

## HEALTH AND DIET OF SYDNEY MOTHERS

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As part of the health survey of families in three suburbs within the Sydney Western Metropolitan Region (King and Wyllie 1981), dietary intakes of 419 mothers were assessed. The sample was selected from three localities of Baulkham Hills, reflecting a higher income area, Fairfield, a working class area with a large migrant population, and Campbelltown, a working class area, with Housing Commission homes and high growth rate. Each family was included if it had at least one child 10 years or under.

The dietary information was collected by trained interviewers, using the 24-hour recall method. Additional questions revealed vitamin, mineral usage, whether pregnant or breast feeding and atypical eating patterns. The quantities of 17 nutrients were calculated using Australian food tables by the SPEADD computer method (Zed et al. 1977) and the intakes of nine nutrients were compared with the Australian Recommended Dietary Allowance (RDA) for women 18-35 years. Each woman's dietary record, as well as each nutrient within the record, was given a nutrition score. The nutrition scores were correlated against nine demographic and six health variables and the Chi square ( $X^2$ ) statistic was used to test associations (Nie et al. 1975).

In each locality, the intakes of the same three nutrients, iron, retinol and energy, were most likely to fall below 67 percent of RDA. In Baulkham Hills, 24 per cent of the iron, 16 per cent of the retinol, and 18 per cent of the energy intakes were less than 67 per cent of the RDA; in Fairfield the corresponding values were 29, 32 and 19 per cent, in Campbelltown they were 35, 20 and 17 per cent respectively.

All localities had high intakes of ascorbic acid. In Baulkham Hills, 57 per cent, in Fairfield, 40 per cent, in Campbelltown, 58 per cent were greater than twice the RDA. A greater percentage of Baulkham Hills mothers showed good dietary scores (55 per cent) compared to Fairfield (46 per cent) and Campbelltown (44 per cent). In the Campbelltown locality, there was a highly significant positive correlation between dietary score and level of education and a similar trend was seen in the Baulkham Hills group. Dietary iron score was also positively correlated with level of education in Campbelltown with a similar trend for dietary retinal score. However, there was no significant correlation between nutrition score and age, occupation or country of birth.

Even though high intakes of ascorbic acid may enhance the absorption of iron so that lower iron intakes can be tolerated, iron was the nutrient most likely to fall below the RDA, and should therefore be further investigated.

KING, R.J.R. and WYLLIE, A.G.J. (1981). 'Bulletin Number 3' (Community Research Centre: University of Sydney).

NIE, N.H., HADLAI HULL, C., JENKINS, J.G., STEINBRENNER, K. and BENT, D.H. (1975). 'Statistical Package for the Social Sciences', 2nd ed. (McGraw Hill: New York).

ZED, C., HEYWOOD, P.F. and HAIN, D.L. (1977). Proc. Nutr. Soc. Aust. 2 : 95