

within 48 hours of delivery. They received monthly follow-up visit up to one year of age. During each visit, information was collected using a structured questionnaire.

Results: Although the LBW infants showed catch-up growth ($z\text{-score} > -2$) at 1-6 month(s) of age, their growth started to falter earlier than the infants with normal birth weight. Within the same birth weight group, the growth of the male infants faltered more than the female infants. Factors, such as maternal weight, father's literacy, birth weight, floor condition of living room, absence of illness of infants, had a significant association with the total weight gain at the 12th month of age. A very small proportion of the LBW infants could cross each of the selected development milestones, such as head-holding, sitting, crawling, teething, walking, etc. Acute respiratory infection (ARI) and diarrhoea were the major causes of mortality and morbidity in both the groups. Seventy-three percent of the 34 infants who died before 12 months of age were the LBW babies. The mean episodes per year of the three major illnesses among the infants were: ARI 4, diarrhoea 2, and skin infection 1. The mean chest circumference and the mean body weight of the infants with LBW were lower than their counterparts at 1-12 month(s), but the differences were highly significant at 7th and 8th month. A significant higher proportion of the LBW infants received early supplementation compared to the normal infants which seems to be a dangerous practice.

Conclusion: All members of the community should be educated on the consequences of LBW and its prevention as well as proper care of the infants with LBW.

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Effect of BRAC's Rural Development Programme on Calorie Consumption

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Objective: Explore the level of calorie consumption, and determine the effect of BRAC membership on calorie consumption of the programme participants.

Methodology: The analysis was based on the data on food intake by 2,061 households of the first round survey of the BRAC-ICDDR,B Joint Research Project in Matlab. Data were collected during April-August 1995 using a four-cell study design. Socioeconomic and food consumption data were collected through home visits through a 7-day recall of major food items. Daily household calorie consumption was divided by adult food consumption unit to obtain per capita calorie consumption. Variables found significant through bivariate analysis were regressed against calorie consumption less than 1805 kcal/day to assess the relative effect of BRAC membership.

Results: Only 25% of the total households had adequate calorie intake (>2310 kcal/day). Per day calorie consumption was significantly higher among the BRAC member households compared to the BRAC non-members ($p < 0.05$). Calorie consumption was significantly associated with household size, household land holding, occupation, and literacy of the household head, per capita monthly food and non-food expenditure ($p < 0.001$). Controlling for those associated factors, the BRAC member households had 33% less possibilities to consume <1805 kcal/day compared to the non-member households ($p < 0.01$).

Conclusion: A vast rural population (75%) could not afford to meet the daily calorie requirement. It seems that an intervention, like that of BRAC, can have a significant impact in meeting the daily calorie requirement.

In-depth analysis is needed to determine the pathways through which different BRAC inputs lead to an increased calorie consumption.

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Effect of Birth Weight, Intrauterine Growth Retardation and Prematurity on Infant Survival: a Prospective Study in the Slums of Dhaka City

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Objective: Study the effect of low birth weight (LBW), intrauterine growth retardation (IUGR), and prematurity on infant survival and on risk of deaths due to acute respiratory infections (ARI) and diarrhoea.

Methodology: A cohort of 1,677 infants born in a sample of slums in Dhaka city was enrolled and studied prospectively. One-hundred eighty deaths were reported to occur by 12 months of age. Cause of death was assigned based on data collected with a structured verbal autopsy questionnaire. Baseline data, and birth weights and lengths were measured at enrolment. Proportional hazards regression analysis was used for estimating the effect of the key explanatory variables while controlling for the effect of other variables.

Results: Overall, 21.7% of the deaths were due to ARI, 14.4% due to diarrhoea, and 5.6% due to both the causes. The proportional hazards regression analysis identified LBW, IUGR, and prematurity as important determinants of infant mortality. Preterm-IUGR infants were most at risk, especially for deaths due to ARI (RR=6.03). Diarrhoea deaths were 2.83 times more likely among the symmetric-IUGR infants compared to the non-IUGR infants. Compared to the normal-birth-weight infants, the LBW infants were at a greater risk of death due to all causes (RR=2.08), ARI (RR=2.52), and diarrhoea (RR=2.79). Although both prematurity and IUGR were associated with the increased risk of death, the timing of the effect varied with IUGR contributing to greater postneonatal mortality.

Conclusion: The results of the study show that size and maturity at birth are two important determinants of infant survival. The high prevalence of LBW and IUGR and the associated increased risk of deaths due to ARI and diarrhoea partially explain why these are still common causes of infant deaths in Bangladesh. Substantial improvements in infant survival, especially in the postneonatal period, can be expected with improved foetal growth and birth weight in this population.

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