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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 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, the proportion who would have met the guidelines would be 23.2%. While older adults had similar consumption patterns to younger adults, almost no women over the age of 49 years or men over the age of 69 years would have met the new guidelines. Whether a minimum of four serves per day is realistically achievable among the elderly

population is not clear, increasing consumption of dairy products may be a good way to improve overall nutrition in a population for whom it is often compromised.⁵

In examining the new guidelines for dairy products,³ the evidence provided to support them¹ 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/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	2.5 ^a	26.3
	Females	1.6	2.0	33.1	4.0 ^a	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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Hearing loss as a public health matter – why not everyone wants their deafness or hearing loss cured

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"It [deafness] is a scourge in our world but it can be almost completely eradicated..."

Following national and international media coverage of the 2011 Telstra Business Awards, members of the Australian community expressed their views on the alleged words, quoted above,¹ and the sentiment expressed in the acceptance speech of the recipient of the Woman of the Year award. Interestingly, not all members of the community shared the same view. Our focus is not on the quote itself but the public responses to it and, importantly, what can be learnt from these responses.

Definitions and understandings of disability – deafness included – have largely focused on the individual and the medicalisation of their 'disabling' condition.² From a medical understanding, disability is a bodily impairment and is defined as a negative variation from the norm.^{3,4} Subsequent interventions are informed by the expertise of medical professionals,^{4,5} focusing on returning individuals to an approximate norm.⁴⁻⁶ Agreeing with both the sentiment of the speech and an individualised approach, one online reader⁷ posted, "... She said she wants to get rid of the 'scourge' of deafness, not kill deaf people. As a deaf man if I had a chance to rid people of deafness I would" (Tony, 2011).

Challenging the medical model of disability, the emerging area of disability studies focuses on an array of social definitions and theoretical models of disability.^{4,8} Theoretical models of disability concentrate on the discriminatory social reactions to physical differences or the ignorance of the effects of difference, rather than the physical differences themselves.³ Within the area of disability studies, impairment is defined as lacking part or all of a limb, or having a defective limb, organ or mechanism of the body;⁵ preferring the term 'disability' to refer to society at large not accommodating the physical difference.³

In line with this view of disability as external to the individual,^{5,6} one reader of the online blog written by deaf journalist Charlie Swinbourne⁹ commented: "Is this the resurrection of Hitler or what? Nothing wrong with being deaf, it's people like her [the Telstra Business Woman of the Year recipient] that is the problem, assuming what is best for us, the deaf community. It is society, not our deafness, that disables us ..." (Christof Niklaus, 2011).

The original acceptance speech and subsequent responses to the speech illustrate the diversity – and polar extreme views – of deafness and hearing loss. This diversity is often overlooked in discussions around hearing loss as a public health concern.¹⁰ Instead, there is a tendency to oversimplify hearing loss and deafness and the people who are living with hearing loss or deafness. A comment posted by one reader of the Australian Broadcasting Corporation's Ramp Up blog¹¹ clearly sums up the complexities of 'fixing' or managing hearing loss or deafness, as he describes the distress he experienced while learning to hear with a cochlear implant.

"...I used to go to the extensive [sic] oral/aural early intervention program when I was younger... I first got my cochlear implant less than five years ago, and to my parents, it is a gift from the god. But to me, I suffered. ... I work [sic] so hard to concentrate to my teachers all day. At the end of day, I would switch off my cochlear implant because I was so much in pain listening hard to the teachers... All what my parents want was to see me hear and speak..." (Connor Arthurs, 2011).

It is clear from responses to the online media coverage of the incident that the choice of words used in the acceptance speech¹ was provocative to a diverse group of people, highlighting the contentious and ongoing issues surrounding hearing loss and deafness and the roles of culture and medicine. It is clear that responses to 'curing' hearing loss and deafness are not as obvious, one-sided or straight forward as perhaps previously thought. While disability researchers discuss the theoretical models of disability as being theoretically distinct,⁴ we argue that these models oversimplify the complexities of this population without understanding how people living with a hearing loss or deafness subscribe to, resist or negotiate these models.¹² To improve our understanding, and prior to implementing population-based interventions, people who have the capacity to effect change need to recognise the diversity of views that people living with a hearing loss or deafness inevitably express. This would be a step towards ensuring the voices of people who are living with hearing loss or deafness are included in the public health decisions that are made on their behalf.

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