



# How should we label our foods?

Mike Rayner

Director, BHF HPRG

Dunedin, 26<sup>th</sup> February 2014

# Outline

- What is food labelling?
  - Information
    - Back-of-pack nutrition labelling
    - Front-of-pack nutrition labelling
    - Health warnings
  - Claims
    - Health and nutrition claims
- Evidence for the impact of food labelling?
- Could we set better standards for food labelling?

# Codex Alimentarius Commission (Codex) definition of food labelling

‘Any written, printed or graphic matter that is present on the label, accompanies the food, or is displayed near the food, including that for the purpose of promoting its sale or disposal’

But how near is near?

# Food labelling is:

- **Information** that is useful to consumers
- **Claims** that primarily serve the interests of food producers and retailers

# Where do we find food labelling?

- Packets
- Shelves
- Menus
- Websites
- Smart phone apps
- Books and reports
- Advertisements



# Food labelling has different elements

The **co-operative** *Healthier Choice* flakes with red fruits

**Low fat**

**Crunchy rice and wheat flakes with freeze dried cherries, strawberries and raspberries.**

375g e

For Best Before End Date: See Top of Pack  
Store in a cool, dry place

contains naturally occurring sugars and added sugars



With 8 added vitamins + iron

The **co-operative** *Healthier Choice* flakes with red fruits

**Healthy Eating**

A healthy diet contains lots of fruit and vegetables, is based on starchy foods such as wholegrain bread, pasta and rice and is low in fat (especially saturated fat, salt and sugar). Healthier Choice Flakes with Red Fruits are low in fat as they contain no more than 3g fat per 100g of the food.

**Nutrition**

Typical Values	per 100g	per 30g cereal
Energy Value	1590 kJ	480 kJ
<b>Calories</b>	<b>375 kcal</b>	<b>115 kcal</b>
Protein	8.0 g	2.4 g
Carbohydrate	81.5 g	24.5 g
<b>of which Sugars*</b>	<b>15.5 g</b>	<b>4.7 g</b>
<b>Fat</b>	<b>1.2 g</b>	<b>0.4 g</b>
<b>of which Saturates</b>	<b>0.3 g</b>	<b>0.1 g</b>
Fibre	3.5 g	1.1 g
Sodium	0.3 g	0.1 g
<b>Salt</b>	<b>0.1 g</b>	<b>0.2 g</b>
Folic Acid	304 µg	91.2 µg
(% of the R.D.A.)	152 %	46 %
Niacin	27.4 mg	8.2 mg
(% of the R.D.A.)	171 %	51 %
Pantothemic Acid	8.1 mg	2.7 mg
(% of the R.D.A.)	151 %	45 %
Riboflavin (B <sub>2</sub> )	2.5 mg	0.8 mg
(% of the R.D.A.)	179 %	54 %
Thiamin (Vitamin B <sub>1</sub> )	2.2 mg	0.7 mg
(% of the R.D.A.)	200 %	60 %
Vitamin B <sub>2</sub>	1.5 µg	0.5 µg
(% of the R.D.A.)	60 %	18 %
Vitamin B <sub>6</sub>	3.0 mg	0.9 mg
(% of the R.D.A.)	244 %	54 %
Vitamin D <sub>3</sub>	7.6 µg	2.3 µg
(% of the R.D.A.)	152 %	46 %
Iron	21.3 mg	6.4 mg
(% of the R.D.A.)	152 %	46 %

RDA = Recommended Daily Allowance  
Approx. 12 servings per pack

30g of Healthy Living Flakes with Red Fruits with 125ml Milk provides:

	Skimmed	Semi Skimmed	Whole
Calories	155kcal	170kcal	190kcal
Fat	0.5g	2.5g	4.9g
Salt	0.2g	1.9g	3.0g
Sugar*	11.5g	11.5g	16.5g
Salt	0.5g	0.5g	0.5g

**Guideline Daily Amounts**

Average adult	Fat	70g
Calories	2000kcal	of which 30g
		saturates
Protein	45g	24g
Carbohydrate	230g	Sodium
of which Sugars	90g	Salt
		6g

*Make your opinion count*

*your choice*

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*cream of the crop*

Why not try one of our other delicious cereals...



The **co-operative** good with food

The **co-operative** *Healthier Choice* flakes with red fruits

**Ingredients**

Rice (68%), Wheat (22%), Sugar, Mixed Freeze Dried Fruit (5%), Barley & Barley Malt Extract, Salt, Niacin, Iron, Pantothemic acid (B<sub>5</sub>), Vitamin B<sub>6</sub>, Riboflavin (B<sub>2</sub>), Thiamin (B<sub>1</sub>), Folic acid, Vitamin D<sub>3</sub>, Vitamin B<sub>2</sub>.

Mixed Freeze Dried Fruit contains: Cherries, Strawberries, Raspberries.

**Allergy Advice**

Contains Barley, Oat, Wheat. May contain nuts, milk.

**Origin**

Made in UK using Rice, Wheat and Fruit from Various Countries for Co-operative Group Ltd, Manchester M9G 4ES. [goodwinfood.co.uk](http://goodwinfood.co.uk)

**Caution**

**Safety First:** To avoid danger of suffocation, please keep this bag away from babies, children and animals.

**Advice**

**Advice for Women:** If you are pregnant, planning pregnancy or might just get pregnant, you are recommended to increase the amount of folic acid in your diet. This is because folic acid contributes to the normal development of the unborn baby. The normal recommended daily allowance (RDA) of Folic Acid is 200 micrograms (µg). Prior to pregnancy and during the first 3 months of pregnancy, you are recommended to increase this level to 600 micrograms (µg) per day. The Co-operative Healthier Choice Flakes with Red Fruits can help you providing 45% of the normal RDA or 15% of the increased RDA of Folic Acid in 30g of cereal.

**Storage:** Close bag after use and reseal flap.

**Disposal**

BOX: Recycle with other cardboard at larger stores. CARD: widely recycled. FILM: NOT AT KERBSIDE.

**Contact Us**

Freephone 0800 0686 727  
7 days a week  
Co-operative  
Freepost-M9G472  
Manchester M9 4EA  
customer.relations@co-operative.coop  
@co-operative.coop  
Quoting 'G15710/1' and the Barcode Number

[the.cooperativefood](http://the.cooperativefood)  
[/the.cooperativefood](https://www.facebook.com/the.cooperativefood)  
[/cooperativefood](https://www.instagram.com/cooperativefood)

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# Food labelling consists of:

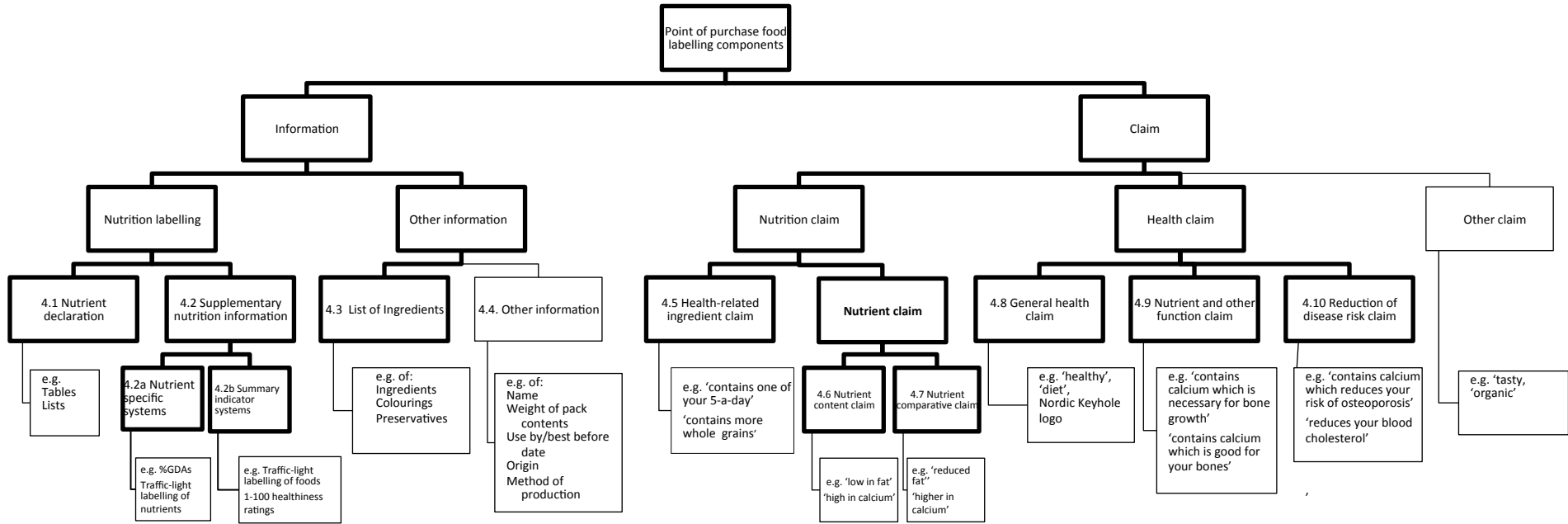
- Information:
  - Ingredients, nutrients, best-before-dates, cooking instructions, country of origin, etc.
- Claims:
  - Taste, health, environmental concerns, animal welfare, etc.

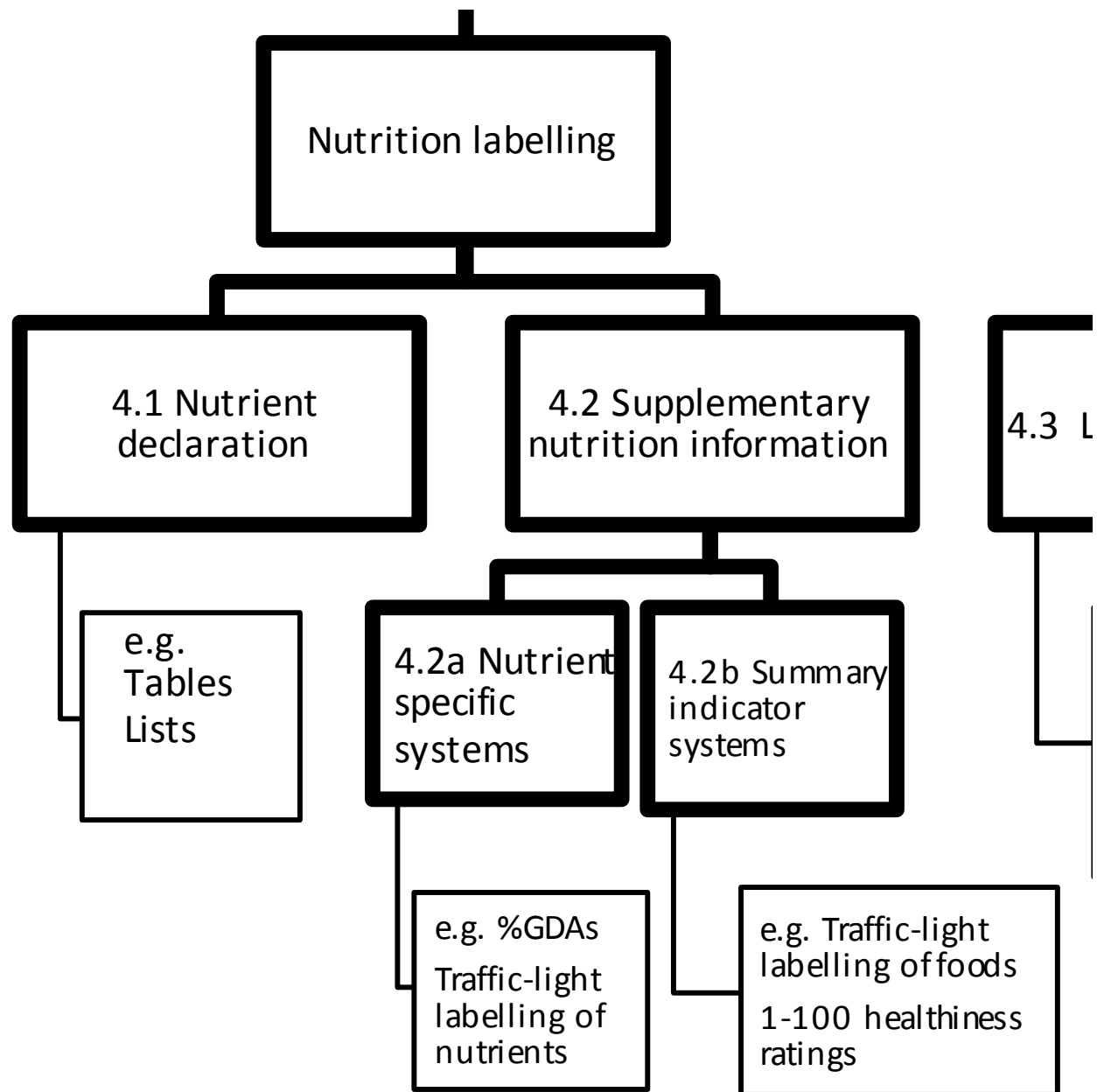
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- Information:
  - Ingredients, nutrients, best-before-dates, cooking instructions, country of origin, etc.
- Claims:
  - Taste, health, environmental concerns, animal welfare, etc.
- The price?



# A taxonomy of health-related food labelling components for INFORMAS





## For each food labelling element:

- What is the incidence and prevalence:
  - In forms which promote the interests of consumers?
  - In forms which promote the interests of food producers?
- What is the impact of a particular format on:
  - Consumer behaviour (including their expenditure)?
  - Food producer behaviour (product development and reformulation)?
- How is and should food labelling be regulated?

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*Healthier Choice*  
**flakes with red fruits**

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good with food

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**Storage:** Close bag after use and reseal flap.

**Disposal**  
BOX: Card widely recycled  
FILM: Recycle with plastic bags at larger stores. NOT AT KERBSIDE.

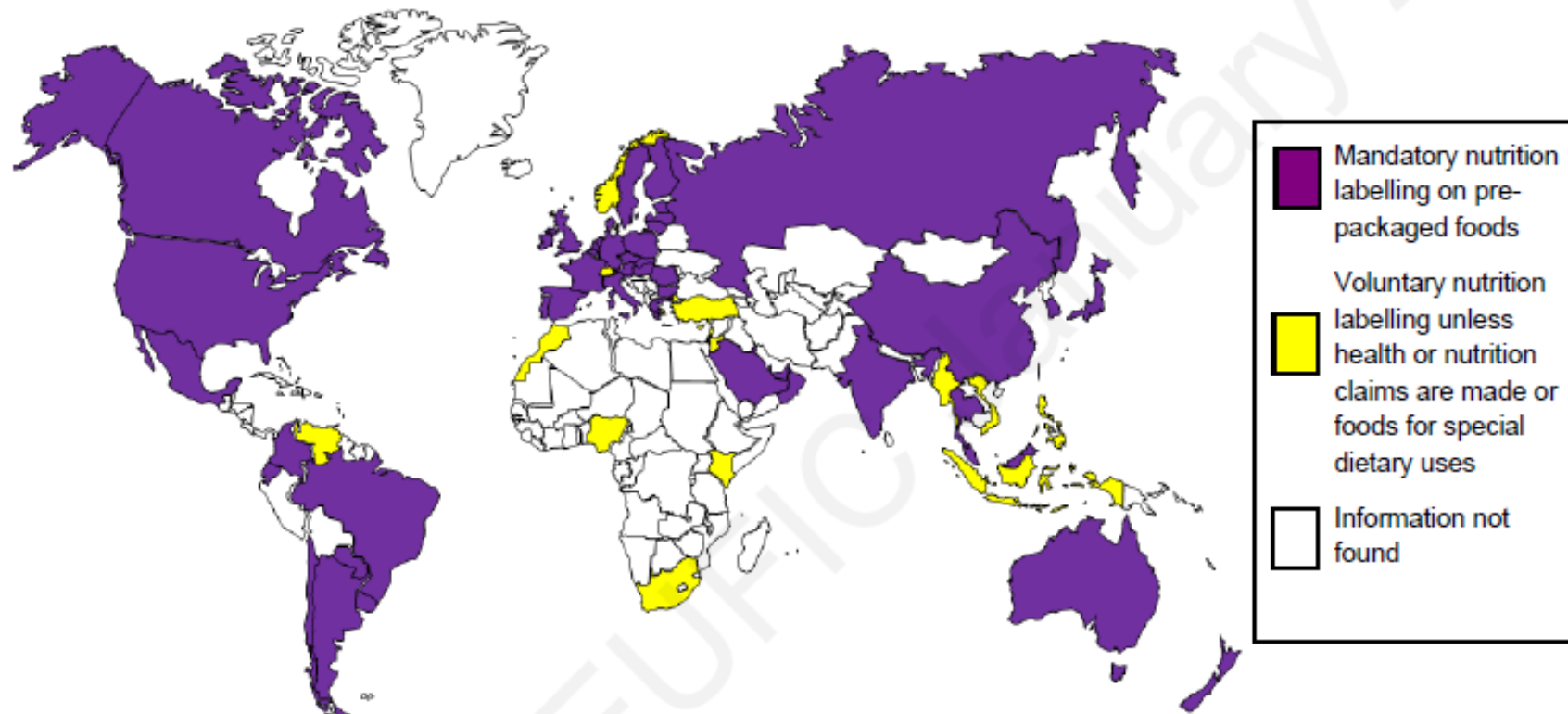
**Contact Us**  
Freephone 0800 0686 727  
7 days a week  
Co-operative  
Freepost-M9G472  
Manchester M9 4EA  
customer.relations@co-operative.coop  
@co-operative.coop  
Quoting 'G5710/1/1' and the Barcode Number

[/the.cooperativefood](http://the.cooperativefood)  
[/cooperativefood](https://www.cooperativefood.com)

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# Back of-pack nutrition labelling

Figure 1. Global overview of mandatory and voluntary nutrition labelling



Source:

EUFIC, 2014, <http://www.focusbiz.co.uk/clientarea/eufic/publications/>

## Current Label

Nutrition Facts		
Serving Size 1/4 Cake (107g)		
Servings per Container 14		
Calories 350 <small>Calories from Fat 180</small>		
Amount/serving	% Daily Value*	
Total Fat	14g	22%
Saturated Fat	5g	25%
Trans Fat	0g	
Cholesterol	30mg	10%
Sodium	290mg	12%
Amount/serving	% Daily Value*	
Total Carbohydrate	53g	18%
Dietary Fiber	5g	20%
Sugars	36g	
Protein	4g	
Vitamin A	0%	Vitamin C 0%
Calcium	4%	Iron 15%

\*Percent Daily Values are based on a diet of 2,000 calories. Your daily values may be higher or lower depending on your calorie needs:

	Calories: 2,000	2,500
Total Fat	Less than 65g	80g
Sat Fat	Less than 28g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

Calories per gram:  
Fat 9 • Carbohydrate 4 • Protein 4

**INGREDIENTS:** ENRICHED BLEACHED FLOUR (WHEAT FLOUR, NIACIN, IRON, THIAMIN MONONITRATE, RIBOFLAVIN, FOLIC ACID), SUGAR, SKIM MILK, VEGETABLE OIL (PALM, SOYBEAN AND/OR COTTONSEED OILS), WATER, COCOA PROCESSED WITH ALKALI, EGGS, CORN SYRUP, HIGH FRUCTOSE CORN SYRUP, CHERRIES, WHITE GRAPE JUICE CONCENTRATE. CONTAINS 2% OR LESS OF EACH OF THE FOLLOWING: WHOLE WHEAT FLOUR, CARAMEL COLOR, POLYDEXTROSE, LEAVENING (BAKING SODA, SODIUM ALUMINUM PHOSPHATE, MONOCALCIUM PHOSPHATE), SALT, CORN STARCH, MONO- AND DIGLYCERIDES, NATURAL AND ARTIFICIAL FLAVORS, POLYGLYCEROL ESTERS OF FATTY ACIDS, SODIUM ALGinate, NATURAL COCOA EXTRACT, PROPYLENE GLYCOL MONO- AND DIESTERS OF FATS AND FATTY ACIDS, MALTODEXTRIN, GELLAN GUM, LACTYLIC ESTERS OF FATTY ACIDS, SOY LECITHIN, POLYSORBATE 60, SOY FLOUR, COFFEE. CONTAINS MILK, WHEAT, EGGS AND SOY.

Calories and serving size should be in larger type.

Unnecessary information.

Calling it "% Daily Amount" would be more understandable.

The Daily Amount for sodium should be 1,500 mg. The current 2,400 mg is too high.

With no Daily Value for trans fat, added sugars, or protein, consumers don't know how much to shoot for each day.

"Dietary fiber" should be called "Fiber" and should include only intact fiber from whole grains, beans, vegetables, fruit, and other foods. Polydextrose, maltodextrin, and similar carbohydrates should not count as fiber.

This information isn't useful for most consumers.

The label should list only added sugars (from high-fructose corn syrup, table sugar, etc.), not the naturally occurring sugars in milk and fruit.

Many people don't realize that this is ordinary refined white flour.

All-capital letters are hard to read.

If the food contains grains, the label should say what percent of the grains are whole grains.

The "% Daily Amount" lets consumers know how much of a day's worth of trans fat, added sugar, protein, etc., each serving contains.

Red color and "High" warn consumers when a serving has at least 20 percent of the Daily Amount for saturated fat, trans fat, cholesterol, sodium, or added sugars.

Caffeine content is disclosed.

Consumers can see that when all the cake's sugars are combined, they become the first ingredient.

Label should show percentages by weight of key ingredients, especially those that are good or bad for your health.

Bullets separate ingredients.

Minor ingredients and allergens are listed separately.

## Better Label

**Grains: 2% whole**

Nutrition Facts		
Serving Size 1/4 Cake (107 g)		
Calories in 1 serving 350		
14 Servings per Box		
Amount per serving	% Daily Amount*	
Total Fat	14 g	High 22%
Saturated Fat	5 g	High 25%
Trans-Fat	0 g	0%
Cholesterol	30 mg	10%
Sodium	290 mg	19%
Total Carbohydrate	53 g	18%
Fiber	3 g	12%
Added Sugars	30 g	High 120%
Protein	4 g	8%
Vitamin A	0%	Vitamin C 0%
Calcium	4%	Iron 15%

\*% Daily Amount is based on 2,000 calories a day. 20% or more of the DA is HIGH. 5% or less is LOW.

50 mg caffeine per serving

**Ingredient Facts**

**Major Ingredients:** Sugars (sugar, corn syrup, high-fructose corn syrup, white grape juice concentrate) (28%) • Skim milk • Refined bleached flour (wheat flour, niacin, iron, thiamin mononitrate, riboflavin, folic acid) • Vegetable oil (palm, soybean, and/or cottonseed oils) • Water • Cocoa processed with alkali (5%) • Eggs • Cherries (3%)

**Contains 2% or less of:** Whole wheat flour • Caramel color • Polydextrose • Leavening (baking soda, sodium aluminum phosphate, monocalcium phosphate) • Salt • Corn starch • Mono- and diglycerides • Natural and artificial flavors • Polyglycerol esters of fatty acids • Sodium alginate • Natural cocoa extract • Propylene glycol • Mono- and diesters of fats and fatty acids • Maltodextrin • Gelatin gum • Lactylic esters of fatty acids • Soy lecithin • Polysorbate 60 • Soy flour • Coffee

**Allergy Information:** Contains MILK • WHEAT • EGGS • SOY

Source: CSPI, Nutrition Action Newsletter, December 2009



# Food labelling has different elements



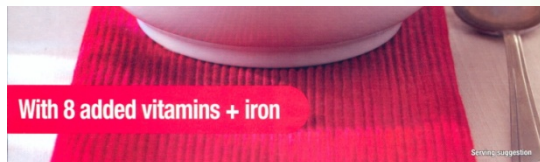
approx. per 30g cereal					
Calories	Fat	Saturates	Sugars*	Salt	Suitable for vegetarians
115	0.4g	0.1g	4.7g	0.2g	V
	Low	Low	Med	Med	
	1%	1%	6%	4%	

with added Folic Acid  
See side of pack for details

375g e

of your guideline daily amount

\*contains naturally occurring sugars and added sugars



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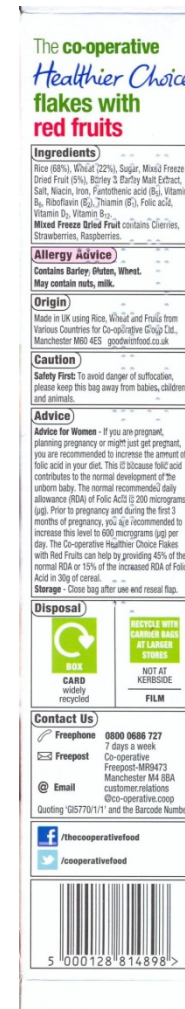
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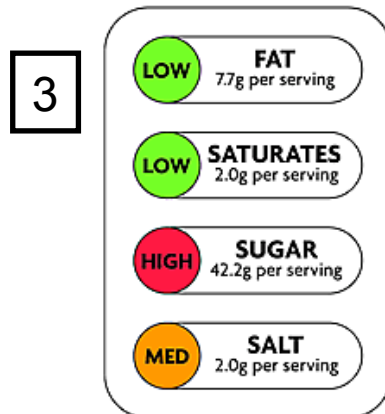
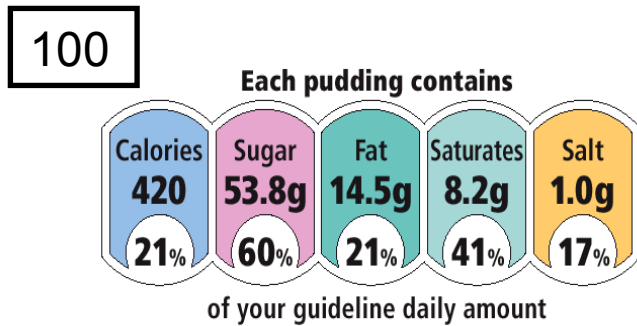


The co-operative good with food

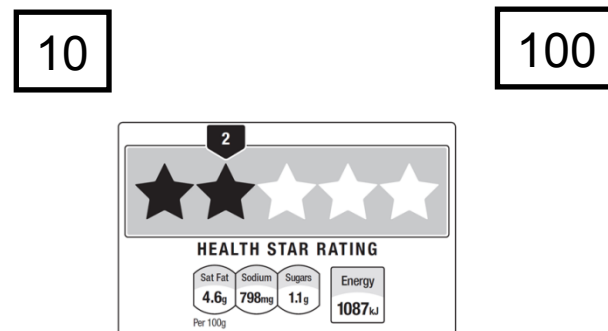
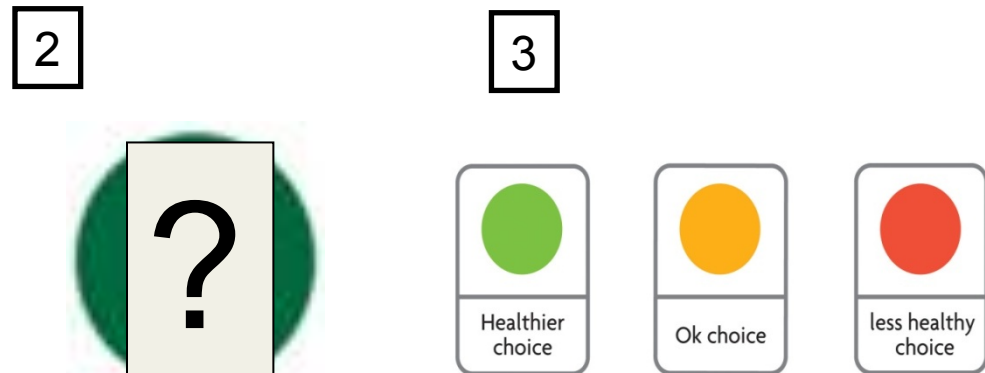


# Front-of-pack nutrition labelling: different formats

## Nutrients one-by-one



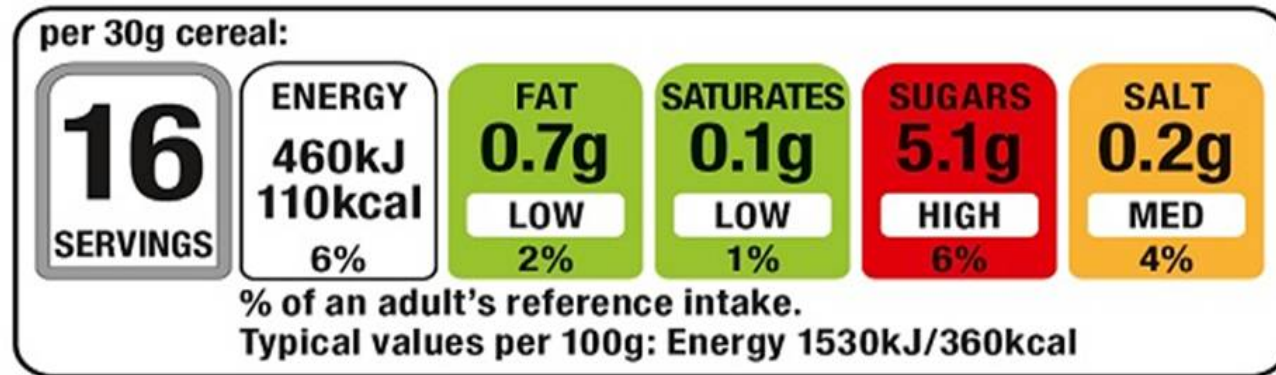
## Nutrients combined



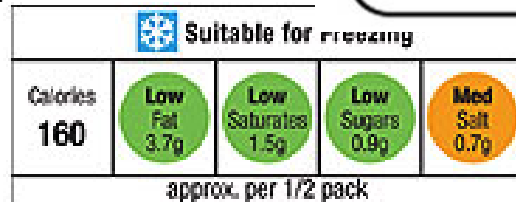


# Formats for traffic light labelling

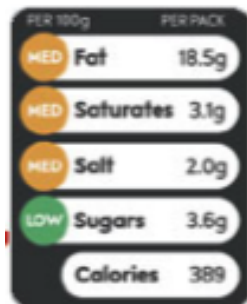
## Sainsbury's



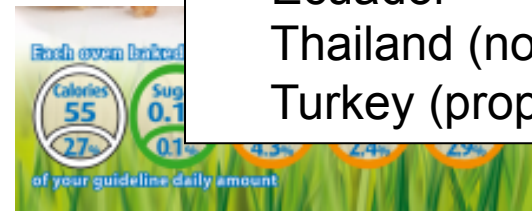
## Co-op



## Waitrose



## Bernard Matthews



Countries that have adopted traffic light labelling:

- UK
- Ireland
- Ecuador
- Thailand (now withdrawn)
- Turkey (proposal)

# Evidence for impact

- What is the impact of a traffic-light labelling on:
  - Consumer understanding (of food (and health))?
    - Good evidence; is substantial
  - Consumer behaviour?
    - Poor evidence; likely to be small

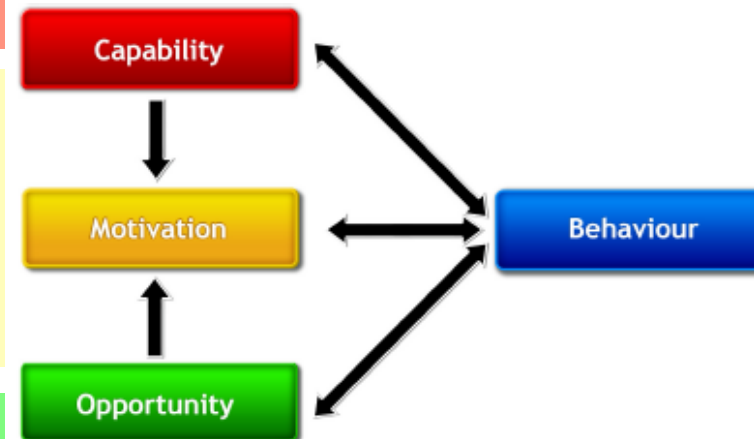
# COM-B Behavioural system



- Physical  
*the capacity to see, hear etc.*
- Psychological  
*the capacity to engage in the necessary thought processes - comprehension, reasoning*

- Reflective processes  
*involving evaluations and plans*
- Automatic processes  
*involving emotions and impulses that arise from associative learning and/or innate dispositions*

- Physical  
*afforded by the environment*
- Social  
*afforded by the cultural milieu that dictates the way that we think about things (e.g., the words and concepts that make up our language)*



Mitchie S, van Stralen M, West R (2011) The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6:42



## Education

Increasing knowledge or understanding  
*e.g. providing information to promote label use*

- Physical  
*the capacity to see, hear etc.*

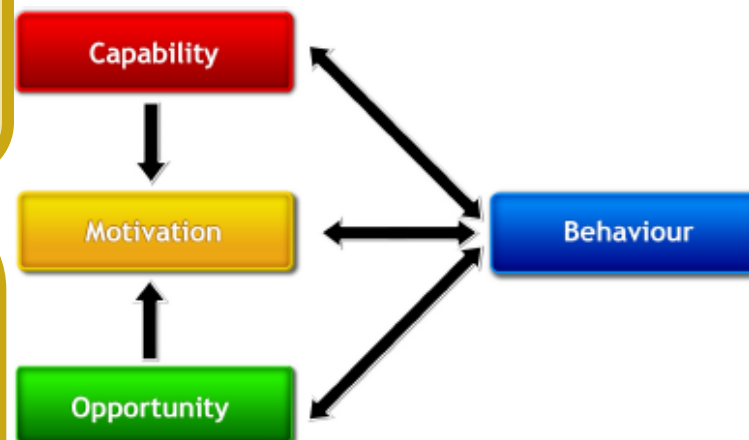
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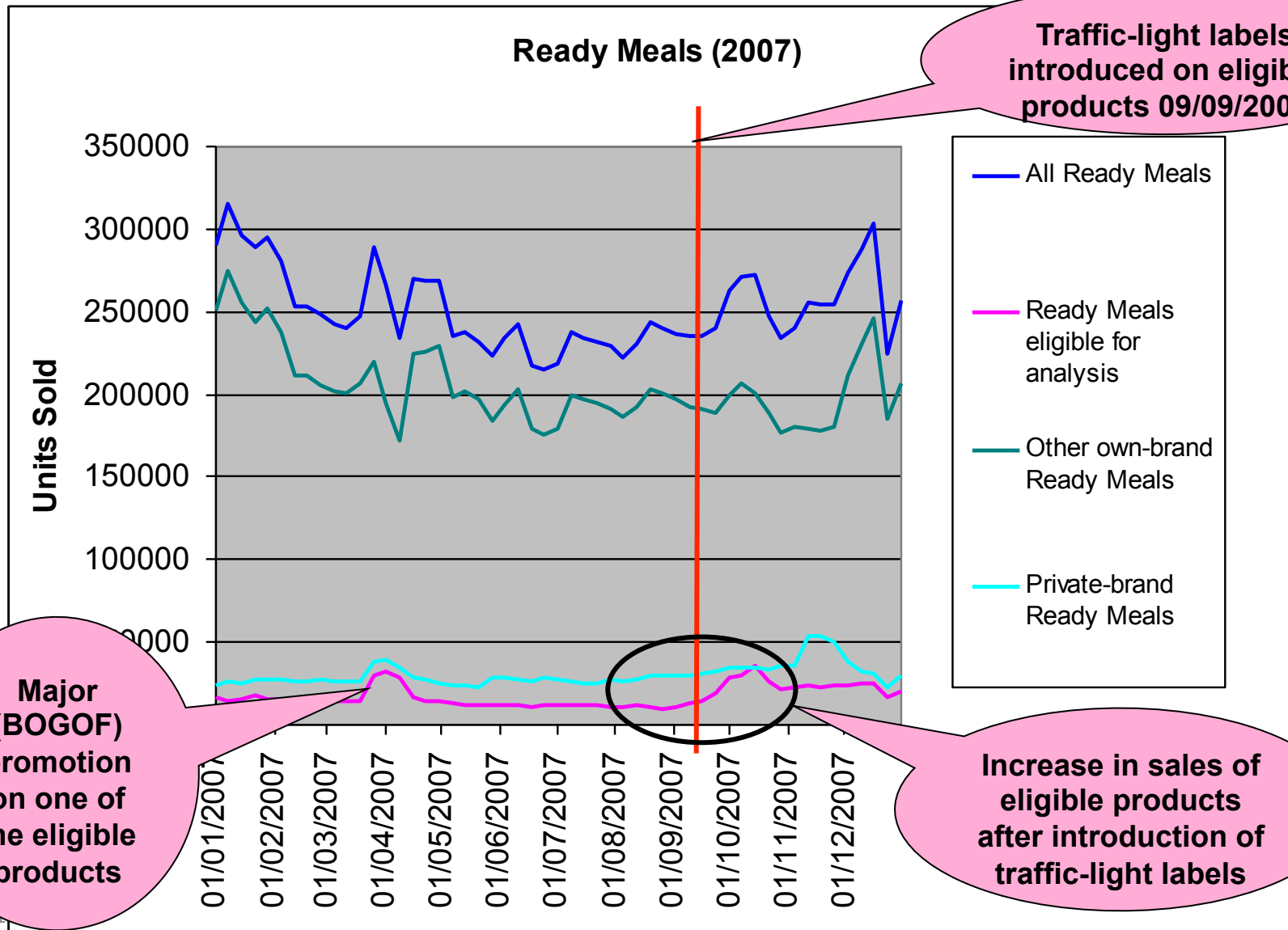


## Environmental restructuring

Changing the physical or social context  
*e.g. improving the amount and quality of food labelling*

# Ready Meals – Sales analysis (Sacks et al, 2009)

Sales breakdown highlighting eligible products



Evidence or logic?

# TESCO

6

2004



**TESCO**  
4 Breaded  
**CHUNKY PRIME  
PLAICE  
FILLETS**  
Specially selected prime  
plaice fillets, coated in  
golden breadcrumbs

**£3**  
or any  
**2 for £5**

**FRESHNESS  
FROZEN IN  
100% WHOLE  
PRIME  
FILLETS**

**A good source of omega 3**  
No artificial preservatives,  
flavours or colours

Each fillet contains

Calories	Sugar	Fat	Saturates	Salt
270	1.2g	12.8g	1.7g	0.7g
14%	1%	18%	9%	12%

of your guideline daily amount

500g  
e

Keep frozen

Weight | Display until end | Best before end | Product code

**Oven** **Boneless**

Serving suggestion

2012



# Health Star Rating



Nabisco Ritz Crackers (Mondelez)



Arnotts Jatz Original



Bega Stringers Cheestrings



Kraft StripCheese (Mondelez)





# Evidence for impact

- What is the impact of a traffic-light labelling on:
  - Consumer understanding of food (and health)?
    - Good evidence; is substantial
  - Consumer behaviour?
    - Poor evidence; likely to be small
  - Food producer behaviour (product development and reformulation)?
    - Virtually no evidence; possibly larger than effect on consumer behaviour
  - Consumer health?
    - Impossible to detect; is big

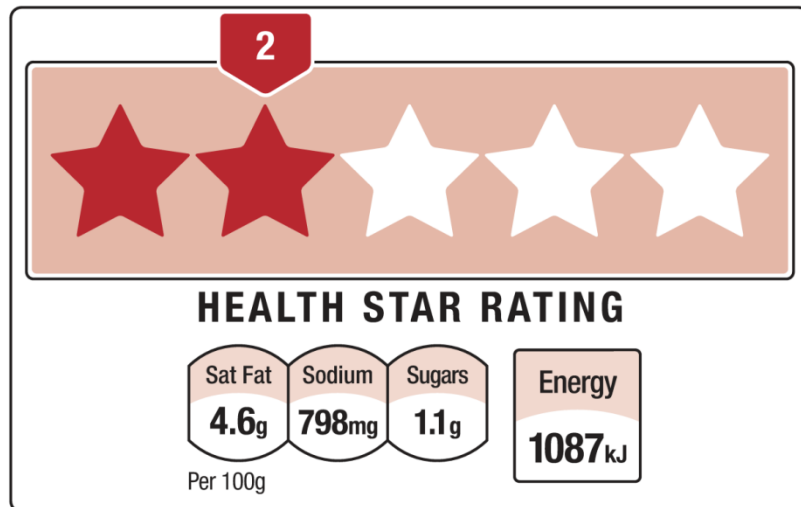
# 'Problems' with the evidence base

- Small effects, important on a population-wide basis, are difficult and/or expensive to detect
- Most studies on reported behaviour rather than actual behaviour
- Systematic reviews poorly conducted and/or with clear ideological biases
- Too much emphasis on empirical findings and not enough on logic

# A better form of traffic-light labelling



# A better form of traffic-light labelling compared with the health star rating system



# Health warnings

	Year	Examples	On
Finland	1993	'High salt content'	Bread >1.3% salt, sausages >1.8% l
Thailand	2007	"Should consume in small amounts and exercise for better health"	Snack foods
Chile	2012	"High in sodium'; 'High in sugar' ;'High in fats'	
Peru	2013	'High in sodium; 'High in sugar'; 'High in saturated fats'	
Indonesia	2013	'Consuming more that 50g of sugar, 200mg of salt, or 67g of fat per person per day increases the risk of hypertension, stroke, diabetes, and heart attack'	Processed and fast food

Sources:

WCRF, 2014

[http://www.wcrf.org/policy\\_public\\_affairs/nourishing\\_framework/nutrition\\_labelling\\_claims.php](http://www.wcrf.org/policy_public_affairs/nourishing_framework/nutrition_labelling_claims.php);

EUFIC, 2014, <http://www.focusbiz.co.uk/clientarea/eufic/publications/>

# Food labelling has different elements

The co-operative  
**Healthier Choice**  
flakes with red fruits

Crunchy rice and wheat flakes with freeze dried cherries, strawberries and raspberries.

**Low fat**

375g e

For Best Before End Date: See Top of Pack  
Store in a cool, dry place

contains naturally occurring sugars and added sugars

Healthy Eating

A healthy diet contains lots of fruit and vegetables, is based on starchy foods such as wholegrain bread, pasta and rice and is low in fat (especially saturated fat), salt and sugar. Healthier Choice Flakes with Red Fruits are low in fat as they contain no more than 3g fat per 100g of the food.

Typical Values		per 100g	per 30g cereal
Energy Value		1590 kJ	480 kJ
Calories		375 kcal	115 kcal
Carbohydrate		81.5 g	24.5 g
of which Sugars*		15.5 g	4.7 g
Fat		1.2 g	0.4 g
of which Saturates		0.3 g	0.1 g
Fibre		3.5 g	1.1 g
Sodium		0.3 g	0.1 g
Salt		0.1 g	0.2 g
Folic Acid		304 µg	91.2 µg
(% of the R.D.A.)		152 %	46 %
Niacin		27.4 mg	8.2 mg
(% of the R.D.A.)		171 %	51 %
Pantothentic Acid		8.1 mg	2.7 mg
(% of the R.D.A.)		151 %	45 %
Riboflavin (Vitamin B <sub>2</sub> )		2.5 mg	0.8 mg
(% of the R.D.A.)		179 %	54 %
Thiamin (Vitamin B <sub>1</sub> )		2.2 mg	0.7 mg
(% of the R.D.A.)		200 %	60 %
Vitamin B <sub>12</sub>		1.5 µg	0.5 µg
(% of the R.D.A.)		60 %	18 %
Vitamin B <sub>6</sub>		3.0 mg	0.9 mg
(% of the R.D.A.)		244 %	54 %
Vitamin D <sub>3</sub>		7.6 µg	2.3 µg
(% of the R.D.A.)		152 %	46 %
Iron		21.3 mg	6.4 mg
(% of the R.D.A.)		152 %	46 %

RDA = Recommended Daily Allowance  
Approx. 12 servings per pack

30g of Healthy Living Flakes with Red Fruits with 125ml Milk provides:

	Skimmed	Semi Skimmed	Whole
Calories	155kcal	170kcal	190kcal
Fat	0.5g	2.5g	4.9g
Salt	0.2g	1.9g	3.0g
Sugar*	11.5g	11.5g	16.5g
Salt	0.5g	0.5g	0.5g

Guideline Daily Amounts

Average adult	Fat	70g
Calories	2000kcal	of which 30g
		saturates
Protein	45g	Fibre
Carbohydrate	230g	Sodium
of which Sugars	90g	Salt
		6g

With 8 added vitamins + iron

The co-operative  
**Healthier Choice**  
flakes with red fruits

Make your opinion count  
your choice

We are the UK's largest co-operative. We are wholly owned by our members. It takes just £1 to join. All members are eligible for a share in profits and all members have a vote to influence the running of the business.

We are big. We're one of Britain's largest farmers, with farms north, south, east and west. And we believe that's a good thing. Our farms are able to supply local British produce to our stores. We know exactly what happens on our own farms so we can maintain best practice.

cream of the crop

Why not try one of our other delicious cereals...

The co-operative  
good with food

The co-operative  
**Healthier Choice**  
flakes with red fruits

**Ingredients**

Rice (68%), Wheat (22%), Sugar, Mixed Freeze Dried Fruit (5%), Barley & Barley Malt Extract, Salt, Niacin, Iron, Pantothentic acid (B<sub>5</sub>), Vitamin B<sub>6</sub>, Riboflavin (B<sub>2</sub>), Thiamin (B<sub>1</sub>), Folic acid, Vitamin D<sub>3</sub>, Vitamin B<sub>12</sub>.

Mixed Freeze Dried Fruit contains Cherries, Strawberries, Raspberries.

**Allergy Advice**

Contains Barley, Wheat.

May contain nuts, milk.

**Origin**

Made in UK using Rice, Wheat and Fruit from Various Countries for Co-operative Group Ltd, Manchester M9 1ES goodwinfood.co.uk

**Caution**

**Safety First:** To avoid danger of suffocation, please keep this bag away from babies, children and animals.

**Advice**

**Advice for Women -** If you are pregnant, planning pregnancy or might just get pregnant, you are recommended to increase the amount of folic acid in your diet. This is because folic acid contributes to the normal development of the unborn baby. The normal recommended daily allowance (RDA) of Folic Acid is 200 micrograms (µg). Prior to pregnancy and during the first 3 months of pregnancy, you are recommended to increase this level to 600 micrograms (µg) per day. The Co-operative Healthier Choice Flakes with Red Fruits can help you providing 45% of the normal RDA or 15% of the increased RDA of Folic Acid in 30g of cereal.

**Storage -** Close bag after use and reseal flap.

**Disposal**

BOX  
CARD  
widely recycled

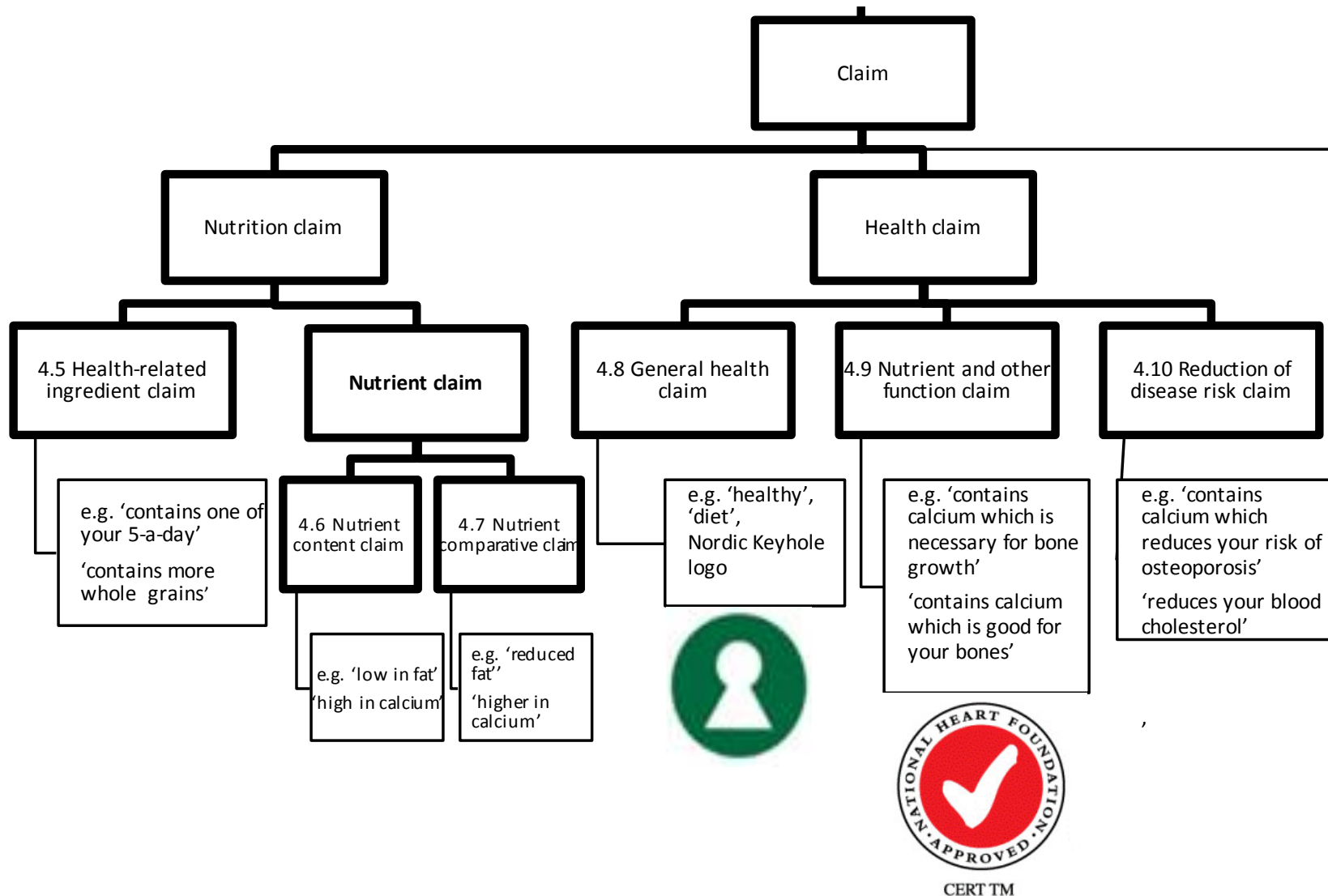
RECYCLE WITH  
RECYCLING BAGS  
AT LARGER  
STORES  
NOT AT  
KERBSIDE  
FILM

**Contact Us**

Freephone 0800 0686 727  
7 days a week  
Co-operative  
Freepost-MR9472  
Manchester M4 4BA  
customer.relations  
@co-operative.coop  
Quoting 'G5710/1/1' and the Barcode Number

f /theoperativefood  
t /cooperativefood

5 000128 814898



CERT TM

For health and nutrition claims to be useful to consumers they must be:

- True (substantiation procedures)
- Relevant (to public health)
- Only made for healthy foods (nutrient profile model )



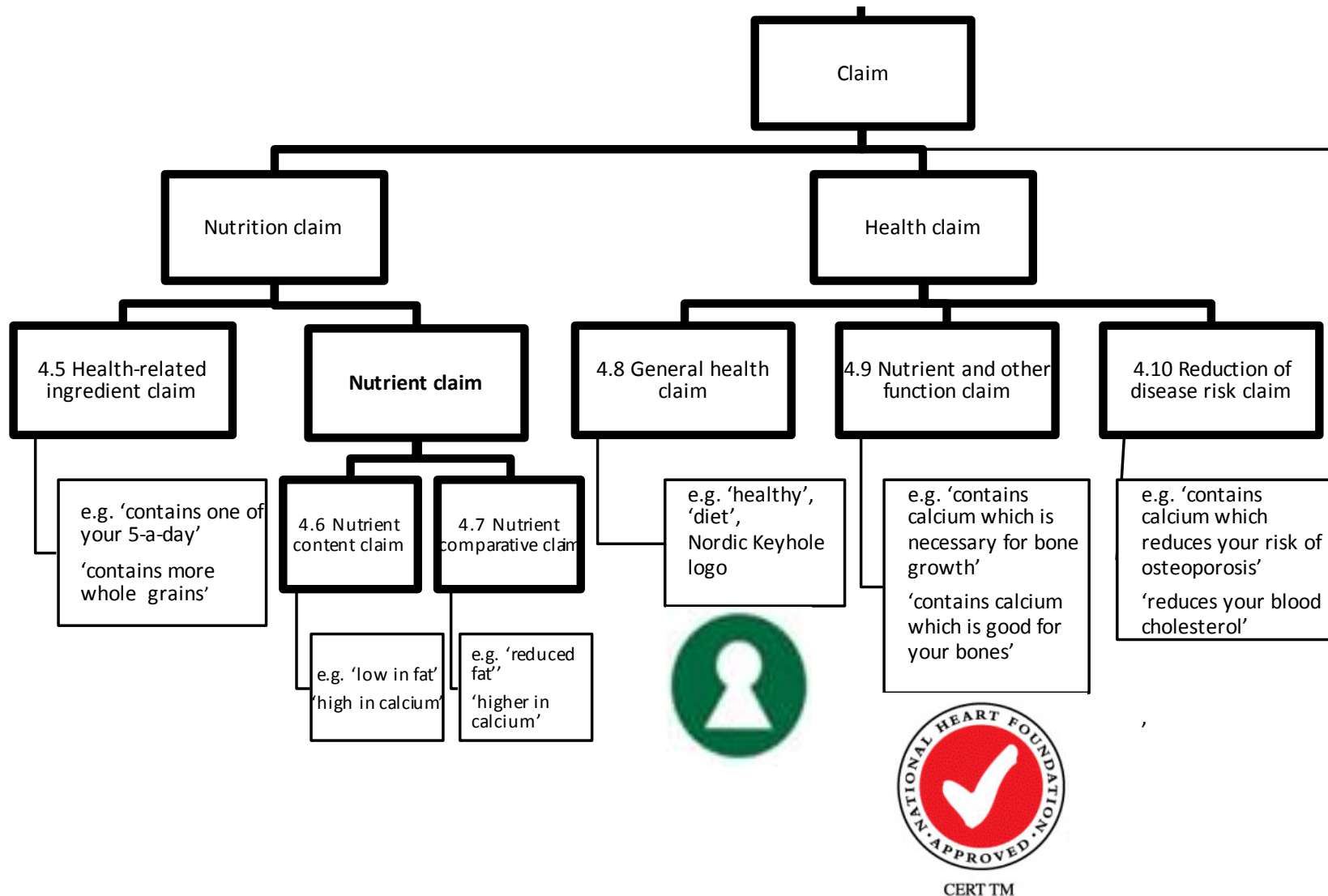
## Are foods with health claims healthier than foods without? Methods

- The home-shopping website of the major retailer in the UK – Tesco - was used as the sampling frame
- All of the pre-packaged foods sold through that website were sampled randomly in November 2011
- 400 foods was selected; 382 products were purchased
- Compositional data were supplemented with data from food composition tables

# Are foods with health claims healthier than foods without? Results

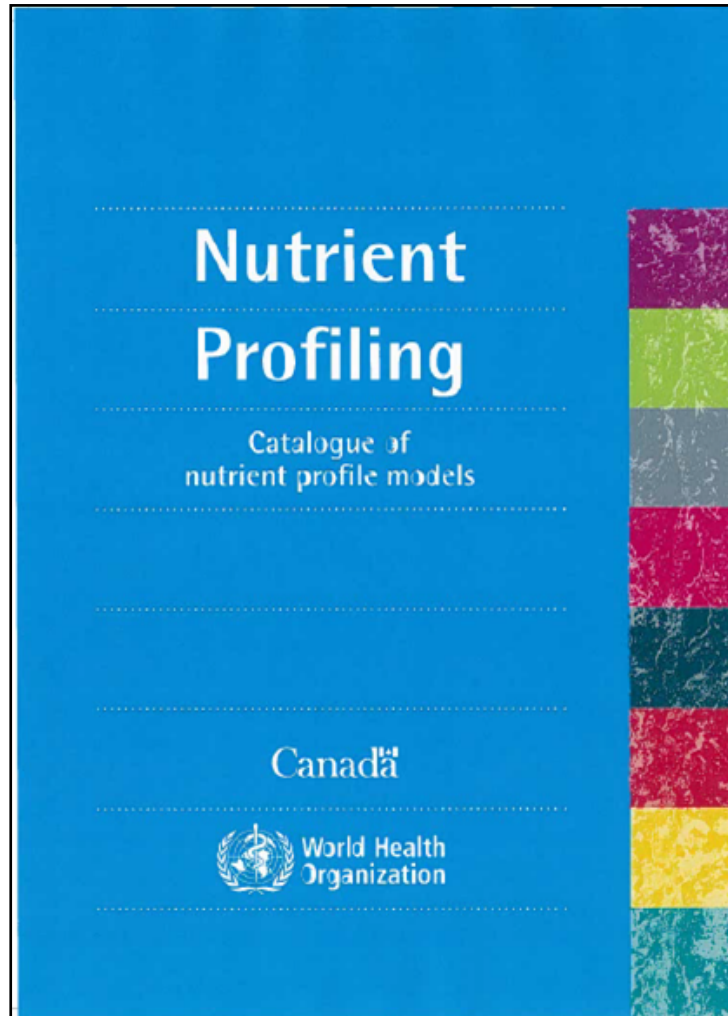
**15% of products with health claims**  
**29% of products with nutrition claims**

<b>Nutrient</b>	<b>Difference (adjusted for food category)</b>	<b>p</b>
Energy (KJ/100g)	-118.1	0.2
Protein (g/100g)	2.1	0.06
Carbohydrates (g/100g)	5.3	0.09
Sugars (g/100g)	-0.4	0.86
Fat (g/100g)	-5.7	0
Saturated fat (g/100g)	-3.0	0
Fibre (g/100g)	0.7	0.05
Sodium (mg/100g)	-97.5	0.14



CERT TM

# WHO Catalogue of Nutrient Profile Models



- Draft of 4<sup>th</sup> March 2013
- 119 models indentified, 54 met the inclusion criteria
- 14: food labelling;  
11: school food provision;  
9: marketing restrictions
- Only 19 of the included models have been validated in any way

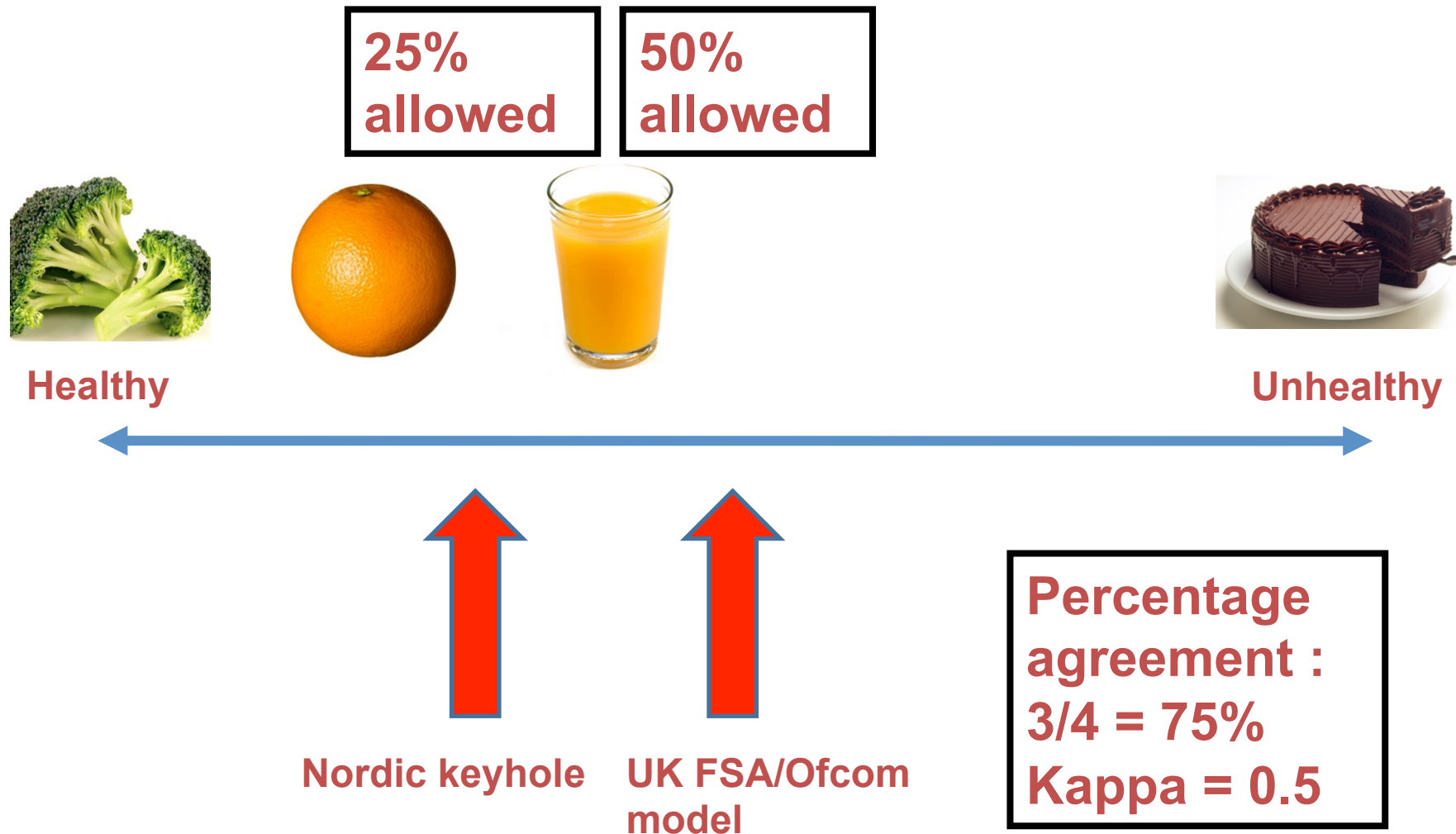
# Possible np models for 'healthier choice' claims

Scheme	Responsible agency	Country
Keyhole	Swedish National Food Administration, Norwegian Directorate of Health and the Norwegian Food Safety Authority, Danish Veterinary and Food Administration	Sweden, Norway, Denmark
Fruits & Veggies—More Matters	National Cancer Institute, Centers for Disease Control	US
Healthier Choice Symbol and Healthier Snack Symbol	Health Promotion Board	Singapore
Traffic Light Labelling	Food Standards Agency, Department of Health	UK
Heart Check	American Heart Association	US
Health Check	Canadian Heart and Stroke Foundation	Canada
Protects Health Scheme	Slovenian Heart Foundation	Slovenia
Tick programme	Australian Heart Foundation	Australia
Heart Symbol	Finnish Heart Association and Finnish Diabetes Association	Finland
Choices International	Choice International Foundation	International
GI Symbol	Glycemic Index Limited	Australia and New Zealand
The Sensible Solution	Kraft International	International
Giant Food Healthy Ideas	Giant Food	US
Smart Spot	PepsiCo	International

# Comparing nutrient profile models: possibilities

- **Strictness**
  - The percentage of foods classified as e.g. ‘healthier’ by a model
    - Overall
    - Within categories
- **Agreement**
  - The extent to which two models classify the same foods as e.g. ‘healthier’
    - Overall
    - Within categories

# Comparing nutrient profile model: strictness and agreement



## Comparing the Keyhole, Choices International and Finnish Heart Symbol: methods

- The home-shopping website of the major retailer in the UK – Tesco - was used as the sampling frame
- All of the pre-packaged foods sold through that website were sampled randomly in November 2011
- 400 foods was selected; 382 products were purchased
- Compositional data were supplemented with data from food composition tables

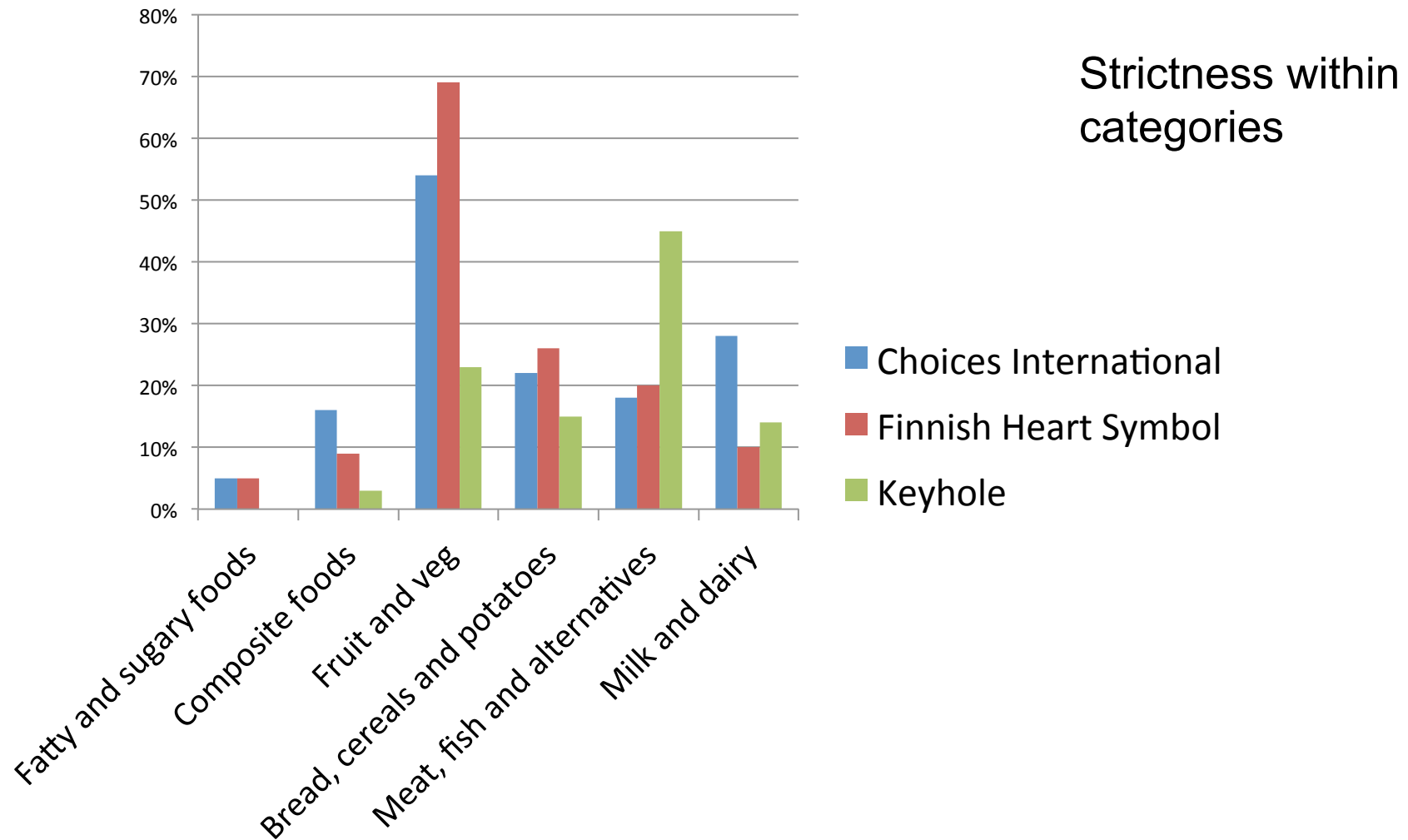


# Comparing the Keyhole, Choices International and Finnish Heart Symbol: preliminary and unpublished results

## Overall strictness

	%
Health logo model	permitted
Keyhole	13%
Finnish Heart Symbol	17%
Choices International	21%

# Comparing the Keyhole, Choices International and Finnish Heart Symbol: preliminary and unpublished results



# Informas 'standards' for food labelling

<i>Component</i>	<i>Benchmark</i>	<i>Country doing best</i>
<i>Lists of ingredients</i>	<ul style="list-style-type: none"> <li>All foods should have a list of ingredients</li> <li>All foods should have QUID for at least all characterising ingredients</li> </ul>	<ul style="list-style-type: none"> <li>Everywhere?</li> <li>Europe</li> </ul>
<i>Nutrient declarations</i>	<ul style="list-style-type: none"> <li>All foods should have a nutrient declaration</li> <li>All foods should have a nutrient declaration in line with Codex standards</li> </ul>	<ul style="list-style-type: none"> <li>US</li> <li>Australia/ New Zealand</li> </ul>
<i>Supplementary nutrition information (SNI ) (i.e. FOP nutrition labelling)</i>	<ul style="list-style-type: none"> <li>All foods should have a SNI which is as 'interpretive' as traffic-light labelling of nutrients</li> <li>The number of SNI schemes in use should be one</li> </ul>	<ul style="list-style-type: none"> <li>UK</li> <li>Europe</li> </ul>
<i>Nutrition claims</i>	<ul style="list-style-type: none"> <li>All nutrition claims should meet Codex standards</li> <li>All nutrition claims should only be made for foods which are healthy</li> </ul>	<ul style="list-style-type: none"> <li>?</li> <li>Nowhere</li> </ul>
<i>Health claims</i>	<ul style="list-style-type: none"> <li>All health claims should related to important health problems.</li> <li>All health claims should only be made for foods which are healthy</li> </ul>	<ul style="list-style-type: none"> <li>Nowhere</li> <li>Australian/ New Zealand</li> </ul>