

ARTICLE TOPIC SOCIOECONOMIC STATUS OF WOMEN AND IMMUNIZATION STATUS OF UNDER FIVE CHILDREN IN NORTHERN NIGERIA- A CASE STUDY OF POLIOMYELITIS IN KADUNA STATE

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Abstract:

Childhood illness plays an important role in the adverse health status of children under five years of age in northern Nigeria. Since around 1989, concerted efforts have been made to reduce the problem of infant morbidity and mortality in Nigeria, mainly through routine immunization and supplemental campaigns (door to door), and in spite of a 99% reduction in poliomyelitis prevalence worldwide, Nigeria still accounts for the highest prevalence of circulating wild polio virus in the world and the country is among the ten countries in the world with vaccine coverage below 50 percent. The respondents for the study were selected purposively using multi stage sampling procedure, by stratification. Data were collected from them using a structured interviewer-administered questionnaire that had been translated into Hausa, the local language, and back translated to English before administration. Bivariate analysis of the data collected showed that ethnic group of mother was positively associated ($p < .000$) with immunization status of the under fives, and so was the occupation of the mother ($p < .000$), religion ($p < .000$) and educational attainment of mother ($p < .000$). Multivariate analysis (binary logistic regression) of the data however, showed that mothers' educational attainment may not significantly influence immunization status of the under fives, as much as household monthly income.

Key Words: Socio-Economic Status, Poliomyelitis, Northern Nigeria

Introduction

Worldwide, there are still 27 million children who do not receive routine immunization and as a result, vaccine –preventable diseases cause more than 2 million deaths and disability every year- Multiple Indicator Cluster Survey (MICS, 2007). A World Fit for Children goal is to ensure full immunization of children under one year of age at 90 percent nationally, with at least 80 percent coverage in every district or equivalent administrative unit.

According to UNICEF and WHO guidelines, a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against diphtheria, pertussis, and tetanus, three doses of oral polio vaccine (OPV), and a measles vaccination-all by the age of 12 months.

The MICS (2007) for Nigeria however shows that there are real disparities in coverage of all types or levels of vaccination along rural-urban and North-South partitions of the country and along levels of education and wealth status. The coverage is low in rural areas, in the North, among children with mothers with no education and among children in the poorest wealth quintiles.

Among identified childhood diseases, poliomyelitis has consistently proven to be a challenge to eradication programs. Control measures in Nigeria, through the National Programme on Immunization (NPI) have not been totally successful even though worldwide, there has been a 99% reduction in the prevalence of poliomyelitis. This is because immunization coverage in many parts of Nigeria is far from optimal and far from equitable (Antai, 2009). And Prata, et al (2012) also note that in northern Nigeria, cultural, religious, sociopolitical and other contextual factors severely constrain intervention options, such as immunization.

There were 118 reported cases of wild poliovirus in Nigeria in 2012 (WHO, 2012). Followed by Pakistan (57 cases) and Afghanistan (35 cases), and Nigeria still accounts for the highest

prevalence of circulating wild poliovirus in the world and the country is among ten countries in the world with vaccine coverage below 50% (Antai, 2009).

States in the north of the country are the main sources of polio infections elsewhere in Nigeria and in neighboring countries (UNICEF, 2012). In the early 2000s, wild poliovirus transmission was interrupted in most of Nigeria but continued in the north of the country, as a result of weak health system and distrust due to rumors about vaccine side-effects. Caregivers often lack understanding of polio and the necessity of multiple OPV doses, and fear that too many doses could be unsafe. In addition, many believe their children are not susceptible to polio and avoid OPV if they feel the risk of immunization is greater than the risk of the disease (UNICEF, 2012).

Despite its human and natural resources, Nigeria with a population of 162.5 million and GDP of \$235 billion (World Bank, 2012) is ranked among the poorest countries in the world; fifty five percent live below the extreme poverty line of US\$1 a day (World Bank, 2012). Less than one half of the population has access to safe water (43% in rural areas) and only 41% have access to adequate sanitation (32% in rural areas). Life expectancy at birth is 52 years. Overall, the adult literacy rate is 56 percent, however the rate for males (67%) is much higher than for females (47%). These facts adversely affect the survival of children and the reproductive health of women in general.

UNICEF's 2007 Multiple Indicator Cluster Survey (MICS) shows that polio immunization coverage for children in Nigeria is 28 percent.

Women's education has been reported as a key factor in reducing infant and child mortality and morbidity. The higher a woman's level of education, the more likely it is that she will marry later, play a greater role in decision making and exercise her reproductive rights. Her children will tend to be better nourished and enjoy better health (Hobcraft, et al 1984).

Main Text

Immunization is one of the most successful and cost-effective public health interventions. In 2010, global efforts to immunize children with vaccines against life-threatening diseases set a record high, reaching 109 million children and averting more than two million deaths along with countless episodes of illness and disability annually (UNICEF, 2012). However, despite significant gains in recent years, millions of children are not immunized, exposing them to disabilities or premature death. Vaccines work by introducing into a person's immune system a harmless form of bacterium, toxin or virus that a healthy person's body recognizes as unusual and responds by devising a defense (immunity) against it.

Investing in the health of children and their mothers is not only a human rights imperative, it is a sound economic decision and one of the surest ways for a country to set its course towards a better future (UNICEF, 2008). Simple, reliable and affordable interventions with the potential to save and improve the lives of millions of children are readily available. The challenge, particularly in developing countries, has been how to ensure that these remedies reach the children and families who, so far, have been passed by. One of these interventions is immunization.

In Nigeria, inadequate health facilities, lack of transportation to institutional care, inability to pay for services and resistance among some populations to modern health care (such as immunization) are key factors behind the country's high rates of newborn and child mortality and morbidity (UNICEF, 2009). Cultural attitudes and practices that discriminate against women and girls contribute, inadvertently to child morbidity and mortality. While poor service delivery, parents who have low levels of education and lack of information about immunization are major reasons for low coverage among children (UNICEF 2012). Polio now is a virus of the poorest, making its final stand in the most forgotten places, among the most forgotten people.

Earlier, the Nigeria Demographic and Health Survey (NDHS 2003) noted that widespread inequities persist in immunization coverage to the disadvantage of children of parents in the lowest socio-economic quintile, parents with no education and parents in the rural areas, especially in the northern region of the country.

While the Nigeria Demographic and Health Survey (NDHS, 2008) points out that in Nigeria, children are considered fully vaccinated when they receive one dose of Bacille Calmette-Guerin (BCG) vaccine, three doses of diphtheria, pertussis and tetanus (DPT) vaccine, three doses of polio vaccine, and one dose of measles vaccine. Overall, the survey reported that 23 percent of children 12-

23 months have received all vaccinations at the time of the survey. The coverage for polio was 38% for the third dose.

Renne (2012) noted that in 2006, Nigeria had the greatest number of confirmed cases of polio worldwide (1143 cases) and the situation in Nigeria where there are persistent cases of polio suggests that some of the underlying political, social, and economic problems besetting the global polio public health campaign persist. Indeed, she further suggests, in 2011 presidential/gubernatorial elections and subsequent post-election violence, as well as ongoing conflict between government officials, state, federal military police, and members of a fundamentalist Islamist group in northeastern Nigeria, has hampered, but not stopped, polio eradication and broader immunization efforts.

Renne (2010) also noted that eradicating polio in Nigeria, that is breaking the chain of transmission of the poliomyelitis virus, as evidenced by a lack of new confirmed cases within a given time frame, and the subsequent certification of total absence of cases would be difficult under any circumstances, especially given Nigeria's teeming population (estimated currently at 162.5 million: World Bank, 2012) and a land mass of 923,768 square kilometers.

And earlier in her study in Zaria on polio, Renne (2006) noted that while some people believed that the polio vaccine was contaminated by anti-fertility substances, others questioned the focus on polio when measles and malaria were considered more harm. Some also distrusted claims about the safety of Western biomedicine. These concerns relate to questions about the appropriateness of vertical health interventions, where levels of routine immunization are low.

Alto (2006) in her study of polio immunization in Nigeria, also remarked that Muslim leaders believed that the vaccine contained contraceptive agents and other contaminants with which the Western world hoped to control population growth.

Additionally Nichter(1995:621) opined, that in regard to vaccinations in the third world, what is in a mother's education which predisposes her to have children vaccinated (for example, the content of her education, affiliation with modernity, social mobility) or the contexts in which her education does or does not have leverage.

While Babalola and Aina (2004) pointed out that inequitable access to routine immunization in Nigeria has been attributed to fear and confusion about the intent and purpose of immunization.

However these studies have been largely surveys carried out at the national level with strong epidemiological undertones or anthropological studies using qualitative methods.

Ransome-kuti (1986) noted that historically, before the arrival of pediatrics in Nigeria in 1952, children were given scant attention. The earliest health services were provided for sailors and slaves. He also pointed out that it is the uneducated woman (and they are in the vast majority) who bears the largest number of children and loses the most, who fails to understand simple concepts such as the meaning of the growth chart, and who performs worst of all in bringing her child for immunization even when the services are made available, affordable, and accessible and are efficiently run. She is subjected to enormous social and cultural constraints that prevent her from utilizing the services effectively and is also subjected to conflicting advice from ancient and modern health systems regarding the care of her child. He concluded that the father's role in health decisions is often dominant in most instances.

While Obadare (2005) writing on the polio controversy in northern Nigeria, as can be best understood after considering developments in the broader politico-religious contexts, both local and global. He locates the controversy as a whole against the background of the deepening interface between health and politics. He suggests that the crisis is best seen as emanating from a dearth of trust in social intercourse between ordinary citizens and the Nigerian state on one hand, and the same citizens and international health agencies and pharmaceutical companies on the other.

Giwa, et al (2012) who studied the seroprevalence of poliovirus among children in Zaria, found that polio antibody seropositivity was significantly associated with higher socioeconomic status and immunization was the single most important determinant of seropositivity to poliovirus serotypes. They felt that the low seropositivity found among children in Zaria LGA could be attributed to socio-cultural and religious beliefs, and fear of the health consequences of the OPV vaccine on children.

These foregoing studies conducted in northern Nigeria on poliomyelitis, show that it is still a childhood disorder plagued by overarching controversy mixed with sociocultural, religious and political contexts, which warrants further investigation.

This empirical study of women's educational attainment, religion and occupation and immunization status of under fives, with particular reference to poliomyelitis in Kaduna state, north central Nigeria sought to show the relationship between women's educational attainment, occupation, religion and household income, and the immunization status of under fives in their households, using the gender theory as theoretical framework of analysis, which seeks to explain the social processes at work in this part of northern Nigeria that might account for the poor indicators of maternal and child health, particularly poliomyelitis.

Conclusion

The low socioeconomic status of Hausa women, who form the larger population of women in northern Nigeria, is a major reason for the continuing poor indicators of maternal, and by extension, child health in that part of the country. It can be inferred that when the social circumstances of the Hausa women improve, it would likely result in improved indicators of child health also.

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