Traffic-Light Labelling in the UK

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World Federation of Public Health Associations Webinar on Front of Pack Labelling, 16th October 2018
Outline

• What do we mean by FOP labelling?
• What is Traffic-Light Labelling
• Traffic-Light Labelling in the UK
• Strengths and Weaknesses of the UK Traffic-Light labelling scheme
## Supplementary (interpretative) nutrition labelling

<table>
<thead>
<tr>
<th>Nutrient specific systems</th>
<th>Underlying nutrient profile models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each grilled burger (94g) contains</td>
<td>• Nutrients kept separate</td>
</tr>
<tr>
<td>Energy 924kJ 220kcal</td>
<td>• Thresholds set for each nutrient</td>
</tr>
<tr>
<td>11%</td>
<td></td>
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<tr>
<td>of an adult’s reference intake</td>
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<td>Typical values (as sold) per 100g: Energy 966kJ / 230kcal</td>
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<th>Summary indicator systems</th>
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<tr>
<td></td>
<td>• Nutrient levels combined to give overall rating</td>
</tr>
<tr>
<td></td>
<td>• Thresholds for combined score for half star, one star etc.; for green, for yellow etc.</td>
</tr>
</tbody>
</table>
### Health/nutrition claims and warnings

<table>
<thead>
<tr>
<th>Health/nutrition claims</th>
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<td><strong>Nutrient specific systems</strong></td>
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<tr>
<td><img src="image1.png" alt="Nutrient-specific-claim" /></td>
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<tr>
<td><strong>Summary indicator systems</strong></td>
<td>• Nutrient levels combined to give overall indication of healthiness</td>
</tr>
<tr>
<td><img src="image2.png" alt="Summary-indicator-system" /></td>
<td>• Thresholds for one or more nutrients combined by AND/OR etc.</td>
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</tbody>
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### Health/nutrition warnings

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<td><img src="image3.png" alt="Nutrient-specific-warning" /></td>
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</tr>
<tr>
<td><img src="image4.png" alt="Summary-indicator-system" /></td>
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</table>
Two aspects to simplified (Front-of-Pack) health-related food labelling schemes

• The design/format
• The underlying nutritional criteria/ the nutrient profile model
## Traffic-light labelling systems

<table>
<thead>
<tr>
<th>Country</th>
<th>Nutrients</th>
<th>Categories</th>
<th>Reference amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK (2006)</td>
<td>Energy, fat, saturated fat, sugars, salt</td>
<td>Foods, drinks</td>
<td>Per 100g/ml for green/amber threshold Per 100g/ml + per portion for red/amber threshold</td>
</tr>
<tr>
<td>Ecuador (2014)</td>
<td>Sugars, fat, salt</td>
<td>Foods drinks</td>
<td>Per 100g/ml</td>
</tr>
<tr>
<td>Iran (2015)</td>
<td>Energy, sugars, fat, salt, trans fat</td>
<td></td>
<td>Per 100g/ml</td>
</tr>
<tr>
<td>Industry ENL (2018)</td>
<td>Energy, fat, saturated fat, sugars, salt</td>
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Decisions to make when designing traffic-light labelling systems

• Nutrient profile model
  – All foods or just some categories?
  – All thresholds the same or different for different categories?
  – Which nutrients?
  – Which reference amounts for thresholds (per 100g/ml or per serving)?
  – How strict do the thresholds need to be (how many reds relative to greens)

• Design
  – How much colour?
  – Font size?
  – Supplemented with other information:
    • Words (high, medium, low)?
    • Numbers (straight numbers, % Reference Intakes)?
UK Traffic-light labelling: the nutrient profile model

• All foods are judged on the same basis:

• Green/amber thresholds set at the levels for ‘low’ in Claims Regulation

• Amber/red thresholds set at 25% of the Reference Intakes

https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_0.pdf
UK Traffic-light labelling: the design

Each grilled burger (94g) contains

- Energy: 924 kJ / 220 kcal
- Fat: 13g
- Saturates: 5.9g
- Sugars: 0.8g
- Salt: 0.7g

11% 19% 30% <1% 12%

of an adult’s reference intake

Typical values (as sold) per 100g: Energy 966 kJ / 230 kcal

https://www.food.gov.uk/sites/default/files/media/document/fop-guidance_0.pdf

- Format limited by the 2011 EU Food Information Regulation
- And guidelines drawn up by industry
Research carried out into Traffic-light labelling

**Design**
- Formative
  - Preference studies
  - Performative studies
- Summative
  - Uptake by food producers
  - Impact upon consumers (food purchases)
  - Impact upon producer behaviour (reformulation of products to avoid reds)

**Nutrient profile model**
- Content validity testing
- Convergent validity testing
  - Comparison of nutrient profile classifications of model against other models
- Predictive validity testing
  - Modelling potential impacts on diets and health
  - Predictive validity testing involving prospective cohort studies
Preference studies (formative)

Change in customer preference in label types from 2008 to 2012

Source: Tesco
Performance studies (formative)

- Fish balls A
- Fish balls B

Scarborough, P., Matthews, A., Eyles, H., Kaur, A., Hodgkins, C., Raats, M. M., & Rayner, M. (2015). **Reds are more important than greens**: how UK supermarket shoppers use the different information on a traffic light nutrition label in a choice experiment.. The international journal of behavioral nutrition and physical activity, 12, 151.
Studies of the impact upon consumers (product sales)

Effect of Traffic-light labelling on sales of sandwiches, Co-op, 2007


https://doi.org/10.1093/heapro/dap032
UK Traffic-light labelling: strengths and weaknesses

• Strengths
  – Better than nutrient specific systems that are not colour-coded
  – Consumers can choose the nutrient they want to focus on
  – Quite simple

• Weaknesses
  – Not as good as colour-coded summary indicator systems
  – Does not give an overall indication of the healthiness of the foods
  – Too simple
Traffic-light labelling can over-simplify: by not having enough/the right nutrients

- Broccoli

- Pasta

- Diet Cola
UK Traffic-light labelling: how it could be improved

• Add extra category (for fats and oils) with different thresholds
• Loose the ‘light’ for total fat
• Swap the ‘light’ for total sugars for one for ‘free sugars’
• Set all thresholds on a per 100g basis
• Drop % Reference Intake per serving information?
• Make red/amber thresholds stricter
### Different types of simplified food labelling compared

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<tr>
<th></th>
<th>Impact on Consumer purchasing behaviour</th>
<th>Impact on health</th>
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<tbody>
<tr>
<td><strong>FOP nutrition labelling</strong></td>
<td>+</td>
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- FOP: Front of Pack
- Nutrient Specific: Nutrient-specific
- Summary Indicator: Summary-based
- +: Positive impact
- -: Negative impact
- ±: Mixed impact

Each grilled burger (94g) contains:

- Energy: 225kJ (55kcal)
- Fat: 13g (19%)
- Saturated Fat: 5.9g (20%)
- Sugars: 0.8g
- Salt: 0.7g (12%)

Typical values (as sold per 100g): Energy 966kJ / 230kcal