

Scientific Advisory Committee on Nutrition

5th MEETING OF SALT SUBGROUP

7 February 03, Food Standards Agency, Aviation House, 125 Kingsway, London

Chairman	Professor Alan Jackson
Members	Professor Peter Aggett Professor Sheila Bingham Miss Gill Fine
Secretariat	Dr Alison Tedstone (FSA) Dr Sheela Reddy (DH) Dr Adrienne Cullum (DH) Ms Mamta Singh (FSA)

Chair's Introduction

1. The Chair welcomed members to the meeting, which had been convened to finalise the report on *Salt and Health* taking account of the comments received from interested parties.

AGENDA ITEM 1 – Minutes of previous meeting SACN/SaltSub/02/min04

2. Members were invited to comment on the minutes of the previous meeting.
3. *Matters arising:* The Secretariat explained that the period of time that stakeholders were given to comment on the report was longer than the one month originally envisaged. As a result, the date for the Salt Subgroup meeting had been moved. It would therefore not be possible to make changes to the report in time for the SACN meeting on 12 February and final agreement of the report by SACN would be conducted by correspondence. It was hoped that that the text could be finalised by the end of March and the report published at the end of April/early May.

AGENDA ITEM 2 – Consideration of comments received to draft report

4. The Chair proposed that the Subgroup should consider all the comments that had been received and then go through the report section by section in order to incorporate agreed changes in the light of comments received. Members agreed to proceed in this manner.
5. Members were invited to comment on any general issues regarding the responses to the draft report.
6. Gill Fine declared an interest as Sainsbury's had submitted a response to the consultation. The Chair thanked Gill Fine and acknowledged that her interest had been noted when the Subgroup first convened and that her industrial expertise was one of the reasons she had been asked to join. If members felt that it was inappropriate for her to be at the discussions during certain issues then she would be requested to leave the room.
7. It was noted that many of the comments related to risk management and risk communication, which was outwith the remit of the Subgroup. It was agreed that it would be necessary to clarify the extent of the Subgroup's responsibilities in the report.
8. The Secretariat informed the Subgroup that comments would be passed on to the FSA or Health Departments, as appropriate.
9. The Chair expressed his concern that the draft report appeared to have been viewed by some media as a final document when it had been put forward for comment. It was agreed this type of misunderstanding could pose a potential problem for the working processes of expert committees and should be noted by the FSA and Health Departments.

10. Members were then invited to consider the specific comments. The Chair thanked the Secretariat for preparing summary tables of the responses, which members had found helpful. Table 1 provided an overview of the responses received and Table 2 outlined specific concerns raised by respondents. Members agreed that the tables were a fair summary of the comments received.
11. It was noted that 28 interested parties had commented on the draft report. 15 respondents had been in agreement with the conclusions of the report; 2 respondents agreed with parts of the report; 4 respondents raised specific points but did not state whether they agreed with the main conclusions; and 7 respondents did not agree with the conclusions.
12. The Chair asked members if they wished to comment on any points in Table 1. It was noted that the comments were generally supportive. The concerns raised in this table related to risk management issues such as implementation of the recommendations.
13. Members were then invited to consider each of the comments in Table 2, which had been organised by subject category.

General

14. The main comments under this category related to:
 - evidence base drawn from short-term studies of blood pressure (BP) responses to dietary manipulations which may underestimate the population impact of salt intakes over a lifetime;
 - lack of scientific consensus on benefits of restricting salt intakes for normotensive population;
 - data since 1994 does not provide stronger evidence of an association between sodium and hypertension but indicates more potentially fruitful approaches for reducing hypertension;

- no clear indication of potential health gains in terms of lives saved or costs involved and helpful to know how much sodium reduction has been achieved by industry & the costs involved;
 - health outcomes are the legitimate public health concern and not effects on intermediate variables such as BP;
 - report underestimates the potential impact of typical salt consumption on population health as only half the prevalence of hypertension in the community is generally diagnosed.
15. The Subgroup agreed that short-term studies were inherent to the nature of such investigations and that the necessity of longer-term studies should be included as a research recommendation.
 16. It was noted that the table of meta-analyses (Annex 10) was important in regard to scientific consensus and that a recent meta-analysis by Hooper et al (2002) should be included. However, it was agreed that it was necessary to distinguish between this meta-analysis and the others as the trials included by Hooper et al had primarily used dietary advice interventions to reduce salt intakes and was therefore a meta-analysis of the effectiveness of dietary advice in general practice.
 17. It was agreed to amend the report to state that there was *more* evidence since the 1994 COMA report, rather than *stronger* evidence.
 18. In response to concerns about the association between BP and morbidity and mortality outcomes, it was agreed to include a recent meta-analysis by the Prospective Study Collaboration (2002). This demonstrated the association between BP and vascular outcomes without any evidence of a threshold (down to at least 115/75 mm Hg) and supported a public health approach to lowering BPs.
 19. The difficulties of including specific examples of industry action in terms of actual reductions made in terms of sodium content and the costs involved was noted, as such information is not readily available. It was agreed to include evidence of salt reduction by the industry if possible.

20. The Subgroup disagreed with certain comments in this category, specifically that: the potential dangers of sodium restriction had been ignored; the report did not address the key issues and was unbalanced; the relationships between intakes of sodium and BP should have been examined by cardiovascular and renal physiologists rather than a committee advising on nutrition; and that the number of deaths in heat waves may increase if the recommendations on salt were followed.
21. In response to a comment that expressed disappointment that no reference had been made to the use of salt replacers, the Subgroup noted that this was a risk management issue and therefore outside its remit.

Dietary Exposure

22. The main comments in this section included:
 - 10-15% more realistic estimate for levels of discretionary salt rather than 15-20% quoted in report;
 - more recent data on current intakes of salt should be included in the report rather than the 1987 NDNS data quoted for adults;
 - report should state that many food additives are sodium based and in some food categories sodium contribution from sources other than salt can be quite high;
 - impossibility of generalising about the role of salt in products or levels required as this varies from product to product;
 - figures for levels in meat and meat products should not be presented together as this is misleading; reductions in total dietary salt intake would be more easily achieved by reducing salt content of cereals as these are lower risk foods in terms of microbiological safety;
 - limitation of dairy foods based on their sodium content should be considered against children's needs for calcium.
23. The Subgroup agreed to: check the figures for discretionary salt intakes; include exposure data on dietary salt intakes from the most recent NDNS (2001) if they were

available for publication; include food additives in the overall dietary exposure figures for sodium as they make only a small contribution to sodium intake.

24. With regard to comments relating to levels of salt in different products, members noted that the report presented the salt content of a range of products. This had shown that cereals and cereal products were the greatest contributors to salt intake and had also provided information on the different options for varying salt content in the diet. The report had not made a specific recommendation for limitation of dairy foods.
25. In response to a request that the steps being taken to assess the current salt intakes of children should be included in the report, the Subgroup acknowledged the difficulties and the special efforts required for obtaining accurate data for a representative sample of children.
26. A comment suggesting that major steps should be taken to work with the food manufacturers to achieve reductions at the point of food processing, was considered as an issue of risk management and outside SACN's remit.

Labelling

27. Members agreed that most comments in this category related to risk communication and were largely issues for consideration by the FSA and Health Departments.
28. Clarification was requested regarding the conversion factor for sodium to salt that should be used for labelling purposes. The Subgroup noted that the report does not specify the conversion factor to be used although the accurate figure of 2.55 has been used in one of the annexes and that this has been rounded to 2.5 by the food industry. It was agreed to insert an explanation in the report.

Evidence for a relationship between salt intakes and blood pressure

29. General comments in this category included: too much attention given to individual trials when systematic reviews provide more robust estimates of effect size; methods used by SACN ran counter to established methods of evidence appraisal.
30. Members noted that the evidence had been assessed against the template for risk assessment agreed by SACN which was available on the SACN website. It was agreed to clarify the approach used in the methodology section of the report and to explain that different types of evidence had been considered in order to build a composite picture; whilst longer term studies provided information about compliance and effectiveness, shorter term studies were useful for assessing physiological responses.
31. A comment that a disproportionate amount of the report considers data from extreme dietary distortions and restricted animal studies was considered to be inaccurate.
32. Specific comments received regarding the inclusion of animal data were that: the use of animal studies were not appropriate; too much space had been given to the study on chimpanzees; and that rat data were irrelevant to humans consuming a normal diet.
33. Members reiterated the point made earlier in the meeting, that different types of study provide different types of information. Whilst animal data were useful for examining mechanisms, the report had actually cited very few such studies. The intervention trial on chimpanzees had been highlighted because it was a well-controlled study carried out on animals with a physiology closely resembling that of humans.
34. A response recommending that the results of the TONE Study, where older hypertensives had been able to remain on medication by a successful combination of weight loss and salt reduction, should be included in the conclusions and that the findings should be disseminated to encourage GPs to help their patients make lifestyle changes was considered to be a risk management issue.

35. A comment relating to the DASH Sodium trial stated that the most relevant conclusion from this trial was that a diet high in fruit and vegetables with reduced total and saturated fat has a highly significant impact on BP reduction whereas reduction of sodium had little impact. Members noted this statement was incorrect as DASH Sodium had demonstrated additional decreases in blood pressure in response to reduced sodium levels. Another comment noted that the greatest reductions were achieved when the DASH diet was combined with low salt diets demonstrating that a healthy whole diet was most effective as a population based approach to lowering BPs. Members confirmed that this had been stated in the conclusions section of the report.
36. The Subgroup noted that the comments regarding the meta-analyses section had been covered earlier in the meeting.

Salt Sensitivity

37. In response to the comment that potassium was also related to salt sensitive status and had not been considered, the Subgroup noted that the interdependent role of sodium and potassium had been explained in another section of the report.
38. Other comments in this category questioned whether targeting salt sensitive individuals with advice to reduce salt intake would be more appropriate than a population based approach. Members agreed to explain in more detail the rationale for why the report advocated a population-based approach.

Role of other factors in hypertension

39. Responses in this section questioned why the role of other factors in hypertension had only been considered briefly as this created the impression that salt intake is the major factor controlling BP and that the role of other minerals, healthy lifestyles, physical activity and body weight, should have been highlighted. Members noted that they had been requested to specifically consider salt and a more detailed consideration of other factors was beyond their remit. The Subgroup acknowledged

the importance of other factors in hypertension and it was agreed to place greater emphasis on the role of physical activity and lifestyle by including them in paragraph 7.6 of the conclusions.

Salt and other health outcomes

40. The Subgroup had been asked to include the role of sodium/salt in the treatment of renal stones, nephrotic syndrome and renal failure. Members agreed that these were clinical considerations and beyond the remit of the Subgroup.
41. Members agreed to consider further specific studies, cited in relation to the role of salt in bone health.

Targets recommended for salt intake

42. In the targets recommended for salt intake, adults had been defined as 15 years upwards. The Subgroup agreed to amend the wording to *people* aged 15 years upwards.
43. Clarification had been requested regarding why no differentiation had been made in targets for men and women which had previously been set by COMA in 1994 at 7g and 5g respectively. The Subgroup agreed to explain in the report that the 6g target intake set by COMA represents a population average of 5g for women and 7g for men.
44. Although an explanation of the differences between *daily target intakes* and *Reference Nutrient Intakes/Dietary Reference Values* is provided in the report, it was agreed to reiterate the differences as requested.
45. In response to the comment that a reduction from 9 to 6g and the lower amounts set for children could have considerable “personal and social costs”, the Subgroup agreed that this was a risk management issue and outside SACN’s remit.

46. One comment suggested that the target intake for salt should be the same as the Reference Nutrient Intake (RNI) of 4g/d, so that it could be incorporated into a strategy to reduce intake in a stepwise manner towards the RNI. The Subgroup felt that a longer term strategy was a separate discussion and beyond their remit.
47. In response to the comment regarding the urgency in implementing targets for salt reduction in terms of lives saved, members noted that this was the reason that salt was agreed as the first issue for risk assessment by SACN.
48. SACN were advised that WHO had set a worldwide adult target of 5g/d for salt intake, however it was noted that this recommendation was still in draft form.

Implementation of recommended targets

49. Members noted that issues regarding implementation of targets were risk management issues and beyond the remit of the Subgroup.

Children

50. General comments relating to children included:
 - approach adopted in reviewing the evidence for adults, should also be adopted for children;
 - concern expressed about potential risks of hyponatremia as children lose significant amounts of salt through sweat.
51. The Subgroup noted that the lack of data on exposures and outcomes in children meant that the approach adopted for adults could not be followed. Members disagreed that children were at risk of hyponatremia and were not aware of evidence that children lose significant amounts of sodium through sweat.
52. The main concerns regarding recommendations for target salt intakes for children were that: the approach used to set the targets had not been clearly explained; rounding of the target figures could mean exclusion/inclusion of a nutritious food

such as a thin slice of bread; and that the target levels for children had been set too low to be realistically achievable. Concern was also expressed regarding the choice of age groups for the recommended targets.

53. The Subgroup agreed to take these comments into account when considering the children's section of the report.
54. One comment stated that the occurrence of Left Ventricular Hypertrophy (LVH) in children was related to BP measurements and not sodium intake and that the condition may be genetically determined. The Subgroup noted that the report had not stated that LVH in children was related to sodium intakes but that it had been associated with their BP measurements and that it is not known whether LVH is genetically determined.

Conclusions

55. Comments in this category included that the data since 1994 demonstrated a limited impact despite reductions in sodium intake and that there was no evidence that average British salt intake was other than the physiological norm. The Subgroup noted that there had not been reductions in sodium intake on a population basis and disagreed that average British salt intake was the physiological norm.
56. It was agreed to extend conclusion 7.7 to cover foods prepared and/or served outside the home and to use of salt in home cooking and at the table.
57. In response to a suggestion for a summary section indicating the strength of evidence for the different conclusions and the research necessary to bring evidence up to levels regarded as necessary for clinical guidelines, the Subgroup felt that these were risk management concerns and recommendations for research.
58. One of the responses received expressed disappointment that the conclusions had made no mention of communication or education about the role of salt. The Subgroup felt that it was inappropriate to comment about communication issues in

the report as this was not the role of SACN. It was agreed that clarification was required regarding the role of an advisory committee, i.e. risk assessment and not risk management, and that this issue needed to be discussed at the next SACN meeting. It was agreed that these issues could be explained in a preface to the report together with suggestions for management and concerns of risk.

Research recommendations

59. The Subgroup were in agreement with the comment that the key areas for future research identified in the report should be brought together in a separate section.
60. It was agreed that recommendations for research on whether *home prepared* meals are lower in salt than ready prepared meals and the contribution of foods eaten outside the home to overall salt intakes in the UK should be included in the research recommendations.
61. A recommendation that further research should be carried out to assess feasibility of the target levels for children and their potential impact on the overall diets of children was considered to be a modelling and risk management issue.
62. In response to the recommendation to identify multiple genetic polymorphisms that contribute to variability of BP responses as a matter of urgency, the difficulties of such research was noted as this would require very large studies.
63. The Subgroup then went through each section of the report and agreed changes to the text taking account of their discussions
64. It was agreed that the Chair would give an oral report of the groups deliberations at the next SACN meeting.

AGENDA ITEM 3 – Consideration of further work

- 65. It was agreed that the Secretariat would amend the text as agreed and circulate to members for their comments within the next three weeks.
- 66. It was agreed to include an *Executive Summary* in the report and a *Preface* outlining some of the risk management issues.
- 67. It was agreed that the Secretariat would draw up a timetable for completion of the report to be tabled at the SACN meeting on 12 February.

AGENDA ITEM 4 – AOB

- 68. There was no other business.