Consumers and health claims

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Communicating about today’s food
European Food Information Council (EUFIC)

Communicating science-based food information to health and nutrition professionals, educators, and journalists in a way that promotes consumer understanding

Funding from agri-food chain, and European Commission (project basis)

www.eufic.org
Outline

- Background:
  - What is the penetration of nutrition and health claims in EU-27?
  - Do consumers look for them?
- Nutrition and Health claims regulation and the consumer
- Results of literature review about how health claims affect consumers
Penetration of health claims in 5 product categories (yoghurt, sweet biscuits, soft drinks, breakfast cereals, ready meals) across the EU27 plus Turkey

(FLABEL 2008-09) >37,000 products audited

4% average penetration of BOP health claims (range: 1-8%)

2% average penetration of FOP health claims (range: 0-6%)

(Storcksdieck genannt Bonsmann et al. 2010)
Penetration of nutrition claims in 5 product categories across the EU27 plus Turkey

(FLABEL 2008-09) >37,000 products audited

% of all products audited

20% average penetration of BOP nutrition claims (range: 6-31%)
25% average penetration of FOP nutrition claims (range: 12-37%)

(Storcksdieck genannt Bonsmann et al. 2010)
Information looked for on labels — % selecting often or always

Thinking about the last 6 months, how often have you looked for the following information on food and drink packages?

- Price
- Use by/Sell by/Best Before date
- Cooking instructions
- List of ingredients
- Nutrition information
- Storage instructions
- Additives contained
- Country of origin
- Whether ingredients are organic
- Whether ingredients are GM
- Nutrition or health claims
- Portion (serving) information
- Allergen information
- Ethical information
- Whether suitable for vegetarians
- Allergen information
- Ethical information

Almost all respondents claimed to have looked for price and use by date of products ‘always’ or ‘often’ and a quarter looked for nutrition or health claims information.

EUFIC (2011) consumer response to portion information

n=c.2186 per country, 6 countries: France, Germany, Poland, Spain, Sweden and UK
Nutrition and health claims in Europe are regulated under European Commission Regulation 1924/2006

- Aims to ensure fair competition & consumer protection
- Claims must be truthful and should not attempt to mislead consumers

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<tr>
<th>NUTRITION CLAIM</th>
<th>HEALTH CLAIM</th>
<th>REDUCTION OF DISEASE RISK CLAIM</th>
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<tr>
<td>“Spread enriched with omega-3 fatty acids”</td>
<td>“Spread enriched with omega-3 fatty acids can improve heart health”</td>
<td>“Spread enriched with omega-3 fatty acids reduces risk in the development of cardiovascular disease”</td>
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*(claims examples taken from Verbeke et al. 2009)*
An essential aspect of the legislation - Article 5.2

“The use of nutrition and health claims shall only be permitted if the average consumer can be expected to understand the beneficial effects as expressed in the claim.” (EC, 2007)

An average consumer is defined as “reasonably well-informed and reasonably observant and circumspect, taking into account social, cultural and linguistic factors” (EC, 2007)
Regulation 1924/2006 states (*EC, 2007*):

- “[…] the Authority [EFSA] shall verify: […] that the wording of the health claim complies with the criteria laid down in this Regulation.” *Article 16.3b*

- “In the event of an opinion in favour of authorising the health claim, the [EFSA] opinion shall include the following particulars: […] a proposal for the wording of the health claim, including, as the case may be, the specific conditions of use;” *Article 16.4c*

However,

- “EFSA only gives proposals of wording, leaving the judgement of understanding by consumers as well as enforcement of Regulation 1924/2006 to the national Food Safety Authorities” *(EFSA 2007; Verhagen et al. 2010)*
Literature on consumer understanding of (existing) claims is limited

Regulation requires claims to be clear and comprehensible for consumers. Claims must also protect the consumer from being misled: a difficult balance in some cases

“By 19 January 2013, a report should be submitted by the Commission to the European Parliament and the Council on the evolution of the market in foods where nutrition or health claims are made and on the consumers' understanding of claims” (EC, 2007)
Range of claims approved by EFSA:

‘Simple’ claims:
- ”Sugar free chewing-gum helps maintain tooth mineralization” *(Article 13.1)*
- ”Protein contributes to children’s bone growth” *(Article 14)*
- ”Iodine contributes to normal growth in children” *(Article 14)*

‘Complex’ claims:
- “Walnuts contribute to the improvement of endothelium-dependent vasodilation” *(Article 13.1)*
- “Water-soluble tomato concentrate helps maintain normal platelet aggregation” *(Article 13.5)*
  - Provexis proposed that its tomato extract; ‘helps to maintain a healthy blood flow and benefits circulation’, whereas EFSA argued that the scientific evidence only reflected the claim that it: ‘helps maintain normal platelet aggregation’ EC approval: “Helps maintain normal platelet aggregation, which contributes to healthy blood flow.“
- “Cocoa flavanols help maintain endothelium-dependent vasodilation, which contributes to normal blood flow” *(approved by EFSA July 2012)*
Results: studies reviewed

Papers included:

- 32 original research studies
  - cross-country studies (9)
  - studies undertaken in one country (23)
- 7 literature reviews
- 3 commissioned reports
Results

Main determinants influencing attitudes

Product/Health Claim Attributes:

- type of carrier product
- health claim ‘architecture’
  - functional ingredient used
  - components of health claim
  - type of benefit claimed
  - framing
  - use of qualifiers
  - specific combination of the components
- other product attributes (e.g. Brand, taste etc.)

Personal Characteristics:

- familiarity and previous experience
- personal beliefs
- personal relevance
- nutritional knowledge
Health claims tend to be perceived more positively on products with overall positive health image.

Examples:
- bread vs. biscuits (Dean et al. 2007)
- yoghurt vs. chocolate or soup (Siegrist et al. 2008)
- bread or yoghurt vs. cake (Saba et al. 2010)
- bread or yoghurt vs. pork products (Lahteenmaki et al. 2010)
- brown bread and yoghurt (Williams et al. 2008)

(for attractiveness and intention to try) vs. meat replacer, chewing gum
Health claims perceived more positively on bread and pasta than on biscuit.

Relationship between type of benefit claimed (adding fibre, lowering cholesterol) and perceived benefit depends on type of carrier product.

(Dean et al, 2007)
Results

Health claim architecture - example

Perception of health claims among Nordic consumers (Grunert et al. 2009)
Web survey. Health claims in pairs. 4612 respondents indicated which claim (1) sounded better (2) was easier to understand (3) was more convincing. 108 claims, 15 pairs per respondent

- Different ingredients
  1. Familiar (Omega-3)
  2. Unfamiliar (Bioactive peptides)
  3. No ingredient

- Different health benefits
  1. Cardiovascular
  2. Memory function
  3. Weight management

- Framing
  1. positive (achieving something pos)
  2. negative (avoiding something neg)

- Different components (architecture)
  1. function only
  2. health benefit only
  3. ingredient + function
  4. ingredient + health benefit
  5. function + health benefit
  6. ingredient + function + health benefit

- Qualifier
  1. with “may” (“may promote cardiovascular health”)
  2. without (“promotes cardiovascular health”)
Health claim architecture

- functional ingredient used
  - claims with the familiar “omega-3” ingredient preferred over less known “bioactive peptides”

- components of health claim
  - two (equal) classes of consumers can be distinguished:
    - Those who prefer short messages (health benefit only)
    - Those who prefer more detailed information on health claims (all 3 components: ingredient + function + health benefit)
  - more exposure to health claims, positive attitude

*Results*

*NORDIC STUDY, 4612 respondents (Grunert et al. 2009)*
Results

Health claim architecture

- type of benefit claimed & framing
  - for dementia and weight management, positively framed claims are preferred
    e.g. “increases the likelihood of good memory” vs. “reduces the risk of dementia”
  - for cardiovascular disease, the opposite
    e.g. “contains omega-3 which reduces risk of cardiovascular disease” preferred

- use of qualifiers
  - claims without “may” preferred over claims with this qualifier

NORDIC STUDY, 4612 respondents (Grunert et al. 2009)
Results

Other product attributes

Other factors might have a greater influence on consumer behaviour

**brand**

Most important factor for both groups (health claim least)
*(Ares et al, 2010)*

**Taste (data not shown)**

Consumers hardly willing to compromise on taste for health benefit
*(Sabbe et al. 2010; Vidigal et al. 2011; Verbeke et al. 2006)*

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Consumers more interested in health
Consumers less interested in their health

(Ares et al, 2010)
Main determinants influencing attitudes

Product/Health Claim Attributes:

- type of carrier product
- health claim ‘structure’
  - functional ingredient used
  - components of health claim
  - type of benefit claimed
  - framing
  - use of qualifiers
  - specific combination of the components
- other product attributes (e.g. brand, taste etc.)

Personal Characteristics:

- familiarity and previous experience
- personal beliefs
- personal relevance
- nutritional knowledge
Familiarity & previous experience

- Familiarity increases a positive attitude

*Lahteenmaki et al. 2010* (Denmark, Finland, Norway, Sweden, Iceland)
- products with better known functional ingredient “omega-3” perceived as more healthful than products containing unfamiliar “bioactive peptides”

- Presence of a familiar component yields almost as strong a reaction as naming the benefit as well
Familiarity - example

A - ingredient
B - ingredient + function
C - ingredient + function + health outcome

Products with health claims containing familiar ingredient omega-3 were perceived as more healthful compared to products with health claims containing bioactive peptides.

(Lahteenmaki et al. 2010)
Consumers’ reactions to claims on products linked to their own views about that product category

- e.g. consumers with positive perceptions about dairy products in general were more willing to try products enriched with the milk ingredient “conjugated linoleic acid (CLA)” (Peng et al. 2006)
More positive attitude and increased acceptance of food products with health claims when

- directly or indirectly affected by related condition
- need to pay attention to own health

‘Eating cholesterol-lowering bread would be beneficial to me’

Both males and females who had to pay attention to their health perceived the cholesterol-lowering bread more positively

(Dean et al. 2007)
“This is for people with health problems. I will try it when I am old” (Mother, 28)

“Why should I try this? I have no problems with my bones yet.” (Mother, 33)

“I tried it before, it seems to improve my digestion.” (Retired, 62)

“It is scientifically proven to be beneficial for health. There is research behind it.” (Engineer, 71)

“It contains magnesium. Magnesium relaxes.” (Housewife, 58)

(Stojanovic et al. 2010)
Impact of nutrition knowledge

- Lack of nutrition knowledge can limit consumers’ ability to understand or evaluate health claims, leading to lower perceived benefit or credibility (Ares et al. 2008)

- However, higher levels of nutrition knowledge also linked to less trust in health claims (Lalor et al. 2009)
Conceptual framework: how do health claims affect consumers

CONSUMER (dependent variables)
- Understanding of the claim
- Attitude to the claim
  - Attitude to the product
  - Purchase intention
  - Purchase behaviour

CONSUMER (independent variables)
- Personal beliefs
- Personal relevance
- Familiarity
- Nutrition knowledge

PRODUCT (independent variables)
- Food/drink category
- Format (i.e. which of the three below items is present in the claim)
  - Ingredient
  - Function
  - Benefit
- Wording
  - Framing (positive or negative)
  - Qualifiers (e.g. use of “may”)
- Functional ingredient
- Benefit claimed
- Taste / sensory attributes

(Wills et al. 2012)
Conclusions

- Different types of health claims may have different effects depending on whether
  - they are relevant to the individual
  - familiar in terms of ingredient and/or benefit claimed
  - credibility of carrier food
  - consumers prefer simple wording or detailed explanations

- Overall, health claims seem to play only a minor role in food choices when contrasted with other factors such as taste and brand
Case study on evaluating consumer understanding

Research focus: Consumer understanding of a health claim existing and advertised in the German market

- Health claim: “Actimel helps strengthening the body’s natural defences”
- Sample: 720 respondents from German web panel. Open ended Q

“After seeing this pack and commercial, if you had to tell a friend what Actimel does, what would you say?”

“And if you had to tell a friend how it works?”

(Grunert et al. 2011)
Case study on evaluating consumer understanding - How much is enough?

Percentage of respondents coded into three categories “safe”, “risky”, or “other”, depending on their understanding of the health claim

- **“safe”**
  - The statement is in line with the scientific dossier

- **“risky”**
  - The statement is not in line with the scientific dossier

- **“other”**
  - The statement expressed is irrelevant with regard to the health claim

(Grunert et al. 2011)
“Role of health related CLAIMs and SYMBOLs in consumer behaviour”

- FP7 Small Collaborative Project
- **Total budget:** 3.8 Mio Euros (3 Mio European Commission funded)
- **Start:** September 1, 2012.
- **Duration:** 4 years
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Objectives of this project are to:

- Determine how health-related symbols and claims, in their context, are understood by consumers
- Assess how they affect purchasing and consumption
  - taking into account both individual differences in needs and wants and country-specific differences with regard to use of health claims and symbols
- Develop guidelines for EU policy concerning health-related symbols and claims
- Develop a set of methods to assess effects of health claims and symbols as these appear on the market
Real bottlenecks
(findings from FLABEL)

- Lack of motivation
- Label format Consistency
- Product availability
- Label availability
- Lack of attention
- Liking
- Understanding
- No use
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Acknowledgements and thanks to EUFIC staff:
Dr Stefan Storcksdieck genannt Bonsmann, Dr Sophie Hieke, Magdalena Kolka


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