



Utilization of maternal and child health care facilities in Lagos State

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Abstract

The Slogan "health is wealth" is a constant paradigm in development thought and planning. The need for improvement in the quality of life of the people is paramount in all development programmes as acknowledged in national development plans. Of particular interest in this paper, is the Nigeria health sector which has witnessed tremendous changes in institutional framework, programme implementation and management, all fuelled by the increasing realization of the immense relationship between the health of the people and national development. Commitment of the Nigerian government to improvement in health status, particularly maternal and child health is manifest in their centrality in the national population policy objectives and several health intervention strategies. The extent to which these efforts yield equitable provision and wide spread utilization of MCH facilities is the focus of this paper. In addition, the paper attempts an examination of Nigeria health status as a premise for evaluating Maternal Child Health (MCH) development in a metropolitan environment. Data for the study was derived from a cross-sectional study in the three social areas of Lagos State, using a multistage sampling of 1,337 women with structured questionnaire complimented with focus-group discussions. The study showed uneven distribution of MCH facilities, fairly high but uneven level of patronage of orthodox sources of health facilities among women living in the high income areas (100 per cent), middle income areas (64.1 per cent), and low income areas (11.9 per cent). The findings underscore the relevance of facility availability to the uptake of modern health care services and the need for government to empower and monitor the activities of traditional birth attendants.

Key words: child, health, maternal, metropolitan, provision, utilization

Introduction

An overview of the health status of women and children in Nigeria is paramount in the understanding of several national health care policies which have evolved over time. In 1995, Nigeria had the third highest number of maternal death in the world (UNICEF, 1995). By year 2008, there were 800 maternal deaths per 100,000 live births. Presently, the figure is between 1,100 and 1,500 deaths per 100,000 live births (UNICEF, 2009). Equally high are Infant Mortality Rate (IMR) of 96 per 1,000 live births and an under 5 Mortality Rate (U5-MR) of 186 per 1,000 children aged 1 to 5 years (UNICEF, 2009). The commonest causes of deaths among the children are diarrhea, acute respiration infections, malaria, measles and malnutrition, while maternal mortality results mainly from hemorrhage, obstructed labour, induced abortion and hypertensive disease of pregnancy (Federal Ministry of Health, 2001; Say et.al, 2006; NDHS, 2008). Most of these deaths and illness are preventable or easily cured if good medical care is sought early enough during pregnancy and in the first few years of life of the children. Still on health indicators, Nigeria has a recorded Crude Death rate (CDR) of 17 per 1,000 people. The country has a Total Fertility Rate (TFR) of 5.5 and a Life Expectancy of 47 (UNICEF, 2009).

These demographic characteristics have been attributed to regional disparity in the provision and access to effective health related services in Nigeria (NDHS, 1999). It is estimated that only about 30 per cent of the total population had access to modern health care service before the adoption of the National Health Policy in 1987 (Ransome-Kuti et al, 1991). Even till date, the provision and utilization of maternal health services have been below the acceptable coverage expectation of the Alma-Ata Declaration of 1978. A study by the Directorate of Food, Road and Rural Infrastructure (DFRRI) in 1987 shows that there were about 10,711 health establishments at the primary health level (health centres, maternity centres, clinics and dispensaries) to about 100,000 villages and autonomous communities in Nigeria. This translates to about one facility for every 10 villages and communities, implying very low accessibility to health services, especially in rural areas.

These indices are still relevant up to date, as other socio-economic indicators place the country among the 19 poorest countries in the World, using the Human Development Index (Nigeria Human Development Report, 2005). Presently, the ratio of doctors to patients in Nigeria is 28 doctors per 100,000 people, that is, 1 doctor to 3,600 people compared to the low ratio of 1:300; 1:390 and 1:470 for Germany, United States of America and Canada respectively (Jacobs, 2006; WHO, 2006c). Several efforts at reversing the low indices in Nigeria and at improving national health status have culminated in the enunciation of several health policies. The extent to which these efforts

yield equitable provision and wide spread utilization of orthodox MCH facilities is examined in the paper.

Methodology

Multistage sampling technique was used in the generation of data for this study. The study is based on the place of residence and the MCH facilities that the mothers visited for antenatal care for their last pregnancy before the study. The last pregnancy was used in the analysis because mothers tend to remember in more detail, events of more recent pregnancies. A total of 1,337 mothers living in seven Local Government Areas (LGAs) of Lagos State were interviewed using well structured questionnaire. The LGAs were grouped into three social areas on the basis of the socio-economic attributes of the residents. These are the high, medium and low class areas (Aigbe, 2004). The Seven LGAs selected for the study represent the stratified residential zones as follows: Eti-Osa and Ikeja for the high class; Surulere and Ojo for the medium and for the low class areas are Mushin and Lagos Island. In addition, Ibeju-Lekki, the most rural and riverine of all the LGAs was chosen for its distinctive geographical features. Furthermore, the seven LGAs spreads across the three senatorial districts of Lagos State, namely, Eti-Osa, Lagos Island, and Surulere LGAs in the Lagos Central Senatorial District; Ibeju-Lekki in Lagos East Senatorial District while Ikeja and Mushin LGAs are in the Lagos West Senatorial District.

In each LGA, a total of 200 buildings were selected at a specified interval of either every fifth or tenth building from a starting number (determined randomly) depending on the length of the street or on the total number of houses on each street or area. In each of the selected building, an eligible respondent for selection was a mother, aged 15- 49 years with at least one live birth, born within the reference period. A total number of 1,400 women were interviewed with completion rate of 95.5 per cent who are the 1,337 women under study. The questionnaire yielded information on antenatal care, place of delivery and childhood immunization among others.

Responses from the focus-group (FGD) discussions enhanced the qualitative analysis of the research questionnaire. Two sessions were held in each of the three social areas. In all, six FGDs were held. The theme of the discussions was an assessment of the level of acceptance and use of MCH services, including users' fee evaluation. The groups expressed their attitudes towards modern health care; cultural barriers to service utilization and their level of satisfaction with MCH care facilities. The responses were analyzed qualitatively and provided complimentary explanation of observed MCH utilization pattern.

A Review of Nigeria Health Care System

Nigeria health care system has evolved through a series of historical development, including a succession of policies and plans introduced by successive administration. The earliest attempt at improving the nation's health status was through the Basic Health Service Scheme (BHSS). BHSS was set up in 1975 as part of the Third National Development Plan (1975-80). It was with the aim of "increasing the proportion of the population receiving health care from 25 per cent to 60 per cent, correct the imbalance in the allocation and distribution of health institutions between preventive and curative medicine, provide the infrastructure for all preventive health programmes, such as control of communicable diseases, family health, environmental health, nutrition and others, and establish a health care technology" (Third National Development Plan, 1975-80). The basic plan for the implementation of the scheme was the building of a comprehensive health care, 4 primary health centres and 20 health clinics in each local government area of the country.

An assessment of the basic plan reveals that service orientation was mainly curative, with heavy investment in buildings with minimal community participation (Ransome-Kuti. et. al., 1991). In general, the programme recorded limited success as most of the facilities remained uncompleted, and only 30 per cent of the entire population had access to modern health care ten years after the promulgation of the scheme. Concern for improvement in national health status led to the replacement of BHSS by Primary Health Care (PHC) as the cornerstone of the national health system.

The National Health Policy which was launched in 1987, represents a major change in the ideology of the National health System from secondary and tertiary levels to the primary level, that it, a system that brings health care to the people where they work and live. The ideology was based on the recognition that the effectiveness of the entire health care system, including both secondary and tertiary health services can only be ensured through a strong PHC system. The PHC system operates at the third tier of the health system and covers ten aspects of community health needs. Two of these components which centre on maternal and child (MCH) needs are discussed in subsequent sessions.

The Alma Ata Conference of September 1978 defined PCH as: Essential health care, based on scientifically sound and socially acceptable methods and technology, made universally acceptable to individuals and families in the community through their full participation and at a cost the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.

The target of the PHC programme is to have one community health worker to service a population of about 500 people and health facility sited

within a walking distance of not more than 5 kilometers or half an hour travel time.

Assessment of the level of performance of PHC, using MCH service availability, revealed that 72.9 per cent of households in Nigeria live within 5 kilometers of MCH facility. Regional coverage of such facilities for ANC however ranges from 40.3 per cent in the Northeast to 28.3 per cent in the Northwest, through 89.2 per cent in the Southeast to 81.5 per cent in the Southwest (NDHS, 1999). Even in 2008, the coverage were still low in some regions ranging from 36.5 per cent in the Northeast, 28.7 per cent in the Northwest to 75.7 in the Southeast and 84.2 in the Southwest (NDHS, 2008)

Using immunization status as an indicator of coverage of appropriate health care for children, 30 per cent of children were fully immunized against the six target childhood diseases under the National Programme of Immunization in 1990. A comparison of these rates shows steady increase in 1999 (NDHS, 1999) and reductions in the rates in 2008 (NDHS, 2008). For instance, national ANC coverage increased from 57 per cent in 1990 to 60 per cent in 1999 but reduced to 58 per cent in 2008 (NDHS, 2008) while tetanus toxoid coverage increased from 41 per cent in 1990 to 44 per cent in 1999. The coverage reduced to 35 per cent in 2008.

Nonetheless, most of the observed increases or reductions fall below the expected 90 per cent coverage of these services. The observed pattern is of immense concern given that the 90 per cent coverage was expected to be met by the year 1990 (Nigeria – A Country Study, 1991) and about 20 years later, the rates are still far below the target. The short fall has been attributed to a plethora of problems, which challenge the effective implementation of PHC in Nigeria and its impact on the health and well being of the populace. The problems ranged from inadequate manpower to minimal community involvement. In a nutshell, participants in the National Council on Health Conference, 2001 viewed the progress in PHC development as rather slow. In their words, "progress has been very slow with PHC in Nigeria. There is a need to rethink strategies and shared - responsibilities and for a stronger federal presence in the area of funding and implementation arrangements that would yield noticeable results within the shortest possible time" (Primary Health Care in Nigeria, 2001).

Within the MCH care system, child health care has witnessed remarkable changes in health intervention strategies over time, in the aspects of disease control (oral rehydration therapy) and protection (immunization). Specifically, childhood immunization programme has undergone changes both in the naming, structuring and approach. It was initially known as Expanded Programme on Immunization (EPI) but was renamed National Programme on Immunization (NPI). This was to reflect the new structure and Federal Government's presence in the programme. The EPI was initiated in

1979 to address the country's low immunization coverage. It focused on eight vaccines, namely BCG, Polio, DPT and Measles vaccines. Others are Tetanus Toxoid vaccine and Fever vaccine, Hepatis B vaccine and Cerebro-Spinal Meningitis (CMS) vaccine.

The programme recorded significant success in the coverage of maternal and childhood immunization between 1986 and 1990. However, the years after 1990 witnessed major decline in coverage level due to low political will and social support for the programme, inadequate funding and poor community involvement and participation. Consequently, the country witnessed a resurgence of outbreak of diseases with severe consequences. The prevalence rates of diseases like measles, pneumonia and polio were quite high.

The prevailing health situation in the early 1990's created challenges, which again culminated in the restructuring of NPI via emphasis on social mobilization, community participation and complementary immunization exercise beyond routine immunization. An example of supplementary immunization is the current global and national Polio Eradication Immunization Exercise, which started in 1996. The exercise adopts the "house to house" strategy of immunization on designated National Immunization Days (NIDs). Data in Table 1 shows Polio immunization coverage on NIDs for three years between 1999 and 2001. The house to house effort achieved over 95 per cent coverage for polio immunization. The house to house strategy of immunizing eligible children in their homes on designated days underscore the importance of service availability and flexibility in the attainment of increased service uptake. Further still, Nigeria adopted the Reaching Every Ward Approach in December 2004 to strengthen routine immunization in every ward. In May 2006, the Immunization Plus Days (IPDs) strategy was also introduced to further strengthen routine immunization (NDHS, 2008).

Results and Discussion

Maternal health care delivery, on the other hand, still follows the routine approach of fixed health location and health facility visits. Specifically, the level of MCH facility provision is analyzed by examining the number of orthodox MCH facility available in the 7 LGAs. Of particular interest are two main features of MCH facility provision in Lagos State. First, is the hierarchical structure of available health facilities with the teaching hospitals at the top of the scale; the general hospitals at the middle level; and the primary health centres at the bottom, complemented in significant proportion by non orthodox sources of care like traditional birth attendants, church and home care. This pattern is consistent with the findings in Ilesa, a town in Southwestern Nigeria (Ogunlesi, 2005).

The second feature is the unevenness in the number of each category of health facility available in the LGAs, as data in Table 2 portray. Clearly, private hospitals/maternity centres are the dominant sources of care among orthodox sources of care, accounting for 79.6 per cent of all orthodox sources of care. Collectively, teaching hospitals, general hospitals and public primary health centres constitute about 20.3 per cent, representing one-fifth of the available orthodox MCH facilities. It is pertinent to note that in all, the 270 health facilities available in the seven LGAs serve a total of 2,771,237 people in the LGAs which translate to about 1 facility to 10,264 people. The observed ratio of 1: 10,264, that is, 1 facility to about 10,264 people is considered high compared to the findings in Southern Honduras with a ratio of 1 facility: 4,000 people (Baker, 2005).

Variation in MCH facility availability is a key factor in the explanation of differential patronage of MCH services. Data in Table 3 supports the above claim. The importance of service availability in service utilization is attested to by the marked spatial disparities in the receipt of antenatal care (ANC) from the different sources of care. Generally, the patronage pattern is one that showed selective preference for particular sources of ANC that are available and accessible to the mothers (Aigbe, 2004; Baker, 2005; Onah et.al. 2006). For example, the primary health centre/private hospitals which represent the highest available orthodox sources of care (79.6) per cent of all orthodox sources of care) also recorded the highest patronage level of 35.8 per cent. Conversely, the low level of availability of teaching hospitals (0.7 per cent) and teaching hospital (1.1 per cent) was equally matched with very low patronage level of 6.7 per cent and 18.8 per cent respectively.

Specifically, the utilization level and pattern exhibited by mothers in Ikeja, Mushin and Ibeju-Lekki LGAs provide more vivid illustration of the importance of facility availability in service uptake. Mothers in Eti-Osa and Ikeja (high income social areas) visited the teaching hospital, general hospital and PHC/private hospital for ANC, constituting 100 per cent utilization of orthodox sources of care with no recorded visit to unorthodox sources of care. The pattern and level of utilization of these sources changes among mothers of other social status living in the middle and low income social areas of Lagos State. The patronage level of orthodox sources of care for ANC reduced from 100 per cent in Eti-Osa to 51 per cent in Mushin, 29.5 per cent in Lagos Island and 11.9 per cent in Ibeju-Lekki. On the other hand, unorthodox sources of care assumed significant patronage as sources of care for ANC. For example, the combined patronage of traditional birth attendants (TBA), home (mothers' place of residence) and church was 49 per cent in Mushin, 70.4 per cent in Lagos Island and 88.1 per cent in Ibeju-Lekki. Clearly, the patronage pattern in Ibeju-Lekki highlights the role of facility availability in facility utilization. The absence of teaching hospital and general hospital in Ibeju-Lekki LGA

largely explains the non patronage of these sources in the LGA while the low patronage of the 9 PHCs and 1 private hospital in Ibeju-Lekki can be attributed to accessibility factor as portrayed by the response from one of the focus group discussions. According to a mother in the group:

The nearest PHC is too far; it takes a lot of time to get there. I spend about 45 minutes waiting for a vehicle and another 20 minutes to get to the PHC. The transportation fare is N150.00 to and another N150.00 back. It is expensive and I cannot spend N300.00 to give my child injection (immunization), when he is not sick.

The above response was a common response by mothers in Ibeju-Lekki LGA to the question on MCH service uptake for antenatal care and child immunization (preventive care). In addition to the influence of geographical location on patronage pattern, some studies stress the role of socio-economic status of users in determining PHC utilization while other studies emphasize the influence of socio-demographic and health system factors (Baker, 2005; Khan, 2005; Ogunlesi, 2005; Onah et. al., 2006). Collectively, these studies emphasize the influence of several interacting variables on MCH facility provision and utilization.

Conclusion

This study showed the availability of all categories of MCH facilities and services in Lagos State and the use of both orthodox and non orthodox sources of care for antenatal care by mothers. The fairly high but uneven utilization of orthodox sources of care and the patronage of unorthodox sources of care by a significant proportion of the mothers suggests a less than impressive level of use of modern health facilities in Lagos state, in spite of the metropolitan status of the State. The utilization of orthodox sources where they exist and the recorded non patronage where such facilities were lacking clearly show that mothers will utilize facilities if provided. The study revealed the spatial inequality of the distribution of MCH facilities and the uneven patronage of the available sources. This put the low income area at disadvantage in terms of accessibility to good antenatal care services. The government and private investors can address the issue of non availability of MCH facilities by providing modern health facilities in areas that lack such facilities, increase the stock and quality of facilities where they already exist, and empower and monitor the activities of traditional birth attendants, a major source of care giver in the State. The high polio immunization coverage recorded on National Immunization Days which has been attributed to the adoption of the house to house approach, is a pointer to the crucial role of service availability in service utilization especially for preventive health care. In addition, a better appreciation and patronage of MCH services can be achieved through comprehensive enlightenment of mothers on the benefit of

uptake of preventive health services. Collectively, these measures are expected to yield increased MCH facility patronage and improvement in the health status of mothers and children.

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**Table 1: Supplementary Polio Vaccine Coverage of NIDs in Lagos State, 1999
to 2001**

Year	Date	No. of children < 60 months	Total no. of children 0-59 months immunized	No. of children 0-59 months who never received Polio (OPV)	Percentage Coverage
1999	24 th April -1 st May	2,273,622	2,266,655	11,107	99.7
2000	14 th -20 th October	3,295,599	3,294,134	5,574	95.7
20001	28 th – April 4 th May	2,797,900	2,765,229	3,542	98.8

Source: NPI Office, Lagos State Ministry of Health, 2001.

Table 2: Distribution of Orthodox MCH facilities in some LGAs in Lagos State

LGA	Population Size	Teaching Hospital	General Hospital	Pubic PHC	Private Hosp/Mat. Centres	Total
Eti – Osa	287,785	-	-	6	24	30
Ikeja	313,196	1	1	5	47	54
Surulere	503,975	-	1	6	35	42
Ojo	598,071	-	-	10	15	25
Mushin	633,009	1	-	7	70	78
Lagos Island	317,720	-	1	7	23	31
Ibeju lekki	117,481	-	-	9	1	10
Total	2,771,237	2	3	50	215	270
% of row total		0.7	1.1	18.5	79.6	100

Source: National Bureau of Statistics, 2006 and Lagos State Ministry of Health, 200

Table 3: Sources of Antenatal Care

Location	Number of women	Sources of ANC					
		Teaching Hospital	General Hospital	PHC/Private Hospital	TBA	Home	Church
Eti – Osa	199	10(5.0)	30(15.1)	159(79.9)	-	-	-
Ikeja	197	32(16.2)	88(44.7)	77(39.1)	-	-	-
Sururlere	199	20(10.1)	64(32.2)	86(43.2)	26(13.1)	3(1.5)	-
Ojo	197	2(1.0)	3(1.5)	79(40.1)	31(15.7)	78(39.6)	4(2.0)
Mushin	186	19(10.2)	41(22.0)	35(18.8)	76(40.9)	3(1.6)	12(6.5)
Lagos Island	183	6(3.3)	26(14.2)	22(12.0)	93(50.8)	29(15.8)	7(3.8)
Ibeju-Lekki	176	-	-	21(11.9)	122(69.3)	33(18.8)	-
Total	1,337	89(6.7)	252(18.8)	479 (35.8)	348(26.0)	146(10.9)	23(1.7)

Source: Aigbe, G.O., 2004