THE EFSA EU-MENU DATA AND THEIR USE FOR ASSESSING DIETARY EXPOSURES IN EU AND BEYOND

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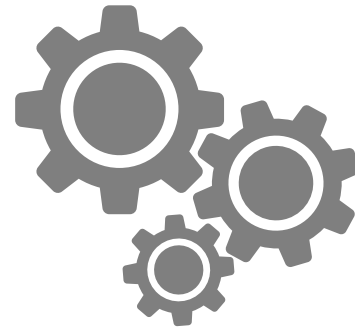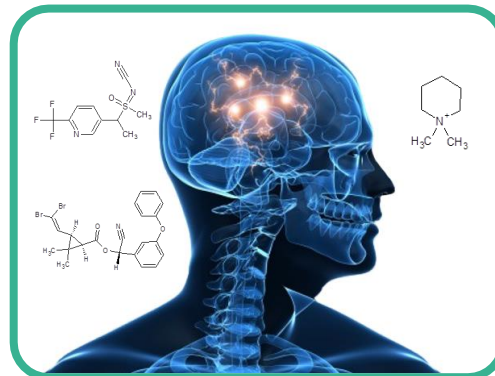iDATA Unit of EFSA

DIETARY EXPOSURE ASSESSMENT
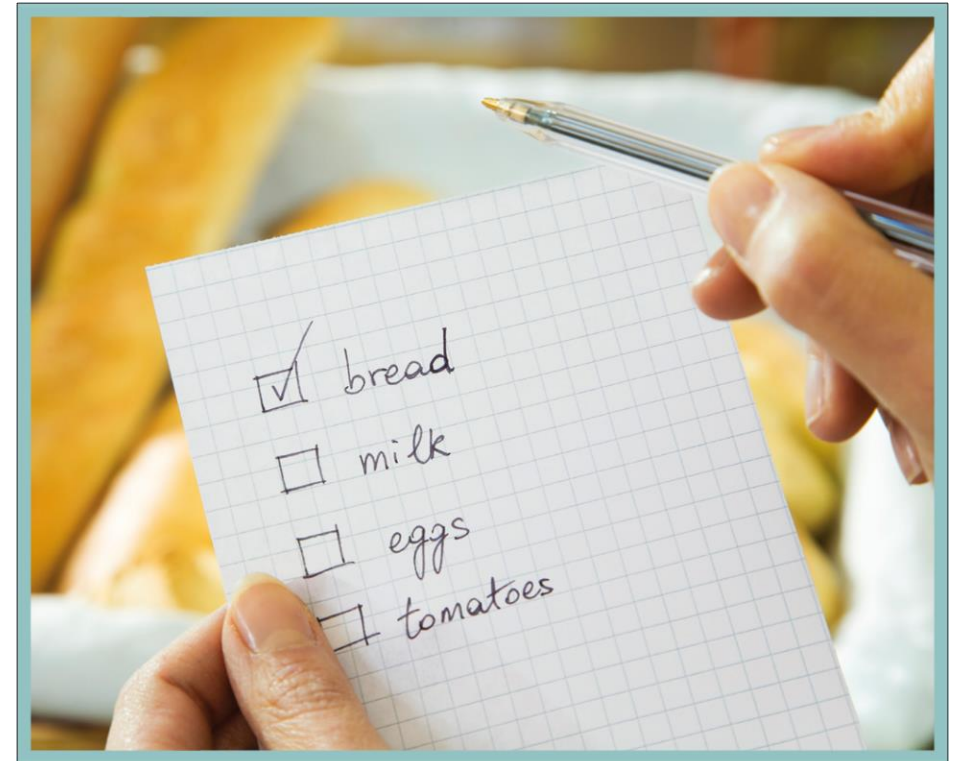
OCCURRENCE

CONSUMPTION

EXPOSURE

Comprehensive Food Consumption Database

- Food consumption data are essential for assessing how exposed people are to potential risks in the food chain

- The Comprehensive Food Consumption Database is a source of information on food consumption across the EU

- It plays a key role in the evaluation of the risks related to possible hazards in food in the EU and allows estimates of consumers' exposure to such hazards

FOOD CONSUMPTION DATA

• The EFSA Comprehensive Database contains:

- 24-hour recall or dietary record surveys (1-9d)

- data collected at individual level (>140k individuals)

- most recent data within each country (75 surveys, 25 countries)

- random sample at national level

  • different age classes, from infants to elderly (<75y old)
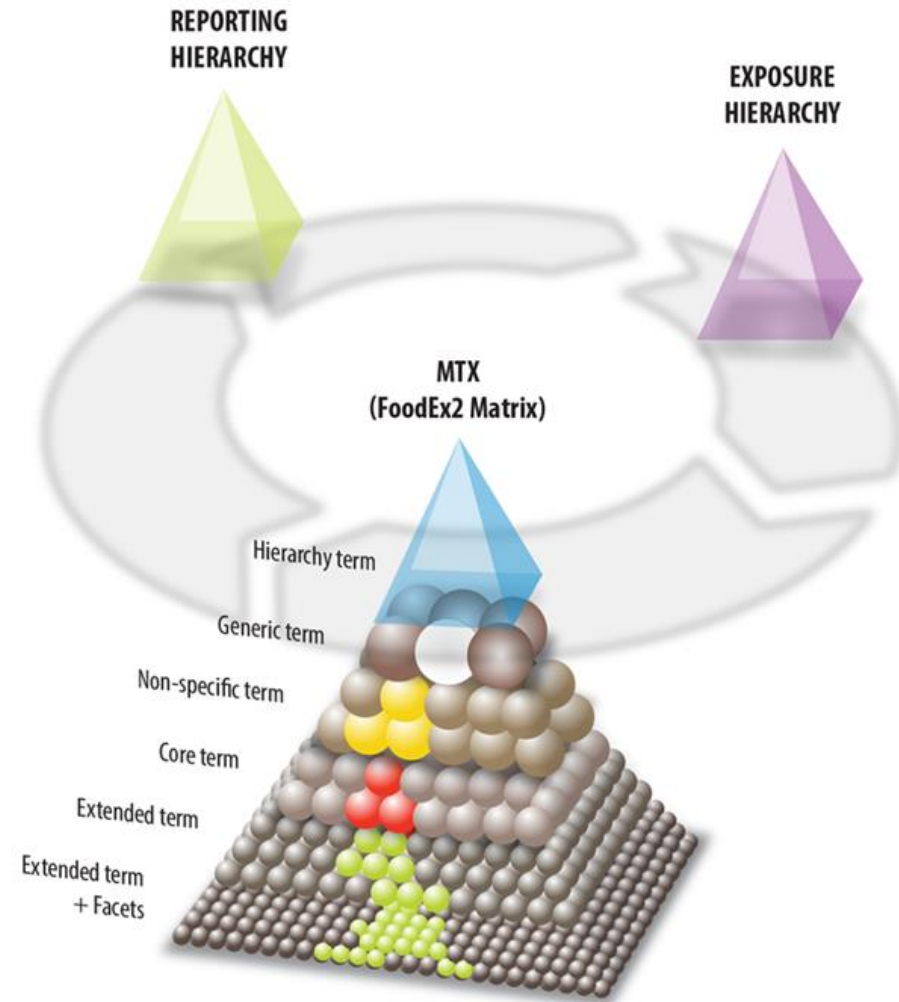
  • special population groups

FOODEX2

- A comprehensive food classification and description system

- Developed and maintained by EFSA

- Serves to link occurrence with consumption data to facilitate the estimation of exposure

SUMMARY STATISTICS

Statistics on chronic and acute food consumption are available on EFSA's website

Food consumption – survey details

Food consumption statistics for FoodEx2: Level 1 (e.g., grains & grain-based products)

Food consumption statistics for FoodEx2: Level 2 (e.g., fine bakery wares)

Food consumption statistics for FoodEx2: Level 3 (e.g., cakes)

Food consumption statistics for FoodEx2: Level 4 (e.g., plain cakes)

Food consumption statistics for FoodEx2: Level 5 (e.g., cream cake)

Food consumption statistics for FoodEx2: Level 6 (e.g., cheesecake)

Food consumption statistics for FoodEx2: Level 7 (e.g., cheese cream sponge cake)

USE OF THE COMPREHENSIVE DATABASE

Areas of EFSA's work

- Biological Hazards
- Contaminants
- Enzymes
- Food additives
- Food contact materials
- Genetically modified organisms
- Food supplements
- Novel foods
- Nutrients

MESE Analysis Team supports the estimation of exposure for the above substances

Glutamates

Nitrites and nitrates

Dioxins and related PCBs

Pyrrolizidine alkaloids

Sugar

Opium alkaloids

LIMITATIONS OF THE COMPREHENSIVE DATABASE

Methodological differences between different dietary surveys in different countries

- 24 h dietary recall vs. food record
- from 1 to 7 days per subject
- from 28% to 98% response rate
- sample size and sampling design
- weekend days not always evenly represented
- seasonality not always covered
- body weight and height measured or estimated
- food classification

Towards more harmonised food consumption data at EU level to address methodological differences in the comprehensive food consumption database

EFSA provided financial support & guidance to EU Member States

- Aimed to collect food consumption data from new dietary surveys following a more harmonised methodology

- in different age classes (from infants to elderly)

- in all 27 EU Member States (minimum 80,000 subjects in total) **+** pre-accession countries

- Using methods allowing the comparison of the results

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GUIDANCE OF EFSA

Guidance on the EU Menu methodology[1]

European Food Safety Authority[2,3]

European Food Safety Authority (EFSA), Parma, Italy

ABSTRACT

The availability of detailed, harmonised and high-quality food consumption data for use in dietary exposure assessments is a long-term objective of EFSA. In 2009, the EFSA guidance on "General principles for the collection of national food consumption data in the view of a pan-European dietary survey" was published, and a pan-European food consumption survey, also known as the "EU Menu", was launched. Based on the 2009 EFSA guidance, two EU Menu feasibility pilot studies and two methodological projects, EFSA has updated the former guidance document to cover the EU Menu methodology and therefore facilitate the collection of more harmonised food consumption data from all European Union Member States by the year 2020. This guidance has been developed by the EFSA Evidence Management Unit (DATA) and the EU Menu Working Group with Advisory Function, and has been endorsed by the EFSA Network on Food Consumption Data. It provides recommendations for the collection of more harmonised food consumption data among the EU Member States for use in dietary exposure assessments of food-borne hazards and nutrient intake estimations under the remit of EFSA's scientific panels. Food consumption information should be collected for two non-consecutive days. The 24-hour food diary method, followed by a computer-assisted personal or telephone interview (CAPI/CATI), should be used to collect data from infants and children. For all other age groups, the 24-hour dietary recall CAPI/CATI method should be used. The reported foods should be described in accordance with the EFSA FoodEx2 food classification system. A short food propensity questionnaire should be used to collect information on the consumption of some less frequently eaten foods and the consumption frequencies of food supplements. Information on the weight, height and physical activity levels of participants should also be collected in the survey.

Guidance on the EU Menu methodology

https://www.efsa.europa.eu/en/efsajournal/pub/3944

Methods and procedures described in the guidance are recommended as suitable for the collection of **harmonised** and **high-quality** food consumption and related data within the EU.
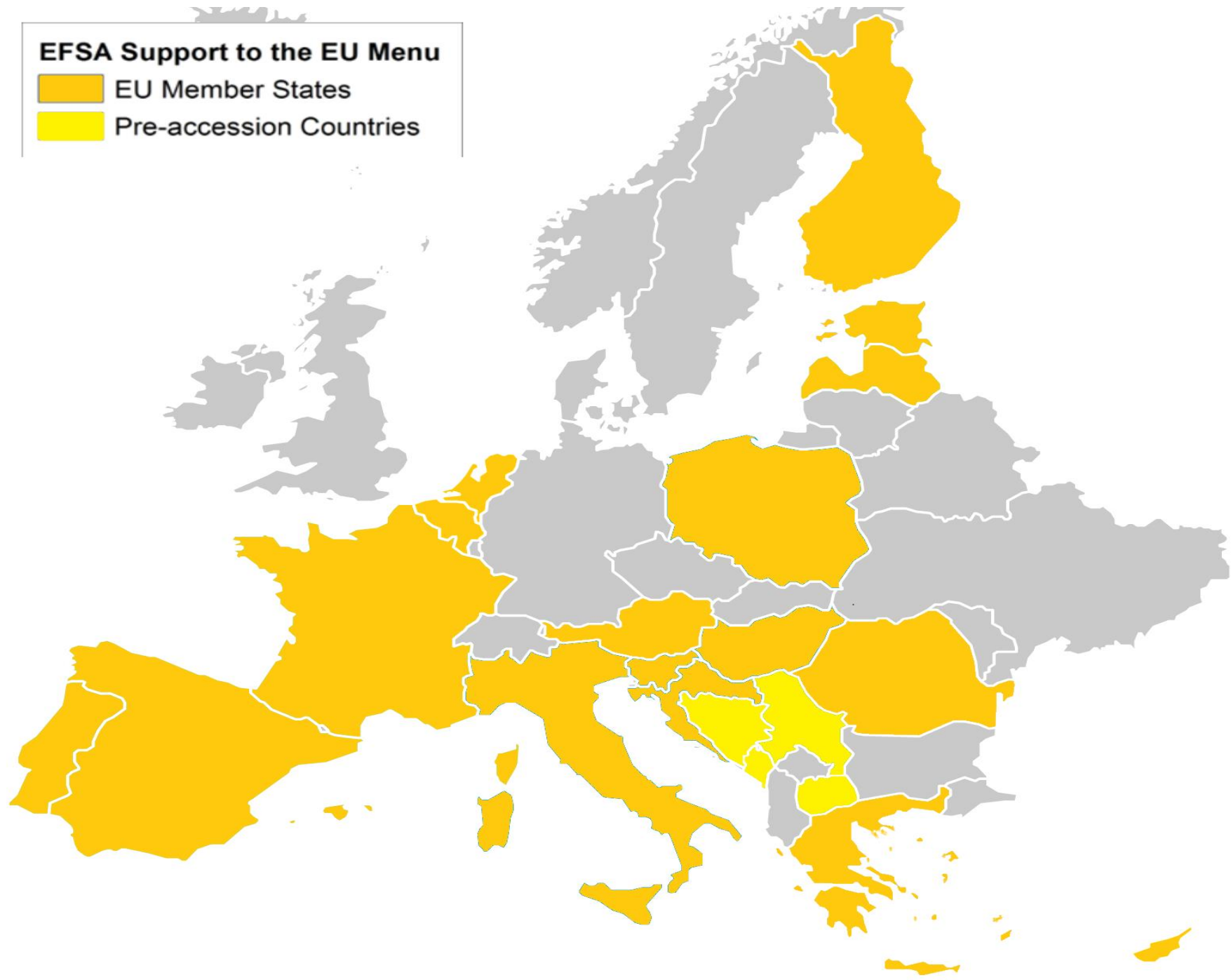
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Snowball effect

EFSA Support to the EU Menu
- EU Member States
- Pre-accession Countries

PROPORTION OF EU MENU DATA IN THE COMPREHENSIVE

Age class	Age range (years)	Number of Surveys	EU MENU surveys
Infants	0 – 1	14	8
Toddlers	1 – 3	25	12
Children	3 - 10	36	12
Adolescents	10 - 18	40	19
Adults	18 - 65	49	20
Elderly	65 - 75	22	10
Very elderly	75+	19	4
Special population groups		13	11

Why is the collection of food consumption data that important and especially in such detail and so high quality?

The availability of accurate and detailed food consumption information is fundamental to:

- Identify food consumption patterns

- estimate the intake of nutrients

- develop food-based dietary guidelines

- assess the exposure to hazardous substances

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GEOGRAPHICAL VARIATIONS - AGE AND PHYSIOLOGICAL VARIATION
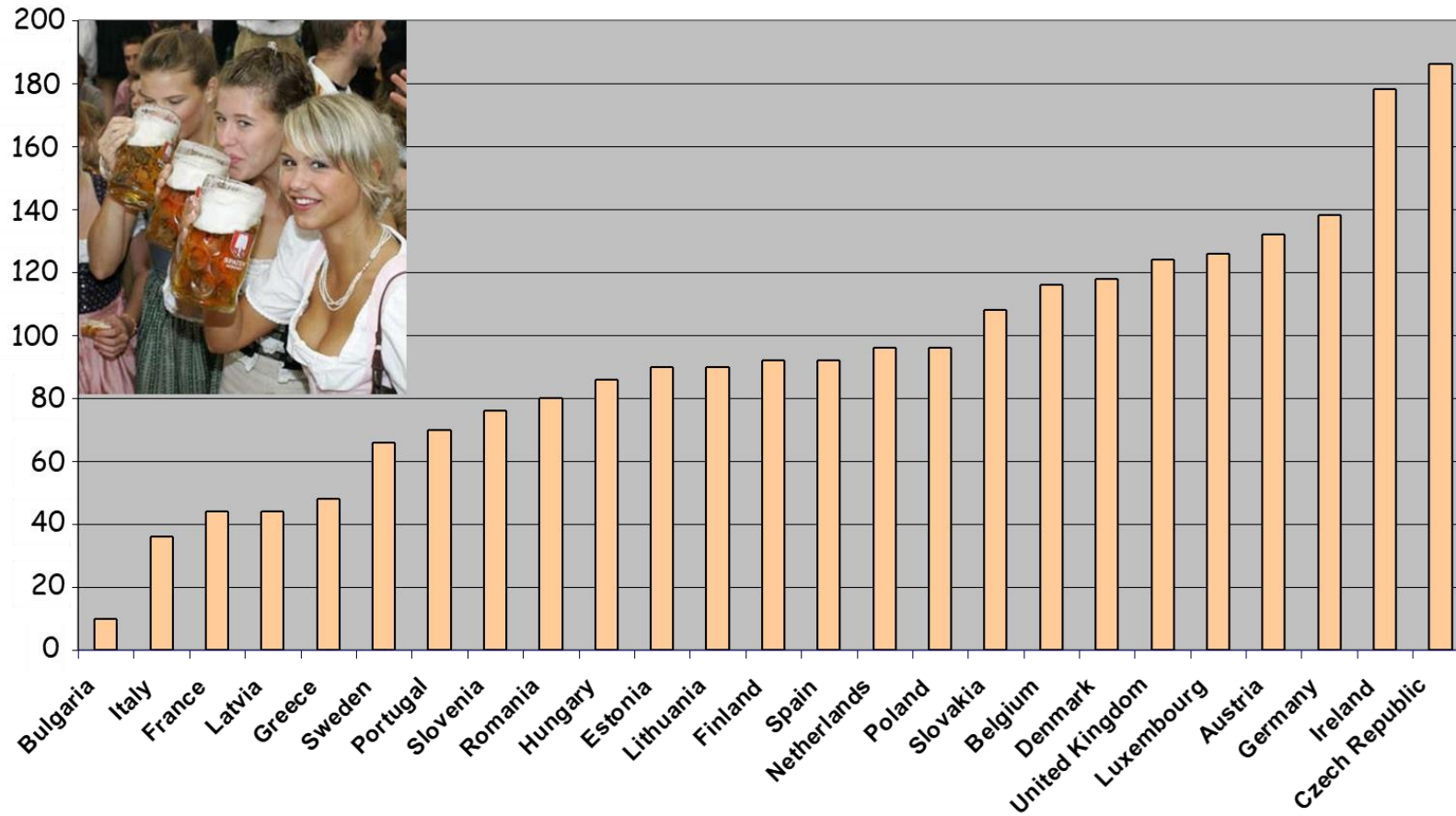
Pregnant women

Small children

Vegetarians, diabetics, ...

Infants

Elderly

OTHER SPECIFIC INFORMATION

- Information on cooking procedures in the case of contaminants formed during processing or nutrients losses

- Information on whether products are sugar free or fortified

- Information on the consumption of food supplements in order to accurately estimate the intake of minerals and vitamins

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RECENT EXAMPLE OF USE

Dietary reference values for the EU

CONCLUSIONS

Harmonised, high quality and detailed food consumption data are the basis to

- assess the exposure to hazardous substances

- communicate on risks associated with the food chain

- estimate the intake of nutrients

- identify food consumption patterns and the country's specific diet-related health problems,

- develop food based dietary guidelines

- evaluate new food legislations

- estimate trends in diseases caused by infectious agents

Thank you for your attention!

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