



Scientific Advisory Committee on Nutrition

11th MEETING

30 January 2009, Conference Room 4, Aviation House

FINAL MINUTES

Chairman: Professor Alan Jackson
Members: Professor Ian Macdonald
Dr Anthony Williams
Ms Stella Walsh
Professor Joe Millward
Professor Marinos Elia

Secretariat: Dr Alison Tedstone (FSA)
Dr Peter Sanderson (FSA)
Dr Sheela Reddy (DH)
Ms Rachel Elsom (FSA)
Ms Emma Peacock (FSA)
Mr Andrew James (FSA)

Apologies:

Dr Anita Thomas
Professor Chris Riddoch
Professor Andrew Prentice

Chairs' introduction and welcome

1. The Chair welcomed Members to the eleventh meeting of the SACN Working Group on Energy Requirements.
2. Apologies were received from Dr Anita Thomas, Professor Chris Riddoch and Professor Andrew Prentice.

Minutes from previous meeting (01 December 2008) - SACNenergy/08/min03

3. Members were invited to comment on the minutes of the previous Working Group meeting.
4. The minutes were agreed as a correct record of the 10th meeting of the SACN

Energy Requirements Working Group.

Agenda Item 3 – SACN Energy Requirements Working Group draft report

5. The Chair outlined that the focus of the meeting was to discuss the main body of the draft report.
6. The Chair thanked Dr Peter Sanderson and Professor Joe Millward for their work on the draft report.
7. Members were invited to raise any general comments on the draft report.
8. The Chair explained that from previous Working Group discussions on the energy expenditure data that the focus and challenge was arriving at an adult requirement. Two important points for consideration were raised, firstly to be clear what the reference recommendation was and secondly to what extent this was a statement for an individual or a population.
9. Members noted that it was important to be clear how the available information/data had been developed, including the assumptions made throughout the process.
10. The Chair outlined the steps that had been taken to arrive at the agreement to adopt the factorial approach for developing energy requirements for adults. The Working Group had commenced by exploring the relationship between basal metabolic rate (BMR) and total energy expenditure (TEE) to give a physical activity level (PAL), noting that there was confidence in measured BMR values, but a range in BMR can also be produced using height, weight, age and gender. The Working Group then moved on to the consideration of measures of TEE, noting that the doubly labelled water (DLW) method provided a secure measure over a day/week. Regression equations were produced to predict TEE by compiling a dataset of DLW studies, however this was not seen as representative of the UK population due to the number of the studies with small subject numbers and the over-representation of physically active subjects. A simple factorial approach with TEE based on BMR and PAL was then adopted, using PAL values derived from two large population based DLW studies which were representative of the UK population.
11. Members noted that the aim of the Working Group was to produce a DRV for a healthy population. The starting point was the considerations that although reported energy intakes were lower than the EAR the prevalence of people overweight and obese had increased with background reference to the FAO/WHO/UNU 2004 report.
12. Members noted that care had to be taken when producing a reference that was higher than the COMA 1991 DRV report, as problems could arise if policy makers use the figures without consideration of the caveats.
13. Members agreed that there was another step in the process, where the report would need to articulate and explain what the committee see as a reference figure

in regards to population behaviour.

14. A member queried how the 3rd term of reference would be dealt with – *agree population based DRV for energy, and provide recommendations taking into account age, body size, levels of activity, gender and physiological state (i.e. growth, pregnancy and lactation)*. It was noted that body size and levels of activity would be captured and managed in relation to BMR.
15. Members agreed that the fundamental problem was that the new energy reference values were higher than those set by COMA in 1991. It was agreed that further consideration on how to rationalise and move forward with the new EAR should be given. One Member suggested that the report did not sufficiently explain that although the energy reference was greater than what COMA recommended that generally the population should not eat more energy.
16. Members agreed that the process and the steps taken by the Working Group to identify a reference should be articulated clearly and logically in the report. Paragraph 94 should be broken down into bullet points so that the process is straightforward and easy to follow. It was agreed that the report should start off by indicating the insecurities of the data in addition to noting the variability in the measurement of TEE by DLW and the variability in the prediction of TEE by BMRxPAL. Unlike other nutrients, where there are biochemical outcomes and markers, energy has variability in individual and lifestyle factors that can not be captured.
17. Members noted that although the method produced a range, overall the range was very large and was therefore meaningless, due to the insecurities and variability.
18. The Chair asked members for any points on the individual chapters of the report.

Chapter 3 - Introduction

19. Members noted that Professor Millward had sent the Secretariat amendments to paragraph 6 and 7, which would be incorporated into the draft report.
20. A number of small changes to the chapter were agreed.

Action: Secretariat

Chapter 4 – Approach used to derive energy dietary reference values

21. Members discussed the issue that there may be a mismatch once children aged 18 years turn into adults. It was agreed that in the overall summary a statement would be required on how to judge the requirements in late adolescents to early adulthood, as the requirement will be lower in adulthood due to the different approach used.
22. Members agreed that it would be useful to have a summary of the approach used and the steps taken to derive the energy DRVs at the beginning of the chapter.

23. A number of small changes to the chapter were agreed.

Action: Secretariat

Chapter 5 – Energy requirements

24. Members discussed the energy requirements for infants, noting the report had produced higher values compared to the COMA 1991 DRV report due to different growth figures added.

25. Members noted that the energy requirement for infants was based on the requirements prepared for the FAO/WHO/UNU Expert consultation. It was agreed that the dataset was small and as it was not clear whether the infants included in the dataset were exclusively breastfed it was important to be clear on the assumptions made.

26. Members discussed the energy requirements for children and adolescents.

27. It was noted that ages 1 to 2 years required recalculating with the new WHO growth standards.

28. Members were informed that children and adolescents that were overweight and obese were excluded from the dataset. It was noted that as study means were used and not individual data points it was difficult to determine how representative they were of the UK population.

29. Members agreed that from looking at table 35 in the draft report that some of the studies may need to be excluded, as they appeared not to be representative of the UK population. It was agreed that the Secretariat would check through the studies.

Action: Secretariat

30. Members discussed the difference between the previous EAR and FAO/WHO/UNU requirements, noting that the differences were large, which was due to the different approaches used to estimate energy requirements in each report. The COMA 1991 DRV report based the requirements on a factorial approach, whereas the current report used regression equations.

31. Members discussed the best way to capture the EAR and the confidence intervals in the tables. It was agreed that this would require further consideration following the main SACN committee meeting in February.

32. Members agreed that the pregnancy and lactation section of this chapter required further work and consideration. It was agreed that the DLW studies in pregnancy should be examined and compared.

33. Members agreed that Dr Robert Fraser, who is a member of the SACN subgroup on maternal and child nutrition (SMACN) should be asked to comment on this section and invited to attend the main SACN committee meeting.

34. A number of small changes to chapter were agreed.

Action: Secretariat

Chapter 6 – Summary and conclusions

35. Members agreed that the summary and conclusions would need to change slightly to take on board discussions during the meeting.

36. Members noted that further consideration into the message will be required.

37. Members were asked to hand their copies of the draft report to the Secretariat where they had made any comments on the appendices.

Further steps

38. The Working Group agreed that the draft report should go to the main SACN committee meeting on 13th February 2009 to get their perspective.

39. The draft report will then be prepared to go out for public consultation at Easter.

40. It was agreed that the Secretariat would contact the Members that were unable to attend the Working Group meeting and ask for their comments on the draft report.

Action: Secretariat

41. It was agreed that the Working Group would meet again in September/October 2009.

Action: Secretariat

42. The Chair thanked the Members for attending and closed the meeting.