FOOD CONSUMPTION DATA NETWORK
Minutes of the 15th meeting

24-25 April 2023
14:00-16:50 / 08:30-18:00
Minutes agreed on 19 May 2023

Location: EFSA - Parma (Meeting Room 00/M07+08)

Attendees:

- Network Participants:

Country	Name
Belgium	Nicolas Berger (NB)
Croatia	Daniela Čačić Kenjerić (DCK)
Cyprus	Constantinos Papaconstantinou *(ad-hoc participant)* (CP)
Czech Republic	Marcela Dofkova (MD)
Denmark	Ellen Trolle (ET)
Estonia	Maarja Kukk (MK)
Finland	Niina Kaartinen (NK)
France	Carine Dubuisson (CD)
Germany	Carolin Krems (CK)
Greece	Emmanuella Magriplis (EM) *(ad-hoc participant)*
Hungary	Edit Hlaszny (EH) *(ad-hoc participant)*
Iceland	Hólmfríður Þorgeirsdóttir (HÞ)
Ireland	Breige McNulty (BM)
Italy	Laura D'Addezio (LA)
Latvia	Inses Siksna (IS)
Lithuania	Gabija Bulotaitė (GB)
Luxembourg	Torsten Bohn (TB)
Malta	Giannella Pisani (GP)
Netherlands	Marga Ocke (MO)
Norway	Inger Therese Lillegaard (ITL)
Poland	Maciej Ołtarzewski (MO)
Slovak Republic	Lenka Bartošová (LB)
Slovenia	Barbara Korošić Seljak (BKS)
Spain	Ana Maria Lopez Sobaler (AML)
Sweden	Lotta Moraeus (LM)

- **Observers:**
  Christine Zuberbuehler (Switzerland); Lindita Molla (Albania); Katica Arar (Bosnia and Herzegovina); Festim Rexhepi (Kosovo[1]); Suzana Popovska (North Macedonia); Jelena Milešević (Serbia) and Fatma Nevra Özcan (Türkiye).

- **Hearing Experts**:
  Duarte Torres, (Faculty of Nutrition and Food Sciences

[1] This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo* declaration of independence.

University of Porto) (7) and Bridget Holmes (Food and Agriculture Organization) (9)

- **EFSA:**
  IDATA Unit: Sofia Ioannidou (Chair) (4); Anastasia Livaniou; Ashraf Khosravi

  MESE Unit: Zsuzsanna Horvath (10); Rita Sofia Ferreira de Sousa (11); Bruno Dujardin (10); José Ángel Gómez Ruiz (12), Maryem Fateh

  LA Unit: Citlali Pintado (14); Luisa Venier (14); Arnaud Jaume; Anais Bismuth; Anna Schuster

  NIF Unit: Lucia Fabiani (11)

  ENREL Unit: Drago Marojevic (15)

1. Welcome and apologies for absence

The Chair welcomed the participants.
Apologies were received from Austria, Bulgaria, Portugal, Romania and Montenegro.

2. Tour-de-table

EFSA staff and Network members presented themselves.

3. Adoption of agenda

The agenda was adopted without changes. Sofia Ioannidou (SI) invited all participants to interact and provide their comments, questions, and suggestions during the meeting.

4. Food consumption data at EFSA – updates

Sofia Ioannidou, EFSA (SI) presented an update on the EU Menu Project. In Dec ’22 the Comprehensive Database was enriched with surveys from Italy, Bosnia-Herzegovina, Montenegro, North Macedonia, and Serbia. This last update also included an alignment of food classification with latest version of FoodEx2 as well as some corrections on consumption entries. The use of the EFSA Food Consumption data was also discussed (i.e., summary statistics, exposure assessments, tools). SI clarified that the corrections are done based on feedback received by the EFSA exposure assessors that use the data daily. Last, the next steps were presented for EU Menu 2, involving the creation of an ad-hoc working group to update the Eu Menu guidance, for which an expression of interest invitation will be sent to Network members.

On the question of how the guidance could possibly be updated, SI hypothesised that a common tool across EU could be used in the future. Jelena Milešević, RS (JM) asked clarification on whether this refers only to FoodEx-coding tool or a tool for the collection of consumption data, SI clarified that this would depend on the outcome of the ERA EU Menu project.

5. Relative validity of the DitEetIk! App, a smartphone food record developed for the Dutch national food consumption surveys

Marga Ocké, NL (MO) presented the results on the relative validity of the DitEetIk!-app, a smartphone food record app developed for the Dutch national food consumption surveys. Over 200 adult men and women participated in a study to assess relative validity of the DitEetIk!-app as compared to GloboDiet 24-h dietary recalls. The usability of the app was evaluated as just below good, using the SUS-questionnaire. Participants especially experienced difficulties in finding their consumed foods. Food description at the brand level was lower than expected. Compared to Globodiet 24-h dietary recalls, the app assessed median intake that were at least 10% lower for four food groups, while for other food groups differences were smaller. For nutrients, most differences were smaller than 5%; though for four vitamins differences were above 10%. Correspondence for mean intakes was better, i.e. the difference in mean energy intake was 14 kcal. Relative validity for older adults was lower than for persons below the age of 60 years. It was concluded that results were comparable to findings for other smartphone food record apps. It is recommended to improve the app to stimulate more complete food recording, stimulate the use of barcode scanning, and improved the user experience.

Several questions were received during the Q&A session about the food list and training of participants on the use of the app. MO clarified that they shortened the food list to 4000 items and have 1-2 follow up questions. They do not have many facets (preparation methods, if peel is used) but other facets are accounted for in the food name e.g., skimmed milk. Even though the recipe entry option exists, people find it difficult. Users can add recipes define the number of portions and how many portions were consumed. On training, participants received 2 pages with information, a 7-minute video, and in the app each screen contains (i) icon with info.

Hólmfríður Þorgeirsdóttir, IS (HÞ), inquired on measures taken when they realised this limitation. MO responded that they excluded participants in the low and high percentiles and had 20% underreporting. To increase response rate, the 24-h recall and the self-administered record with the App were performed on consecutive days, expecting high correspondence, which was not the case.

Laura D'Addezio, IT (LDA), Barbara Korošić Seljak, SI (BKS) and Ellen Trolle, DK (ET) inquired about the recruitment of participants. MO responded that recruitment was done by market research companies. Participants could not choose the days but could choose the data entry timing and were advised to do it during the day. No assessment was done of the difference between morning vs evening users. Participants were not given feedback to not influence intake.

ET asked if questions on organic food were present and MO responded, that they did for Globodiet, but people were getting annoyed. Ana Maria Lopez Sobaler, ES (AMLS), enquired about correct reportability of foods across the different days, and MO responded that they did not observe any difference in the 1st, 2nd, or 3rd day of recall.

6. Evaluation of data, methods and tools for the preparation of EU Menu phase 2 - project update

Marga Ocké, NL (MO) presented the intermediate results of the ERA EU-Menu project, also on behalf of Carla Lopes, PT (University of Porto). The objective of the project is to map the landscape on methods and tools available for national dietary surveys and to evaluate the methods, tools and data of the EU Menu surveys. The evaluation of potential methods and tools for national food consumption surveys, are already published- in the EFSA journal. For the evaluation of EU-Menu surveys, almost 100 quality indicators were developed in eight domains. For each domain, composite indicators were created and the association between dimensions was studied. It was concluded that for important quality indicators there was a lack of information in the survey's methodological reports. Based on the EU-Menu data, it was shown that most of recommended facets are scarcely used. Also, it was shown that 2-reporting days are not sufficient to reliably estimate some food groups. An adequate sampling plan, compliance with the interview gap, a uniform distribution of seasons and week vs weekend days and good software and picture book are crucial for the reliability of results. Based on the results of this analysis, advice for the update of the EU Menu guidance will be prepared. A symposium on this topic is organized within the next ICDAM conference, in June 2023.

NB commented that Belgium is doing physical interviews, but after covid there might be a need to change the ways we collect data, as it affects participation. He notes that we cannot draw conclusions only on old surveys. This information should be used when making evaluations and comparisons.

Niina Kaartinen, FI (NK), remarked that the App may not work well for certain age groups with less e-skills, e.g., elderly. She questioned about the options for using different methods for different age groups. MO answered that for self-administered questionnaires, you need to look at your population, ensuring that all your data is in the same format.

Carolin Krems, DE (CK), commented on the importance of offering various tools/methods for old people or people of migrant background to ensure no one is excluded from surveys

7. Evaluating the health impacts of plant-based substitutes as a replacement for animal-based foods: A Risk-Benefit Assessment

Duarte Torres, PT (DT) presented a risk-benefit assessment, to evaluate the health impact of replacing animal-based foods with plant-based substitutes (PBSs). Decreasing the consumption of animal-based foods is recommended to improve human health and reduce environmental impact. In response, the market for PBSs has grown, offering products that simulate meat, fish, dairy, and eggs, which can encourage adherence to flexitarian and vegetarian dietary patterns. However, the

health impact of such replacements needs to be investigated. For the purposes of this study, U. Porto analysed data from a representative sample of 3852 adults from the Portuguese National Food, Nutrition, and Physical Activity Survey 2015-2016 to explore three alternative replacement scenarios with gradual substitutions: all animal-based foods (meat, fish, dairy, and eggs) in the Vegan scenario, meat and fish in the Ovolactovegetarian and meat only in the Pescatarian scenario. Substitutions were made randomly in four proportions for each scenario (33%, 50%, 67%, and 100%). Using relative risks (RR) gathered from the literature; the potential impact fractions of each alternative scenario on several health outcomes (colorectal cancer, type 2 diabetes, coronary heart disease, stroke, and overweight/obesity) were estimated. To quantify the impact of each scenario, Disability-Adjusted Life Years (DALYs) were used, to estimate the difference from the reference scenario (ΔDALY). Significant health benefits in the Portuguese population were found by replacing meat with PBSs (Pescatarian scenario) in all proportions. Considerable uncertainty was observed in the Vegan and Ovolactovegetarian scenarios. Nonetheless, the direction of the results points to a potential health loss in the population, particularly in the Vegan Scenario. DT will share the final published results and further analyses with the Network.

EM noted that UPFs have higher sodium and asked if they investigated the sodium differences and what was compared with what. E.g., milk with what type of milk (oat milk, soy milk, etc.). DT explained that they found the average of the products and substituted the average means.

HÞ queried about the endpoints and how they were selected. DT explained they identified endpoints where evidence was strong/moderate. Many health outcomes were not considered due to data limitations. For extractions RR, only recent studies with robust methodology were selected. Not many dose-response meta-analyses exist, but more can be added to the model.

8. Development of a distance learning tool on the methodology for conducting individual food consumption surveys based on the EFSA guidelines: the TRAIN-DIE and SUP-DIE projects

Laura D'Addezio, IT (LDA) presented a distance training course on the EFSA's EU Menu methodology, developed by CREA in collaboration with and the CAPacity development network in NUTRition (CAPNUTRA), Serbia. Two projects were launched as part of this collaboration. The first project TRAIN-DIE "Training in dietary assessment and sharing platforms for monitoring population food consumption habits in a long-term perspective" in 2018-2020, aimed to develop the course material and the e-learning platform. The SUP-DIE project "Sustainability of the platforms for monitoring population food consumption habits and pilot study on web- and computer-based 24h dietary recall tools" in 2021-2023 continued to implement the platform for the transfer of knowledge on the implementation of dietary surveys and deliver innovative tools to support the long-term sustainability of the TRAIN-DIE project. The next steps are to provide and manage user access and obtain feedback on the effectiveness of the

training and the learning needs of the trainées. As part of the SUP-DIE project, a pilot study was carried out on a group of 40 Italian volunteers aged 18-64 who have been trained to self-report food consumption using Foodcons, a computer and web-based software developed by CREA. An analysis of the validity of self-reported versus administered 24-hour recall data will follow.

Discussion followed, with LDA clarifying that due to difficulty in recruiting, lack of funding, and capacity, developing tools to support study subjects may increase participation rates. LDA mentioned that the pilot is ongoing, and the results of the self-administered record project are expected in September 2023. Those who successfully completed the course received a certificate, and the interviewers of the pilot study were evaluated based on data collected and received educational credits.

EM stressed the importance of maintaining interviewers and harmonising their training, and NB commented on the high rates of dropouts and high cost of training interviewers (e.g., 150 interviewers trained when 60 are needed) and that a hybrid training format (physical and e-learning) might be useful.

9. Evaluation framework to assess the quality of published food composition tables and databases

Bridget Holmes (FAO) (BH) gave a presentation of the FAO/INFOODS Evaluation framework to assess the quality of published food composition tables and databases, on behalf of Fernanda Grande (FAO). The framework aims to:
1. Assist compilers in evaluating the quality of their published or unpublished food composition tables/food composition databases (FCT/FCDB) in a standardized manner, in order to identify areas of strength along with improvements for future editions. 2. Assist users in evaluating the quality of published FCT/FCDB in a standardized manner. 3. Advocate among decision makers and donors for the need to improve the quality of existing FCT/FCDB.

The target audience of this framework and its results are compilers of FCT/FCDB and users of published FCT/FCDB. The Evaluation framework is composed of three parts: the screening questions, the full evaluation criteria and the scores obtained. The first part of the Evaluation framework consists of eight preliminary screening questions. This preliminary screening of FCT/FCDB is necessary to decide whether the FCT/FCDB should undergo the full evaluation. The screening questions are considered the minimum requirements for FCT/FCDB in terms of presentation of data, food and component description and coverage, documentation, and publication format. For FCTs with a score ≥ 100, full evaluations (part 2, 5–10 hours) should be taken.

Going forward, it may be possible to publish not only the Evaluation framework on the FAO/ INFOODS website, but also the evaluations of different FCT/FCDB. One example application was presented during the meeting where 29 FCT/FCDB were evaluated. The present version of the Evaluation framework is considered a work in progress. Updated versions may be published in the future.

BKS inquired whether the FoodEx2 coding was part of the assessment. BH replied yes; databases using FoodEx2 score highly within the framework. SI highlighted FAO's contribution to the update of FoodEx2 with foods consumed around the world.

10. EFSA Exposure Assessments: an overview

Bruno Dujardin, EFSA (BD), presented an overview of all dietary exposure activities carried out by the Analysis Team (MESE Unit), using food consumption data provided to EFSA. Whereas the use of the EFSA Comprehensive Database was previously limited to the assessment of chemical contaminants and food additives, in recent years its use has been expanded to a wide range of food sector areas. Exposure assessments are now delivered for chemical contaminants, food additives, pesticide residues nutrients, food enzymes, genetically modified organisms and multi-sectorial chemicals. Furthermore, the Analysis Team supports the development of new tools for routine implementation of exposure calculations by the business units (e.g., PRIMo, FEIM, Open MCRA and RPC model). This does not only support EFSA in speeding up the risk assessments, but it also ensures a more harmonised assessment across chemical domains. This emphasizes the importance of the dietary survey data delivered to EFSA, and the need to ensure continuity and improvement of this crucial activity.

11. Tolerable Upper Intake Levels (ULs) for nutrients: Mandate, protocol, and exposure assessment

Lucia Fabiani, EFSA, NIF (LF), provided the background and the Terms of Reference of the Mandate received by EC to update Tolerable upper intake levels (ULs) for selected micronutrients (vitamin B6, vitamin D, vitamin A, folate/folic acid, vitamin E, manganese and iron). She outlined how tasks have been distributed among EFSA Units and explained the approach taken as provided in the "Protocol for the intake assessments performed in the context of the revision of Tolerable Upper Intake Levels for selected nutrients". In addition to the intakes estimated by EFSA (mostly from natural sources or including fortified foods to some extent), estimates from national surveys in European countries from dietary supplements and fortified foods have been used to inform the scientific assessments. LF stressed the importance of the support of the data providers who shared consumption data with EFSA.

Rita Ferreira de Sousa, EFSA, MESE (RFS) continued with the methodology followed for the exposure assessment to vitamin D. The cleaning procedure of the food composition database was presented, focusing on some of the key steps such as the removal of duplicates and entries reporting on the vitamin D levels of cooked foods. The challenges to excluding fortified foods from foods composition database and the actions taken for their exclusion were discussed in more detail. Then RFS explained the gap filling strategy used to retrieve missing data on the concentration of vitamin D in consumed foods and the application of nutrient retention factors. Lastly, the sources of uncertainty in the intake assessment and their potential to impact the estimations were presented. The network was informed that the methodology followed was published for public consultation in Annex C of the "Draft scientific opinion on the

Tolerable Upper Intake Level for vitamin D, including the derivation of a conversion factor for calcidiol monohydrate".

SI recognized the need to collect data on the consumption and composition of fortified foods and supplements. JM offered to share an EU Vitamin D database with EFSA based on her PHD done in collaboration with EUFIR.

12. Dietary exposure to heavy metals and iodine intake via consumption of seaweeds

José Ángel Gómez Ruiz, EFSA, MESE (JGR), provided an overview of the recently published scientific report on '*Dietary exposure to heavy metals and iodine intake via consumption of seaweeds and halophytes in the European population.*' The report showed that the European population might be exposed to relatively high levels of cadmium and total arsenic via the consumption of seaweeds; for cadmium, the high exposure was linked to the relatively high levels reported in the dried red algae Laver. High daily intakes of iodine via the consumption of different types of seaweeds (brown and red algae) were also identified, well above the Tolerable Upper Intake Level (UL) (i.e., 600 mg/day for adults). It was stressed that more data are needed on both occurrence and consumption, and these data should provide an appropriate taxonomic classification, but also details on whether the seaweeds underwent any processing/home preparation step before their analysis/consumption. As regards occurrence, more data will help to better understand the variation in the levels of iodine and heavy metals and to identify those seaweed species that could contribute the most to the exposure/intake. For consumption, it is relevant to continue collecting data to allow identifying trends, and the potential use of Food Propensity Questionnaires (FPQ) was discussed. This information is needed to find out whether seaweeds and seaweed products are just niche products in Europe only consumed sporadically or, on the contrary, they become foods consumed more often and in higher amounts.

SI stressed the fact that future data will demonstrate higher consumption. ITL also confirmed this trend in Norway, so they included seaweed in the FPQ (both food and supplements) and identified high levels of iodine. JGR stresses the importance of FPQs for botanicals as well as supplements.

13. Pesticide Residue Intake Model (PRIMo 4) & New tools planned

Zsuzsanna Horvath, EFSA, MESE (ZH) introduced the EFSA Pesticide Residue Intake Model (PRIMo) model and where it is used. PRIMo is the standard tool used at the EU level to estimate acute and chronic dietary exposure to pesticide residues. It is primarily intended for the safety assessment of MRL proposals and peer review of pesticides in the framework of Regulation (EC) No 396/2005 and Regulation (EC) No 1107/2009. Additionally, PRIMo is also used for enforcement questions (e.g. in Rapid Alert System notifications (RASFF)). It is a deterministic model that allows calculations

according to the internationally agreed FAO/WHO risk assessment methodology. The beta version of PRIMo 4 was developed with many new features as a freely accessible online tool and it is currently under public consultation until 30th of June 2023. The presentation aimed to introduce the background databases used in the exposure calculations, i.e. the RPC Consumption data extracted from EFSA's Comprehensive Food Consumption Database and the data on standard units and edible portions, used in the acute calculations. The applied methodology and the novelties of the tool were also introduced, as well as the output formats extracted. The finalization of the tool is planned for October 2023.

SI asked if the food consumption used for pesticide assessment has data available on the edible parts and if a PRIMo tool update is also planned. ZH responded that the median is used for each commodity, and the summary statistic is available in the report annex. On the PRIMO tool, ZH said that when the Raw Primary Commodities (RPC) model is updated, it will be incorporated into the tool.

14. Update on Public access to food consumption data

Luisa Venier and Citlali Pintado, EFSA, LA (LV, CP) gave a short update on handling access to documents applications in accordance with Regulation 1049/2001 ("PAD Regulation") related to food consumption data with the aim of providing a leaner approach for handling such applications in the future. This approach was proposed in a context of continuous interest of the public to get access to data mapped according to FoodEx2 for research purposes or in the context of specific projects run by research organisations within the EU.

EFSA LA indeed proposed to achieve as ultimate goal to get data providers' clearance on the release of the food consumption data, mapped according to FoodEx2, before the receipt of PAD applications and for all future similar queries, with one single e-mail taking into account the data fields to be masked when there is a justification that exceptions of Article 4 of the PAD Regulation should apply. Once agreed, the FoodEx 2 data could be released by EFSA each time a request arrives without the need of notifying/consulting each data provider on the spot, i.e., systematically each time a new PAD application is submitted, which would save a lot of time.

However, with a view of keep data providers always informed of EFSA's activities on the processing of PAD applications, at the end of the year (or every six months), EFSA could give an update on the number of PAD applications received, the type of requestors, and the intended use of the data.

As a follow-up action, EFSA LA will engage with network representatives and data providers via e-mail to seek their views on the partial release of their data upon request and on the proposed leaner approach. Once the consultations are concluded, EFSA will start implementing the new approach.

Lotta Moraeus, SE (LM) asked about the PAD applicant's responsibilities in making sure the data is used correctly. EFSA stressed that the PAD regulation merely focuses on

granting access to the data, whilst it is without prejudice to any rules on copyright possibly limiting rights of reproduction/use.

JM raised the concern of industry being able to obtain data for free, stressing that it is unfair because conducting food consumption studies is costly. EFSA recalled that the right to file PAD applications is also given to legal persons, including industry, but emphasised that many PAD applicants requesting food consumption data are academics or government entities carrying out research projects. Moreover, EFSA's margin of manoeuvre in handling PAD applications is very limited since it must abide by the rules of the PAD Regulation.

IT asked for clarifications about the option entailing a case-by-case assessment by data providers on the release of the data every time a survey is requested. EFSA explained that the new approach will be further detailed in the follow-up email, giving data providers the choice to submit observations on the preferred way forward.

15. New EFSA's IPA Action 2023-2026

Drago Marojevic, EFSA, ENREL (DM), presented the new EFSA's IPA Action which, will be in place as of June 1, 2023, with a total budget of 1.150.000 EUR. Through the IPA Action, EFSA supports the IPA beneficiaries in food safety scientific expertise capacity building, transfer of risk assessment methodologies, harmonisation of national food safety data collections, and risk communication practices.

JM inquired whether several institutions may apply within one country. DM clarified that the proposal should come from the MS focal point (FP) and highlighted that the funding scheme is meant for EU MS to support IPA countries, and IPA countries can be engaged, again via their FP.

16. Any Other Business

The Network was invited to submit AOB, and none were submitted.

- Next steps for the update of EU Menu Guidance

  Autumn 2023, EFSA will request participation to the Working Groups for the revision of the EU Menu Methodology

- Date and location for next meeting

  April/May is the best time of the year, perhaps open for hybrid option. Possibility to have MS hosting the next meeting was discussed. Travel expenses will be handled by EFSA, and hosting organisations should provide the room and coffee breaks. MS were invited to discuss internally and let EFSA know if they are willing to host the 2024 meeting.

Closure of the meeting

The Chair thanked all participants for their valuable contribution and closed the meeting at 13:00.