INTEGRATED DATA UNIT

Network on Food Consumption Data
Minutes of the 14th meeting

Held on 06 April 2022, online via MS Teams
(Agreed on 06 May 2022)

Participants

- **Network Representatives of Member States:**

Country	Name
Austria	Jürgen König
Belgium	Mirjana Andjelkovic
	Nicolas Berger
Cyprus	Naso Economidou
	Aspasia Sarandi
Croatia	Daniela Čačić Kenjerić
Czech Republic	Marcela Dofkova
Denmark	Ellen Trolle
Estonia	Maarja Kukk
Finland	Niina Kaartinen
	Suvi M. Virtanen
France	Carine Dubuisson
Germany	Carolin Krems
Greece	Georgios Marakis
Hungary	Loretta Larnsak
Ireland	Breige McNulty
Italy	Laura D'Addezio
	Cinzia Le Donne
	Stefania Sette
Latvia	Inese Siksna
Lithuania	Gabija Bulotaite
Luxembourg	Torsten Bohn
Netherlands	Jacqueline Castenmiller
	Marga Ocke
Norway	Therese Lillegaard
Poland	Katarzyna Stoś
Portugal	Carla Lopes
Romania	Monica Mariana Neagu
	Bogdan Tanasescu

Slovakia	Lenka Bartošová
Slovenia	Matej Gregorič
Spain	Maria José Rubio
Sweden	Lotta Moraeus
Iceland	Holmfridur Thorgeirsdottir

- **Observers:**

Country	**Name**
Albania	Lindita Molla
Bosnia and Herzegovina	Katica Arar
	Marija Jukić-Grbavac
Kosovo	Ibrahim Tërshnjaku
Montenegro	Zorica Đorđević
North Macedonia	Katerina Jonovska
	Suzana Popovska
Serbia	Mirjana Gurinovic
Switzerland	Christine Zuberbuehler
Turkey	Fatma Nevra Özcan

- **Hearing Experts:**

FAO: Victoria Padula De Quadros (for item 13), Bridget Holmes (for item 13), Agnieszka Balcerzak

WHO: Moez Sanaa, Elaine Borghie, Luc Ingenbleek

- **EFSA:**

Integrated Data (IDATA) Unit: Sofia Ioannidou (Chair), Fabrizio Abbinante (HoU), Caroline Merten (Team Leader), Pilvi Kemppinen (Minutes), Marina Nikolic, Davide Gibin (for item 9).

Methodology and Scientific Support (MESE) Unit: Zsuzsanna Horvath (for item 6), José Ángel Gómez Ruiz (for item 8), Davide Arcella, Rita Ferreira De Sousa, Sara Levorato, Costanzo Violetta.

Food Ingredients & Packaging (FIP) Unit: Alexandra Tard (for item 8).

Nutrition and Food Innovation (NIF) Unit: Tilemachos Goumperis (for item 8).

Risk Assessment Logistics (RAL) Unit: Ana Lambergar.

1. Welcome and apologies for absence

The meeting was opened at 09.30.

The Chair welcomed the participants.

Icebreaker poll was launched to get the participants familiar with Teams Polls.

Caroline Merten (EFSA) presented the new organizational structure of EFSA.

Apologies were received from Bulgaria and Malta.

2. Adoption of the agenda

The agenda was adopted without changes.

2.1 Agreement of the minutes of the 13th meeting of the Network on Food Consumption Data held on 11 December 2020, online.

The minutes were agreed by written procedure on 06 January 2021 and published on the EFSA website[1].

3. Food consumption data at EFSA – updates

Sofia Ioannidou (EFSA) presented an update on the food consumption data at EFSA. She described the Comprehensive food consumption database highlighting that its data are essential for EFSA's work and are used for the estimation of exposure of people to potential risks in the food chain. The database is being constantly maintained, i.e. by correcting inconsistencies and having the food codification updated when necessary. Before the changes are applied, the confirmation of data providers is sought.

Data collected under the EU Menu project also enter the Comprehensive database. When the project will be closed, in 2023, data from 16 surveys on children and 20 surveys on adults will populate it. However, given that new data collection methods and tools become available and people's perception of the traditional methods is changing, EFSA is looking towards keeping the database updated. A project on the evaluation of methods and tools for the preparation of the next round of national dietary surveys and suggestions for an update of the EU Menu guidance is launched and results are expected in Q4 of 2023 (GP/EFSA/DATA/2021/03). Based on them, a possible call for the development of a new tool combined with piloting to evaluate it further will follow, with some further amendments of the new EU Menu guidance, and finally an official launch of the next round of harmonised food consumption data collection possibly at the end of 2026.

Nicolas Berger (Belgium) enquired whether Member States (MS) already conducting a dietary survey within EU Menu project will be consulted. Sofia Ioannidou answered that feedback will be requested from the network members during the next days. She also clarified that EU Menu project funded countries will not automatically be excluded from the upcoming second round of data collection.

4. A reflection on periodic or continuous collection of dietary data

Carine Dubuisson (France) informed the network that last year, ANSES conducted a reflexion on periodic or continuous dietary data collection (REPECO) to prepare the next INCA study. Based on a literature search, a short online questionnaire and extensive consultations, they identified several options for the frequency of data collection for INCA4 with some possible variations. These options were first analysed using the SWOT method to map the current situation, and then prioritised after scoring different criteria related to survey organisation and data quality. The main differences between the two collection methods regarded finances, labour force and time restrictions. at the end, both periodic and continuous formats were found to be appropriate, based on the criteria considered most relevant for the needs in question.

1 https://www.efsa.europa.eu/sites/default/files/event/2020/13th-meeting-network-food-consumption-data-agenda.pdf

Sofia Ioannidou asked further information on the next survey in France. According to Carine Dubuisson, INCA study will be combined with a national biomonitoring survey (ESTEBAN), and therefore the next national food consumption survey will be conducted in collaboration with Santé publique France (SpF).

The needs from the data users' and risk assessors' perspectives, and policy updates were discussed by Caroline Merten and Carine Dubuisson. Yet, this needs to be discussed further later on.

A Teams poll was launched with the following question: Is your country thinking of applying a rolling system for collecting food consumption data in the future? Answers (31) were the following: Applying 6% (2), Thinking of applying 45% (14), Not interested 48% (15).

5. Current status of food consumption survey planning in Finland and dietary research infrastructure renewal

Niina Kaartinen (Finland) presented the current situation of food consumption surveys in adults and elderly. The last survey (FinDiet 2017) was successfully carried out as part of the EFSA EU Menu project. Due to resource intensiveness, the next corresponding survey is postponed to the end of the 2020s. During 2022-2023, dietary data on adults is collected with questionnaire-based methods (self-administered) and biomarkers as part of a large nationally representative health survey (Healthy Finland). In addition, the Finnish Institute for Health and Welfare (THL) is in the process of dietary research infrastructure renewal and is looking forward to developing digitalized cost-effective methods for future food consumption surveys.

Suvi Virtanen (Finland) presented the current status of dietary surveys during childhood and adolescence in Finland. Data on total diet from pre-school children is available from several big studies from different regions and time points. However, nationally representative dietary surveys of children and adolescents are lacking. Therefore, the most urgent need for research is on adolescents for nutritional and toxicological risks. In autumn 2021, a pilot study of youth nutrition monitoring was successfully carried out. The next step is to conduct a full-scale nationally representative dietary survey in adolescents with multifaceted dietary data collection, including total food consumption, certain nutrients, metabolism markers, and food behavior.

Sofia Ioannidou and Caroline Merten enquired the reasoning behind the inclusion of adolescents only as for EFSA the most vulnerable population are toddlers. Suvi Virtanen answered that currently there are only few data on adolescents consumption adding that their eating habits and patterns may have changed drastically (e.g. changing to a sustainable diet) that may cause adverse nutritional effects if not carried out properly, therefore, are of higher urgency. Additionally, the funding of research is limited.

A discussion on how to deal with differences in results for the same dietary component that are collected in both full-scale as well as a FFQ-based monitoring. of individual dietary components from different data collection methods was initiated by Marga Ocke. According to Niina Kaartinen, the definition of the components of the diets that can be reported on a more general level with FFQs is a work in progress. However, the survey in question will not be a dietary survey because of lack of funding and a good software for data entry and calculations.

Davide Arcella questioned the frequency of dietary surveys as in Finland they arrived to the conclusion that an interval of 10 years would be sufficient since consumption patterns are changing slowly. Niina Kaartinen shared a publication[2] in the chat based on which, in combination with the national FinDiet 2017 report, the main nutritional challenges have stayed similar in Finland throughout the years (e.g. saturated fat and salt). Davide Arcella replied that this analysis seems to consider high level food categories and top nutrients. Therefore, different conclusions might be drawn when looking at more detailed foods that might contain intentionally added chemicals (e.g. food additives, flavourings, enzymes.

6. Tolerable upper intake level for dietary sugars opinion

Zsuzsanna Horvath (EFSA) presented the opinion on tolerable intake level for dietary sugars. For this opinion, dietary sugars were classified into three categories: total sugars, free sugars and added sugars. The intake assessment was carried out by using EFSA's Nutrient Composition Database[3] for elaboration of a database on total sugars. During the data cleaning comparisons with consumer products in the Mintel Global New Products Database (GNPD) were conducted. By cooperation with the mandate requestor, using as a basis the total sugars data, a 10-step procedure was applied to estimate added and free sugars content in foods. Consumption data from the Comprehensive database were used for the assessments of sugar intake. Outcome of the assessments are summarized in the annexes and appendices of the opinion, including main contributors of the total intake and intakes of consumers only populations of certain foods. As an outcome of the opinion, no upper level (UL) or safe level for total, free or added sugar consumption could have been determined. However, the panel concluded that the consumption of free and added sugars should be as low as possible in the context of a nutritionally adequate diet.

7. Improrisk: Introduction to the open access model for conducting chronic dietary exposure assessment

Aspasia Sarandi (Cyprus) presented The ImproRisk shiny application, which is a model for conducting chronic dietary exposure assessment to chemicals. ImproRisk supports the loading of individual food consumption datasets with a focus on EU Menu dietary surveys. The consumption data needs to be coded according to EFSA's food classification system (FoodEx2) along with the consumed amounts – both raw and cooked. The model must contain an individual's own body weight so that the exposure per kilogram of body weight (Kg/ b.w.) can be calculated at individual level. Additionally, it may also contain the demographic characteristics of the target population as they affect the estimated exposure. In practice, the user can compare the exposure across gender and/or different population groups. The above can be derived at Lower Bound (LB), Middle Bound (MB), and Upper Bound (UB) scenarios of the occurrence dataset, and the exposure is calculated at an appropriate FoodEx2 Level depending on the uploaded datasets by the users. Additionally, the model accommodates weight coefficients to adjust the sample for non-representativeness within the population. In general, ImproRisk model accommodates all the necessary functions in order to enable the risk assessors and/or risk managers to have a clearer view on how the exposure

[2] https://www.laakarilehti.fi/tieteessa/alkuperaistutkimukset/aikuisvaeston-ruoankayton-ja-ravintoaineiden-saannin-muutokset-vuosina-1997-ndash-2017-kansallinen-finravinto-tutkimus/

[3] https://www.efsa.europa.eu/en/data-report/food-composition-data

is distributed over the population of interest and thus facilitates the decision-making process.
There are several benefits to the model: easy online access, free of charge, uses computation language of R coupled with programming language, and counting tolerable intakes for different timespans (day/week/etc).

Sofia Ioannidou enquired whether the results of ImproRisk had already been compared to the ones from EFSA's tools. Aspasia Sarandi answered a comparison has not yet been conducted.

8. Suit of exposure tools developed by EFSA

- **FAIM 2.1**

Alexandra Tard (EFSA) presented the Food Additive Intake Model[4] (FAIM) version 2.1. It is developed to estimate chronic exposure to food additives or any substance classified to the food nomenclature falling under Regulation (EC) No 1333/2008. This version of the tool is linked with individual-level data of the EFSA Comprehensive Database. FAIM 2.1 contains 18 main food categories and is accessible via the EFSA website. The input values should be in mg/kg, yet exposure results are provided in mg/kg per day and can be exported to excel. Further instructions on how to use the tool are also provided online[5].

- **RACE**

Tilemachos Goumperis (EFSA) presented the Rapid Assessment of Contaminant Exposure (RACE) tool[6], which is based on the methodology proposed in the EFSA technical report (2019) "Risk evaluation of Chemical contaminants in food in the context of RASFF notifications"[7]. The tool provides estimates of acute and chronic exposure of different population groups to individual food chemical contaminants and compares the result with the health-based guidance values or other relevant toxicological reference points. Currently EFSA is negotiating a mandate with the European Commission (EC) on including FoodEx2 and RACE in the iRASFF platform. Live presentation was introduced on how to use the tool. A webinar recording and additional information can be found at https://www.efsa.europa.eu/en/events/event/webinar-rapid-assessment-contaminant-exposure-race-tool.

- **DietEx**

Jose Gomez (EFSA) presented the DietEx tool[8]. DietEx is a user-friendly tool developed by EFSA to estimate chronic dietary exposure to different substances present in food (e.g. intentionally added or naturally present chemicals, contaminants, proteins, novel food ingredients, etc.) making use of individual consumption data retrieved from the EFSA Comprehensive European Food Consumption Database. The DietEx tool can be used, for instance, in replacement scenarios to predict the intake of different ingredients during the pre-market risk assessment, providing mean and 95th percentile exposure estimates per survey

[4] https://dwh.efsa.europa.eu/MicroStrategy/servlet/mstrWeb
[5] https://www.efsa.europa.eu/sites/default/files/applications/FAIM-instructions.pdf?upd=30032022
[6] https://dwh.efsa.europa.eu/MicroStrategy/servlet/mstrWeb
[7] https://www.efsa.europa.eu/en/supporting/pub/en-1625
[8] https://dwh.efsa.europa.eu/MicroStrategy/servlet/mstrWeb

and population group for all subjects and for consumers only. Its main features and a guide for its use are available online[9].

- **FoodEx2 SCA**

Pilvi Kemppinen (EFSA) gave a brief presentation on FoodEx2 Smart Coding Application[10] (SCA), which is the first AI tool developed and maintained by EFSA. It was developed by retrieving data from the EFSA Comprehensive Database and applying artificial intelligence processes to create a tool for easier, quicker and more convenient food codification. Main advantages of the tool are encouraging the use of FoodEx2, helping data providers during sampling/data submission, easy use, and easy accessibility. A user guide detailing its main features is available online[11].

The following Teams poll was launched: Which of the above mentioned tools are used in your country? Answers were the following: FAIM 2.1 11% (4), RACE 13% (5), DietEx 8% (3), CSA 17% (6), None 50% (18).

The relatively high number of no use of the tools was discussed to be due to the fact that they are used mainly by applicants when submitting dossiers to EFSA and not so much by national organisations. However, further communication on their usage and added value will be planned for the future among the network members and other potential users.

9. Environmental footprint of food database (EFF database)

Davide Gibin (EFSA) presented the new project on the creation on open access of European Environmental Footprint of Food Database (EFF database). He explained the different deliverables and timeline – the project duration will be 36 months, after which the database will be launched. The project consists of two phases. The 1st phase includes the identification of the most relevant input databases which contains information and data needed to calculate environmental footprint of food products based on the Environmental Footprint Life Cycle Assessment (EF LCA) models, and delivering a guidance for creation and maintenance of an EFF Database based on the EF LCA. The 2nd phase consists of the development of the EFF Database of the environmental footprint data of food products according to the data model proposed in the guidance document endorsed at the end of the 1st phase of the procurement procedure, and of delivering a final project report describing environmental footprint data on food products. Future implications could entail connecting EFF database with EU Food consumption database via FoodEx2, or connecting EU FCDB via FoodEx2, and creating a reference database for European Environmental Food Impact to further assess the impact of the consumed food, nutrients, etc. in different foods.

A Teams poll was launched, and as a result some MSs have similar ongoing projects on a national level (25%, 7). Therefore, EFSA will further investigate how to make best use of the experience already gained from the Member States and involve them in the project.

[9] https://www.efsa.europa.eu/sites/default/files/2021-08/dietex-features-instructions.pdf
[10] https://r4eu.efsa.europa.eu/app/FoodEx2-SCA
[11] https://zenodo.org/record/5596611#.Yl5xPtpBzD5

10. Evaluation and development of methods and tools for the preparation of the next round of national dietary surveys (EU Menu phase 2) - project presentation

Marga Ocke (the Netherlands) presented the Evaluation, Review and Advice of Methods and Tools for EU Menu Phase 2 -project (ERA EU-Menu project),a grant (GP/EFSA/DATA/2021/030) awarded by EFSA. The project is conducted by the National Institute for Public Health and the Environment of Netherlands (RIVM) and the University of Porto. The objective is to map and evaluate the landscape on methods and tools that are available for national dietary surveys. It consists of three work packages (WP): 1st to review the literature to map the landscape on methods and tools, and to review reported evaluation studies of methods and tools used outside the EU Menu project, 2nd to evaluate the methods and tools used under the EU Menu surveys and analyse the current EU Menu data using quality indicators, and 3rd to combine and conclude the received knowledge from WP1 and WP2 to propose amendments for the update of the EU Menu guidance.

An e-mail inquiry on receiving feedback, support and input from the network members was distributed on the day of meeting.

The practical challenges in organising food consumption surveys in this project and the delay in data publication were discussed by Nicolas Berger and Caroline Merten, respectively.

11. Assessment of frequency of fish consumption and effectiveness of associated Member States' advice in relation to the content of mercury

Marina Nikolic (EFSA) presented the new mandate EFSA has received from the EC related to the recommendation to MS to issue an advice on frequency of fish consumption. She presented outcomes from two EFSA Opinions related to the risk assessment on mercury, based on which EC issued the recommendation. Moreover, she explained EFSA's approach for tackling this mandate, i.e. project plan and draft food propensity questionnaire (FPQ) to be used for the assessment of frequency of fish consumption. The purpose of the project is to assess which fish species are consumed among the EU population. The survey will be funded by EFSA, yet the communication will be organised by MS. She also asked for volunteers who can contribute to the further finetuning of the FPQ.

Mirjana Andjelkovic (Belgium) informed that currently there is a risk-benefit study on fish consumption running in Belgium, although it involves only few species (tuna, canned tuna, salmon, cod). According to Luk Ingenbleek (WHO), in Sub-Saharan Africa, outside of EU, the dietary exposure to environmental contaminants has been assessed in fish (2014-2018), yet the exposure levels did not concern mercury, and therefore no recommendation was put into action.

12. Quality evaluation and harmonized collection of food composition data in Europe

Marina Nikolic (EFSA) presented the new project related to the creation of Open Access EU Food Composition Database. She presented the project design, which contains two phases. The 1st phase includes development of methodology for quality evaluation and collection of the food composition data and related datasets (guidance and data model). The 2nd phase is the application of developed methodology on at least 16 FCDBs, i.e. data collection/validation and finally

publication. All four EU regions (Southern, Northern, Central & Eastern and Western) will be represented by at least four countries or databases. The project is currently under evaluation.

13. Global report on state of dietary data

Victoria Padula De Quadros (FAO) and Bridget Holmes (FAO) presented the recently published "Global report on the state of dietary data" by FAO and the Intake Center for Dietary Assessment. Robust data on what people eat in a country enables an understanding of current food consumption practices, and provides an evidence-based foundation for the design and implementation of targeted and well-informed actions, policies and messaging to address key issues related to nutrition. The purpose of this report is to take stock and praise the collection and use of dietary data in low- and middle-income countries (LMICs), where individual-level dietary data is scarce. Additionally, it is hoped that further momentum for investment in dietary surveys in LMICs will be generated. The presentation illustrated highlights from the FAO/Intake report and focused on common challenges and some key differences for dietary surveys in LMICs and in high-income countries. The individual quantitative dietary data from different countries is publicly available in the FAO/WHO GIFT Platform, covering the fields of nutrition and food safety. LMICs have different constraints but common challenges with high-income countries, and changes in food consumption habits has made it more challenging to track food consumption. Despite the challenges, there are big opportunities, but they require reliable nutrition data.

Sofia Ioannidou asked for further information on the data that the report is based on, to which Victoria Padula De Quadros answered that the analysis was based on standardized survey metadata included in FAO/WHO GIFT, and the number of days depended on each survey, but was typically one or two days. Normally the funding for the surveys comes from ministries and academic institutions.

Sofia Ioannidou added that EFSA has a collaboration with FAO, which makes the data harmonization easier. Additionally, foods that are not consumed in the EU area are added to the FoodEx2 catalogue to accommodate foods consumed from LMICs at the global level.

14. Any Other Business

Teams channel interaction

Participants were introduced to and encouraged to use the Teams platform to communicate, share information and interact with the network. They were informed that all the material from this meeting will be shared on the platform.

Feedback survey

A feedback survey on this meeting was shared with the participants (link and QR code).

15. Closure of the meeting

The Chair thanked all participants for their valuable contribution and closed the meeting at 16:40.