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Bayesian modelling of growth retardation among children under-five in Ethiopia

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Malnutrition among children under age five is the major public health problem in the developing world particularly in Ethiopia. The aim of this study was then to determine statistically the determinants of children malnutrition, using 2011 DHS data. The overall prevalence of stunting among children in Ethiopia was 43.3%. Bayesian semi-parametric regression model was used to flexibly model the effects of selected socio economic, demographic, health and environmental covariates. Inference was made using Bayesian approach with Markov chain Monte Carlo (MCMC) techniques. It was found that the covariates sex of child, preceding birth interval, birth order of child, place of residence, region, mother's education level, husband educational level, toilet facility, number of household members, household economic status, diarrhea and fever were the most important determinants of children nutritional status in Ethiopia. The effect of child age, mother's age at child birth and mothers body mass index were also explored non-parametrically as determinants of children nutritional status. It is suggested that for reducing childhood malnutrition, due emphasis should be given in improving the knowledge and practice of parents on appropriate young child feeding practice and frequent growth monitoring together with appropriate and timely interventions.

Biography

Kasahun Takele obtained his B.Sc. from Jimma University, M.Sc. from Hawassa University, Ethiopia. He is a fellow of African Young Statisticians Association and Ethiopian Statistical Association. His research interest in statistics includes Bayesian Modelling in application to Maternal and Child health and nutritional status. He has conducted research, taught and published in this area. He has participated and presented on national and international conferences. He is currently a lecturer and researcher at Haramaya University, Ethiopia.

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