

NUTRITIONAL STATUS OF A GROUP OF AUSTRALIAN PREGNANT WOMEN

S. ASH, J.R. ALLEN

This study measured the nutritional status of a group of pregnant women, drawn from the Royal Hospital for Women, Paddington, Sydney.

Fifty four subjects with gestation less than 14 weeks were selected. Skinfold thicknesses on 4 sites, hip circumference and weight was measured at each clinic visit. Dietary intakes were measured at 14, 24 and 34 weeks of pregnancy, using 3 day weighed records, and 20 nutrients analysed. A subgroup of 9 women had a full blood count, serum albumin and serum ferritin analysed at 36 weeks.

Of the 47 women completing the study more than half had received tertiary education and only 2 smoked. Age ranged from 20 to 39 years and all mothers had healthy pregnancies.

Table 1 Results of anthropometric measurements

	Height (m)	BMI W/H ²	Weight Gain (kg)	Birthweight (g)
Mean	1.65	21.11	14.3	3398
S.D.	0.07	2.56	4.29	678

Table 2 Mean nutrient intakes < R.D.I.

Nutrient	Energy (mJ)	Iron (mg)	Zinc (mg)	Folic Acid (mcg)
Trimester 1	8.68	13.7	11.5	227
Trimester 2	8.99	13.5	10.8	204
Trimester 3	8.98	13.7	10.9	218
R.D.I.	9.00	15	16-21	400

Mean intakes of nutrients by trimester of pregnancy showed no significant differences between trimester.

Table 2 shows that mean intakes of energy, iron, zinc and folate were below the Recommended Dietary Intake for pregnancy. More than 50 percent of the zinc and folate intakes were less than 67 percent of the R.D.I. Mean intakes of protein, calcium, retinol activity, thiamin, riboflavin, niacin, equivalents, vitamin B6, vitamin B12 and ascorbic acid were above the R.D.I.

The lower intakes of iron, zinc and folate have been confirmed by other studies (Breskin et al. 1983). The folic acid values in the tables of Composition of Food may also be inaccurate (Bates et al. 1982) but whether lower intakes and serum values of iron or zinc in pregnancy have any functional significance is unknown. Two, out of the 9 women, who had blood analysed at 36 weeks, showed serum ferritins below the normal range.

BATES, C.J, BLACK, A.E, PHILLIPS, D.R, WRIGHT, A.J.A, SOUTHGATE, D.A.T (1982). *Hum. Nutr. Appl. Nutr.* 36A:422.

BRESKIN, M.W, WORTHINGTON-ROBERTS, B.S, KNOPP, R.H, BROWN, Z, PLOVIE, B, MOTTET, N.K, MILLS, J.L (1983). *Am. J. clin. Nutr.* 38:943.