Overview of European Consumption Databases

Katrin Büsch

Introduction

Consumption of foods can be combined with risks that may lead to diseases like cancer, allergic reaction etc.

What do we need for assessing the risk that might occur when consuming foods?
Introduction

1. Data about concentrations of selected components in the food

2. Information about the foods that are consumed in a population including frequencies and amounts

We need to obtain the grade a population or a population group is exposed to a specific substance!

- Availability of food consumption data is a prerequisite for qualitative and reliable exposure assessment
Availability of food consumption data in the Europe

• Almost every European country has a survey that gives information about dietary behaviour of the respective population group.

• Food surveys are mostly conducted under the view of assessing the nutritional status of a population.

  ➡️ Requirements on food consumption surveys for risk assessment differ from those for assessing the nutritional status.
Comparability of food consumption data in Europe

- Sampling procedure
- Survey age and duration
- Software
- Food composition table
- Methodology used for data collection
- Food categorisation system and food description
- Statistical procedures
- Age groups of population

Food consumption data are collected, stored and analysed in various ways.
Comparability of food consumption data in Europe

Different levels of disaggregation for consumed foods are described that influence the grade of comparability of the survey data:

- Intake level (food as eaten)
- Ingredient level
- Raw agricultural commodity level

Needed level of detail depends on the particular field of exposure assessment (e.g. pesticides).
Comparability of food consumption data

Food consumption data are often not comparable on the European level!

• Reasons are different objectives or preconditions for conducting a food survey

• Exposure assessment may lead to different results not only because of varying eating behavior but also because of differences in data collection

Therefore harmonized and standardized procedures for collecting, storing and analyzing food consumption data are necessary to get a higher comparability and to enable consistent exposure assessment across Europe!
Harmonisation and standardisation of food consumption data collection

There are several efforts for making food consumption data comparable on the European level:

EFCOSUM = European Food Consumption Survey Method project performed from 2000 to 2002

→ Provided recommendations for a European Food Consumption Surveillance in terms of:
  • Dietary method and data collection software,
  • Sample size and sampling procedures,
  • Recruitment and field work procedures,
  • Biomarkers,
  • Training/ quality control
  • Statistical aspects

→ Long term strategy for achieving harmonized data
Harmonisation and standardisation of food consumption data collection

EFSA‘s Food Consumption Concise Database

- Important development for obtaining harmonized data suitable for achieving high qualitative and reliable dietary exposure assessment in an European context

- Collection and storage of national food consumption data of the Member States (MS) and other European countries in an European database

- Screening tool for preliminary exposure assessments by EFSA Scientific Panels and Member States
Overview of food consumption surveys in EFSA’s Food Consumption Concise Database

- Includes national food consumption data of 17 European countries for the adult population
  - B, BG, CZ, DK, FIN, F, D, H, IS, IRL, I, NL, N, PL, SK, S, GB

- Desired to include available food consumption data of all European countries
  - Therefore assistance of 5 countries (Austria, Cyprus, Estonia, Lithuania, Spain) in the scope of the SuConDa project in providing EFSA with their food consumption data

- Summary statistics from the EFSA’s Concise European Food Consumption Database are published on EFSA’s website:
  
Overview of food consumption surveys in EFSA‘s Food Consumption Concise Database

What information do we get from EFSA‘s Concise Database?

1) Daily consumption of the total population/ for consumers only of each country by EFSA‘s food categories and subcategories

2) Basic information on the national food survey
   • Reference period
   • Name of the dietary survey and acronym
   • Provider of the data
   • Methodology used (Number of days)
   • Total number of individuals
   • Age range
   • Reference publication
   • Remarks (e.g. use of weighting factor)

3) Non dietary information
   • Age, energy intake, weight of both males and females
Methodologies applied for food consumption surveys in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Methodology</th>
<th>Number of days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24-h-recall</td>
<td>48-h-recall</td>
</tr>
<tr>
<td>Belgium</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iceland</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Slovakia</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

→ 6 countries performed 24 hour recall (35%)
→ 8 countries performed dietary record (47%)
SuConDa questionnaire

We need more details of the survey data included in EFSA's Concise Database that enables a transparent database and most achievable comparability of the data.

SuConDa = „Support to complete EFSA's Food Consumption Concise Database“

Tasks of SuConDa:

• Support the development of EFSA's Food Consumption Concise Database to a more comprehensive structure

• To prepare an overview of all datasets submitted to EFSA including the detailed description of survey characteristics and re-coded foods

→ Development of a questionnaire in the scope of the SuConDa project
Support the development of EFSA‘s Food Consumption Concise Database to a more comprehensive structure

• Identification and description of the detail of food description in the food classification system used for the national surveys in each country

• Compare the different surveys due to their applicability for matching the data of different countries at a more disaggregated level of food

• Compare survey specific food descriptions to evaluate the possibilities of more detailed food categories in the EFSA database

Collection of the food lists of the survey data implemented in the Concise Database
SuConDa questionnaire

Considering the details that influence comparability of survey data the following information had been requested:

- General information (Survey name, field phase, references)
- Survey methodology
- Food classification structure
- Data storage and management system
- The software packages generally utilised to manage and analyse the data
- Statistical methods
- Additional information on further details included in the survey
- Exposure assessment

The completed questionnaires of the 17 European countries will be evaluated and the results are planned to be published.

This will support transparency of EFSA's Concise Database!
### SuConDa questionnaire – French food survey

#### II. Survey methodology

<table>
<thead>
<tr>
<th>Protocol methods</th>
<th>Number of days</th>
<th>Remarks (consecutive / non consecutive days, repetitions, e.g. 2x3 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 h recall</td>
<td>Yes 1</td>
<td>The 7th day</td>
</tr>
<tr>
<td>Weighed food record</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated food record</td>
<td>Yes 7</td>
<td></td>
</tr>
<tr>
<td>Dietary history</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Estimation of portion size:       |                |                                                                           |
|                                   | Photobook      |                                                                           |
| Sample of dishes                  |                |                                                                           |
| Other                             |                |                                                                           |

- **Not applicable, because:**
We want to say „THANKS“ to all countries that already completed the SuConDa questionnaire!

We hope to get the questionnaire from the other countries in the next days as well and want to thank for this in advance!
Thank you for your attention

Katrin Büsch

Federal Institute for Risk Assessment
Thielallee 88-92 • D-14195 Berlin
Tel. +49 30 - 84 12 – 29 23 • Fax +49 30 - 84 12 - 39 18
katrin.buesch@bfr.bund.de • www.bfr.bund.de