



## The Use of Complex Survey Design Models to Identify Determinants of Malnutrition in Ethiopia

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**ABSTRACT** Children's nutritional status has specific impact and health problems in childhood growth and adulthood. This paper attempts to identify the socio-economic, geographic and demographic determinants of malnutrition among under-five children in Ethiopia. The 2016 Ethiopian Demographic and Health Survey were used for this study. The generalized linear model was adopted for analysis. The Hosmer and Lemeshow test is used to test the goodness of fit of the logistic regression model. The findings and comparison of estimates using logistic regression model with and without complex survey design were presented and then comparison was made using design effects. The results revealed that model that considers the complex nature of the design performs better than model that do not take into account. This study suggests that improving the health status, stable work status and educational level of mothers consequently, can reduce malnourished children in Ethiopia.