



A Comparative Analysis of Socioeconomic Indicators and Child Nutritional Status in Nigeria's Geopolitical Zones

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Accepted: 22 October 2017 / Published online: 8 November 2017
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Abstract This study analyses variations in child health/nutritional status with socioeconomic status and other factors in Nigeria's geopolitical zones using data from the Nigeria demographic and health surveys (NDHS) for 2003, 2008 and 2013. The study applies multivariate probit regression analysis and descriptive approaches on measures of child nutritional status such as height-for-age, weight-for-age and weight-for-height z-scores. The results indicate that child nutritional status varies significantly with individual and household socioeconomic and demographic characteristics. Overall, the study shows that higher household income, education level of mother above primary, availability of vitamin A supplement two months after delivery, and living in sanitary environment are significantly associated with lower probability of child poor nutritional status that may lead to stunting and underweight. The results also show that in Nigeria child poor nutritional status significantly decreased over time as captured by the year dummies. These findings vary substantially across the six geopolitical zones. The study therefore recommends that zonal-specific policy interventions are needed to improve child health in Nigeria.

Keywords Feeding · Nutrition · Stunting · Underweight · Child health · Geopolitical zones · Nigeria

JEL Classification H51 · I15 · I31 · J13

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1 Introduction

This study analyses variations in child nutritional status with social economic status and other factors in Nigeria's geopolitical zones in a multivariate context. The Nigerian health indicators and variations across the six geopolitical zones have been of great concern to policy makers over the past years to the extent that Nigeria has continued to rank high in poor population health (Eze et al. 2014; Akombi et al. 2017). The country is remarkably diverse in social and economic development especially across the six geopolitical zones. The coverage of the national health system is limited and health education and enlightenment is low, partly due to high level illiteracy among women of child bearing age (NHR 2006). Available statistics also indicate that the rates of malnutrition are high with 43% of children under-five being stunted (chronically malnourished) and 27% being underweight. At birth, 17% of children are underweight (WHO 2006; Antai 2011a).

The maternal and child health situation are important indicators of a society's level of development, as well as indicators of the performance of the health care delivery system. According to the World Health Organization (2000) and Nigeria Health Review (2006) Report, Nigeria is one of the countries that lagged behind in all the Millennium Development Goals (which has now been replaced by the Sustainable Development Goals), which 191 countries, including Nigeria, signed in 2001. For example in 2000, the World Health Organization (WHO) ranked Nigeria's overall health system performance 187th among its 191 member states. The patterns of health status in Nigeria mirror many other Sub-Saharan African nations but are worse than would be expected given Nigeria's GDP per capita. For example after 2003 Demographic and Health Survey (DHS), infant mortality rate (IMR) was estimated at 115 out of 1000, under-5 mortality rate was estimated at 205 out of 1000, and the maternal mortality ratio (MMR) was estimated at 948 out of 100,000 (NHR 2006; Gustafsson-Wright and van der Gaag 2008).

Despite these astounding numbers that show poor child health status in Nigeria, very little is known about its relationship with individual and household socioeconomic and other factors especially across the Nigeria's geopolitical zones. The six geopolitical zones of Nigeria is a major division in modern Nigeria, created during the regime of President Ibrahim Badamasi Babangida. Nigerian economic, political and educational resources are often shared across the zones. The six zones have not been entirely carved out based on geopolitical location, but rather states with similar cultures, ethnic groups, and common history were classified in the same zone. Nigeria is made up of approximately 250 ethnic groups and 450 languages. There was a need for the government to merge similar groups for effective allocation of resources. Although the constitution of the Federal Republic of Nigeria did create or recognize the currently defined geopolitical zones – North Central, North East, North West, South East, South-South and South West. But they, no doubt, have provided a practical and effective organizational framework for the operationalization of the principle of “Federal Character” in the management of the nation's affairs. In effect, the six geopolitical zones corresponds to convenient groupings of states with close cultural, historical and political relationships and broadly similar socio-economic patterns and levels of development (Eze et al., 2014).

This zonal structure has provided effective platforms for communal identification, mobilisation, aggregation, articulation and promotion of group interests. However, full