The French Observatory of Food Quality (Oqali)

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INTRODUCTION

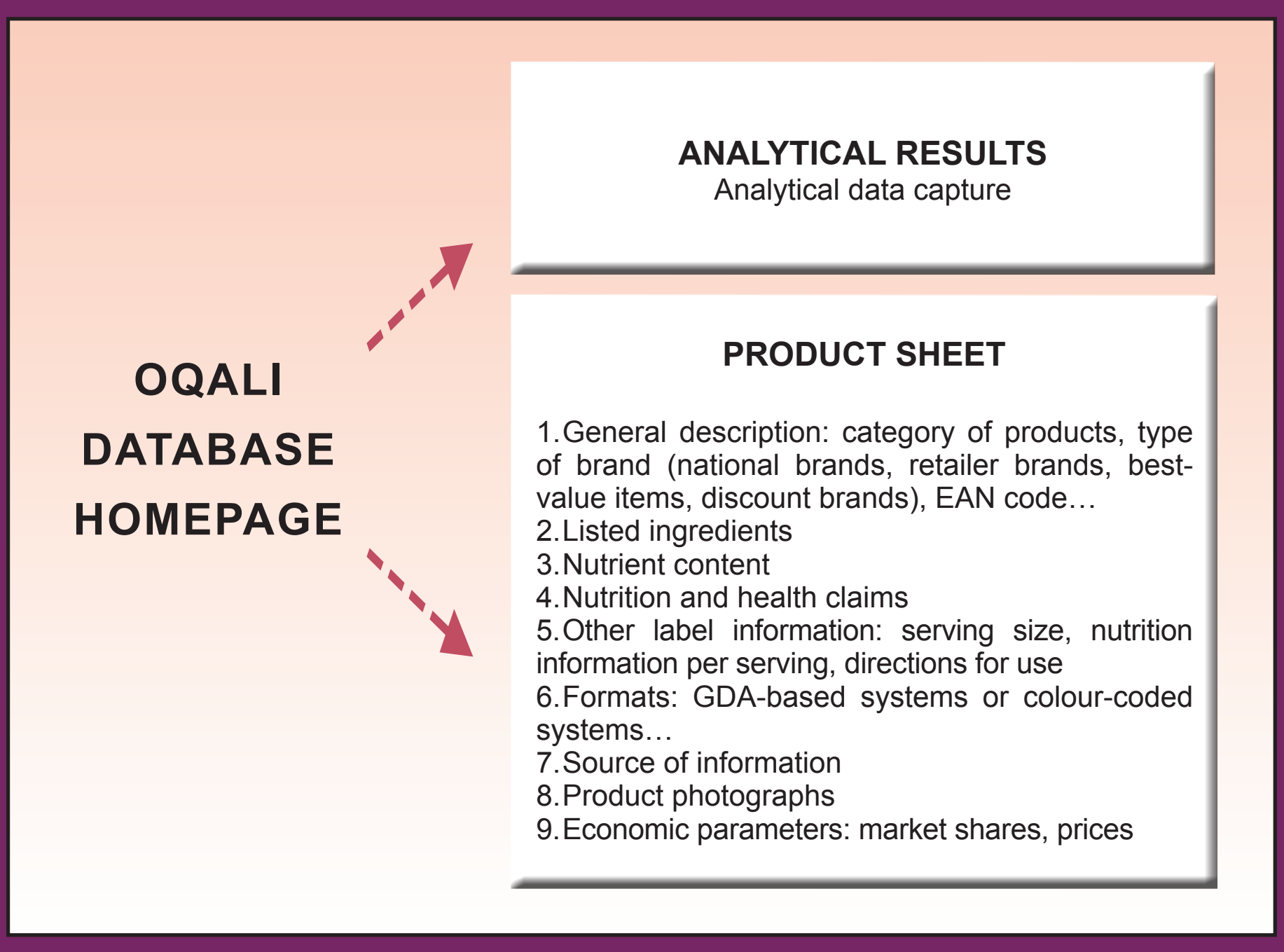
The French Observatory of Food Quality (Oqali) was set up in February 2008 by the Ministries in charge of Agriculture, Health and Consumer Affairs. It is financed and supervised by the three ministries. The implementation is entrusted to INRA (French National Institute for Agronomic Research) and Afssa (French Food Safety Agency).

THE OBSERVATORY AS PART OF THE PUBLIC HEALTH POLICY

Oqali was created as part of the French National Nutrition and Health Programme 2006-2010 (PNNS 2). The general objective of this programme consists in improving the state of health of the whole population by acting on the nutrition.

Several action plans have been established aimed, on the one hand, at educating consumers and promoting guidelines to popularize the concept of a balanced diet and regular exercise and, on the other hand, at acting on the food supply and further encouraging the economics operators to improve the nutritional quality of their products.

Diagram 1: OQALI DATABASE



OQALI DATABASE HOMEPAGE

ANALYTICAL RESULTS
Analytical data capture

PRODUCT SHEET

1. General description: category of products, type of brand (national brands, retailer brands, best-value items, discount brands), EAN code…
2. Listed ingredients
3. Nutrient content
4. Nutrition and health claims
5. Other label information: serving size, nutrition information per serving, directions for use
6. Formats: GDA-based systems or colour-coded systems…
7. Source of information
8. Product photographs
9. Economic parameters: market shares, prices

Oqali has been recommended in the worksheet "Acting on the food supply" to monitor the global changes in the food supply by measuring differences and trends in the nutrient content of processed and packaged foodstuffs in relation to economic parameters in the French market. Oqali also provides tools to assess the effectiveness of the actions engaged by the food chain to improve nutritional quality. It represents an essential tool to meet public health challenges and consumer expectations on nutritional information.

OQALI DATABASE

The Observatory records the data collected on processed foodstuffs in a database. The information is gathered for each specific foodstuff, which is described using all the information appearing on the packaging, by means of several tables (diagram 1).

To collect nutritional data, Oqali uses information provided by manufacturers and retailers, information available to consumers (on the packaging) and nutrient analyses, when information is missing. Economic parameters are obtained from surveys and panels data on French food consumption and food purchases.

Data concerning different groups of food products has already been collected in 2008: breakfast cereals, sweet biscuits and fresh dairy products (diagram 2).

Diagram 2: DATA AVAILABLE

2008	Breakfast cereals	Sweet biscuits	Fresh dairy products
Data available (number of products)	355	1118	707
Categories of products (number)	10	27	7
Market coverage (according to TNS Worldpanel data on French household purchases)	75.5% (TNS 2008)	44.6% (TNS 2008)	80% for each food product studied (TNS 2004)
Studies	Nutrient content: nutrition information on labels Purchasing data Food labelling	Nutrient content: nutrition information on labels Purchasing data Food labelling	Nutrient content: nutrition information on labels, analytical data and comparison between them Food labelling
Retrospective data (number of products)	153	269	-

METHODS

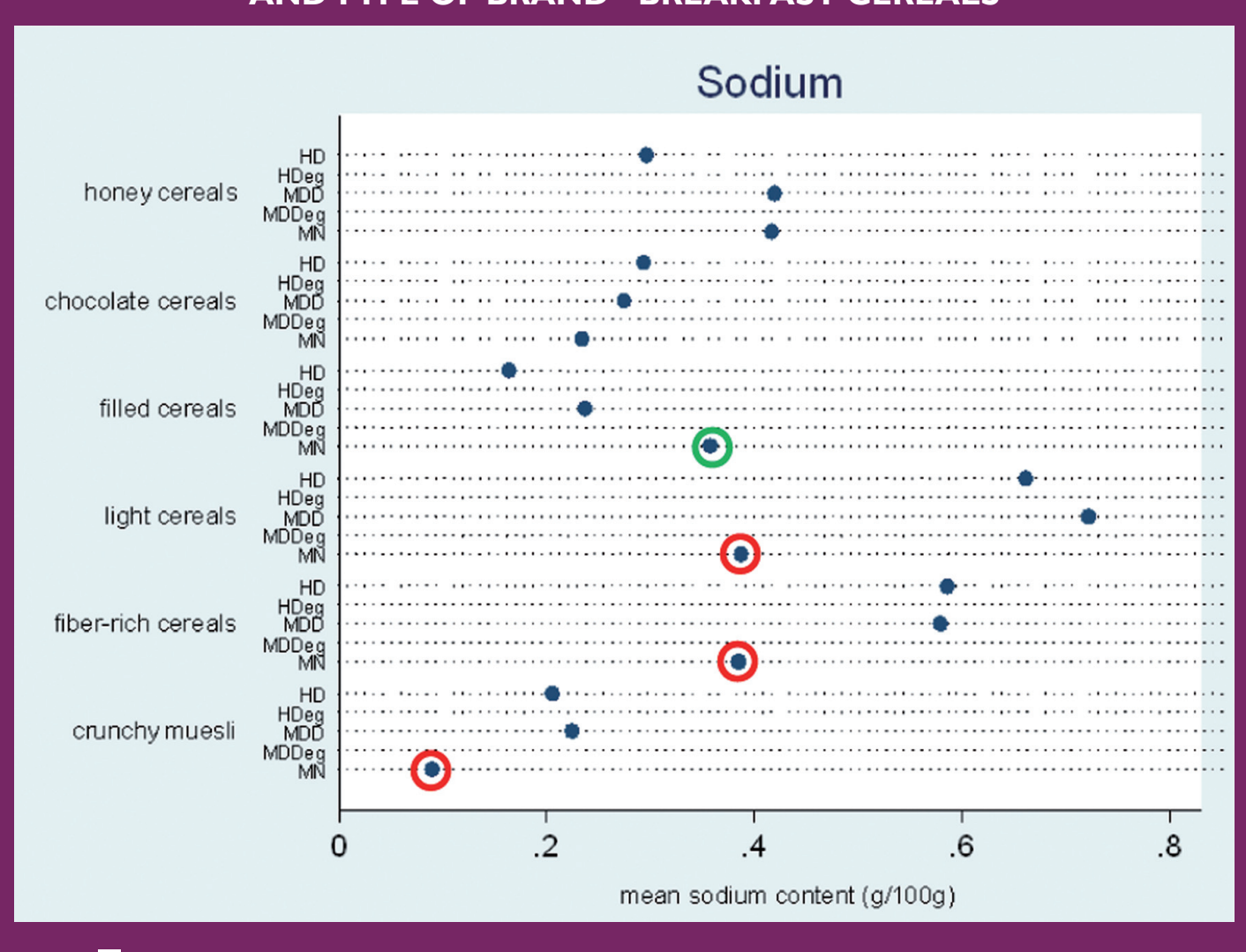
For each category and type of brand, Oqali has analysed all the collected information to describe products characteristics: nutritional values have been cross-referenced with economic data provided by consumer panels. Packaging related-data was also analyzed. The anonymity of collected data is always preserved. The main types of studies are Kruskal-Wallis test, boxplots, twoway scatterplots and multivariate statistics.

MAIN RESULTS

Oqali has published different reports, available online (www.oqali.fr), presenting the main results of the data processing. In the product groups studied, differences in the nutritional composition are essentially related to the classification into categories. Within a category of products, there are differences in the nutritional composition depending on the type of brand. However, these are isolated differences (related to a small number of products) and should not be considered as systematic (the type of brand classification according to the average nutrient content differs from one category to another).

In addition, the nutritional information available on packaging is less complete for best-value items (diagrams 3-8).

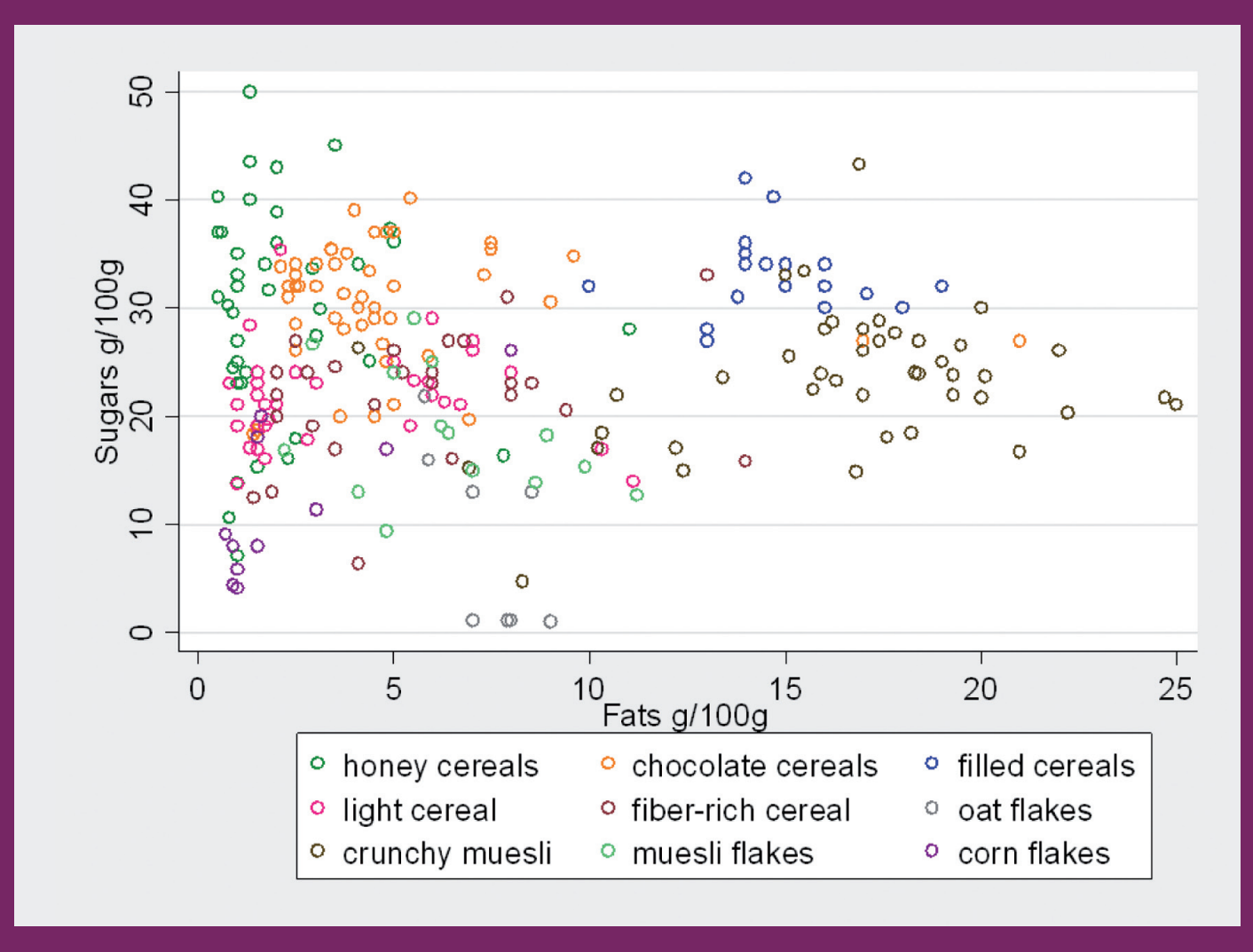
Diagram 3: MEAN SODIUM CONTENT COMPARISON PER CATEGORY AND TYPE OF BRAND - BREAKFAST CEREALS



○ National brands significantly lower than other types of brands (Kruskal-Wallis test)
○ National brands significantly higher than other types of brands (Kruskal-Wallis test)
HD: discount brands – mid range; MDD: store brands – mid-range; MN: national brands; MDDeg: store brands - low-price products; HDeg: discount brands – low-price products

Within each category of products, there are isolated means per type of brands and no general tendency. These results have been confirmed by the Kruskal-Wallis test.

Diagram 4: TWOWAY SCATTER FATS/SUGARS – BREAKFAST CEREALS



Nutrient content mainly differs according to categories of products. These results have also been confirmed by multivariate statistics (linear discriminant analysis).

Diagrams 5-6: CATEGORIES OF PRODUCTS TWOWAY SCATTERS - BREAKFAST CEREALS

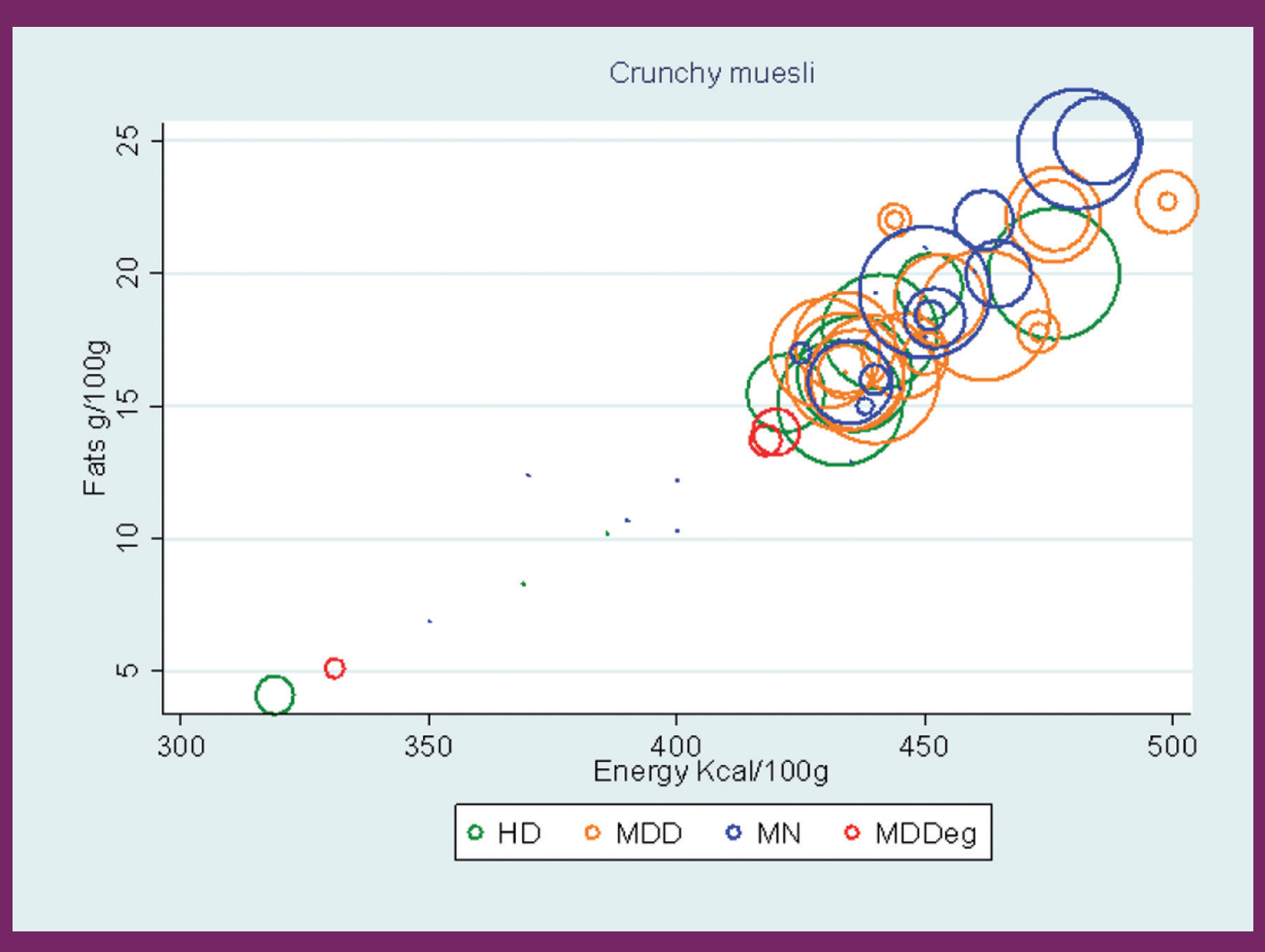


Diagram 5: ENERGY/FATS – CRUNCHY MUESLI
HD: discount brands – mid range; MDD: store brands – mid-range; MN: national brands; MDDeg: store brands - low-price products; HDeg: discount brands – low-price products

Correlation between energy and fat for crunchy cereals.

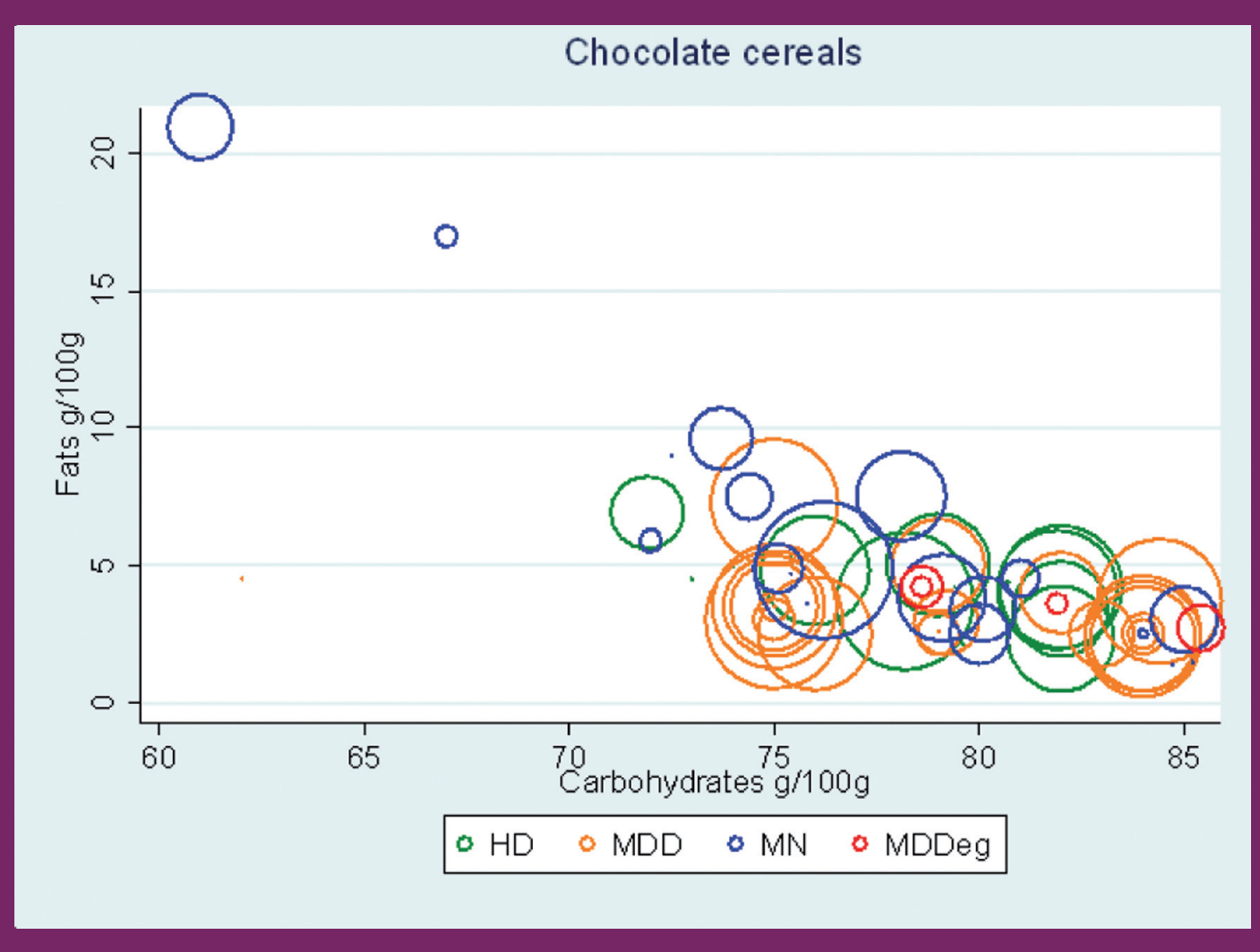
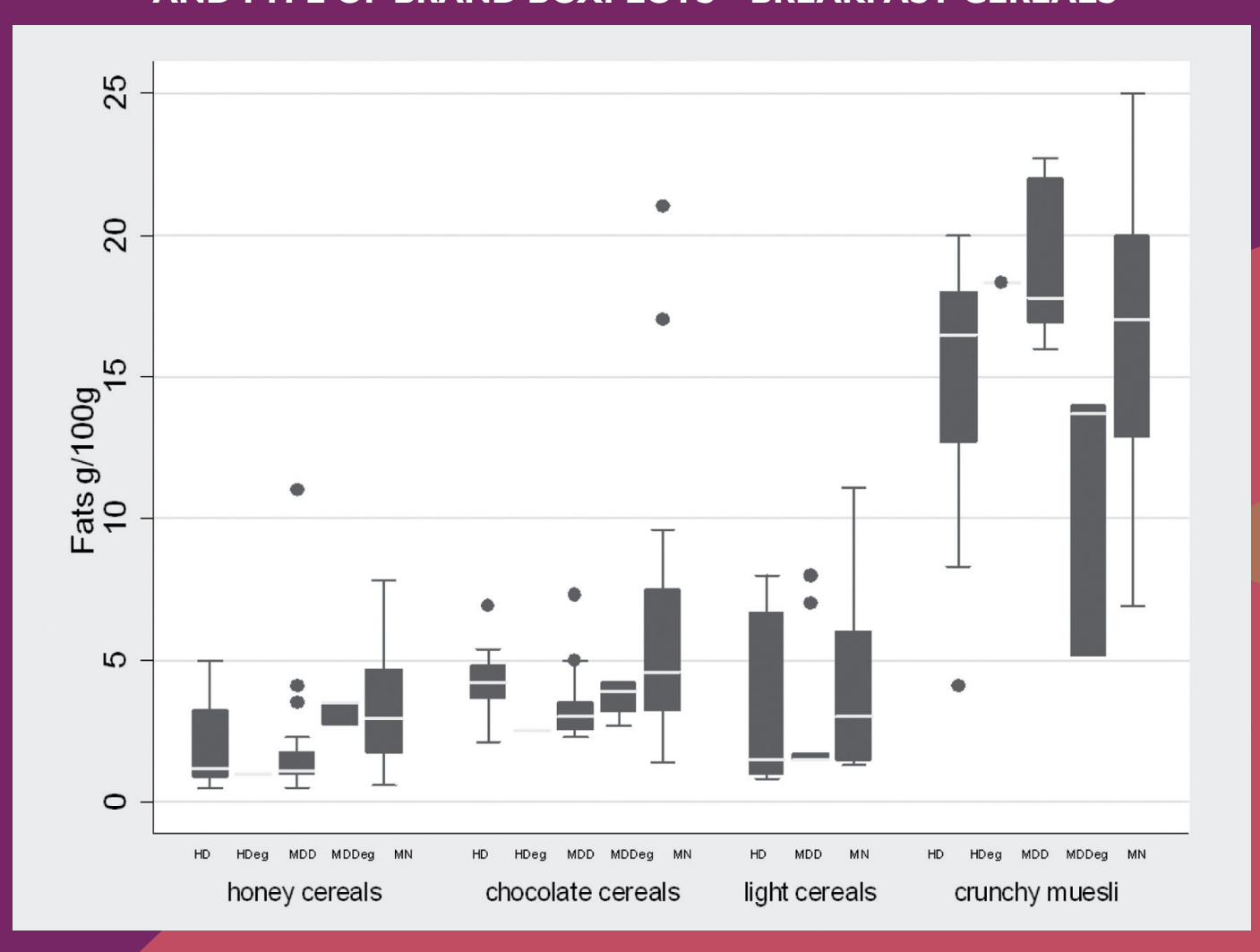


Diagram 6: CARBOHYDRATES/FATS – CHOCOLATE CEREALS
HD: discount brands – mid range; MDD: store brands – mid-range; MN: national brands; MDDeg: store brands - low-price products; HDeg: discount brands – low-price products

Substitution between fats and carbohydrates for chocolate cereals.

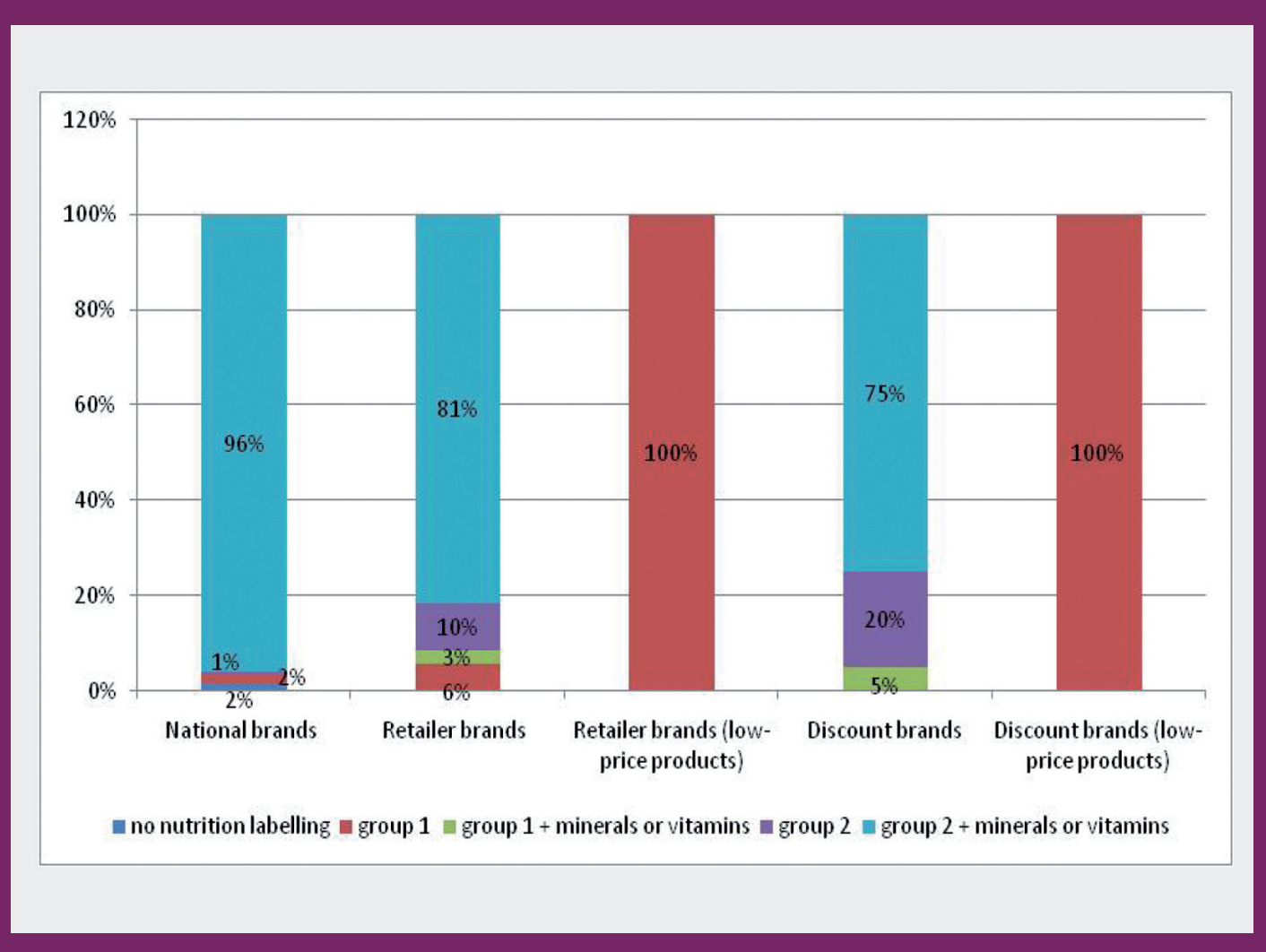
Diagrams 7: CATEGORIES OF PRODUCTS AND TYPE OF BRAND BOXPLOTS – BREAKFAST CEREALS



HD: discount brands – mid range; MDD: store brands – mid-range; MN: national brands; MDDeg: store brands - low-price products; HDeg: discount brands – low-price products

Dispersion of fats content for crunchy muesli is higher (all types of brands taken together) than for light, chocolate or honey cereals. Within each category, differences of fats content between types of brands are not systematic.

Diagram 8: NUTRITION LABELLING PER TYPE OF BRAND – BREAKFAST CEREALS



Nutritional information available on packaging is less complete for low-price products (retailer and discount brands).

IMPORTANCE OF THE PARTNERSHIP WITH THE FOOD PROFESSIONALS

The Observatory collaborates with manufacturers and retailers in the food chain. This partnership facilitates the collection of information and is of key importance for the validation of the methods used to aggregate and analyse the data. In addition, the collaboration allows a better description of the product groups and a more relevant choice of the published indicators.

Manufacturers, who provided data, will be able to retrieve them from the Oqali database. If required, Oqali supplies specific analyses to the manufacturers in order to enable the comparison of their products with the others in the same group. Manufacturers can use these analyses to promote their products and the partnership with the Observatory.

CONCLUSIONS AND PERSPECTIVES

In conclusion, the nutrient content mainly differs according to categories of products and differences between types of brands are not systematic.

Up to now, we have measured the nutritional quality of three groups of food products in 2008. However, every year, we keep on collecting data for these groups in order to monitor the evolution of their nutritional quality, always in relation to economic parameters. This represents the most interesting point of the Observatory.

This approach is continuously expanded to include additional product groups: pre-packed meat products; jams, stewed and canned fruits; juices and soft drinks; chocolate and chocolate-based products; prepared meals (chilled, frozen and canned); crackers and cocktail biscuits; bread-based products.

The final aim is to insure progressively the monitoring of all product groups in the French diet.

www.oqali.fr

Conception et réalisation : Oqali - 2009