Food composition data & Nutrient profiling

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Outline

- Definition
- Process
- Aim
- Methodology
- Basis of the FSANZ profile model
- Software programme - examples
Scope

Nutrient profiling in terms of HEALTH CLAIMS
Nutrient profiling of foods is defined ‘as the science of ranking foods based on their nutrient composition’

Drewnowski & Fulgoni III, 2007
Definition

Nutrient profiles aim to benefit both the consumer and food manufacturers by ensuring that claims do not mask the overall nutrient content of food products and by encouraging food manufacturers to improve the nutritional quality of their products.
Process

• 1: Draft Regulations Governing the Advertising and Labelling of Foodstuffs, No R. 642 - 20 July 2007

• 2: Annexure 6 “Foodstuffs not considered essential for a healthy diet and for which NO nutrient content, GI, certain comparative, health, slimming or any other claim with a health or nutritional message will be permitted”

• 3: A report “Evaluation of existing Nutrient Profiling models”
Process


• WHO workshop - April 2011

• Dept of Health, other stakeholders

• Agreed that the FSANZ -
  • best model to use as basis
Process

- In line with WHO guidelines
- Service level agreement
- Final delivery date: May 2012
- Stakeholders meeting after validation of model
Aim

To test and validate an existing nutrient profile model to be used in South Africa to assess the eligibility or not of a foodstuff to carry a nutrient and/or health claim.
Food composition data

Complete and correct nutrient composition of foods essential for the

- testing
- validation
- application of the model
Methodology

- Use the FSANZ model as basis
- Test for validity
  - Content validity
  - Convergent validity
  - Construct validity - 3 methods
Aim 1

To assess whether the nutrient profile model supports the FBDG
Methodology – Convergent Validity

Aim 2

To develop a representative dataset of foods with nutrient composition data

To produce a standard ranking of the representative foods

To use this standard ranking of the foods as a tool for testing the nutrient profile model
Methodology – Construct Validity

Aim 3

To examine the relationship between the way the profile model categorises foods and the healthiness of diets in South Africa

Hypothesis: the consumption of foods categorised as ‘healthier’ by the nutrient profile model should be higher in people who have healthy diets than people who have unhealthy diets
Aim 4

To assess if a plausible theoretical healthy diet can be constructed from only healthy foods and that no such plausible theoretical diet can be constructed from only unhealthy foods.
Aim 5
To assess if the quality of a diet can improve when ‘unhealthy’ foods are replaced by ‘healthy’ foods as defined by the nutrient profile model.
Aim 6

The software programme will be developed for end-users
Methodology - Tweaking

Tweaking if needed

- during validation
- new salt targets
- comparison with FBDG
- stakeholders meeting
FSANZ model

- 3 categories of foods
  - Cat 1: beverages (excl milk)
  - Cat 2: all other foods
  - Cat 3: cheese & processed cheese, oil, oil spreads
- Different cut points
- Each category different threshold
- Reference amount: 100g or 100ml
FSANZ model

- Used the UK model as basis
- Baseline points calculated (neg)
  - energy; saturated fat; sodium; total sugar (sum of all intrinsic and added sugars R146)
- ‘Modifying’ points (pos)
  - fruit, vegetables, nuts, legumes; fibre (in some cases); protein (in some cases)
FSANZ model

Final score =
Baseline points - (V points) - (P points) - (F points)

Thresholds
- Cat 1: < 1 - Yes
- Cat 2: < 4 - Yes
- Cat 3: 28 - Yes
FSANZ model

Demonstration

- Cat 1 foods
- Cat 2 foods
- Cat 3 foods