

Nutritional status of pregnant women of Rajasthan

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■ **ABSTRACT** : The present study was conducted on 500 pregnant women residing in four district of Rajasthan viz., Udaipur, Alwar, Sriganganagar and Bikaner to assess their nutritional profile. An interview schedule was developed and pre-tested before collection of data. The background information about the family and the subject was recorded for each pregnant woman. The nutritional status of the pregnant women was assessed using dietary adequacy and anthropometric measurement. Results revealed that mean height and weight of the pregnant women was 154.89 cm and 50.71 kg, respectively. Body composition calculated by skinfold thickness showed that body fat was 15.96 percent, body water 50.88 per cent and fat free mass was 84.04 percent. Dietary adequacy was assessed by 24 hour recall method using standardized cup set. The mean intake of different food stuffs consumed was computed for a day and compared with the balanced diet (NIN, 1998). The nutrient intake was calculated using nutritive value given in food composition table (Gopalan *et al.*, 1989). Mean intake of nutrients was compared with the RDA suggested by ICMR (1990). Findings revealed that diet of women was inadequate in all the food groups except fat, roots and tubers and other vegetables. The most limiting nutrients in their diet were energy, protein, iron, calcium, carotene and folic acid. Statistical analysis portrayed that intake of protein, energy, calcium and iron were significant at $p < 0.001$ level. Mean haemoglobin of the study group was 9.71 which was low as compared to WHO cut off point. Majority of women were moderately anemic in the study.

■ **KEY WORDS** : Pregnancy, Nutritional status, Anemia, Anthropometric measurements, Dietary adequacy

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Prenatal medical care is the medical and nursing care recommended for women before and during pregnancy. Pregnancy is a period of great physiological as well as psychological stress for the women. Maternal nutrition is an important determinant of the course and outcome of pregnancy and seventy five per cent of foetal growth is related to maternal nutritional status (Worthington and Williams, 1993). In India, despite improvement in life expectancy, NFHS reported that neo-natal mortality, infant mortality rate has risen from 42.1 to 49.5 per cent and 76.3 to 80.4 per cent in the year 1993 to 1999, respectively in Rajasthan (<http://www/nfnsindia.org>). Maternal mortality rate in Rajasthan is 670/lakh live birth (India, 2004). A woman who has been well nourished before conception begins her pregnancy with reserves of several nutrients so that the needs of the growing foetus can be met without affecting her health. Infants, who are well nourished in the womb, have enhanced chance of entering life in good

health. Mother's diet should provide adequate nutrients so that maternal stores do not get depleted. Therefore present study was undertaken to study the nutritional status of pregnant women residing in Rajasthan.

■ RESEARCH METHODS

Structured interview schedule was developed to collect the information from the female, which included information about family and the subject. Nutritional status was assessed by anthropometric measurement which included height (cm), weight (kg), body mass index $wt (kg)/ht^2 m^2$, skinfold thickness at various sites *i.e.* bicep, tricep, subscapular and suprailiac, These sites were used for calculating body density using the technique described by Durnin and Wormersely (1974). Body fat was calculated using Siri's equation (Siri, 1961). Dietary adequacy of each woman was assessed by 24 hr. recall method using standardized cup set. The information about raw