

Summer Meeting, 28 June–1 July 2010, Nutrition and health: cell to community

Changes to the micronutrient profile of food served in care homes for older people after the implementation of the Food Standards Agency guidelines

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The Food Standards Agency (FSA) has published nutritional guidance on food served to older people in residential care⁽¹⁾. As part of a wider study that aims to evaluate the barriers and facilitators to implementing the FSA guidelines in care homes and the impact on the food and nutrition provided, the aim of this analysis is to report data on the micronutrient profiles of the menus served in the homes before and after the implementation of the guidelines.

Detailed information on care home menus, including constituent recipes and ingredients was collected from four residential care homes by direct observation of preparation. A dietitian worked with the catering staff to create an amended menu using the FSA guidelines. Home 1 received the most intensive assistance and rigorous intervention, but due to issues with ownership of the new menus cooks took on more responsibility in the subsequent homes. The micronutrients provided by the average daily menu were derived using food composition tables⁽²⁾ and a purpose written MS Access database. The National Research Ethics Service granted favourable opinion. While three homes made substantial modifications to their menus, dishes served and cooking methods, one home made a few changes (Home 2).

Post intervention, the FSA targets for micronutrients were mainly achieved in Home 1. At baseline, the target for Fe was achieved in three homes; however, following the intervention it was met in all four homes. The sodium content of the menus was not improved by the intervention and the target was only achieved in two homes. The most notable improvement seen was for menu vitamin C content which increased in all homes. Most homes improved the menu Mg, Zn and K levels, though not all met the guidelines. All homes met the target for folate and riboflavin (both before and after intervention). Values that meet FSA guidelines are highlighted in bold in the Table.

Mean		Home 1	(SE)	Home 2	(SE)	Home 3	(SE)	Home 4	(SE)	FSA guidelines
Magnesium (mg/d)	Before	209.7	7.8	226.1	9.7	259.1	13.5	211.0	10.1	> 300
	After	316.8	6.2	218.8	7.1	266.8	9.2	250.8	7.4	
Iron (mg/d)	Before	9.6	0.7	9.0	0.3	10.0	0.6	8.1	0.3	>9
	After	13.6	0.6	9.2	0.6	9.9	0.2	10.6	0.2	
Zinc (mg/d)	Before	8.2	1.1	8.5	1.2	7.3	0.5	5.8	0.8	>9.5
	After	10.7	0.8	9.1	1.2	6.8	0.3	7.8	0.3	
Potassium (mg/d)	Before	2665.1	122.0	2919.1	117.5	3550.2	260.5	2909.7	164.8	> 3500
	After	4184.0	95.2	2772.2	43.5	3328.6	146.0	3377.8	145.7	
Sodium (mg/d)	Before	2430.6	140.1	2030.8	174.3	2933.8	228.7	1907.1	124.7	<2352
	After	2443.3	125.2	2106.0	189.8	2610.7	126.6	2151.7	143.9	
Vit D (µg/d)	Before	3.11	0.47	1.76	0.26	1.86	0.15	1.84	0.39	10 (with supplementation)
	After	2.98	0.45	1.98	0.24	2.22	0.50	2.21	0.31	
Vit C (mg/d)	Before	58.4	6.3	123.1	6.6	142.6	14.9	136.9	15.9	Not specified
	After	181.0	8.3	144.8	15.1	174.9	6.0	190.2	17.9	RNI = 40

Intervention to implement the FSA guidelines in care homes positively impacts on the micronutrient content of food provided to older people.

This research was commissioned by the Food Standards Agency, project N14010. The views expressed are those of the authors.

1. Food Standards Agency (2007) Guidance on food served to older people in residential care. <http://www.food.gov.uk/multimedia/pdfs/nutguideuk.pdf>
2. McCance and Widdowson's The Composition of Foods integrated dataset, see <http://www.food.gov.uk/science/dietarysurveys/dietsurveys/>