

Scientific Advisory Committee on Nutrition

16th MEETING OF THE SUBGROUP ON MATERNAL AND CHILD NUTRITION
30 September 2011, Wellington House, 133-155 Waterloo Road,
London SE1 8UG

DRAFT MINUTES

Attendees:

Dr Anthony Williams (Chair)
Dr Ann Prentice
Professor Annie Anderson
Professor Peter Aggett
Dr Robert Fraser
Dr Sian Robinson
Dr Stella Walsh

Secretariat:

Dr Sheela Reddy
Rachel Elsom

Observers:

Dr Alison Tedstone (DH)
Sarah Hardy (FSA)
Dr Sarah Rowles (Welsh Government)
Helen Yewdall (Scottish Government)

Chair's Introduction

1. The Chair welcomed Members to the 16th meeting of the Subgroup on Maternal and Child Nutrition. Apologies were received from Professor Alan Jackson, Dr Ken Ong and Rachel White.

AGENDA ITEM 1 – Minutes of last meeting (SMCN/11/min01)

2. Members were invited to comment on the minutes of the previous meeting on 19 January 2011 (SMCN/11/min01). The minutes were agreed as a correct record of the meeting.

Matters arising

3. Dr Sheela Reddy reported that all actions arising from the previous meeting had been completed.
4. Members commended the professional in-house production of the Committee's report on 'The influence of maternal, fetal and child nutrition on the development of chronic disease in later life'. Concerns were raised, however, regarding its limited circulation and Members asked the Secretariat to investigate whether further copies could be printed.
5. The Secretariat informed Members that the report has an ISBN number. The Secretariat agreed to check whether the report is available from The Stationery Office (TSO) as a purchasable hard copy.

ACTION: Secretariat**AGENDA ITEM 2 – Terms of Reference for the Subgroup (SMCN/11/03)**

6. The Chair informed Members that amendments had been made to the Terms of Reference (ToR) for the Subgroup following the main Committee meeting on 7 June 2011.
7. Members discussed the ToR and agreed the following revised wording:

“To advise, through the Scientific Advisory Committee on Nutrition (SACN), on such aspects of maternal and child nutrition, as are referred to it by the UK Health Departments and SACN.”

8. Agreement for the proposed revised ToR will be sought from the main SACN Committee at the next meeting on 19 October 2011.

ACTION: Secretariat

9. The Secretariat confirmed that SMCN members not on the main SACN Committee are able to raise issues with the Subgroup Chair and thereby proactively add items to the agenda for consideration. It was also clarified that issues raised by the devolved administrations (Scotland and Northern Ireland) of the Food Standards Agency would be directed to the Subgroup via the relevant health department and SACN.

AGENDA ITEM 3 – Timing of folic acid supplementation for prevention of NTDs (SMCN/11/04)

10. The Chair informed Members that the Department of Health had been asked by the Association for Spina Bifida and Hydrocephalus (ASBAH, now known as SHINE – Spina bifida, Hydrocephalus, Information, Networking, Equality) to consider its messaging on the appropriate time for women to begin taking supplements containing folic acid prior to conception. ASBAH believe that there is evidence to advise women to take folic acid ‘three months before and three months after’ conception and that this would help to reduce the risk of neural tube defect (NTD) affected pregnancies. This is based on updated clinical guidelines from the Society of Obstetricians and Gynaecologists of Canada and The Motherisk Program which have informed the recommendations by the Canadian Federal department Health Canada and the Public Health Agency of Canada. The latter have been adopted by ASBAH in the UK.

11. Members were reminded of the current UK Government policy:

To prevent NTDs all women who could become pregnant are advised to take 400µg/day of folic acid as a medicinal or food supplement prior to conception and until the 12th week of pregnancy. Women with a history of a previous NTD-affected pregnancy are advised to take 5mg/day of folic acid prior to conception and until the 12th week of pregnancy.

12. The Chair clarified that it was not proposed that the current UK advice would be changed, rather that a ‘rider’ to that advice could be added if supported by the evidence that women planning a pregnancy should start taking a supplement containing folic acid three months prior to conception.

13. Members discussed the issue and evidence as set out in paper SMCN/11/04.
14. Members noted that there is no primary evidence linking duration of folic acid supplementation prior to conception with risk of an NTD-affected pregnancy. Members expressed concern that issuing specific advice on the optimum time to start taking folic acid supplements particularly when there is a lack of evidence to support it. Concerns were expressed that such advice could unintentionally make women feel anxious and guilty if they have not followed the recommendations particularly if they go on to have a NTD-affected pregnancy. Members noted that around 50% pregnancies in the UK are unplanned.
15. Members discussed the two commonly used surrogate markers for the risk of NTD, plasma folate and RBC folate. They noted that RBC folate is a better indicator of folate status because it is not subject to day to day variation. It is not known, however, how either plasma folate or RBC folate relates to tissue availability, or how quickly folate can be effective in the tissues where it is required for neural tube development.
16. Members agreed that due to insufficient evidence they were unable to specify the length of time prior to conception that women of childbearing age should be advised to start taking folic acid supplements. They concluded that there is no direct evidence relating timing of folic acid supplementation for a known minimum period prior to conception with a decreased risk of having an NTD-affected pregnancy. However, they stressed the importance of taking supplements to achieve adequate status during child-bearing age to help prevent NTD pregnancies.
17. Members were unable to identify specific evidence to support the recommendations made in Canada. It was noted that these recommendations were made more for pragmatic reasons. Advice to take folic acid supplements at least three months prior to conception ties in with other pre-conception advice with regard to medication and other lifestyle changes (e.g. alcohol avoidance and smoking cessation etc).
18. Members stressed that more research is required in this area.

AGENDA ITEM 4 – Presentation by Dr Helen Crawley: Early years and young child feeding: science to practice

19. Dr Helen Crawley was invited to attend the Subgroup meeting to give a presentation on her work in translating nutrient recommendations for infants and young children into practical food-based guidance for health professionals, children’s care settings and parents/carers. In her role as Science Director of the public health nutrition charity The Caroline Walker Trust, Dr Crawley has developed guidance materials including “Eating Well: First Year of Life” and “Eating Well: 1-4 Year Olds” and as a member of the Advisory Panel on Food and Nutrition in Early Years, has helped shape the School Food Trust’s “Eat Better, Start Better” project to improve food provision for children aged 1-5 years in early years settings.

20. Dr Crawley gave an overview on how dietary reference values (DRVs) and food-based recommendations have been translated into practical advice, such as menu plans, recipes and portion size guidance, for use in a number of resources produced by The Caroline Walker Trust and School Food Trust (see above). These resources are used to support a workforce where visual materials are often needed.

21. Dr Crawley pointed out that the limited evidence base (for example, out of date dietary composition databases) and the need to make a number of assumptions are particularly problematic. She highlighted a range of issues that also need to be considered e.g. cost, skills, acceptability, food culture, and sustainability, particularly with regards to advice on fish consumption, and further stressed the need for guidance to be consistent and practical.

22. Members discussed a number of issues raised in Dr Crawley’s presentation. This included the difficulties in achieving salt targets and requirements for iron, which may require modelling work to determine whether the recommendations are achievable. Members also noted SACN’s revised energy reference values for infants and young children which may have implications for dietary guidelines aimed at this age group.

23. The Chair thanked Dr Crawley for her interesting and useful presentation, which will help inform the Subgroup’s initial considerations of the review of complementary and young child feeding.

**AGENDA ITEM 5 – Review of complementary and young child feeding
(SMCN/11/05)**

24. The Chair stressed the daunting size of this task and reminded Members of the need to be realistic with regards to what can be achieved given time and resource constraints.
25. Members were referred to the minutes from an ad hoc Expert Group meeting held in December 2000 at which it was agreed that “there was sufficient scientific evidence that exclusive breast-feeding for 6 months is nutritionally adequate. However, they [Members] also agreed that there should be some flexibility for those mothers who might wish to introduce complementary foods at the completion of 4 months and that any proposed statement should be clear about the duration by using the word weeks instead of months.”
26. Members agreed with the Chair’s proposal that the current Department of Health policies on duration of exclusive breastfeeding and timing of introduction of complementary foods should be reiterated in the review. These policies should then be re-examined in light of evidence published since the World Health Organization report ‘Optimal duration of exclusive breastfeeding’ in 2001.
27. The Chair led Members through the Terms of Reference (ToR) for the review (SMCN/11/02) and highlighted that this Working Group is concerned with population health and not clinical advice. Members were informed that responsibility for food safety remains with the Food Standards Agency.

Maternal micronutrient status

28. Members discussed the nutrients for which different Dietary Reference Values (DRVs) have been set for lactating and non-lactating women. The Secretariat was asked to tabulate the nutrients where a specific increment has been established for lactation in the COMA DRVs report and in the US Institute of Medicine (IoM) Dietary Reference Intakes report (e.g. calcium, selenium, iron and energy). This will inform discussions regarding whether these increments are justified, particularly in light of the breast milk composition paper (SMCN/11/06/Annex 2).

ACTION: Secretariat

29. Members discussed the breast milk composition paper (SMCN/11/06/Annex 2). The Secretariat was asked to prepare a table detailing the Dietary Reference Values (DRVs) for nutrients where dietary intakes of the mother may modify breast milk composition. Members agreed that there should be a review of the evidence for micronutrients where the body of evidence since 1991 suggests the need to revise the DRVs (e.g. calcium) or where the impact of low status in lactating women on infant health outcomes is unclear (e.g. there is a lack of evidence on iodine, riboflavin, n-3 fatty acids, zinc and vitamin B12). Such a review should be restricted to supplementation trial data.

ACTION: Secretariat

30. Members noted the increasing concern regarding iodine status in the UK. Iodine status of breastfed infants in the UK is not known and Members stressed that the iodine status of breastfeeding women must also be considered. Members were informed that iodine would be discussed at the main SACN meeting in October 2011.

31. Members discussed riboflavin status in the UK. There has been some uncertainty about the functional significance of low biochemical status in the National Diet and Nutrition Surveys but low riboflavin intake has also been noted in some population groups, particularly girls and younger women.

32. Members stressed that the review should consider how maternal intake of n-3 long chain polyunsaturated fatty acids (LCPUFAs)/oily fish affects breast milk composition and in turn the status of the infant. Such considerations could inform discussions on the place of n-3 LCPUFA supplements when breastfeeding.

33. Members agreed that the Committee on Toxicity (COT) should be approached to provide the latest evidence and advice on the transfer of PCBs, dioxins and other contaminants via breast milk. Advice regarding alcohol transfer through breast milk should also be sought.

ACTION: Secretariat

34. Members discussed vitamin D and vitamin B12, as deficiency of these two micronutrients has been described in exclusively breastfed infants born to mothers with low status. Members were informed that vitamin D issues will be handled collaboratively between SMCN and SACN's Working Group on Vitamin D.
35. Members noted that it would be important to consider what advice is required regarding vitamin B12, specifically in relation to vegan mothers. They highlighted that more data are needed on the vitamin B12 status of vegan and vegetarian women in the UK.

Duration of exclusive breastfeeding and timing of introduction of complementary foods

36. Members discussed the duration of exclusive breastfeeding and the timing of introduction of complementary foods. The Secretariat was asked to scope the literature for evidence of: 1) the current prevalence of exclusive breastfeeding at six months; 2) risks associated with exclusive breastfeeding for six months; 3) benefits associated with exclusive breastfeeding for six months; 4) risks associated with the introduction of complementary foods before six months; 5) the impact on infant health outcomes of introducing complementary foods at four months compared to six months; 6) the extent to which exposure to breast milk changes health outcomes.

ACTION: Secretariat

37. Members noted that there was a good case for considering exclusively breastfed, exclusively formula fed, and mixed fed babies, separately.
38. Members identified a number of questions that should be addressed when considering how babies introduced to solid foods at around four months compared to six months differ: 1) are they being breastfed at time of introduction of solids?; 2) at what age were complementary foods introduced?; 3) what is the composition of the complementary feeding diet?
39. Members stressed that the three key questions to address in this section of the review will be: 1) when should complementary foods be introduced?; 2) what foods should be introduced?; and 3) what is the role of breastfeeding during the complementary feeding period?

Allergens

40. Members noted that it would be necessary to collaborate closely with COT regarding the latest evidence and advice on the introduction of allergenic foods such as gluten-containing foods and peanuts.
41. Members agreed that it would be best to wait until results from two large-scale intervention trials, the LEAP (Learning Early About Peanut Allergy) and EAT (Enquiring about Tolerance) trials, are available before conducting a full-scale review of this area. Members were also informed of an Australian study investigating the introduction of egg in relation to allergy development which is due to report in 2015. The Secretariat agreed to scope the literature to determine whether there are any other large-scale studies that have recently reported in the allergen area.

ACTION: Secretariat***Risk of infection***

42. Members noted that it would also be necessary to scope the literature regarding infection risk in relation to breast milk exposure and timing of introduction of complementary foods.

ACTION: Secretariat***Micronutrients***

43. Members noted that the recent SACN Iron report had examined iron status in exclusively breastfed infants. They further noted that it would be necessary to review the latest evidence on zinc and copper.

Drinks

44. Members discussed how advice regarding drinks should be approached. They noted that it is not possible to look at this in a systematic way but stressed that the use of water and other drinks should be included in the review. The National Diet and Nutrition Survey (NDNS) was highlighted as a useful source of information, providing data on what types of drinks are currently offered to babies.

Diversification of the diet and acceptance of complementary foods

45. Members discussed issues relating to diversification of the diet and acceptance of a wide range of complementary foods. Members agreed that it would be necessary to review the existing literature on aspects of behavioural psychology and that external experts should be approached to carry out this task.

ACTION: Secretariat

46. Members stressed the importance of considering the relationship between introduction of complementary foods and the development of speech and language.

47. Members agreed that evidence, including policy documents, published since COMA's report on The Weaning Diet (1994) should be reviewed.

48. Members stressed the need to consider the implications of the revised energy reference values, which may affect DRVs for some micronutrients and may also impact on food provision in institutional settings.

Next meeting

49. The next Subgroup meeting will be held on 31 January 2012.