



Irish Section Meeting, 21–23 June 2017, *What governs what we eat?*

## Knowledge and awareness of the new SACN vitamin D dietary guidelines

M.S. Mulhern, S. Boyle, H.C. Burgess, N. Byrne, C. McKeown and L.K. Pourshahidi  
*Northern Ireland Centre for Food and Health (NICHE), Ulster University, Coleraine, BT52 1SA, UK*

Vitamin D plays a major role in bone health, muscle function, immune regulation, brain development and has been shown to have anti-cancer effects<sup>(1–2)</sup>. Insufficient vitamin D status is now a recognised global public health issue<sup>(3)</sup> and strategies are needed to reduce deficiency and insufficiency. In July 2016, the UK Scientific Advisory Committee on Nutrition (SACN) published new dietary guidelines on vitamin D, recommending a reference nutrient intake (RNI) of 10µg of vitamin D per day throughout the year for everyone in the population aged 4 years and older<sup>(4)</sup>. The aim of this study was to (1) assess the general public's knowledge and awareness of these new SACN guidelines for vitamin D, and (2) determine whether these guidelines have impacted upon dietary behaviours. The study was approved by Ulster University School of Biomedical Sciences Ethics Filter Committee (FCBMS-17-005).

An anonymous online survey was developed and administered using Survey Monkey<sup>®</sup> to adults aged ≥18 years currently residing in the UK. The questionnaire consists of three sections: (1) demographics; (2) knowledge of vitamin D; and (3) awareness of the new dietary guidelines. Total knowledge scores (0 up to a maximum of 17) were calculated based on participants' knowledge of the sources and functions of vitamin D and the knowledge of the new dietary guidelines. These scores were classified as 'little/no' knowledge (0–4); 'low' knowledge (5–9), 'medium' knowledge (10–13) and 'high' knowledge (14–17). Participants were asked about their awareness of the new dietary guidelines and whether these had impacted on dietary behaviours.

A total of *n* 1320 individuals (78.9 % female) completed the questionnaire; *n* 1205 from Northern Ireland (NI), *n* 73 from England, *n* 33 from Scotland and *n* 9 from Wales. The majority of respondents were aged 18–34 years (52.8 %); had an education level of undergraduate degree level or higher (66.7 %) and were in either full-time work (38.7 %) or full-time education (30.9 %). Almost all participants (99.5 %) reported having an awareness of vitamin D and 93.9 % correctly identified sunlight as a source of vitamin D. The majority of respondents had a 'low' or 'little/no' knowledge of vitamin D (44.6 %), with only 11.8 % having a 'high' knowledge of vitamin D. Chi<sup>2</sup> analyses revealed that being female (*P* = 0.001) and having a higher level of education (*P* = 0.002) were significantly associated with higher knowledge scores. Less than one fifth (23.7 %) of participants reported being aware of the new dietary guidelines. Of these who reported an awareness, only 39.6 % correctly identified the new RNI of 10µg/d, with 72.8 % reporting a change in dietary habits through either dietary supplement use or by increasing dietary intake of vitamin D-rich foods or fortified foods.

This study showed that whilst the majority of the respondents had some knowledge of vitamin D, they were not aware of the new dietary guidelines. Targeted public health strategies are warranted to ensure the general population is aware of the new vitamin D dietary guidelines and are advised on how they can meet these revised requirements to help prevent vitamin D insufficiency.

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3. Hollick MF, Chen TC. (2008) *Am J Clin Nutr* 87, 10805–68.
4. Scientific Advisory Committee on Nutrition (SACN) (July 2016) Vitamin D and Health <https://www.gov.uk/government/groups/scientific-advisory-committee-on-nutrition>. Accessed July 2016.