

SACN Secretariat
Public Health England
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23/09/2015

Dear SACN secretariat,

Re: A response from MRC Human Nutrition Research to 'Consultation on draft SACN Vitamin D and Health report – Sept 2015'.

HNR welcomes the opportunity to comment on the SACN's consultation on the Vitamin D and Health report. These comments were prepared by senior staff at HNR and do not necessarily reflect the view of the MRC. We hope they will make a useful contribution to this consultation and we would be pleased to have further discussions on specific issues if this would be helpful.

MRC Human Nutrition Research (HNR) aims to improve health through nutrition research. We conduct nutrition research and surveillance to improve the health of the population with a focus on cardiometabolic risk and obesity, musculoskeletal health, intestinal function and nutritional vulnerabilities.

Through the Nutrition Surveys and Studies (NSS) collaborative programme, HNR inputs to highly strategic policy and public health relevant research and surveillance programmes, including the UK National Diet and Nutrition Survey Rolling Programme (NDNS RP). The NDNS has been delivered by HNR in collaboration with NatCen Social Research (lead contractor) since the outset of the rolling programme. As scientific lead, HNR takes responsibility for all nutritionally-related inputs ranging from design and development, support for fieldwork, data and sample collection, through laboratory and data analysis, to interpretation and reporting of results.

We have reviewed the draft SACN Vitamin D and Health report which we consider provides very comprehensive review, including the most recent evidence. It builds on the IOM report and is an important and authoritative reference work. Our comments on the draft are a reflection of HNR's expertise in the measurement and standardisation of 25-hydroxyvitamin D (25(OH)D), population nutrition, national survey data and in nutrition and bone health.

Public Health implications

The overall conclusions of the draft SACN report state that serum 25(OH)D concentrations of the UK population should be $\geq 25\text{nmol/l}$ throughout the year. Furthermore, a Reference Nutrient Intake of $10\mu\text{g/d}$ for those aged 4 years and over is required to achieve this. We agree that these recommendations are reflective of the most recent evidence in this area, which should inform future policy and public health.

We note that determining clinical cutoffs for vitamin D deficiency is beyond the scope of the SACN report and this may be a consideration for managing dissemination of the report.

Implications for the NDNS

The NDNS is an important source of population status and intake data which we note has been used to inform the SACN report. The NDNS will also be important for ongoing monitoring, and evaluation of any changes in recommendations relating to both vitamin D status and intake. We are confident that any new recommendations for 25(OH)D status can be incorporated into the reporting framework of future NDNS results.

Measuring vitamin D exposure

Appropriate measurement of vitamin D exposure is essential to inform overall health implications. The SACN report has described vitamin D measurement in an accurate and clear manner.

Editorial comments

Pages 38-39:

Paragraph 206. We think a comment should be added that low BMD may be due to osteoporosis *or* osteomalacia and distinction cannot be made between the two with DXA measurement e.g.

- Bishop et al. Fracture prediction and the definition of osteoporosis in children and adolescents: the ISCD 2013 Pediatric Official Positions. J Clin Densitom. 2014 Apr;17(2):275-280. doi:10.1016/j.jocd.2014.01.004
- Crabtree NJ et al. Dual-energy X-ray absorptiometry interpretation and reporting in children and adolescents: the revised 2013 ISCD Pediatric Official Positions. J Clin Densitom. 2014 Apr;17(2):225-42. doi: 10.1016/j.jocd.2014.01.003

Paragraph 208. We suggest that the recently published ISCD guidelines for the clinical assessment of bone in children should be included i.e.

- Bishop et al. Fracture prediction and the definition of osteoporosis in children and adolescents: the ISCD 2013 Pediatric Official Positions. J Clin Densitom. 2014 Apr;17(2):275-280. doi:10.1016/j.jocd.2014.01.004

Paragraphs 205, 210-212. Mention should be made of osteomalacia in teenagers due to vitamin D deficiency and/or low calcium intake e.g.

- Das et al. Hypovitaminosis D among healthy adolescent girls attending an inner city school. Arch Dis Child. 2006 July;91(7): 569-572. doi:10.1136/adc.2005.077974
- Ward et al. Vitamin D status and muscle function in post-menarchal adolescent girls. J Clin Endocrinol Metab. 2009 Feb;94(2):559-63. doi: 10.1210/jc.2008-1284

Possible errors

It was noticed that some citations quoted in the text, were not found in the reference list e.g.

- Paragraph 153: 'VDSP, Federal Register, 2011'
- Paragraph 154: 'Zittermann, 2003'

Spelling mistake last line page 11 monophosphate should be monophosphate.

This has been prepared on behalf of the senior scientists at MRC HNR by Dr Jane Maddock, Dr Sumantra Ray, Dr Gail Goldberg, Dr Kate Ward, Dr Sonja Nicholson and Ms Polly Page.

If you have any queries regarding this response please do not hesitate to address them to Dr Gail Goldberg, in the first instance (Gail.Goldberg@mrc-hnr.cam.ac.uk).

Declarations of Interest:

Dr Ann Prentice is chair of SACN and therefore not an author of this reply to consultation except for review and comment in her role as director of MRC HNR.