



Scientific Advisory Committee on Nutrition

2nd MEETING

**Carbohydrates Working Group
Fibre and Health Report Conference Call**

30 May 2008

FINAL MINUTES

Chairman: Professor Ian Macdonald

Members: Professor Alan Jackson
Professor Tim Key
Dr David Mela

Secretariat: Dr Elaine Stone (FSA)
Mrs Vicki Pyne (FSA)
Ms Emma Peacock (FSA)
Dr Sheela Reddy (DH)

Agenda item 1 – Chair’s introduction and background to the report

1. The Chair welcomed Members to the second meeting of the SACN Carbohydrate Working Group.
2. Apologies were received from Mrs Christine Gratus and Professor Annie Anderson.
3. Dr Elaine Stone outlined the background behind the Agency commissioned Fibre and Health narrative synthesis by MRC Human Nutrition Research (HNR).

4. The Agency is in negotiation with other EU member states regarding the definition of fibre for nutrition labelling purposes. The various member states hold different positions on the subject, therefore it's important to get a unified European definition to take to Codex.
5. In the UK, the definition of fibre is important for labelling purposes and for health claims legislation. Therefore, the narrative synthesis was commissioned to investigate the health effects of different fibre components for potential inclusion in the definition of fibre.
6. The Codex meeting will take place in October and the Agency will be undergoing negotiations throughout the summer. Therefore, it is imperative that SACN forms an opinion and releases a statement on the draft narrative synthesis, which Agency colleagues can use in negotiations.

Agenda item 2- Discussion of report: review of the evidence on the health effects of fibre

7. The Chair highlighted to the Working Group that the Food and Nutrition Board in the US have split the definition of fibre into two parts; firstly that material which is associated with the plant wall i.e. NSP, and secondly functional fibre, which requires there to be a beneficial effect in humans. The sum of functional fibre and dietary fibre forms their definition of total dietary fibre.
8. A member highlighted the need to consider what is the active component that confers health benefits in terms of fibre? Dietary patterns which include diets rich in wholegrain, cereals, legumes, fruit and vegetables appear to have positive health outcomes. However, is fibre a marker for other components in the diet which have these benefits or is it the fibre itself that is having an effect? For the purpose of labelling, is it aiming to capture the amount of fibre in the diet or whether these foods are marked by the presence of fibre?
9. A member raised the point that the intention was to use the diet exposures to

investigate the prevention of disease, however, the evidence in the report is focussed on the treatment of disease. No effect has been demonstrated in normal subjects, but this does not mean that fibre or fibre containing foods are not exerting an effect. The objective of many of the studies included in the review is whether they can reverse a pre-existing pathology, but this is not necessarily the same effect as preventing a pathology. Consequently, this does not address the question of whether health outcomes are associated with fibre components. There is epidemiology to show associations with fibre containing food and health, but none really for synthesised or extracted fibre that is added to food.

10. The Chair requested that the above points should be captured in the introduction of the review.

Action: Secretariat

11. A member highlighted that for labelling purposes there is the quantitative aspect of measuring fibre i.e. is fibre present or not. Also there is the aspect of making a claim on health benefits of a particular material based on its physiological property.
12. A member highlighted the point that for the purpose of health claims, the analytical methods for identifying fibre components by their chemical properties are required and not the gravimetric method. This is because the latter method gives total fibre and, thus, defining material as fibre through its physiological properties cannot be done.
13. A member pointed out that the draft Codex definition currently encompasses both methods.
14. The Chair noted that the narrative synthesis by HNR does not directly address the above point. However, it is understood that the authors cannot discuss this any further, as they are limited by the information presented in the papers reviewed.
15. The Chair concluded that the problem is that there are no dose–response data for fibre or various fibre components and their physiological effects. Therefore, it is

difficult to give advice on the levels that need to be consumed in order confer a health benefit.

16. A member highlighted that the majority of data in the review was obtained from observational epidemiology, with a large number of studies using the AOAC method of determining fibre. However, even in cases where there are a lot of prospective data, it is still not certain whether fibre is associated with specific health outcomes e.g. fibre and colorectal cancer. In addition those studies investigating functional fibres are often of short duration and, therefore, it cannot be confirmed whether an effect on health is obtained.
17. A member raised the issue of consumer understanding of fibre and the impact this would have on labelling. The public may have an understanding that certain foods that are high in fibre are healthy, however if a product was labelled with the amount of functional fibre it contains, it is likely to prove meaningless to the consumer.
18. The Chair re-iterated that a healthy diet containing fibre rich foods appears to have positive effects on health. This could either suggest that fibre could be a surrogate marker for another component of the diet or it could be the fibre itself which is having the direct effect. At present there is no convincing evidence for fibre components having a specific physiological effect. Therefore, it is up to manufacturers to produce the evidence on the health benefits of fibre components when they are trying to make a claim on their products.
19. A member requested clarity on what criterion the group are basing their view on fibre.
20. The Chair explained that when considering health effects it should be in a way that maintains the organism and that fibre could be thought of in the same way that fat and protein are, except that it is not absorbed by the gut. For example, it is not clear whether oligosaccharides do anything in the gut apart from fermentation and as this effect is beneficial to the microflora rather than the organism itself, it is not classed as a functional effect. One functional effect as a marker of benefit would be

a measure of stool bulk.

21. A member commented that if this is to be the working group's position, it needs to be made clear.
22. The Chair asked members whether they agree with a general principle of whole foods that are rich sources of fibre, such as grains, fruit and vegetables, are associated with good health in terms stool bulk. Any other potential source of fibre, whether extracted from food or synthesised chemically, requires evidence of a physiological effect that goes beyond fermentation, before considering it as fibre. There is epidemiological evidence on whole foods and health outcomes, but there is limited evidence for the effect of oligosaccharides.
23. A member raised three issues that arise through using the above approach. (1) the definition may be seen as very exclusive, (2) Confusion surrounding the definition of a whole food, particularly from an industry perspective (3) The markers of health benefit are lacking, stool bulk is the only major one. However, this definition does better distinguish what is required for claims and labelling.
24. A member stated that the definition will require clarification, but this will allow discussion. They also noted to the group that stool bulking has been used and documented as a beneficial health benefit.
25. A member requested clarification on the practicality of measuring processed food using this proposed definition, however members agreed that the group was not in a position to address this point.
26. The Chair commented that the Fibre narrative review lacks consistent summaries and asked the Secretariat how they wish to proceed with the review.

Elaine Stone confirmed that the Secretariat had drafted summaries where these were missing in the HNR report and these have formed part of the statement. In addition a paragraph will be drafted to capture the discussions of the Working Group at the beginning of the summary statement. The summary statement would then be

circulated and agreed by the Working Group prior to it being discussed by the rest of SACN at the main committee meeting in June.

Action: Secretariat

27. It was agreed that the main committee would also see the narrative synthesis at the June meeting and that the Secretariat would emphasise that it is a draft document.

Action: Secretariat

28. The Working Group were invited to make any general comments on the summary statement prepared by the Secretariat.

29. A member recommended not to use the word “effect”, but to use “association” or “relationship” and to use another word instead of “beneficial”

30. A member reiterated SACN’s preference not to use the words “positive” or “negative” when discussing associations.

31. The Chair requested that the point regarding whether fibre is a surrogate marker for health outcomes to be inserted at the beginning of the summary statement.

32. A member recommended adding the COMA definition of NSP at the beginning of the summary statement.

Action: Secretariat

33. The Chair then invited comments on individual sections of the SACN summary statement.

Obesity and metabolic disease risk

34. Under the intervention studies section, the following sentence “...fibre supplementation is more efficacious in assisting weight loss as an adjunct to a weight-reducing diet than an *ad libitum* habitual diet” is likely to reflect an association with consuming the right type of fibre in the right amounts. Where as, those on *ad libitum* diets may be consuming insufficient amounts of fibre.

35. The second from last sentence of the last paragraph of the above section, “There is

no evidence to support an effect on body weight”. The statement requires clarification whether it is referring to weight gain or weight loss.

Cardiovascular disease

36. The Working Group had no further comment regarding the cardiovascular disease summary.

Colorectal cancer

37. The Chair commented that there was no convincing evidence for fibre and colorectal cancer.

38. A member suggested referencing the WCRF report, as this reached a similar conclusion in terms of colorectal cancer.

Action: Secretariat

Colonic function

39. Members advised that the value for the faecal weight for soya products, be corrected.

Prebiotics

40. Members agreed that the first sentence of the prebiotic section needs to be truncated and that the order of the first sentence and last sentence needs to be reversed.

A member suggested that the sentence “The working group concluded that there was insufficient evidence to demonstrate any health benefits of these components”, should be changed to “.. demonstrate the putative health benefits of these components”.

Action: Secretariat

41. Members agreed that pending the above suggested changes, the Working Group are satisfied with the draft SACN summary statement.

42. Members agreed that the document should be updated and sent to the working group before being sent to the rest of the committee.

43. Members agreed that the background paper, in addition to the draft narrative synthesis is sent to all SACN members before the meeting on 12th June.

Action: Secretariat

Agenda item 4

44. No other business was discussed

45. The Chair closed the meeting and thanked members for taking part in the conference call