Sources for Comparative Analysis of European Dietary Habits in Relation to Health and Risk Issues: A short note

Sources pour l’analyse comparative des habitudes alimentaires européennes en relation aux questions de santé et de risque: une brève introduction

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Sources pour l’analyse comparative des habitudes alimentaires européennes en relation aux questions de santé et de risque: une brève introduction

Mette Ranta

The content of this study has been presented as a poster presentation at the “Eating: Comparative Perspectives” Colloquium at the Helsinki Collegium for Advanced Studies on 23–25 May 2012 concerning the feasibility of a pan-European Union comparison of European eating habits. New elements are discussed and previous content has been updated in the present article. The author would like to thank Dr Alan Warde for his productive collaboration and important feedback on this work. The author would also like to thank Karoliina Härkönen for the translation work on the title, abstract and key words into French.

Introduction

In this study, an overview of the relevant data resources in the field of social sciences on individuals’ eating habits in the European Union (EU) is presented. The aim of this research is to underline that this type of information is important for conducting systematic cross-cultural comparative analyses in regard to eating habits in different countries as, to this day, cross-national sociological comparisons of food cultures
remain very scarce. There is, after all, considerable variation and diversity in the evolving and expanding EU, with “old” and “new” member states (Nowak & Kochkova, 2011) and an extensive heterogeneity in food consumption and dietary habits across Europe (Petrovici, Ritson, & Ness, 2005); however, it has also been argued that nutritional differences between developed countries have been diminishing in recent years (Grigg, 1993). Nevertheless, identifying similarities and differences in food consumption and dietary habits is significant in regard to, for example, studying health-related issues, cultural identity and enjoyment, as well as to understand the variations in consumption that are affected by food policies and regulations, culinary traditions, commercial supply, income, and meal patterns, among others (DAFNE, 2014). These differences might also partly explain national variation and changing rates of diet-, health- and nutrition-related issues such as obesity and type 2 diabetes (McCarthy et al., 2013). The focus of this article is on key diet-related determinants of health relevant for the analysis of cross-cultural differences in the interplay between diet and health.

The contribution of this article is methodological: it consists of a review and collation of the current state of existing data sources in Europe, and proposes an assessment of their scope, relevance and methodological limits. The article will proceed in the following manner: first, an overview of and background information on existing databases consisting of data on food consumption and health indicators pertaining to EU citizens will be presented, after which the most relevant and available resources and developments regarding the harmonisation of European databases on food consumption will be described in more detail.

Aims

The basic objective of this article is to determine whether systematic and comparable data are available to produce reliable indicators and comparisons of national differences in food consumption and dietary trends, i.e., the factors determining what individuals eat, as well as the factors determining and measuring their health status.

Exposition of methods

Carrying out the data collection for this study consisted of searching for appropriate and available surveys and studies that could provide systematic information on relevant institutional characteristics relating to food consumption and health status indicators across the EU countries. The data sources in the reviewed surveys and studies consisted of: EU statistical series and expenditure studies, national economic accounts, household expenditure surveys, agriculture industry statistics, policy documents, health records, and market research reports, but also historical and literary accounts of national food cultures. The rationale for choosing these sources is to have widespread information from both public and private sectors compiled for different purposes and to avoid excluding any potential sources of information. In order to refrain from overly extending the study focus, topic-related scientific publications were not reviewed for this study and market research data were not examined.
Data

The data collection consisted of a systematic search of available and relevant websites and their details. Table 1 introduces and summarises the sources of data selected for this review and includes the following information: the actors developing and supporting these sources, what types of information these sources are, their purposes, the variables of focus for this review and the time span and countries included in these data sources. Some of the key variables included in the surveys and studies reviewed were: use of time, household budgets, proportion of population overweight and obese, proportion of population with type 2 diabetes, social variation in food expenditure, and proportion of household budgets allocated to red meat and fruit and vegetable consumption as well as eating out.

Table 1: Available reviewed data resources concerning the study variables

<table>
<thead>
<tr>
<th>Source and actor</th>
<th>Type of data and/or source</th>
<th>Description and/or purpose</th>
<th>Example variables</th>
<th>Time span</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eurostat; European Commission</td>
<td>Cross-national surveys; European Union Statistics on Income and Living Conditions (EU-SILC), European Community Household Panel (ECHP), European Statistical System (ESS)</td>
<td>Cross-national and longitudinal micro data, a manual, a list of the datasets available and the “dictionaries” of all the coding systems used in the datasets; scientific purposes</td>
<td>Primary variables collected every year: Health information (e.g., self-perceived health, BMI); Household budgets and income; Capacity to afford a meal with meat/chicken/fish or vegetarian every second day; Trouble making ends meet</td>
<td>ECHP: 1994–2001 (8 waves); EU-SILC: 2003–Present (ongoing)</td>
<td>EU-SILC: 2003: BE, DK, EL, IE, LU, AT, NO; 2004: EU-15 (except DE &amp; NL); 2005: 10 new EU MS; 2007: BG, RO, TR &amp; CH; 2014: 28 EU MS, IL, NO, CH, TR</td>
</tr>
<tr>
<td>Category</td>
<td>Source</td>
<td>Period/Scope</td>
<td>Notes</td>
<td></td>
<td></td>
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<tr>
<td>Health records; European Health Interview Study (EHIS); national statistical institutes and ministries of health or other national institutes</td>
<td>Basic data and well-known common measures (Perceived) health status (chronic conditions, disease specific morbidity, physical and sensory functional limitations), lifestyle, health determinants (height and weight, consumption of fruits, smoking, alcohol); health care use, SES</td>
<td>EHIS wave 1, 2006-2009; EHIS wave 2, 2013-2015; every 5 years</td>
<td>2006: AT &amp; EE; 2007: SI; 2008: BE, BG, CZ, CY, FR, LV, MT &amp; RO; 2009: EL, ES, HU, PL &amp; SK; 2013-2015: all EU MS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household consumption expenditure surveys; Household Budget Surveys (HBS)</td>
<td>National surveys; Consumer Price Index Mean consumption expenditure, structure of consumption expenditure</td>
<td>1960s- (Eurostat 1988-) 2005 every five years</td>
<td>28 EU MS, Macedonia, TR, NO, CH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>From farm to fork; Eurostat food safety statistics</td>
<td>Metadata; evaluation of data on safety of products used for consumption by humans and/or animals; sufficiency of food Food consumption; from production to distribution; inputs to the food chain, and actors involved in the food chain: agriculture, forestry and fisheries</td>
<td>Depending on the microdata used</td>
<td>EU MS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concise &amp; Compreh., European Food Consumpt. Database; European Food Safety Authority (EFSA)</td>
<td>Individual dietary surveys</td>
<td>Preliminary exposure assessments, risk assessment process evaluations</td>
<td>Food consumption data with broad categories and subcategories (Concise database), detailed categories (Comprehensive database); FoodEx classification system</td>
<td>2008–Present (ongoing)</td>
<td>Concise: 19 EU MS; Compreh.: 22 EU MS</td>
</tr>
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</tr>
<tr>
<td>EPIC*; World Health Organisation</td>
<td>Prospective Cohort study; Biobank</td>
<td>Nutritional epidemiology, genetic and lifestyle investigations</td>
<td>Dietary exposure, lifestyle characteristics, anthropometric measurements, medical history, biological samples</td>
<td>1992–Present (ongoing)</td>
<td>10 MS</td>
</tr>
<tr>
<td>DAFNE; National and Kapo-distian University of Athens, School of Medicine. Dept. of Hygiene, Epidemiology and Medical Statistics</td>
<td>Household Budget Surveys</td>
<td>Food databank of food habits and overtime trends in food availability; development of a nutrition monitoring tool that could assist the formulation; implementation and evaluation of nutritional policies across Europe.</td>
<td>Nutritional information: total food expenditure (food expenditures outside the household included), expenditure per food item, expenditure for eating out, amounts per food item, type of acquisition), demographic and socioeconomic information (e.g., household composition, total expenditure, income), food availability to household members, sociodemographic characteristics</td>
<td>1990–Present (ongoing)</td>
<td>21 EU MS &amp; MT, NO, SB</td>
</tr>
<tr>
<td>Sources for Comparative Analysis of European Dietary Habits in Relation to He...</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data and metadata</th>
<th>Data collection for government and policy use</th>
<th>Non-Medical Determinants of Health (population overweight/obesity, total expenditure on health), food consumption (meat/fruit consumption, etc.), nutrition</th>
<th>OECD countries and non-member economies</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nations UNdata; The United Nations Statistics Division (UNSD)</td>
<td>The UNECE Statistical Database; numerous international and national databases</td>
<td>Free access to global statistics, evidence-based policy and decision making; to assist National Statistics offices to strengthen their data dissemination capabilities</td>
<td>Health, time use, food expenditure approx. 60 years</td>
</tr>
<tr>
<td>LABORSTA; ILO Dpt. of Statistics</td>
<td>National statistics from national authorities, official national publications or Internet websites, national statistical services</td>
<td>National statistics; developing international standards for measuring labour issues and enhancing international comparability</td>
<td>Consumer price indices of food, household income and expenditure 1919–Present (ongoing)</td>
</tr>
</tbody>
</table>

* Access is reserved for scientific purposes and relevant sample access charges apply – whereas access to all other surveys considered in this table is unrestricted and free of charge

**Development**

6 The most relevant and interesting resources available in the field, as well as their developments over time, are presented and described in the next section.
Eurostat: Health status, living conditions, and household income and expenditures

7 The Eurostat statistics provided by the European Commission (Eurostat, 2014a) offer a selection of available, anonymised micro data free of charge for scientific purposes, including coverage of health topics and Household Budget Survey information. The data are frequently updated and researchers have the possibility to download data for their own studies (in SPSS, Excel, or PDF format, for example). Additionally, the Eurostat website provides bulk-downloadable data sets with information updated twice daily (if new data are available, or when a structural change occurs), as well as a manual containing all detailed information on the bulk-download facility, a table of contents including the list of the data sets available, and the “dictionaries” of all the coding systems used in conjunction with the data sets. The Eurostat database includes, for example, information from the European Community Household Panel (ECHP), with a wide range of topics concerning living conditions as well as health information. The total duration of the ECHP was 8 years, from 1994 to 2001 (8 waves).

European Union Statistics on Income and Living Conditions (EU-SILC)

8 From 2003 onward, the European Union Statistics on Income and Living Conditions (EU-SILC; Eurostat, 2014d) has provided most of the information from the previously mentioned ECHP panel data set. The EU-SILC is an EU-based reference source for “timely and comparable cross-national and longitudinal, multidimensional micro data on income, poverty, social exclusion, and living conditions”. It is anchored in the European Statistical System (ESS). The EU-SILC project was launched in 2003, in six member states (namely, Belgium, Denmark, Greece, Ireland, Luxembourg, and Austria) as well as in Norway, with new countries joining in 2004: the EU-15 countries, with the exception of Germany and the Netherlands. Ten new member states (except Estonia) joined in 2005, and Bulgaria, Romania, Turkey and Switzerland in 2007. Currently, it provides annual data for 28 member states as well as Iceland, Norway, Switzerland and Turkey, on, for example, body mass index (BMI) by age, gender, activity status and educational levels, all in terms of percentages. The data are mainly collected at the household level, except for labour, education and health information, which is collected individually from adults ages 16 or older.

European Health Interview Study (EHIS)

9 Every five years, Eurostat also provides data on health status indicators from the European Health Interview Study (EHIS; Eurostat, 2014b) on topics of perceived health status, lifestyle, health determinants, and health care use for 18 countries on a harmonized basis (Eurostat, 2011a). The data are provided mainly by the national statistical institutes and the ministries of health or other relevant national institutes. Disaggregation by age, gender and other variables is provided where available and some tables also contain regional data. The emphasis is on basic data and simple measures, such as rates and ratios.
Household Budget Surveys (HBS)

Household Budget Surveys (HBS; Eurostat; 2014c) are among the most comprehensive household surveys, conducted in all EU member states from the 1960s onward. Every five years, collated and published data surveys have been conducted by Eurostat, since 1988. The two last collections were conducted in 1999 and 2005. The national surveys focus mainly on food consumption expenditures, and their primary aim (especially at the national level) is to calculate weights for the Consumer Price Index. Although there have been continuous efforts toward harmonisation, differences remain as the surveys still vary between countries in terms of frequency, timing, content and structure, which subsequently makes conducting longitudinal cross-cultural comparisons challenging. Current data are being collected for 28 member states, as well as for Macedonia, Turkey, Norway, and Switzerland.

Metadata: from farm to fork

The object of metadata food safety statistics (Eurostat, 2011b) is to provide a framework for the quantitative evaluation of data on the safety of products used for human or animal consumption in the member states, irrespective of whether these products are manufactured within the EU or imported from elsewhere. They also help to determine whether the available quantities of food products are sufficient for the long term. This domain provides access to various sets of statistics related to food products and they are collected from different statistical sources within the Eurostat database. The domain’s structure consists of four main chapters, with data available on the member states': (1) food consumption (gross apparent consumption of main food items by humans, including data per capita); (2) data from production to distribution; (3) inputs to the food chain; and (4) actors involved in the food chain.

Conclusion on Eurostat

Eurostat maintains a cohesive, extensive database that covers a wide range of topics and themes, and its usefulness for scientific purposes is not questioned. Its main value lies in its extensive categorical validity and free accessibility for research. However, limitations include the burdensome and lengthy process of applying for access to the anonymized micro-data files that are released to the research community, with the multi-step application taking approximately three months (four weeks to have the research organisation recognised as a research entity, plus eight weeks for applying for access to the micro data). Secondly, Eurostat requires a research proposal from applicants when applying for access to the data, and the data are only accessible for the time period mentioned in the proposal. Thirdly, data are provided on electronic devices (CD-Rom, DVD, etc.) or at the Luxembourg office, but not online.

EFSA – European Food Safety Authority

In 2005, the European Food Safety Authority (EFSA, 2011a) made it clear that a common, harmonised database on food consumption would improve the consistency and reliability of food safety-related exposure assessments carried out by the various EFSA Panels and other expert groups in Europe. According to EFSA, food-related data collection should be developed within a European framework and data made freely
accessible to everyone. However, since member states use different methods to collect food consumption data, it is very difficult to carry out EU-wide analyses or country-by-country comparisons. Therefore, the Concise and Comprehensive European Food Consumption Databases were established, and they are explained in the following section.

The EFSA Concise and Comprehensive European Food Consumption Databases

In February 2008, EFSA published its Concise European Food Consumption Database (EFSA, 2008a) as the first database containing information from individual dietary surveys on food consumption by adults in 19 member states. The data were elaborated at national levels, according to both broad food categories (e.g., milk and dairy-based products) and subcategories (e.g., cheese). Therefore, its use was limited to preliminary exposure assessments. However, more accurate assessments would be needed for risk-assessment process evaluations, which is a key initiative of EFSA and which would be of relevance for scientific purposes as well. Therefore, the Concise database served as a starting point for EFSA’s later developed Comprehensive European Food Consumption Database (EFSA, 2011a), which was compiled at the end of 2008. The Comprehensive database contains more detailed and refined data on food categories and specific population groups for altogether 22 member states from 32 of the most recent national dietary surveys (for sample data, see Table 2). Built on existing domestic information on food consumption, this database contains information on the gross apparent consumption of main food items by humans, including data per capita. The database also plays a key role in the evaluation of the risks related to possible hazards, which is a fundamental domain of EFSA’s risk assessment work. Access to the data derived from the Concise and Comprehensive databases is unfortunately restricted to EFSA, but summary statistics are available on the EFSA website (EFSA, 2008a, 2011a).

Table 2: Some of the dietary surveys included in the EFSA Comprehensive European Food Consumption Database

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of the dietary survey</th>
<th>Survey period</th>
<th>Number of subjects</th>
<th>Method</th>
<th>No. of consecutive days</th>
<th>Amount reported*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Danish Dietary Survey 2000–02</td>
<td>4,118</td>
<td>Food record</td>
<td>7</td>
<td>as raw</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>FINDIET 2007 2007</td>
<td>2,038</td>
<td>48-hour recall</td>
<td>1</td>
<td>as raw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIPP 2003–06</td>
<td>1,448</td>
<td>Food record</td>
<td>3</td>
<td>combination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STRIP2000 2000</td>
<td>250</td>
<td>Food record</td>
<td>4</td>
<td>combination</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>INCA2 2005–07</td>
<td>4,079</td>
<td>Food record</td>
<td>7</td>
<td>as consumed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study</td>
<td>Years</td>
<td>Participants</td>
<td>Diet Method</td>
<td>Reporting Method</td>
<td></td>
</tr>
<tr>
<td>------------</td>
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<td>-------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>enKid</td>
<td>1998–00</td>
<td>382</td>
<td>24-hour recall</td>
<td>combination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NUT-INK05</td>
<td>2004–05</td>
<td>1,050</td>
<td>24-hour recall</td>
<td>combination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AESAN-FIAB</td>
<td>1999–01</td>
<td>1,068</td>
<td>Food record</td>
<td>as consumed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AESAN</td>
<td>2009</td>
<td>418</td>
<td>24-hour recall</td>
<td>as consumed</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>NFA</td>
<td>2003</td>
<td>2,495</td>
<td>24-hour recall</td>
<td>as consumed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RIKSMATEN</td>
<td>1997–98</td>
<td>1,210</td>
<td>Food record</td>
<td>as consumed</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>NDNS</td>
<td>2000–01</td>
<td>1,724</td>
<td>Food record</td>
<td>as cooked</td>
<td></td>
</tr>
</tbody>
</table>

* This column refers to how the consumption of food is reported in the dietary surveys (food as raw, cooked, or consumed or a combination of these).

Furthermore, in 2009, existing food classification systems were evaluated and considered not fully compatible with EFSA’s risk assessment evaluation (EFSA, 2011a). Therefore, EFSA continued to develop a preliminary food classification system, FoodEx (EFSA, 2011b), which is a hierarchical system of 20 main food categories further divided into subgroups with up to a maximum of four levels, in conjunction with the Comprehensive European Food Consumption Database. Data providers were asked to codify their national food and beverage data according to this classification system. Summary statistics now enable screening for exposure to food chain substances and include data from dietary surveys. Food consumption data for each country are divided into the following categories: age, food group, and type of consumption.

**What’s on the Menu in Europe? (EU Menu)**

Since 2009, EFSA has also developed the “What’s on the Menu in Europe?” project (EU Menu, 2014) in close cooperation with the EU member states to support the establishment of an EU-wide standardised and harmonised food consumption data collection system in order to enable the collection of comparable food consumption data across the EU within a common methodology. In February 2010, members of EFSA’s Advisory Forum signed a declaration supporting the establishment of a first pan-European food consumption survey (EU Menu, 2010). This project would allow more efficient and accurate food safety-related exposure assessments and comparisons to be carried out, with the long-term objective of collecting detailed, harmonised and comparable food consumption data, specifically, on individuals of all ages across the EU member states. The project was planned and coordinated by EFSA, with design and implementation collaboration conducted tightly with the national institutions of the member states. In the database, dietary surveys and food consumption data for each country are divided by category, which makes it possible to carry out EU-wide analyses...
and country-by-country comparisons of food consumption. These categories include: age (from infants to adults aged 75 years or older), food group (covering nearly 160 groups), and type of consumption, covering both regular and high consumption, thus allowing calculations to be tailored to each category per consumer. The collection of food consumption data is planned to be carried out from 2013 until 2017, with preparatory phases and pilot studies having been conducted from 2010 to 2012 (EU Menu, 2013). The survey is planned to be repeated in each country about every 10 years.

Other official and unofficial sources: DAFNE & EPIC

Commercial approaches to standardising food consumption data were initially addressed in projects such as Data Food Networking (DAFNE; Naska & Trichopoulou, 2001), European Prospective Investigation into Cancer and Nutrition (EPIC), and others. These data are mostly freely accessible and free of charge for the public, including data from EPIC, although for this source a prior application for access is required. EPIC acted as the first attempt to create a standardised pan-European food consumption database with data on comparable individual dietary intake, but only regarding adults and 10 European countries (Brussaard et al., 2002b; Deharveng et al., 1999).

Building on activities and experiences from projects such as DAFNE, EPIC, and Eurofoods' 'Research Action on Food Consumption and Composition Data' (COST 99), the EU Programme's 'European Food Consumption Survey Method' (EFCOSUM, 2002) for health monitoring worked toward the development of a method for a European food consumption survey that would deliver internationally comparable data pertaining to 23 countries, covering all age and gender categories, regarding policy-relevant, adequate, reliable and comparable nutritional indicators (Brussaard et al., 2002a; Brussaard et al., 2002b; de Henauw et al., 2002). Four working groups were established, each covering one of the following topics: (1) comparability of food consumption assessments; (2) comparability of food composition tables; (3) related software and statistics; and (4) operationalization of a European food consumption survey.

A review of existing European food consumption surveys conducted in 2002 as part of the EFCOSUM project was updated after eight years by the European Food Consumption Validation (EFCOVAL) project (Le Donne et al., 2011). This project offered further development and validation of a “trans-European food consumption method to be used for the estimation of the intake of foods, nutrients and potentially hazardous chemicals within the European population” (Le Donne et al., 2011, p. 122). This project included a questionnaire entitled, “Short questionnaire on the current use of food consumption data for the assessment of dietary exposure to chemical substances in the EU”, and it was administered by several representatives in 29 European countries.

Currently, according to DAFNE (2014), only the food availability data from the Household Budget Surveys are comparable at the European level. These separate projects are also carried out in a different subset of member states, in different population samples, and with different aims (Brussaard et al., 2002a). Subsequently, the EFCOSUM group decided that there is a need for harmonising food consumption data at the individual level as well and to produce internationally comparable data on a regular basis. Secondly, in order to study the relationship between diet and health and
for a proper identification of risk groups, data collection at the individual level is recommended (EFCOSUM, 2014). Additionally, comparability should be based on a common classification system, which is why these existing projects (Cost Action 99 / Eurofoods) have been formed into a Euro Food Groups (EFG) classification system, as a sort of ‘best compromise’ between all available food grouping systems (Brussaard et al., 2002b). This system evaluates to which degree food descriptions and classifications enable international comparisons of the results available from food consumption and food availability surveys. However, it became evident that a classification system of foods as ‘consumed’ should be changed into considering the raw, edible ingredients (Ireland et al., 2002). The food consumption level, however, would still be of interest to researchers in the field.

**DAFNE (Data Food Networking)**

The DAFNE (Data Food Networking) databank is based on information collected in the context of the nationally representative Household Budget Surveys (HBS) from 24 European countries, which are regularly conducted by the National Statistics offices and then standardised and post-harmonised (Ruiter et al., 2014). The HBSs collect data on food availability to household members (considering food purchases and self-made produce), as well as on the socio-demographic characteristics of households and individuals. From the abundance of data collected in the HBSs, the DAFNE network has focused on the following nutritional information: total food expenditure (food expenditures outside the household included), expenditure per food item, expenditure for eating out, type of foods purchased, and demographic and socioeconomic information (e.g., household composition, total expenditure, income); these are then post-harmonised to calculate the average daily food availability per capita. This information can subsequently be used for comparisons between and within countries. Data can also be organised into various detailed levels, ranging from 15 main food groups to 56 specific subgroups. This information is useful for ongoing initiatives to improve public health nutrition strategies and knowledge. The data are freely available at the Dafnesoft website (DAFNE, 2005, 2014).

**OECD Statistics Portal, United Nations data, and the ILO Department of Statistics**

Additionally, available data can be found at the OECD Statistics Portal (OECD Stat, 2014), which includes downloadable data on OECD countries and selected non-member economies (with the possibility to download data) on non-medical determinants of health (covers 1978 to 2010), food consumption and nutrition.

The United Nations Statistics Division (UNSD) of the Department of Economic and Social Affairs (DESA) offers numerous databases which cover a wide range of themes, including health and food consumption expenditure. The UNECE Statistical Database (United Nations Economic Commission for Europe) provides free, easily accessible and regularly updated online access to data on health and time use issues collected from national and international sources of official statistics for the 56 UNECE member countries. Data are organised by subject or policy areas. Multidimensional tables present data by country and time period, and various socioeconomic classifications related to the context. The development team of this division is continuously adding new sub-databases and features to further enhance the data’s usefulness for global...
users. When it will be fully developed, UNdata will have a comprehensive array of international and national sub-databases providing researchers instant access to a wealth of statistical information.

24 The Classification of individual food consumption by purpose (COICOP; United Nations, 2014) is a reference classification developed by the United Nations Statistics Division (UNdata, 2014; UNECE, 2014) to classify and analyse annual individual dietary expenditure data incurred by households, non-profit institutions serving households, and the general government. It includes many expenditure categories, such as food consumption data, use of health and medical services, and food sales by catering and restaurant services. The main purpose of this statistical source, at the national level, is to update the weights of the bucket of goods and services used for the calculation of the harmonised index of consumer prices (HICP). However, it may also be used for many other purposes among researchers at either a national or European level, such as for economic studies, social analyses and market research. Electronic versions of the complete classification system are downloadable for non-commercial use, in PDF format within a ZIP folder, free of charge.

25 Finally, the ILO Department of Statistics (2014) offers researchers Household Income and Expenditure Statistics in LABORSTA, an International Labour Office database on various labour statistics, for example. There is an option for downloading data from this website.

Conclusions

26 This brief review of access to relevant data sets implies that there is indeed a limited set of materials available regarding these themes of interest: comparable food consumption, nutritional inquiries, and related health status data across the EU member states. In searching for relevant data sources, this study found that there is currently no harmonised system of food consumption data available at the EU level. Furthermore, member states have differing national systems for research management, and information is poorly standardised for comparisons. Food and health research is currently focusing on food safety, and while important as such, future research and available data should also address a wider range of policy issues and nutritional determinants of health (for a review, see more information on the European Union funded study FAHRE, Food and Health Research in Europe, McCarthy et al., 2013), which should be of great interest for researchers in the field of social sciences. Furthermore, the coordination of research in the food domain should be extended to or linked with that of the health domain in order to determine appropriate nutrition levels of food intake to reduce diseases, for the well-being of citizens and because such knowledge may also yield major economic and social benefits in national economies. This requires responsibility, and close cooperation and coordination between member state ministries and the European Commission (McCarthy et al., 2013). However, it is anticipated that policies supporting and guiding the development of food consumption databases both at the national and the EU supranational level will increase accordingly (de Henauw et al., 2002).

27 Furthermore, most of the studies concerning the heterogeneity of food consumption and nutrition intake in Europe have been conducted using cross-sectional data (Traill, 1998). Uniform comparable data would be vital for new emerging research programmes
with a longitudinal framework related to the sociology of eating. Access to uniform data on food consumption, dietary patterns and individual dietary components across the EU is fundamental, for example, for dietary monitoring to evaluate both positive and negative effects of nutrition and food on health, to refine public long-term health policies, and to develop interventions to curb health epidemics and lifestyle diseases such as type 2 diabetes (Hu, 2002). Such uniform data may also help to explain, among other things, institutional and societal circumstances and national variation in cultural norms underpinning the variation in the levels and changing rates of obesity and of the incidence of type 2 diabetes. Diet is, after all, one of the many important determinants of health that can be improved by appropriate intervention methods (Brussaard et al., 2002a).

Concerning methodology, an important comment needs to be made concerning the different databases that are currently available. In the HBSs, household food consumption is conceived as household food availability (in other words, ‘all food that enters the household’, i.e., ingredients and foods as purchased), as opposed to household food intake (Ruiter et al., 2014, p. 160). Although existing European food consumption surveys have aimed to measure nutrient intake in the population (Le Donne et al., 2011), according to this present review there presently exists no uniformly standardised and harmonised databank on food intake at the EU level. Recent developments in the field merely included the use of the information available from the Concise European Food Consumption Database covering 19 EU member states (EFSA, 2008a, 2008b), and from the Comprehensive European Food Consumption Database covering 20 member states (EFSA, 2009). EFSA’s Comprehensive database is currently the best available official source of food consumption data at the EU level (EFSA, 2011a). However, the use of these data for direct country-by-country comparisons is not advisable because the database is comprised of data collected using different survey methodologies, different age group clusters, and diverse food categorisation systems. Secondly, access to data per capita is restricted to EFSA officials, but summary statistics are available to the public. In conclusion, although the EFCSUM and DAFNE projects, for example, have made a significant contribution to the field of existing data sources, as acknowledged by Brussaard et al. (2002b) in their article, major work still needs to be done in order to achieve comparability at the food-intake level. A minimum set of dietary indicators as relevant determinants of health need to be identified, and data need to be collected at the individual level.

Perhaps private and commercial databases contain some better data, but these were not included in the present review. For example, Marketresearch.com has provided commercial data to companies since 1998, on products, trends, regions, demographics, industries and businesses — data drawn from over 700 research publishers and 300,000 research reports. Furthermore, the EuroFIR (European Food Information Resource; Deharveng et al., 1999) project acts as an establishment of the first comprehensive pan-European food information resource and is based on previous international collaborations; it emphasises the importance of implementing a quality assurance framework (Castanheira et al., 2009). These private databanks should be considered further in future studies related to the availability of cross-national data.

The collection of accurate and detailed food consumption data collected within a harmonised methodology across Europe is still a primary long-term objective for EFSA, and it is being given top priority for collaboration between the EU member states.
through the EU Menu project (2010, 2014) in order to establish an EU-wide standardised food consumption data collection system. In addition to efficient and accurate exposure assessments, the described EU Menu project would also support risk managers in their decision making on food safety issues and would be of interest for the scientific community as well. Furthermore, it would also assist policy makers in assessing the nutritional status of population groups, setting targets regarding healthy diets and monitoring progress over time. In that way, the EU Menu could contribute to safer food and healthier diets for all European citizens. Eurostat has also issued regular recommendations for further harmonisation of the survey information it provides, offering mutual classifications and coding systems as well as providing a methodological document with the technicalities of the national surveys and a consolidated EU quality report (Household Budget Surveys, HBS). Taking into account the widespread differences and growing nutritional and related health care problems and phenomena, the future possibilities of these resources for scientific use will be of even greater and growing interest to academic researchers in the social sciences in the future.

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ABSTRACTS

This study provides an overview of available data resources for conducting systematic comparative analyses relating to health and risk issues concerning eating habits and food cultures in the EU. The study draws on data collected in the European Union (EU) and includes EU statistics (via Eurostat), national economic accounts, policy documents, various survey studies (e.g., European Food Consumption Survey Method, EFCOSUM), and related projects (e.g., Data
Food Networking, DAFNE; EPIC). The results show that nutritional inquiries are scarce and the amount of relevant information is limited: there are currently no harmonised data available on food consumption at the EU level. The collection of accurate and detailed data is a primary, long-term objective. Access to uniform data on food consumption across the EU is fundamental for dietary monitoring in evaluating nutrition and public long-term health policies.

Cette étude fournit une présentation des sources de données disponibles concernant les habitudes et cultures alimentaires dans l’Union Européenne (UE) qui pourraient servir à des analyses comparatives. L’article se fonde sur une étude pilote menée sur les habitudes alimentaires dans l’UE et inclut des statistiques de l’UE (Eurostat), des comptes économiques nationaux, des documents politiques, plusieurs enquêtes (par ex. European Food Consumption Survey Method, EFCOSUM) et les projets qui leur sont liés (par ex. Data Food Networking (DAFNE), EPIC), ainsi que des articles scientifiques. Les résultats montrent la rareté des investigations nutritionnelles et de l’information sociologiquement pertinente: il n’y a pas, actuellement, de données harmonisées sur la consommation alimentaire au niveau de l’UE. Le recueil de données précises et détaillées est un objectif essentiel à long terme. L’accès à des données uniformes concernant la consommation alimentaire au sein de l’UE est important pour le suivi nutritionnel et la politique de santé publique à long terme.

INDEX

Keywords: dietary survey, data base, eating habits, food consumption, comparative study, European Union, health care

Mots-clés: enquête alimentaire, base de données, habitudes alimentaires, étude comparative, Union Européenne, services de santé

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