

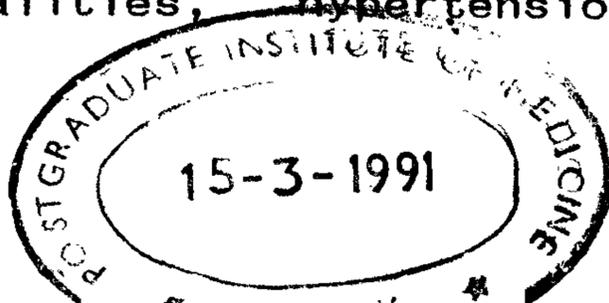
## ABSTRACT

The plantations of the Sri Lanka State Plantations Corporation (SLSPC) were found to have a high incidence of low birth weight infants during the period 1982-1987. Therefore, the objective of this study was to identify the aetiological factors of low birth weight in this context. For this study an up-country plantation population in Iluwara Eliya was selected.

The literature relating to low birth weight was reviewed. Among the factors reviewed, those that have a relevance for the plantation sector are parity, maternal age, maternal height, ante-natal care, maternal weight and pre-pregnancy weight, a past history of low birth weight, work, maternal education, a past history of abortions, stillbirths and neonatal deaths, congenital abnormalities, maternal birth weight, iron deficiency anaemia, hypertension and toxæmia of pregnancy, specific infections, urinary tract infection, multiple pregnancy, maternal nutrition, socio-economic conditions and maternal stress.

Ethnic variation, alcoholism, coffee consumption, dangerous drug addiction and cigarette smoking are not relevant problems, for the present, in the plantation context.

Reliable data on maternal birth weight, pre-pregnancy maternal weight and a past history of abortions, stillbirths and neonatal deaths were not available in the plantations. Congenital abnormalities, hypertension and toxæmia of



pregnancy, specific infections, urinary tract infection and multiple pregnancy were too low in incidence to be included in the study. Anaemia could not be included because laboratory estimations were not possible. Nutrition, socio-economic conditions and maternal stress are complex factors which need to be studied separately.

The ten remaining factors subjected to study were found to have a significant correlation to low birth weight in varying degrees. They are, in order of significance, work penultimate to delivery, weight gain of the mother, maternal height, spacing, the period of gestation at the time of the first clinic visit, a past history of low birth weight, parity, the number of ante-natal clinic visits, maternal age and the educational level of the mother.

Accordingly, the following measures have been recommended to reduce the low birth weight incidence on up-country plantations:-

1. Maternity leave in the two weeks penultimate to delivery should be ensured,
2. Maternal weight gain should be monitored at ante-natal clinics to ensure a weight gain of 300g. per week or more,
3. "At risk" care should be given to mothers with a past history of low birth weight and low maternal height. Mothers in parity 1 or with an age of below 20 years or between 30-34 years should also receive special care,
4. Spacing of births to 24 months or above should be achieved with family planning and breast feeding,

5. Health Education should be given to mothers to commence ante-natal care early in the pregnancy, preferably before 20 weeks of gestation,
6. Regular ante-natal clinic visits should be promoted and
7. Better literacy should be achieved through education.