

FIJI NUTRITION SURVEY - DIET AND DIABETES PREVALENCE IN
URBAN AND RURAL MELANESIAN AND INDIAN POPULATIONS

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Dietary data were obtained from 533 subjects during a nutrition survey of the adult population in Fiji in May 1980. This survey was part of a Cardiovascular and Metabolic Disease Study conducted by the WHO for the Fiji Ministry of Health. In the Pacific region, diabetes mellitus (DM) is rare in Melanesians, Polynesians and Micronesians who have retained their traditional lifestyle (Reed et al. 1973; West 1974; Zimmet 1978). High prevalence rates of non-insulin dependent diabetes have been demonstrated in those ethnic groups who appear more affluent, and have undergone changes in lifestyle as indicated by obesity, increased energy and alcohol intake, and reduced physical activity. (Ringrose and Zimmet 1979; Wicking et al. 1981). Energy intakes of rural Melanesians were significantly higher than those for urban groups. There were no noticeable differences between rural and urban Indians.

	Melanesians		Indians	
	Energy(MJ/day)	IM Prev.(%)	Energy(MJ/day)	IM Prev.(%)
Rural male	13.2	1.5	11.9	13.0
Urban male	9.1	5.3	11.0	15.5
Rural female	11.1	2.0	9.4	13.1
Urban female	8.0	8.7	8.8	14.4

Analysis of the dietary data for distribution of energy intake showed that urban Melanesians derived a greater proportion of kilojoules from protein and fat than their rural counterparts. There appeared to be little variation between the Indian groups.

Measurement of Body Mass Indices (BMI) resulted in no noticeable difference between urban and rural populations in any of the ethnic/sex groups, however both male and female urban Melanesians had significantly higher (males P 0.01, females P 0.001) skinfold thickness (SFT) than the rural groups.

There may be a genetic basis for the difference in DM prevalence between Melanesians and Indian Fijians, while the urban/rural difference seen in Melanesians may be due to other factors (eg. increased physical activity, composition of the diet).

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