# FAMILY TYPE, ETHNICITY AND UNDER-FIVE MORTALITY IN NIGERIA

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## Background

Improving child well-being is a key public health goal in Nigeria today. This is because the well-being of a child will most likely determine the health of the future generation and can predict future national development. One of the major problems confronting the development of Nigeria is the high rate of under-five mortality (U5M). According to World Bank (2010), Nigeria has U5M rate of 157deaths per 1 000 live birth and one of the highest in sub-Saharan Africa. Nigeria alone shares 11 percent U5M after India which shares 24 per cent of the burden of the world's U5M (UNICEF, 2012). Various efforts have been put in place in order to reduce burden of U5M in the country. Despite these various initiatives and efforts, U5M in the country is still unacceptably high.

It is not well established whether the high U5M rate in Nigeria is associated with family type (FT) and ethnicity as there are little or no research linking ethnicity and family type to U5M especially in Nigeria where there are several ethnic groups. It is against this backdrop that this paper seeks to explore the association between FT, ethnicity and U5M.

## Research Questions

To examine the individual and interaction effects of FT and ethnicity on U5M

To examine the effects of FT and ethnicity and U5M after controlling for known variables associated with U5M

## Methodology

This study utilized the 2013 Nigerian Demographic Health Survey (NDHS) data. . The DHS is a nationally representative survey based on a stratified three-stage cluster sampling

procedures. A total of 31,828 weighted live births for women of childbearing ages, five years preceding the survey met our selection criteria. The outcome variable is under-five mortality while the explanatory variables are FT and ethnicity.

**Data Analysis**

We used descriptive statistics to examine the distribution of respondents by selected socio-economic and health variables. We also analyzed the relationship between U5M and the explanatory FT and ethnicity using the Pearson chi-square statistic . The dependent variable which is U5M is dichotomous (1 if child is alive and 0 if child is dead). At the multivariate level, we used the Cox proportional hazard regression models to assess the unadjusted and adjusted effects of FT and ethnicity on U5M. The Cox proportional hazard model is given as:

$h(t, X) = h_0(t) \exp\left(\sum_{i=1}^{p} \beta i X i\right)$,

where $X = (X_1, X_2, \ldots X_p)$ are explanatory variables included in the model and $\beta i$, $i=1,2,3\ldots p$, are the model parameters. Data was analyzed using the STATA software.

**Findings**

The mean age of respondents was 29.5 years. U5M decreases as mother's educational status increases: from 10.7% among women with no formal education to 4.4% among those who had secondary education or higher. A lower U5M of 7.9% was found among monogamous families, while those in polygynous families and single-parent families exhibit higher U5M of 10.3% and 9.7 % respectively. U5M rate is the least among the Yoruba ethnic group (6.0%) and the highest among the Hausa ethnic group (10.7%). In addition, U5M is higher in rural than urban areas and mortality is higher among male children.

The predictors of U5M at $\alpha \leq 0.005$ are: age of respondents, education, family type, ethnicity, religion, place of residence, region, number of children ever born, sex of the child, age at first

birth, size of child at birth, birth interval, place of delivery and current use of family planning method. The likelihood of U5M was significantly lower among educated women (post-secondary- AOR=0.57; CI= 0.14-2.42), women in monogamous family (AOR=0.76; CI= 0.64-0.90), Yoruba ethnic group (AOR=0.50; CI= 0.43-1.74), women in Islamic religion (AOR=0.78; CI= 0.56-1.06), women aged 18-35 years at first birth of their children (AOR=0.80; CI= 0.70-0.96), women with four or more years birth interval (AOR=0.39; CI= 0.29-0.52) than their counterparts.

## Conclusion

Under-five mortality was found to vary by family type and ethnicity in Nigeria. We also found the lowest U5M among the monogamous family, an indication that the presence of both parents may contribute immensely to child survival as remarked by Bramlett & Blumberg (2007). The low U5M among the Yoruba may also be unconnected with the level of development and effects of early western education among the ethnic group. We conclude that family type and ethnicity matter for any policies and programming aimed at reducing U5M in Nigeria. We recommend a multidimensional approach; including promoting and sustaining monogamous union and improving the level of education among all ethnic groups and family by all tiers of the government to further reduce the level of U5M in Nigeria.

## References

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