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Short communication

OQALI: A French database on processed foods☆

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ABSTRACT

The French Observatory of Food Quality (OQALI) is a project implemented in 2008, by the French Agency for Food, Environmental and Occupational Health Safety (ANSES) and the French National Institute for Agronomic Research (INRA). It first aim is to develop indicators on nutritional variability and on the quantity and quality of labelling parameters, by food sector and possibly by type of brands. These indicators could be weighted by market shares, so as to reflect the nutritional impact of the processed foodstuffs most frequently sold. The second OQALI aim is to follow up the possible changes of these indicators over years.

Data are collected at the product level to assess this nutritional variability. Product labels or manufacturers are the main sources of information. Some foodstuffs without nutrition labelling can be analyzed.

Each product is described in the OQALI database as presented on the packaging. A new product is created whenever a new element is detected on the packaging. The OQALI database is designed to monitor any nutritional or labelling changes on foodstuffs. It is an essential tool to meet public health challenges and consumer expectations on nutritional information.

1. Introduction

Some major uses of national food composition databases (FCDB) are to study nutrient intakes (combined with consumption data) or to establish nutrition labelling. Like the CIQUAL FCDB, at the French Agency for Food, Environmental and Occupational Health Safety (ANSES), the former French Food Safety Agency (AFSSA) (Afssa_Ciqual, 2008), databases generally provide aggregated nutrient values, which result from several single values of generic foods. These values may be obtained from the literature or analyses on composite samples representative of national market shares.

The French Observatory of Food Quality (OQALI) is a project set up in 2008 as part of the French National Nutrition and Health Programme 2006–2010. The specificity of this project consists in monitoring global changes in the French food supply over time. Therefore, all labelling parameters provided on the products packaging (type of nutrition labelling, nutrition and health claims, etc.), are collected at the branded products level. Economic data are also collected such as market shares and types of brand: national brands, store brands, economy lines of retailers (first-price products) and discount brands. The objective is to progressively cover all food sectors (e.g. breakfast cereals, fresh dairy products or sweet biscuits) and to be representative of the French food market.

At the moment, nutrition labellings are often used to estimate nutrient values when analytical results are not available (Marcoe and Haytowitz, 1993; Schakel et al., 1988; Windham and Hansen, 1984), and generally for commercial foods that have a more and more complex composition (Southgate and Greenfield, 1992). Data on branded foodstuffs are very useful for nutritional studies using household purchases (Southgate and Greenfield, 1992). However, the source of information provided by labels is not extensively used by many databases yet. The US Food and Drug Administration (FDA) database collected information on labels for the Food Label and Package Survey (FLAPS). This survey, conducted on 1227 foods in 57 product groups, estimated the frequency of nutrition labelling and claims but did not use nutrition labelling as a source of data for nutrient values (Brandt et al., 2009; Brecher et al., 2000).

☆ The content of this publication does not necessarily reflect the views of the ANSES and the INRA, both in charge of the Observatory.

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It showed a good agreement between the label claims for sodium and its amount in the studied products (Cook et al., 1990). The British Food Standards Agency (FSA) has also developed a database on 1094 processed foodstuffs in 29 categories (FSA). Up to now, labels seem to have been more frequently used to fill and update composition databases on dietary supplements: the American Dietary Supplement Ingredient Database (DSID) (Roseland et al., 2008), the work of the Office of Dietary supplements at the National Institutes of Health in the USA, or the specific survey on nutrient intakes from supplements of Hawaii Cancer Research Center (Murphy et al., 2007; Park et al., 2008) could be cited as examples.

The first aim of the OQALI project is to develop indicators on nutritional variability and on the quantity and quality of labelling parameters, by food sector and possibly by type of brands. These indicators could be weighted by the market shares of the studied products, so as to reflect the nutritional impact of the processed foodstuffs most frequently sold. The second aim of the OQALI project is to follow up the possible changes of these indicators over years.

2. Types and sources of data for the OQALI database

2.1. Nutritional data

The specificity of the OQALI database is to collect data on branded foodstuffs. Systematic nutritional analyses would be too expensive to be carried out on all commercial products. Therefore, the major source of data for the OQALI database is the product packaging. Some (but not all) commercial products provide a large amount of data on nutrition and food quality on the packaging. All labelled indications presented in the product sheet part (Fig. 1) are entered in the OQALI database such as the nutrition labelling values, the nutrition and health claims.

As the monitoring is done at the product level, only a limited number of nutrients can be studied due to financial and practical reasons. Indeed, the major studied nutritional parameters are the eight components of the 'group 2' nutrition labelling (Table 1) as defined in amended Directive 90/496/EEC (European Community, 2008). Other nutrients may be studied according to the specificities of the surveyed food sectors (e.g. calcium for dairy products).

Table 1
Nutrients groups of the nutrition labelling.

Nutrition labelling*	
Group 1	Group 2
Energy value	Energy value
Protein	Protein
Carbohydrates	Carbohydrates
Fat	Sugars
	Fat
	Saturated fat
	Fibre
	Sodium
And sometimes other micronutrients	

* As defined in amended Directive 90/496/EEC (European Community, 2008).

However, nutrition labelling is currently not mandatory and could concern only the four components of the 'group1' nutrition labelling (Table 1). For the OQALI project, analyses can be conducted on foodstuffs with no or a less detailed nutrition labelling. Single or composite samples are created, according to the specificities of the food sector, the sampling costs, the number of foodstuffs without nutrition labelling and possibly their market shares. As nutrition labelling is the major source of data for the OQALI database, protein content is calculated from the nitrogen content using 6.25 as conversion factor, as defined in Amended Council Directive 90/496/EEC of 24 September 1990 on nutrition labelling for foodstuffs (European Community, 2008). Available carbohydrate contents are calculated (100 g subtracted by the sum of the water, ash, protein, fat and dietary fibre contents) and total sugar contents are calculated by summing the analytical results of all monosaccharides and disaccharides, following the definition for sugars in Amended Council Directive 90/496/EEC.

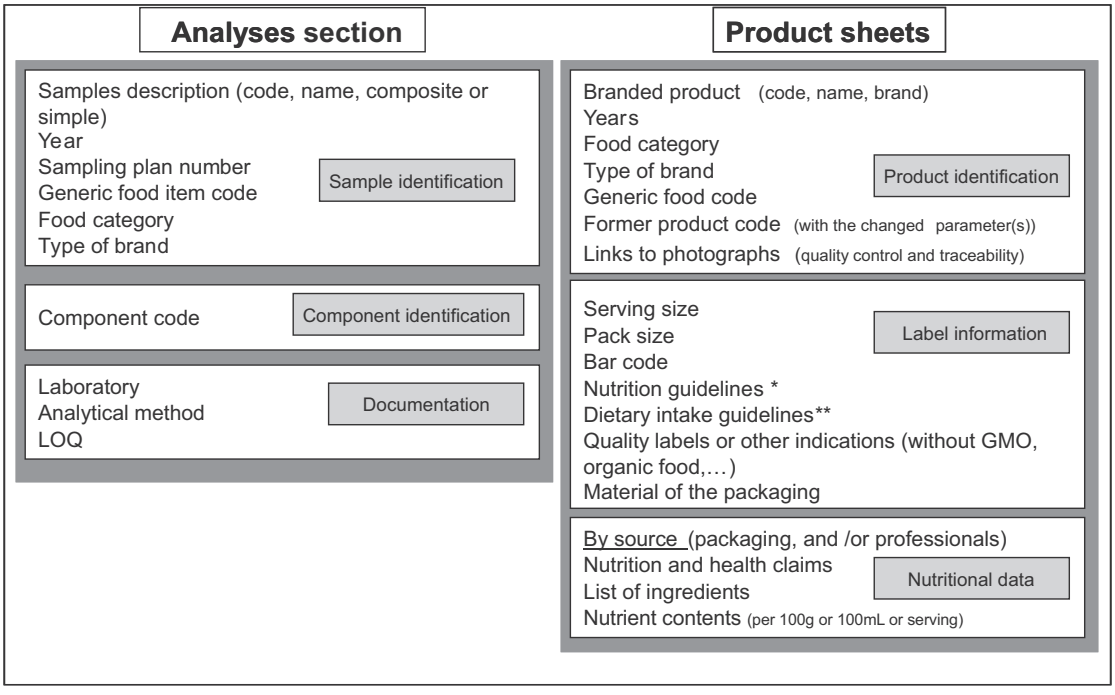

Fig. 1. Structure of the OQALI database and collected data.