickness. Different characteristics and photos of picture books already used across Europe were taken into account as well as the reference guidelines on the preparation of photos for food portion quantification of EPIC-Soft. The steps need to be done are the following: (i) additional pictures of foods and recipes will be captured by Bulgaria and Portugal, (ii) partners will clarify how many HHM they need, (iii) picture books need to be edited in a harmonized way and printed by each country.
A validation protocol was also presented. It aims to evaluate the ability of subjects to estimate presented portion size by comparing with a photo series of food and recipe items. They are planning to carry out 66 validations per picture in each population. Each country will validate nine picture series. The agreement between the picture chosen and the actual weight of the presented food will be calculated in two ways; (i) by the percentage of participants choosing the correct picture, the picture adjacent to the correct and the most distant picture and (ii) by the mean difference between the portion size chosen and the actual weight of the food.

- **Solid foundation for future action – next moves?**

Final discussion, conclusions, closing of the meeting

LV invited the meeting participants, to provide their opinions on how well EFSA is on track in the efforts to harmonise food consumption data collection in the view of the EU Menu project using a scale from 1 (very far from optimal) to 10 (progressing just fine). In addition, the participants were asked to write down one suggestion for a “next move” (change, action, activity, issue) that would increase their rating considerably and why this change would make a difference. In a second phase, the participants were asked to form groups of three, share their individual findings with the group and provide: i) suggestion for a “next move” for EFSA, and ii) suggestion for a “next move” for the MSs and other European countries to reach the aims of the EU Menu project.

Discussion:

Concerning the progress of EFSA in harmonising food consumption data collection, the EGFCD awarded an average rating of 6,3 (median 6.0, range 3-9).

The suggestions addressed to EFSA were the following:

- To support the validation of different methods and improve the harmonisation and collaboration between different projects.
- To organise more meetings and workshops.
- To test the tools used to collect data to do calculations and evaluate their role in real risk assessment.
- To develop an on-line platform, where the results from pilot projects and EU Menu project would be available in order to share existing materials and experiences.
- To make accessible the deliverables of the projects (protocols, updated version of EPIC-Soft, food pictures used for the development of the picture books) to all MSs.
- To provide detailed recommendations on the development of the picture books (minimum number of photographs, plates size etc.) so to give the opportunity to MSs to prepare their own picture books according to EFSA standards.
- To launch more call of tenders in order to financially support the National Dietary Surveys.
- To organise training courses on methodologies, protocols, software in order to increase the MSs compliance.

The suggestions to MSs included:

- To enhance the networking between MSs, sharing of methods and experiences, participate in meetings and workshops.
- To increase awareness of the harmonisation approach within the countries, e.g. by preparation of national strategies to be in line with EFSA guidelines and results of the pilot projects.
- To provide their feedback on the project deliverables.

The chair informed about EFSA's preliminary plan to organise possibly next year a methodological workshop, in order to accomplish better interaction and exchange of experience between MSs. She ensured the EGFCD that EFSA plans to continue supporting survey harmonisation and informed about a new call for tender planned to be launched in early 2012. The chair closed the meeting by thanking everyone for their contributions and active participation.

***NEXT MEETING*: in 2012, to be determined**

SUMMARY of ACTIONS

WHO	WHAT	BY
MSs	**Action 1: Feedback on the sampling guideline to be sent to the PANCAKE coordinator by e-mail.**	**beginning of December 2011**