

## ABSTRACT

Malnutrition in early childhood remains a common cause of admission and mortality in Jamaica. This study aims at determining trends in case-fatality rates of severely malnourished children 0 - 48 months admitted in three medical institutions in Jamaica from 1982 to 1991. The institutions are the paediatric wards of University Hospital of West Indies (UHWI), Tropical Metabolism Research Unit (TMRU) and Bustamante Hospital for Children (BHC).

Assessment of these children were based on the routine physical examination conducted by the physician. There was a docket search for random subsamples which showed discrepancies in certain categories of malnutrition at UHWI and BHC. There was a total of 3,268 malnourished children in the sample. Children in the age range 0 - 1 year accounted for 60.2% of the admission. Kwashiorkor totalled 806 (24.7%) and marasmus 507 (15.7%), marasmic-kwashiorkor 299 (9.1%) and other nutritional deficiencies 1656 (50.7%) of the admissions. The peak years of admission of malnourished children to hospitals were 1983 - 1986. Of the deaths, 198 (77.9%) occurred in children under 1 year of age. Fifty (19.7%) of the deaths were in children between the ages 1 - 2 years and 6 (2.4%) were in the age range

2 - 4 years. Annual case-fatality rates ranged from 0 - 20%. There were no discernible trends in the case-fatality rates within the three institutions. UHWI had a case-fatality rate ranging from 0 - 9.4%, TMRU 0 - 14.4 % and BHC 3.0 - 20.0%. TMRU admitted and nursed more children in the severe category of malnutrition, but recorded the second highest case-fatality rate. BHC admitted more malnourished children, but less in the severe category and recorded the highest case-fatality rate. Gastro-enteritis, respiratory infections and septicemia were the three most common conditions associated with death of children. Gastro-enteritis occurred in one-third of the admissions (34.5%). Multiple regression analysis showed that 74% of the annual variation in numbers of protein energy malnutrition deaths at B.H.C. was accounted for by (a) number of admissions, (b) percentage change in consumer price index and (c) percentage change in the US\$ value of the Jamaican \$, together, leaving a maximum of 26% for the realm of variations in hospital care. Findings suggest a minor role for export in-patient management in reducing deaths from protein energy malnutrition.