ABSTRACT

I have investigated 350 infant deaths of singleton births in 1987 and a case control study on 400 infants (Cases n=200 infants dying during the first three months, Controls n=200 infants aged between 3 to 4 months) was carried out in order to identify some demographic, socio-economic, environmental and other factors responsible for infant mortality in the Galle District.

Of the 350 deaths, 76,3%(267) died during the neonatal period. 62,3%(218) of infant deaths occurred during the first week of life, and of these 45,9%(100) died on the first day of life. 87,4%(306) infant deaths took place during the first three months of life. 38,6%(135) were preterm and of these 93,4%(126) died during the neonatal period.

The principle cause of death of the 350 infants was low birth weight and related disorders 44%(154). Of the infants who died during the neonatal period the major cause of death was low birth weight and related disorders 55,8%(149), while the leading cause of death of infants dying during the post-neonatal period was infection 57,8%(48). 68,2%(182) of neonatal deaths occurred at the Teaching Hospitals.

Infant mortality was higher for males than for females in the total sample. However, the difference of sex in the neonatal period or post-neonatal period was not statistically significant ($p > 0,5$).

A majority 88%(308) of infants had normal deliveries. The period of gestation or the birth weight did not influence the type of birth. There was no statistical association between type of birth and cause of death ($p > 0,05$) 77,2%(270) mothers were in the age group of 20 to 35 years. 30,8%(108) were primigravidae. 41,7%(146) mothers and 33,9%(116) fathers had education below Grade 5. 34,5%(119) and 46,8%(160) infants were in social classes 4 and 5 respectively. 82,7%(289) families received a monthly income of less than Rs.1 000.

Birth weight was available in 326 out of the 350 infant deaths. Of these infants 65,7%(221) were low birth weight and the mean birth weight of the sample was 2067 ± 740 grams. The difference between the mean birth weights of neonatal and post-neonatal deaths and term and preterm infants was found to be statistically significant ($p < 0,001$). Birth weight was not found to be statistically associated with parity of mother, age of mother, birth spacing interval, social class, monthly income and heavy or moderate work during pregnancy.

I found that 8,3%(29) of mothers did not have antenatal care, 41,7%(146) were examined on more than three occasions and 47,8%(167) were not visited at home during the antenatal period by the PHM.

Statistically significant associations were found between the period of death (neonatal and post-neonatal) and the following variables : period of gestation ($p < 0,001$), birth weight ($p < 0,001$), cause of death ($p < 0,001$), level of education of mother ($p < 0,001$), level of education of father ($p < 0,05$), social class ($p < 0,05$), place of birth ($p < 0,01$), place of death ($p < 0,01$) and antenatal care during pregnancy ($p < 0,02$).

The risk factors for infant mortality identified by the Odd's ratio were low birth weight, preterm infant, maternal age more than 35 years, birth spacing of less than three years, lower monthly income, lower social classes, lower educational levels, of mothers and fathers, maternal employment during pregnancy, heavy work during pregnancy, complications during pregnancy, less than four antenatal examinations either at local antenatal clinic or hospital antenatal clinic and distance to a hospital of more than 5km from the residence of mother.

The following are some of the variables not identified as risk factors : sex of the infant, parity of mother, mother aged less than 20 years, PHM home visits during antenatal visits, type and availability of toilet facilities, source of water supply and sub-standard housing.