New Australian Dietary Guidelines for consumption of dairy products: are they really evidence-based and does anyone meet them?

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While the importance of diet in determining risk of chronic disease is well established, what constitutes a healthy diet is the subject of ongoing debate, much to the frustration of the health-conscious public. One item of debate is the shift in our understanding of the health impacts of dairy products. There is now considerable evidence of beneficial associations between consumption of dairy products and health outcomes that were previously thought to be adversely affected by the contribution of dairy products to intake of cholesterol and saturated fat – cardiovascular disease and diabetes in particular.1,2 The 2013 revision of the Australian Dietary Guidelines increased the recommended consumption of milk, yoghurt, cheese and/or alternatives for everyone aged 9 years or over.3 The biggest increase was for women aged >49 years and for men aged >69 years, for whom the recommendations increased from 2 serves per day to 4 and 3.5 serves per day, respectively.

The Australian and New Zealand Journal of Public Health recently published our analysis of the 1995 National Nutrition Survey, which found that only 34.5% of Australians aged >11 years would have met the old guidelines for dairy products.4 Updating our analysis, we estimate that only 18.8% would have met the new guidelines for dairy products. Updating our analysis, we estimate that only 18.8% would have met the new guidelines for dairy consumption (Table 1). Industry data indicate an increase in sales of cheese and yoghurt since 1995 equivalent to a 10% increase in mean daily serves.4 If that increase is applied across the population, sales of cheese and yoghurt since 1995 equivalent to a 10% increase in dairy consumption (Table 1). Industry data indicate an increase in

In examining the new guidelines for dairy products, the evidence provided to support them5 and methods used to derive the quantitative recommendations,6 we note a few discrepancies. As with the previous dietary guidelines, there is a recommendation that dairy products should be ‘mostly reduced fat’. This is in contrast to the supporting evidence, which is mostly based on total (not reduced fat) dairy products, and to some recent evidence that the benefits of dairy products may be linked to their fat content.7 While the new guidelines are couched in terms of whole foods, the quantitative recommendations for dairy products and the guidance to select ‘mostly reduced fat’ varieties are based on a dietary modelling system that incorporates limits on the amount of saturated fat, regardless of the whole-food source (i.e. meat versus dairy), despite their apparently differing impacts on health.

The quantitative recommendations appear to be driven by calcium requirements; higher consumption levels for children and adolescents because of their increased requirements of calcium for bone growth and for older age groups because of osteoporosis. It is certainly possible to achieve daily calcium requirements using alternative dietary patterns and without the inclusion of dairy products (dairy is a recent addition to human diet in evolutionary terms) and the rationale for including dairy extends beyond its contribution to calcium. Many of the health benefits which the literature suggests for dairy products are unlikely to be mediated by the contribution of dairy products to calcium intake alone and would be predicted to occur in the opposite direction based on the macronutrient profiles (proportion of saturated fat, etc) of dairy products. There is a discrepancy between the health predictions of nutrient models and the evidence relating dairy products as whole-foods.

Nonetheless, there is a clear message for primary health care professionals and the health promotion community. In addition to the usual focus of dietary advice on promoting consumption of fruit and vegetables and limiting added sugars and salt, there is clear evidence to recommend increased consumption of milk, yoghurt, cheese and/or alternatives for most Australians, although the recommendation for selecting mostly reduced-fat varieties is not well supported by evidence.

Table 1: Estimated consumption of milk, cheese, yoghurt and/or alternatives in Australia, 1995, compared with Australian Dietary Guidelines.

| Age (years) | Gender | Mean daily consumption (serves) | 1998 Guidelines (min. serves/day) | Proportion met (%) | 2013 Guidelines (min. serves/day) | Proportion met (%) |
|------------|--------|---------------------------------|---------------------------------|------------------|---------------------------------|------------------|
| 12-18      | Males  | 2.8                             | 3.0                             | 37.9             | 3.5                             | 28.6             |
|            | Females| 1.9                             | 3.0                             | 16.6             | 3.5                             | 12.2             |
| 19-49      | Males  | 2.0                             | 2.0                             | 45.9             | 2.5                             | 31.9             |
|            | Females| 1.5                             | 2.0                             | 26.9             | 2.5                             | 14.3             |
| 50-69      | Males  | 1.7                             | 2.0                             | 37.2             | 2.5a                           | 26.3             |
|            | Females| 1.6                             | 2.0                             | 33.1             | 4.0a                           | 0.5              |
| 70+        | Males  | 1.7                             | 2.0                             | 34.0             | 3.5                             | 4.5              |
|            | Females| 1.5                             | 2.0                             | 28.0             | 4.0                            | 1.3              |
| 12+        | Persons| 1.8                             | 34.5                            | 18.8             |                                 |                  |

Notes:

a Due to the limitations of available data on age, the guidelines for ages 51-70 are assumed to relate to 50-69 instead.

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