SCIENCE BASED HEALTH MESSAGES TO CONSUMERS AND EFFECTIVE WAYS FOR INCREASING WHOLEGRAIN CONSUMPTION

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Conflict of interest regarding this presentation:

I have no conflict of interest to report in relation to this presentation.
Outline

- Science based health messages to consumers
  - Food Based Dietary Guidelines
  - Health Claims

- Effective ways for increasing wholegrain consumption
  - The Danish Wholegrain Public Private Partnership

- Summary and Take-Home-Messages
Which health messages work?

EXPERTS PREFER NEGATIVE ONES BUT THE PUBLIC FOLLOWS POSITIVE MESSAGES.

Health messages should be scientifically substantiated.
Selected science-based reports that form the base for dietary guidelines on wholegrain
Examples of quantitative European Food-Based-Dietary Guidelines (FBDG) on wholegrain

<table>
<thead>
<tr>
<th>Country</th>
<th>Dietary guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>Four servings of grains, breads, pasta, rice or potatoes a day. Prefer whole grain products</td>
</tr>
<tr>
<td>DK, NO, SE</td>
<td>At least 75 g whole grains/10MJ/day, or 90 g/day for men and 70 g/d for women</td>
</tr>
<tr>
<td>GR</td>
<td>Eight servings per day of whole grain food products</td>
</tr>
<tr>
<td>NL</td>
<td>Four to seven servings of whole grain bread (depending on age and sex)</td>
</tr>
</tbody>
</table>
Examples of other European Food-Based-Dietary Guidelines (FBDG) on wholegrain

<table>
<thead>
<tr>
<th>Country</th>
<th>Dietary guideline</th>
</tr>
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</table>
| DE      | Ample cereal products and potatoes  
  “Bread, grain flakes, pasta, rice, preferably from whole grain, and potatoes contain plenty of vitamins, minerals and dietary fibre as well as phytochemicals. Consume these foods preferably with low-fat ingredients. At least 30 grams of dietary fibre daily, especially from whole-grain products, are recommended” |
| UK      | “Starchy foods such as bread, cereals, rice, pasta and potatoes are a really important part of a healthy diet. Try to choose wholegrain varieties whenever you can. ... We should all be trying to eat a variety of starchy foods and choosing wholegrain, brown or high-fibre varieties whenever we can” |

https://www.dge.de/index.php?id=322  
http://www.nhs.uk/Livewell/Goodfood/Pages/starchy-foods.aspx
Health claims in relation to wholegrain!
http://ec.europa.eu/nuhclaims/
**EU health claims applications (art 13.1) on WG**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Claim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrate sources with low glycaemic index (GI &lt;55), incl. whole grain cereals</td>
<td>Maintenance of the normal blood sugar level, blood lipid level (triglyceride) and body mass</td>
</tr>
<tr>
<td>Diet rich in whole grain</td>
<td>Diets rich in whole grain foods promote heart health</td>
</tr>
<tr>
<td>Whole grain foods</td>
<td>People who eat more whole grain foods tend to have a healthier body weight and gain less weight over time</td>
</tr>
<tr>
<td>Whole grain, whole grain flour</td>
<td>Consuming whole grain products regulates blood cholesterol level.</td>
</tr>
<tr>
<td>Whole grain, whole grain flour</td>
<td>Gut health/bowel function, weight control, blood glucose/insulin levels, weight management, blood cholesterol, satiety, glycaemic index, digestive function, cardiovascular health</td>
</tr>
<tr>
<td>Whole grain, whole grain flour</td>
<td>Consuming whole grain products increases satiety. Consuming whole grain products prolongs the feeling of satiety</td>
</tr>
<tr>
<td>Whole grain, whole grain flour</td>
<td>Whole grain products are characterised by low glycaemic index</td>
</tr>
<tr>
<td>Whole-grain</td>
<td>Balances sugar metabolism</td>
</tr>
<tr>
<td>Wholegrain</td>
<td>Helps with weight control. For a long-lasting sense of satiety. Releases energy slowly</td>
</tr>
<tr>
<td>Wholegrain</td>
<td>Promotes gut activity</td>
</tr>
</tbody>
</table>
Evaluation of claims – 3 main questions addressed by EFSA

The extent to which:

1. the **food/constituent** is defined and characterised

2. the **claimed effect** is defined and is a beneficial physiological effect (‘beneficial to human health’)

3. a **cause and effect relationship** is established between the consumption of the food/constituent and the claimed effect (for the **target group** under the proposed **conditions of use**)

The EFSA considerations and conclusions are as follows:

“Whole grain foods (including whole grain flour) are defined differently across countries, also within the EU. In the UK and the USA whole grain foods must contain ≥51% whole grain ingredients by wet weight, whereas in Sweden and Denmark the requirement is ≥50% whole grain ingredients on a dry matter basis. In Germany, whole grain bread must be 90% whole grain”

- A food constituent, whole grain, that is the subject of this opinion is not sufficiently characterised in relation to the claimed effects considered in this opinion.
- A cause and effect relationship cannot be established between the consumption of whole grain and the claimed effects considered in this opinion.”
Effective ways for changing dietary behaviour!

Increasing wholegrain consumption

Altinget.dk
Ex: the Danish Public Private Partnership on how to increase Whole Grain Consumption

Content:

- Definition of WG and WG products
- Intake of WG and risk of disease
- Basis for guidelines for WG intake of 75 g/10 MJ/d
- Intake of WG in DK

http://www.food.dtu.dk/english/Publications/Nutrition
Ex: a Public Private Partnership on how to increase Whole Grain Consumption for the benefit of public health

Update of FBDG in 2009

Spis frugt og grønt 6 om dagen
Spis fisk og fiskepålæg flere gange om ugen
Spis kartofler, ris eller pasta og fuldkornsbrød hver dag
Spar på sukker især fra sodavand, slik og kager
Spar på fedtet især fra mejeriprodukter og kød
Spis varieret og bevar normalvægten
Sluk tørsten i vand
Vær fysisk aktiv mindst 30 minutter om dagen

2008
## Intake wholegrain in Denmark 2000-04

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>(g/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children (4-14 yrs)</td>
<td>1159</td>
<td>28</td>
</tr>
<tr>
<td>Men</td>
<td>2189</td>
<td>39</td>
</tr>
<tr>
<td>Women</td>
<td>2503</td>
<td>28</td>
</tr>
<tr>
<td>Adults (15-74 yrs)</td>
<td>4692</td>
<td>33</td>
</tr>
</tbody>
</table>

http://www.food.dtu.dk/english/Publications/Nutrition
Sources of wholegrain intake in DK in 2000-04

Ryebread 64%
Wheat bread, 7%
Sandwiches, 7%
Musli, 4%
Crispbread, 2%
Oats, 9%

http://www.food.dtu.dk/english/Publications/Nutrition
The WG Public Private Partnership

### Business
- Commercial partners
  - Millers
  - Bread, rice, pasta producers
  - Retailers
  - Craft bakeries
  - Cereal producers
- Availability
- Product development
- On pack communication

### Health
- Credibility, FBDGs
- Research, PR, knowledge
- New Norms

### Danish Whole Grain Partnership

### Danish Food Administration and Health NGO’s
- Danish Cancer Association
- Danish Heart Association
- Danish Diabetes Association
- Clinical Dieticians Organization
- Copenhagen Hospitality College
Approaching the consumers

“Choose wholegrain first”
Approaching the consumers

Illustrating a daily intake of 75 g wholegrain
Approaching the consumers

Campaigns and outreach activities

National wholegrain day in DK, 2012-2014
Keys to success

Number of whole grain logo products

Awareness of the whole grain logo and campaign %

Partners in the Whole Grain Partnership

Source: Nielsen Company and YouGov
<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>2000-2004</th>
<th>n</th>
<th>2011-2013</th>
<th>Increase %</th>
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<tbody>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4-14 yrs)</td>
<td>1159</td>
<td>28</td>
<td>762</td>
<td>58</td>
<td>107</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>2189</td>
<td>39</td>
<td>1546</td>
<td>65</td>
<td>66</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>2503</td>
<td>28</td>
<td>1643</td>
<td>51</td>
<td>82</td>
</tr>
<tr>
<td><strong>Adults</strong></td>
<td>4692</td>
<td>33</td>
<td>3189</td>
<td>58</td>
<td>76</td>
</tr>
</tbody>
</table>

Mejborn et al (2014). National Food Institute, DTU
Wholegrain intake in DK 2000-2013 expressed as % of children and adults that follow the current guidelines

Mejbourn et al (2014). National Food Institute, DTU
The Evolution of the Whole Grain Partnership in Denmark

Carsten Greve & Rikke Iben Nesvig

Copenhagen Business School & The Danish Whole Grain Partnership

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Summary and Take Home Messages

1. Food Based Dietary Guidelines and Health Claims both build on scientific evidence – with different focus and sometimes different outcome.

2. Changes in dietary behaviour in relation to wholegrain consumption require active approaches from key stakeholders.

3. Experience from PPP on wholegrain shows that other aspects than health messages are important for the change in consumption behaviour.
Acknowledgements

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  http://www.fuldkorn.dk/english

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  Anja Biltoft-Jensen
  Ellen Trolle
HEALTHGRAIN Forum Session 4.10

Nutrition and health throughout life cycle:
The role of grain products

Presentations available at: www.healthgrain.org
Event report to be published in COMPLETE NUTRITION in the February/March 2016 issue