

## WEIGHT GAIN AND BODY FATNESS IN PREGNANCY

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These are the preliminary results from a study of 59 pregnant women, who attended two antenatal clinics at a Sydney maternity hospital. Subjects were selected if their pregnancy was not advanced past 20 weeks.

Height, weight and skinfold measurements on four sites, triceps, biceps, subscapular and suprailiac, were measured at their first visit. The subjects completed a questionnaire recording demographic, social and medical details. Weight and skinfold measurements were taken at every visit. At term, birth-weight, gestational age, sex and any relevant medical details on the infant were recorded. The mother's weight and skinfold measurements were taken 6 weeks postnatally.

The mean age of the women was 27 years (range 19-39 years). The median age was 24 years. Eighty-three percent were of Australian, New Zealand or Northern European origin, 12% were Southern European, and 5% were Asian or Pacific Islanders. Thirty-two percent were smokers, 10% were unemployed and 25% were unmarried.

The mean weight gain, 14 kg (range 6.2-27 kg), was greater than the recommended gain of 10-12 kg (National Health and Medical Research Council 1979). Only seven women gained less than 10 kg and, of those, three were obese. Mean birthweight, uncorrected for gestational age, was 3383 g (range 2200-4300 g). Mean weight gain for primigravidas, 14.8 kg, was not significantly different from that of multigravidas, 15 kg. As in other studies (Naeye 1981; Rantikallio and Hartikainen-Sorri 1981) smoking did not have an effect on the mean weight gain but had a slight effect on mean birthweight.

The pre-pregnant mean body-mass index (BMI), 21.9 (range 18.8-35.5), was less than the postnatal BMI, 23.6 (range 18.2-29.7). This difference was also reflected in body fatness: mean % body fat at first visit, 27.7%; postnatally 29.8%.

All skinfold measurements tended to increase during pregnancy, the truncal sites showing the greatest increase.

It appears that few women are at risk of gaining less than the recommended minimum of 10 kg and that the majority gain more than the recommended maximum of 12 kg.

NAEYE, R.L. (1981). Obstet. Gynec. 57: 18.

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL (1979). Report of 88th Session : 22.

RANTIKALLIO, P. and HARTIKAINEN-SORRI, A. (1981). Am. J. Epidem. 113: 590.