Front of Pack labelling:
Evidence base for regulation

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Works of the observatory of food quality

Example of soft drinks
Sugar content 2018 VS 2011 – Breakfast cereals

- **Chocolate/caramel flavoured cereals**
  - 2008: (N=4)
  - 2011: (N=12)

- **Light cereals**
  - 2008: (N=66)
  - 2011: (N=70)

- **Filled cereals**
  - 2008: (N=31)
  - 2011: (N=52)

- **Fibre-rich cereals**
  - 2008: (N=28)
  - 2011: (N=24)

- **Muesli flakes**
  - 2008: (N=26)
  - 2011: (N=20)

- **Honey/caramel sweet cereals**
  - 2008: (N=46)
  - 2011: (N=61)

- **Crunchy muesli**
  - 2008: (N=55)
  - 2011: (N=85)

- **Cornflakes/other plain cereals**
  - 2008: (N=15)
  - 2011: (N=20)

Sugar content in grams per 100g: 0, 10, 20, 30, 40, 50, 60

Significance level: p = 0.005
France: the National Nutrition and Health Programme

• An intersectorial programme. Food intakes and physical activity
• Since 2001
• Quantified objectives (on obesity, undernutrition, food intakes, nutritional intakes, physical activity level...)
• Various strategies: Voluntary and Mandatory / Public and Private / education-environment-health system-monitoring-research

A global emphasis on prevention

Art. L. 3232-8.- In order to facilitate the choice of the consumer with regard to the supply of energy and nutrients to his diet [...] the mandatory nutrition declaration provided for by the regulation (EU) n°1169/2011 may be accompanied by a presentation or a supplementary expression by means of graphs or symbols, under the conditions laid down in Article 35 of that Regulation
Introduction

A Front of Pack (FoP) labelling scheme - A mean to:
• Help the consumer to make an healthier choice at the purchase level (under time pressure constraint)
• Push the producers to reformulate the products for a health benefit for all (and to show this)
• Help the Healthcare professionals for their nutritional counselling

The scientific background for the decision is crucial to:
• Evaluate the impact according to the objective ("true life")
• Get the confidence of the consumers
• Involve the producers in using the logo (as it is voluntary...)

An European Legislation
Since March 2015: A wide consultation involving consumers, producers, retailers and scientists.

✓ A demand from the consumers to have **one and only one system**, understandable by all, elaborated in a transparent way.

✓ A proposal, accepted by all, made by the “Fonds Français pour l’Alimentation et la Santé” to conduct a study in “real life conditions” **to analyse the impact of a FoP nutritional labelling on the nutritional quality of food purchases**.

✓ Why?
  • No study proved its impact in real life.
  • An important step to federate the various actors.
  • Based on the voluntary will (by the European regulation).
An agreed governance for the study

✓ **A Steering Committee** (Co Chaired by the DGS and the chairman of the FFAS; consumers, research institutes, economic actors; the National Health Insurance; DG Santé is invited)

✓ **An independent Scientific Committee** (Chaired by a High Level Civil Servant) with 12 multidisciplinary experts (with declarations of interest)

✓ **An operational responsibility** (FFAS)
Objective: to differentiate systems on the basis of their impact on the nutritional composition of shopping baskets. The nutritional quality of the baskets will be evaluated with a measuring system allowing comparisons between baskets.

Protocol (summary)

✓ Various scientific works published in international scientific peer reviewed journals have shown the link between the level of this score (calculated on the average diet of individuals) and the occurrence of cancers, cardiovascular diseases, obesity or the metabolic syndrome.

✓ The main criteria for evaluation

The UK Ofcom Nutrient Profiling Model

Defining ‘healthy’ and ‘unhealthy’ foods and drinks for TV advertising to children

Mike Rayner, Peter Scarborough, British Heart Foundation Health Promotion Research Group, Department of Public Health, University of Oxford

FSA score:
From -15 to +40
Calculation of the FSA score

<table>
<thead>
<tr>
<th>Nutriment /100g</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energie (KJ)</td>
<td>0-10</td>
</tr>
<tr>
<td>Sucres simples (g)</td>
<td>0-10</td>
</tr>
<tr>
<td>Acides gras saturés (g)</td>
<td>0-10</td>
</tr>
<tr>
<td>Sodium (g)</td>
<td>0-10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elément /100g</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits, légumes, légumineuses, noix (%)</td>
<td>0-5</td>
</tr>
<tr>
<td>Fibres (g)</td>
<td>0-5</td>
</tr>
<tr>
<td>Protéines (g)*</td>
<td>0-5</td>
</tr>
</tbody>
</table>

Points négatifs (N) 0-40 points
Points positifs (P) 0-15 points

SCORE FINAL N-P

-15 Meilleure qualité nutritionnelle
40 Moins bonne qualité nutritionnelle

Calcul utilisant les données du tableau des valeurs nutritionnelles obligatoires par le règlement INCO
*La prise en compte des protéines dépend du niveau de points N et de fruits et légumes dans le produit

Source : Haut conseil de la santé publique 2015
Points attribués à chacun des éléments de la composante dite « négative »

<table>
<thead>
<tr>
<th>Points</th>
<th>Energy (KJ/100g)</th>
<th>SFA (g/100g)</th>
<th>Sugars (g/100g)</th>
<th>Sodium¹ (mg/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>≤ 335</td>
<td>≤ 1</td>
<td>≤ 4,5</td>
<td>≤ 90</td>
</tr>
<tr>
<td>1</td>
<td>&gt; 335</td>
<td>&gt; 1</td>
<td>&gt; 4,5</td>
<td>&gt; 90</td>
</tr>
<tr>
<td>2</td>
<td>&gt; 670</td>
<td>&gt; 2</td>
<td>&gt; 9</td>
<td>&gt; 180</td>
</tr>
<tr>
<td>3</td>
<td>&gt; 1005</td>
<td>&gt; 3</td>
<td>&gt; 13,5</td>
<td>&gt; 270</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 1340</td>
<td>&gt; 4</td>
<td>&gt; 18</td>
<td>&gt; 360</td>
</tr>
<tr>
<td>5</td>
<td>&gt; 1675</td>
<td>&gt; 5</td>
<td>&gt; 22,5</td>
<td>&gt; 450</td>
</tr>
<tr>
<td>6</td>
<td>&gt; 2010</td>
<td>&gt; 6</td>
<td>&gt; 27</td>
<td>&gt; 540</td>
</tr>
<tr>
<td>7</td>
<td>&gt; 2345</td>
<td>&gt; 7</td>
<td>&gt; 31</td>
<td>&gt; 630</td>
</tr>
<tr>
<td>8</td>
<td>&gt; 2680</td>
<td>&gt; 8</td>
<td>&gt; 36</td>
<td>&gt; 720</td>
</tr>
<tr>
<td>9</td>
<td>&gt; 3015</td>
<td>&gt; 9</td>
<td>&gt; 40</td>
<td>&gt; 810</td>
</tr>
<tr>
<td>10</td>
<td>&gt; 3350</td>
<td>&gt; 10</td>
<td>&gt; 45</td>
<td>&gt; 900</td>
</tr>
</tbody>
</table>

¹ Salt/2,5.
Points attribués à chacun des nutriments de la composante dite « positive »

<table>
<thead>
<tr>
<th>Points</th>
<th>Fruits, vegetables, pulses, fruits à coque (g/100g)</th>
<th>Fibers (g/100g) Method NSP²</th>
<th>Method AOAC³</th>
<th>Proteins (g/100g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>≤ 40</td>
<td>&lt;0,7</td>
<td>≤ 0,9</td>
<td>≤ 1,6</td>
</tr>
<tr>
<td>1</td>
<td>&gt; 40</td>
<td>&gt;0,7</td>
<td>&gt; 0,9</td>
<td>&gt; 1,6</td>
</tr>
<tr>
<td>2</td>
<td>&gt; 60</td>
<td>&gt;1,4</td>
<td>&gt; 1,9</td>
<td>&gt; 3,2</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>&gt;2,1</td>
<td>&gt; 2,8</td>
<td>&gt; 4,8</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>&gt;2,8</td>
<td>&gt; 3,7</td>
<td>&gt; 6,4</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
<td>&gt;3,5</td>
<td>&gt; 4,7</td>
<td>&gt; 8,0</td>
</tr>
</tbody>
</table>
Evaluation in « real conditions »

2 synthetic

"NUTRI SCORE »

« SENS »

2 analytic

"NUTRI REPERE »

« NUTRI COULEURS »
Implementation (1)

10 weeks
From September 26 to December 4, 2016

4 Supermarkets shelves
- Fresh prepared foods
  (not snacking, processed meat, sea products)
- Industrial Viennoiserie
  (sweet breads, croissants...)
- Breads and industrial pastries
  (soft breads, sliced breads, special breads...)
- Prepared canned foods
  (Choucroute, cassoulet, ravioli...)
Implementation (2)

60 supermarkets
- 10 per system and 20 control
- Chosen at random / with **50% in under-privileged areas**
- 3 retailers (Casino, Carrefour, Auchan)

4 regions
- Ile de France
- Hauts de France
- Haute Normandie
- Auvergne-Rhône-Alpes
Information to consumers

-> Specific leaflets, «Stop Shelves», totem

Products with the logo

• From 29 industrial companies, and the 3 retailers brands
• About 1,300 products: 76% of fresh prepared foods, 63% of prepared canned foods, 86% of industrial breads, pastries and viennoiseries

Very Strict controls in each supermarket

Daily (internal supermarket personnel), twice a week (dieticians), 2 per professional audits.

The main tool: The cashier receipts («loyalty card»)
Implementation (4)

Direction Générale de la Santé 380 K€
Assurance Maladie 763 K€
Fonds Français Alimentation 1,057 K€
Total 2,200 K€
Implementation (5)
Implementation (6)
Results: Survey in real life, observation of the food purchasing behaviors

3 out of 4 systems are significantly effective in reducing the FSA score

Average reduction in FSA score:

Average of the FSA score for the food basket: about 6

- Nutri-Score: $-0.267 (4.5\%); \quad -0.312$
- Nutri Couleurs: $-0.233 (3.9\%); \quad -0.229$
- SENS: $-0.198 (3.3\%); \quad -0.051$
- Nutri Repère: $+0.027 (+0.4\%); \quad +0.052$

Degradation of the nutritional quality
Results : Survey in real life
Observations of purchasing behaviours

- The separated analysis between labeled and not-labeled products shows that the presence of a logo has also an important effect on unlabeled products – this effect could result from a mistrust effect in regard to not-labeled products that may cause a substitution effect.

- Moreover, unlabeled products have an average FSA score significantly less important than labeled products, which suggests that nutritional quality might have an impact on the decision to participate in the experiment.
Complementary studies

1) By questionnaire with the objective to estimate the readability, comprehension, interpretation, purchase intent and satisfaction level of the consumers.

In a random sample of 20 of the 60 supermarkets, about 1800 interviews of consumers.

2) A framed field experiment (October December 2016): a virtual supermarket with all the products with a logo (5 logos tested). Consumers have to choose (and buy) products for the food consumption of two days.

The improvement of the nutritional quality of the food basket (without and with a logo) is analysed (FSA score).
Results of the questionnaire study

**Nutri-Score and SENS** are the most readable

**Compréhension test** : 3 foods were shown with the corresponding logo (1 out of 4). A nutritional quality classification was asked to the consumer.

A good answer was observed:

- Nutri-Score 92.4%,
- SENS : 84.1%
- Nutri Couleurs 29%
- Nutri Repère 16.6%

**Synthetic systems constitute a better help to make decisions because the consumer can classify its products with no ambiguity**

**Analytical systems are less effective and can induce inaccurate behaviors from consumers, especially those with a lowest level of education**

A rare weakness of NUTRISCORE is that 28% of respondents think that a green label means that the product is coming from organic agriculture
Result of the framed-field experiment

Average variation of the FSA score according to different logos

Source: Crosseto et al. Modification des achats alimentaires en réponse à cinq logos nutritionnels. to be published in Cahiers de nutrition et diététique
Conclusions of the French experiments

The studies show:

• **The interest and feasibility of these studies** for the measure of the impact of nutritional labeling on FSA score in real conditions of purchase;

• **The capacity of a FoP labelling** to bring about modifications in purchasing behaviors of consumers and to significantly improve the FSA score (so, nutrient intakes and further health);

• **The effectiveness** of a synthetic label compared to an analytical label and particularly for NUTRISCORE compared to other FoP labels, in particular for consumers who buy the cheapest products or have the lowest level of education;

• **Synthetic systems are more visible, better understood by consumers and constitute a better help for decision than analytical systems.**

• **NUTRISCORE appears to be the most effective system from the overall analysis**
Point of situation

Decree July 19th 2016 on Supplementary nutritional information on foodstuffs

Notification to the Commission (April 24th 2017): Draft decree establishing the form of supplementary presentation to the nutritional declaration recommended by the State

April 27 2017

Signature of a charter of commitments between the:
Ministers of Health, Agriculture, Consumption
And Some retailers and Producers: Auchan, Leclerc, Intermarché, Fleury Michon
Danone will sign soon;
Others are preparing
Identification of the brand

THE BRAND « NUTRI-SCORE » :

• Is registered with Inpi and EUIPO

• Rules for use.


A visual guide sets out the form, size, and placing of the logo on the different kinds of packaging
Cut offs of the FSA score for the definition of the 5 categories of the Nutri-Score (source HCSP)

<table>
<thead>
<tr>
<th>Classe</th>
<th>Bornes du score</th>
<th>Couleur</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Min à -1</td>
<td>Vert foncé</td>
</tr>
<tr>
<td>B</td>
<td>0 à 2</td>
<td>Vert clair</td>
</tr>
<tr>
<td>C</td>
<td>3 à 10</td>
<td>Orange clair</td>
</tr>
<tr>
<td>D</td>
<td>11 à 18</td>
<td>Orangé moyen</td>
</tr>
<tr>
<td>E</td>
<td>19 à Max</td>
<td>Orange foncé</td>
</tr>
</tbody>
</table>

Adaptations pour 3 familles d’aliments:
- Matières grasses ajoutées: beurre, huile...
- Formages
- Boissons
Logo packaging

CONSTRUCTION ET COULEURS
The perspective:

- The European discussion on this subject (planned by the regulation n°1169/2011 for the end of 2017):

Thank you