

FSANZ A1090 – Voluntary Addition of Vitamin D to Breakfast Cereal

Submission from Food Safety and Nutrition Branch, SA Health 2 March 2015

SA Health welcomes the opportunity to comment on the application from DSM Nutritional Products Australia Pty Ltd to permit voluntary fortification of breakfast cereal with Vitamin D.

SA Health therefore does not support this application in its current form, and requests another consultation round. This submission outlines the concerns and provides further rationale to support SA Health's position.

SA Health contends that the application for voluntary fortification of breakfast cereals appears to be inconsistent with four of the specific order principles for voluntary fortification within the *Policy Guideline - Fortification of Food with Vitamins and Minerals*¹ as discussed below.

1. *The permitted fortification has the potential to address the deficit or deliver the benefit to a population group that consumes the fortified food according to its reasonable intended use.*

The groups at greatest risk of Vitamin D deficiency are housebound, community-dwelling older and/or disabled people, those in residential care, dark skinned people (particularly those with covered dress for cultural or religious reasons), and those who regularly avoid sun exposure or work indoors².

The recent Australian Health Survey (AHS) biomedical results³ found that 23% of Australian adults had Vitamin D deficiency (17% with a mild deficiency (30-49 nmol/L); 6% with a moderate deficiency (13-29 nmol/L); and less than 1% with a severe deficiency (<13 nmol/L).¹ A higher prevalence of Vitamin D deficiency was found among those born in Southern and Central Asia (67%) as well as North East Asia (64%), South East Asia (58%), and North Africa and the Middle East (50%). Rates of deficiency also remained very high even during the summer months, with 60% of people born in Southern and Central Asia and 50% of people born in South East Asia still being deficient in December to February. Vitamin D levels varied considerably by season, with rates of deficiency ranging from 6% in Queensland to 19% in NSW. In winter, those living in the south eastern states of Australia had the highest rates (40-50%) of Vitamin D deficiency (49% in Victoria and ACT, 43% in Tasmania, and 42% in SA) compared with other states and territories.

In terms of age groups, the AHS found that younger adults (31% of 18-34 year olds) were more likely to be Vitamin D deficient than older people (15% of those aged 65-75, and 20% of those aged 75 years and over); however, Vitamin D supplements were more

¹ SA Health notes that the DSM application (page 1) quotes Vitamin D deficiency for Australian adults as "one third (31%) of adults"; the data source was from the AusDiab study conducted in 1999/2000. Given the more recent currency of the AHS, the 23% incidence of Vitamin D deficiency in Australian adults seems a more accurate description of the national prevalence (8% less than the AusDiab finding 10 years prior).

commonly used among older people. Around 15% of 12-17 year old Australian children were Vitamin D deficient in 2011-12.

The DSM application states that “breakfast cereals are a staple food in the diets of Australians [and New Zealanders] being consumed by >90% of Australian adults”; and that “...56-79% of Australian children and adolescents regularly eat[ing] breakfast cereals” (page 5). The data source for this is not referenced, and is significantly higher than the latest AHS nutrition first results.⁴ Whilst recognising that the AHS nutrition results only report one day’s consumption, ready-to-eat (RTE) breakfast cereals were consumed by 35% of the total population; and 36.6% of adults (19 years and over). Children aged 2-3 years were the most prevalent consumers of breakfast cereals (54%), followed by 4-8 year olds (52%) and those aged 71 years and over (50%).

SA Health suggests that further investigation is required of whether breakfast cereal is the best vehicle to deliver a benefit to population groups with a higher prevalence of Vitamin D deficiency (e.g. various age groups, south-eastern Australian population, and the above mentioned population groups). This could include further analysis of AHS data.

A symposium exploring whether Australia and New Zealand should allow more vitamin D into the food supply was held in Melbourne (2012).⁵ Prompted by Professor Caryl Nowson, and organised by the Nutrition Committee of the Australian Academy of Sciences and International Life Sciences Institute Australasia the symposium included presentations by key Australian (and one Canadian) experts, representation from Food Standards Australia and New Zealand, and a panel discussion. There was general support for increased vitamin D fortification of the food supply, although no clear consensus on whether fortification should be mandatory or voluntary or what food products to fortify.

Further analysis and consultation to determine the most effective public health strategy to address Vitamin D deficiency would be beneficial. For some population groups, Vitamin D supplements are likely to be the preferred approach.

2. *Permission to fortify should not promote consumption patterns inconsistent with the nutrition policies and guidelines of Australia and New Zealand.*
3. *Permission to fortify should not promote increased consumption of foods high in salt, sugar or fat, or foods with little or no nutritional value that have no other demonstrated health benefit.*
4. *The fortification of a food, and the amounts of fortificant in the food, should not mislead the consumer as to the nutritional quality of the fortified food.*

The Australian Dietary Guidelines (ADGs) encourage daily consumption of “grain (cereal) foods, mostly wholegrain and/or high cereal fibre varieties”; this includes breakfast cereals.⁶ The ADGs also advise to limit intake of foods containing saturated fat, added salt and added sugars. SA Health is concerned that voluntary fortification of ready to eat breakfast cereals that are high in sugar and/or salt and/or low in fibre with Vitamin D may promote their increased consumption, and is therefore inconsistent with the above two specific order policy principles. If fortified breakfast cereals of poor nutritional value carry a nutrient content claim for Vitamin D, they may be even more positively

perceived, as research shows that consumers view a food as healthier if it carries a health claim, and this 'halo' effect may discourage them from seeking further nutrition information.⁷ This would be inconsistent with the specific order principle 4) that: *The fortification of a food, and the amounts of fortificant in the food, should not mislead the consumer as to the nutritional quality of the fortified food.*

A potential solution to these issues is to consider revising the *Policy Guideline - Fortification of Food with Vitamins and Minerals* to better ensure that food fortification for nutritional deficiencies of public health significance can only be applied to foods in line with the ADGs. The Nutrient Profiling Scoring Criterion (NPSC) (developed for use under Standard 1.2.7 Nutrition, Health and Related Claims) could also be used to determine if a food was in line with the ADGs and eligible for subsequent fortification. This would ensure that fortified foods were consistent with nutrition policies and guidelines of Australia and New Zealand; that foods high in salt, sugar or fat, or foods with little or no nutritional value are not fortified or promoted; and consumers are not mislead as to the nutritional quality of the food.

Additional points

SA Health notes that the rRDI of 10µg/day for Vitamin D is based on the 1991 RDIs, and suggests that it would be timely to review the rRDIs, at the very least on a case by case basis before progressing new permission for fortification.

The application has gone beyond the scope of the applicant's request for one form of Vitamin D only.

The accuracy of Vitamin D determination in foods is very limited and the available food composition data for Vitamin D content is also limited.

Recommendations

SA Health does not support the application in its current form, and suggests further consideration and consultation is needed before allowing voluntary fortification of cereals with Vitamin D. Consensus about the best fortification approach to address Vitamin D deficiency for those population groups with mild to severe deficiency would be beneficial. This could include analysis of breakfast cereal intake along with other key food sources consumed frequently across the population (including by population groups who are Vitamin D deficient) that are suitable vehicles for Vitamin D fortification.

Hence SA Health recommends another consultation round (or at the very least a jurisdiction only consultation) to allow further clarification and exploration of the issues raised. It is important that jurisdictions have the opportunity to be comfortable that the application and any revised drafting adequately captures the issues.

References

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- ¹ Policy Guideline: Fortification of Food with Vitamins and Minerals
<http://www.foodstandards.gov.au/code/fofr/fofrpolicy/documents/Fortification%20of%20vitamins%20and%20minerals%20-%20amended%20Oct%202009.pdf>
- ² Nowson, C, McGrath, J, Ebeling, P, Haikerwal, A, Daly, R, Sanders, K, Seibel, M, & Mason, R 2012. Vitamin D and health in adults in Australia and New Zealand: a position statement. The Medical Journal Of Australia, 196, 11, pp. 686-687, MEDLINE Complete, EBSCOhost, viewed 18 February 2015.
- ³ Australian Bureau of Statistics. Australian Health Survey: Biomedical Results for Nutrients, 2011-12 Feature article: Vitamin D. 4364.0.55.006. Viewed 18 February 2015
- ⁴ Australian Bureau of Statistics. Australian Health Survey: Nutrition First Results - Foods and Nutrients, 2011-12 4364.0.55.007. Viewed 18 February 2015
- ⁵ Deakin Nutrition (Deakin University). Food fortification with vitamin D: a public health issue for Australians. <https://deakinnutrition.wordpress.com/2013/07/04/food-fortification-with-vitamin-d-a-public-health-issue-for-australians/> Accessed 17 February 2015.
- ⁶ National Health and Medical Research Council (2013) Eat for Health Australian Dietary Guidelines Summary. Canberra: National Health and Medical Research Council www.eatforhealth.gov.au
- ⁷ Williams, P 2005. Nutrition science and policy. Consumer understanding and use of health claims for foods. Nutrition Reviews, 63, 7, pp. 256-264, CINAHL Complete, EBSCOhost, viewed 22 February 2015.