

Do demographics count? Demographic factors affecting nutrient intake

A Evans¹, H Booth², K Cashe³

¹Australian Institute of Health and Welfare, GPO Box 570, Canberra, ACT 2601

²Demography Program, Australian National University, Canberra, ACT 0200

³Faculty of Applied Science, University of Canberra, PO Box 1, Belconnen, ACT 2616

Diet is a major contributing factor in many leading causes of mortality and morbidity including coronary heart disease, hypertension, stroke, some cancers and diabetes mellitus. Nevertheless, national population-based research into the diet and nutritional status of Australians is sparse. Many policy and research decisions have been based on data of apparent consumption of foodstuffs and nutrients which, due to their per capita nature, take no account of unequal distribution of total foods and nutrients among different demographic sub-groups.

The relationship between nutrient intake and socio-demographic factors was examined using data collected in the 1983 National Dietary Survey of Adults (1). Energy, fat, dietary fibre and alcohol, key nutrients targeted by the Dietary Guidelines for Australians (2), were examined against the socio-demographic characteristics age, region of origin, educational attainment and occupational status.

	Energy	Fat	Fibre	Alcohol	
Males					Significance level P<0.05
Age	-ve	-ve	-ve	±ve	
Region of origin	sig.	sig.	sig.	n.s.	-ve negative correlation
Educational attainment	±ve	±ve	+ve	n.s.	+ve positive correlation
Occupational status	-ve	-ve	±ve	n.s.	±ve variable direction
Females					n.s. not significant
Age	-ve	-ve	n.s.	±ve	sig. significant categorical data
Region of origin	sig.	sig.	sig.	n.s.	
Educational attainment	-ve	+ve	+ve	+ve	
Occupational status	+ve	+ve	+ve	+ve	

Bi-variate analysis indicates that nutrient intake is significantly affected by socio-demographic characteristics (see table). Significant associations were analysed using multivariate techniques. Age had the strongest effect on energy and fat intake for both men and women, and on dietary fibre for men. The combined effect of region of origin and education had the strongest effect on dietary fibre intake for women, whereas occupational status displayed the strongest effect on alcohol intake for women, ie the higher the occupational status, the higher the alcohol intake.

These results indicate significant differences in nutrient intake depending on socio-demographic characteristics. The composition of Australia's population with respect to age, region of origin, educational attainment and occupational status has changed since 1983. Thus, socio-demographic factors must be taken into account when interpreting dietary change over time and when designing and evaluating nutrition programs.

1. English R, et al. National dietary survey of adults: 1983. No. 2 Nutrient intakes. Canberra: AGPS, 1987.
2. NHMRC. Dietary guidelines for Australians. Canberra: AGPS, 1992.