European activities in harmonising dietary data

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Outline of the presentation

• Food consumption data in risk assessment
• EFSA activities in harmonising dietary data
• Towards the EU Menu era: harmonised food consumption data collection
Food consumption data in risk assessment
• EFSA “shall search for, collect, collate, analyse and summarise relevant scientific and technical data in the fields within its mission. This shall involve in particular the collection of data relating to food consumption and the exposure of individuals to risks related to the consumption of food”;

• EFSA “shall work in close cooperation with all organisations operating in the field of data collection, including those from applicant countries, third countries or international bodies”.
Dietary exposure assessment

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Chemical domains

- Environmental contaminants
- Agricultural contaminants
- Process contaminants
- Additives
- Nutrients
- Pesticide residues
- Veterinary drug residues
- Natural toxins

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Target populations

Adult population

Pregnant women

Infants

Small children (from 1 to 3)

Elderly

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Different types of information may be needed in different consumption scenarios.

Chronic (long-term)

Acute (short-term)
It is fundamental to consider also non-average individuals, and in particular high consumers (those who consume relatively large quantities of foods).

Special population groups: vegetarians, diabetics, ethnic groups and different socio-economic strata …
Food as consumed vs. RACs

Raw Agricultural Commodity (RACs)

Conversion factors

Individual ingredient

List of ingredients and proportions

Food as consumed

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Foods consumed must be described in detail.

- physical characteristics and size of the packaging,
- cooking procedures,
- brand,
- food storage,
- flavour
- smoked
- sugar free
- fortified
- supplement intake
- ...

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EFSA activities in harmonising dietary data
“A common database on food consumption would improve the consistency and reliability of exposure assessments carried out by the various EFSA Panels and other experts in Europe”
Expert group on food consumption data

Network of 32 members, each member representing a European country.

- To provide a platform for exchange of views with the best experts in Europe on ways to harmonise methodologies for the collection and collation of food consumption data
- To coordinate and facilitate the merger of national food consumption information into a pan-European food consumption database
Comprehensive Database: Adults

EFSA Comprehensive European food consumption database

- Individual food consumption data from Member States provided to EFSA:
  - the most recent data within the country,
  - at the finest level of detail,
  - representative consumption at national or regional level for the adult population and/or children.
### Magnitude of the database

<table>
<thead>
<tr>
<th>Dietary surveys</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member States</td>
<td>22</td>
</tr>
<tr>
<td>Number of subjects</td>
<td>66,492</td>
</tr>
<tr>
<td>Number of different foods</td>
<td>63,495</td>
</tr>
<tr>
<td>Number of different FoodEx codes</td>
<td>1,504</td>
</tr>
<tr>
<td>Number of consumption records</td>
<td>6,309,489</td>
</tr>
</tbody>
</table>

The Comprehensive Database will be updated in 2013 with the addition of 8 new surveys. A Call for proposals is currently out for the 2014 update.
Conditions of use

- EFSA has the right to use raw individual food consumption data for carrying out risk assessments and other scientific analyses within the activities related to EFSA’s mandate.

- A formal authorization from the data provider must be requested for any other use of the data.
Methods used in dietary surveys included in the Comprehensive DB

Different consumption patterns between countries can simply be induced by the survey methodology.

Examples of differences in survey methodology:

• 24 h dietary recall vs. food record
• broad survey period, from 1997 (Estonia) to 2009 (Spain)
• from 1 to 7 days per subject
• individual vs. household sample unit
• from 28% to 98% response rate
• week end days not evenly represented in 6 surveys
• seasonality not fully covered in 10 surveys (only one season represented in 4 surveys)
• body weight and height measured or estimated
• food classification
Common classification

**LanguaL**
- an international framework for food description!

**FoodEx**

**COST**

**EuropaFIR**

**Codex Alimentarius**

**EFSA**

**EUROCODE2**

**INFORMS**

**International Agency for Research on Cancer**

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In the future

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Towards the EU Menu era: harmonised food consumption data collection
Aims to collect food consumption data at EU level:

- in **different age classes** (from infants to elderly)
- in **27 Member States** (minimum 80,000 subjects in total)
- using **methods allowing the comparison of the results from different Member States**
- using the **EPIC soft**, or comparable, **software**
- including **anthropometric measurements**
General principles for the collection of national food consumption data in the view of a pan-European dietary survey

- EFSA needs
- Sampling method and design
- Dietary assessment methodologies
- Administration of the interview
- Dietary survey tools
- Non dietary information and quality control

Discussed and endorsed by the Expert group on food consumption data in mid October 2009

Published on the EFSA Journal in December 2009
Dietary assessment methodologies

- Children: dietary record method
- All other subjects: 24-hour recall method
- Two non-consecutive days
- Nutritionists/dieticians
- Meetings preferably at home
- First interview face to face, the second can be administered via telephone.
- Use of different portion-size measurement aids
  - country-specific, validated picture books are recommended and age-appropriate tools
- Actual measurement of body weight and height
- Questionnaire to assess physical activity levels
- Food propensity questionnaire
Main objectives: develop and test tools and procedures for dietary surveys in:

- infants up to 11 months of age
- toddlers from 12 up to 35 months of age
- other children from 3 to 10 years of age
- breastfeeding mothers
PILOT-PANEU Article 36 project

Pilot study in the view of a Pan-European dietary survey – Adolescents, adults and elderly (PILOT-PANEU)

HFSO (Hungary)
December 2010 – December 2012

Main objectives: develop and test tools and procedures for dietary surveys in:
- **adolescents** from 10 to 18 years of age,
- **adults** from 18 to 64 years of age,
- **elderly** from 65 to 74 years of age.
Main objectives:

- to get the EPIC-SOFT adapted in the view of a pan-European dietary survey
- to obtain training, required technical support and supervision in during the pilot phase.
Since 2012 EFSA is supporting the national dietary surveys of:
- France and
- Estonia (children).

Main objectives:
- carry out national dietary surveys in compliance with the EFSA guidance.

A call for tenders aimed at supporting new national dietary surveys in Europe is currently open.
Countries involved in the EU Menu activities

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…. harmonised and detailed food consumption data across Europe …
Thank you!

Questions:
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