

A nutritional comparison of food guides in use in Australia

KM Cashel<sup>1</sup>, H.Greenfield<sup>2</sup>

<sup>1</sup>School of Human and Biomedical Sciences, University of Canberra, ACT, 2616

<sup>2</sup>Dept of Food Science and Technology, University of New South Wales, NSW, 2052

In 1995 the Core Foods Guide (CFG) was adopted as the new Australian national consumer food guide (1). The CFG was developed modelling data for foods available for consumption, utilising new food composition data, revised Recommended Dietary Intakes (RDIs), and official dietary guidelines. This study compared the CFG with four other major Australian food guides: two, the Target for Healthy Eating and the Jigsaw like the CFG aimed at a 'core diet', and two, the CSIRO 12345+ Plan and the Kellogg's Food Pyramid, aimed to provide a total diet. The guides were assessed in relation to their stated nutritional objectives, i.e that 'core' guides aimed to meet 70% of the RDI for nutrients other than energy; and guides for total diets aimed at 100% RDIs. This study used the CFG method for weighted nutrient profiles to represent a 'group' of foods; and used UK food composition data for folate in the absence of any Australian data. The results are summarised in the table. Nutrient objectives not met by a particular guide are listed.

Age (years)	Food Guide				
	Core Foods <sup>1</sup>	Jigsaw <sup>1</sup>	Target <sup>1</sup>	CSIRO Plan <sup>2</sup>	Kellogg's Pyramid <sup>2</sup>
8-11	✓	✓	✓	M, F: Zn	M, F: vit A
12-15	✓	M: Ca	M, F: Fe	M: Ca, Fe, Zn F: Fe, Zn	M: Ca, Fe, Zn, vit A <sup>3</sup> F: Fe, Zn, vit A <sup>3</sup>
16-18	✓	M: Mg	M, F: Fe	M: Mg, Fe, Zn, VitB <sub>2</sub> F: Mg, Fe, Zn	M: Mg, Fe, Zn, vit A <sup>3</sup> F: Mg, Fe, Zn, vit A <sup>3</sup>
19-54/64	✓	M: Mg F: Fe	M: Mg, Zn F: Mg, Fe, Zn	M: Mg, Zn F: Mg, Fe <sup>3</sup> , Zn	M: Mg, Zn, vit A <sup>3</sup> F: Mg, Fe, Zn, vit A <sup>3</sup>
54+/64+	✓	M: Fe	M: Mg, Zn F: Ca, Mg, Zn	M, F: Mg, Zn	M: Mg, Zn, vit A <sup>3</sup> F: Mg, Zn, vit A <sup>3</sup>
pregnant	Fe <sup>4</sup>	Fe <sup>4</sup> , Zn, folate	Fe <sup>4</sup> , Zn, folate	Fe <sup>4</sup> , Zn, folate <sup>3</sup>	Mg, Fe, Zn <sup>3</sup> , vit A <sup>3</sup> folate <sup>3</sup>
lactating	✓	Ca, Mg, Fe, Zn, vit A, folate	Mg, Fe, Zn, vit A, folate	Mg, Fe <sup>3</sup> , Zn <sup>3</sup> , vit A <sup>3</sup> , folate	Ca, Mg, Fe, Zn <sup>3</sup> , vit A <sup>3</sup> , folate <sup>3</sup>

M = male, F = female; ✓ = ≥ 70% RDI for 'core' diet objectives; ≥100% RDI for 'total' diet objectives

<sup>1</sup> = 'core' diet objectives, ≥ 70% RDI; <sup>2</sup> = total diet objectives, ≥100% RDI.

<sup>3</sup> = <70% RDI for 'total' diet objectives; <sup>4</sup> = Fe RDIs are not expected to be met by diet alone

While all the guides recommend a healthy diet profile, only the CFG met its own nutritional objectives, providing 'core' levels of all nutrients evaluated. All other four guides failed to supply the 'core' level of all nutrients. Some inadequacies identified may be due to the use of 'old' or overseas food composition data (eg Zn and Mg). The CFG had already been shown to be consistent with other national nutritional recommendations and to require only modest changes in the Australian diet and levels of food production for its achievement. The results of this comparison with the other major food guides in Australia validate the adoption of the CFG as the official food guide for use nationally.

1. Cashel, K, Jeffreson, S. (1995) The core food groups. The scientific basis for developing nutrition education tools. Canberra: AGPS