

Title: **Reproductive health in urban Nigeria: A quantitative assessment of contextual factors influencing access to ante-natal care services and patterns of under-5 morbidity among poor and non-poor urban married women**

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Background/statement of problem:

Improvement in maternal and child health indicators remains an essential part of the United Nations millennium development goals. With just a few years to 2015, indicators of maternal and child health in sub-Saharan Africa have not shown any significant improvement. Although, some countries in the region have made remarkable progress, half of the maternal deaths in the world still take place in the sub-Saharan Africa region (UNICEF, 2008). In Nigeria for instance, out of 500,000 world's maternal deaths, estimates show that about 55,000 (i.e. about 10%) of these deaths occur in Nigeria and child mortality rates are still unacceptably high at about 100 deaths per 1,000 live births (WHO, 2009), with prospect for accelerated decline looks distant away.

More importantly, growing urban population has culminated into two unparalleled categories of urban dwellers in terms of socio-economic indicators, with greater proportion of young people in reproductive ages. Increasing rate of poverty is challenging best efforts directed at improving access to quality reproductive health services among the marginal urban dwellers. Most cities in Nigeria are facing daunting challenges of coping with increasing number of urban women living in slums and shanty towns. The challenge of reaching disparate urban women health needs, particularly in the areas of maternal and child health is a major growing concern in many large cities.

Past research efforts have been concentrated on explaining disparities in health care services utilization and outcomes between rural and urban Nigeria, without giving adequate attention to the health disadvantages faced by the urban poor when compared with urban non-poor women. This neglect may be due to the presumption that socio-economic indicators and health outcomes are better among urban dwellers and that urban women tend to benefit from

easy access to quality health services. However, available evidence has shown that increasing rate of rural-urban migration in Nigeria is causing strain on health care facilities in the cities. Also, raising cost of health care services as well as unfavourable state of socio-economic indicators among urban dwellers is challenging effective use of health care services, especially relating to maternal and child health care. Therefore, highly imperative is an empirical analysis of the underlying causes and explanations of gaps in maternal and child health outcomes among poor and non-poor urban women in Nigeria.

Objectives of the study:

The main objective of the study is to examine contextual factors predicting maternal and child health outcomes among poor and non-poor urban women in Nigeria. The study will also explore and document variations in maternal and child health indicators among urban women.

Methodology/source/sample size

This paper utilized data from the 2008 Nigeria Demographic and Health Survey (NDHS). The analysis was restricted to 3,022 and 3,609 poor and non-poor urban women age 15-49 years respectively, with at least one child at the time of the survey. Classification of 2 urban women into poor and non-poor categories followed the Demographic and Health Survey (DHS) standard classification procedures. DHS used information on wealth index based on economic proxies such as household's ownership of consumer goods, toilet facilities, housing qualities and other information related to a household's socio-economic status. Following this pattern, national household wealth index for urban residence was re-ranked into equal-size quintiles. This was necessary in order to create equal-size wealth groups within the urban population for equal comparison and disentanglement of the effect of place of residence (Foreit, 2008). Urban women in poor and poorest wealth quintiles from the re-ranked values were merged to form urban poor category while those in middle, richer and richest wealth quintiles were merged to form non-poor category. The outcome variables of interest considered for the study were number of ante-natal visits completed, place of delivery, child morbidity (occurrence of fever and diarrhea) and vaccination. Ante-natal care visits and place of delivery were used as indicators of maternal health. Similarly, incidence of child morbidity in the last two weeks preceding the survey and vaccination received were used as measures of child health. A set of covariates such as socio-demographic characteristics of the respondents (maternal age, marital status, educational level, religion, employment status, ethnicity and region) were included in the analysis. Three levels of

analyses were performed using STATA 10 computer software. Firstly, the distribution of urban poor and non-poor women by selected socio-demographic characteristics and maternal and child health variables. Secondly, bivariate relationship between outcome variables and some selected independent variables was analysed through Chi-square. Lastly, binary logistic regression models predicting the influence of contextual factors on maternal and child health indicators.

Preliminary findings:

Findings from the NDHS analysis showed that urban poor married women are particularly disadvantaged in terms of educational level and employment status. About 9 out of every 10 urban poor women had primary or less education compared with about 4 out every 10 urban non-poor women. Almost 76% of urban non-poor women were working compared with 65% of urban poor women. Age at first birth was lower among urban poor women than non-poor. Half of urban poor women had their first birth at age 18.5 years, as opposed to 21 years for the urban non-poor counterparts. The prevalence of poverty was higher among urban Hausa/Fulani women in Muslim religious affiliation in the North-west region than women with other socio-demographic characteristics. In terms of maternal and child health outcomes, evidence from the analysis showed that about 78% of urban poor women had home deliveries compared with 37% of urban non-poor women. Majority of urban non-poor women (74%) completed two or more doses of tetanus injections. On the other hand, less than half of urban poor women (47%) had two or more doses of tetanus injections. Complete vaccination i.e. one BCG, Polio3, DPT3 and Measles injection was lower among urban poor than non-poor children. About 21% of urban poor children were fully vaccinated as compared with 65% of non-poor counterparts. Also, about 92% of urban non-poor women reported at least 4 ante-natal visits compared with 24% of urban poor women. With respect to incidence of child morbidity, 18% and 13% of urban poor children had fever and diarrhea in the last two weeks preceding the survey compared with 5% and 8% of non-poor children respectively. The multivariate analysis showed that urban poor women were less likely than urban non-poor to complete at least four ante-natal visits and more likely to have home deliveries. The odds of having at least four ante-natal visits increased by 93% for the urban non-poor women compared with urban poor counterparts ($p < 0.01$). Urban non-poor children were 1.46 times more likely than urban poor to complete the required number of child vaccinations and it was significant. Children of non-poor mothers had lower odds of experiencing fever (OR=0.81; CI=0.65-0.90) and diarrhea (OR=0.84; CI=0.66-0.86).

The multivariate analysis identified important variables as determinants of maternal and child health outcomes such as educational level, age at first birth, employment status (as a measure of women empowerment) and region. Urban non-poor women from South-South region (OR=3.41; CI=1.98-5.88), with at least secondary education completed (OR=2.65; CI=1.66-4.23), maternal age 35 years or more (OR=3.84; CI=2.24-14.4) and working (OR=1.28; CI=1.02-1.60) were more likely than women in other categories to complete at least four ante-natal visits. Apart from wealth status variable, the results confirmed that educational level, employment status and ethnicity appeared as most significant socio-demographic determinants of place of delivery and children having complete vaccination.

Conclusion:

Arising from the findings, it is evident that there are substantial disparities in maternal and child health outcomes among poor and non-poor urban women. The study concludes that women living in economically disadvantaged urban neighbourhoods experience poor maternal and child health outcomes. The findings of the study may have implications for giving more attention to meeting urban poor women health needs, with intense focus on the contextual issues challenging their access to quality maternal and child health care. This will go a long way in bridging the gaps in reproductive health outcomes between poor and non-poor urban women and reducing of maternal and child mortality in Nigeria.