Assessment of Maternal and Child Health Care delivery Initiative Programme in Ondo, Ondo West Local Government, Nigeria

A. D. Shofoyeke[1], Y. A. Adebola-Arokoyo[2]

National Institute for Educational planning and Administration (N.I.E.P.A), NIGERIA.

[1] shofoyeke@gmail.com, [2] adebolabiodun@gmail.com

ABSTRACT

Nigeria is one of the countries having very poor health indicators especially on maternal and child mortality rates. Within Nigeria, Ondo state had the worst maternal and child mortality rates in South-west as at 2008. It was against this background that Ondo state government started the safe motherhood reproductive and child intervention programme in 2009 in Ifedore Local government and later extended to other parts including Ondo tagged 'Mother and Child hospital' or 'Abiye Programme'. The Ondo programme which started about two years ago and worth assessing and specifically to determine its successful and unsuccessful aspects with a view to make informed recommendations to enhance improvement. Self-developed questionnaires were administered to 95 mothers through health personnel working in the hospital. The questionnaires were filled by the mothers through the assistance of the health personnel and retrieved back after completion. The data collected were analysed using frequencies, percentages and mean at the univariate level and analysis of variance at the bivariate level. The study found 37.8 per cent, 14.7 per cent and 47.5 per cent of the respondents were from rural, semi-urban and urban areas respectively while 8.4 per cent, 66.3 per cent, 12.6 per cent and 12.6 per cent were single, married, separated and divorced mothers respectively. Mothers were of the opinion that the programme is successful because of provision of free medical treatments to mothers and children under 5 years of age, provision of immunization and counselling services which have led to reduction in deaths of mothers and children. However, cultural beliefs, social groups and family pressure are likely to aid increase birth rates. The paper recommends that awareness campaign should be incorporated into the intervention programme using cultural associations, family system, and social groups as agent of delivery particularly in rural and semi-urban areas.

Keywords: Assessment, Maternal and Child, Healthcare delivery, Safe motherhood, Abiye programme

INTRODUCTION

Countries around the globe are currently experiencing either high or low fertility rates and this in turn impacts on their economy. In countries with high fertility rates, there is concomitant high maternal and infant mortality due to factors such as high risk pregnancy, low child spacing, inadequate access to health-care facilities etc and this in turn result in low development (Angeles, 2010). Fertility levels of any region are resultant effect of cultural and socio-demographic factors such as age at first intercourse, age at marriage, age of mother at first birth, level of educational attainment, active participation in the work force, exposure to contraceptives, religious affiliation and cultural disposition. Fertility in sub-saharan Africa is among the highest in the world and Nigeria leads the pack in sub-saharan Africa with one of the fastest population growth rate and a Total Fertility rate (TFR) of 5.5 children per woman

(NpopC&ICF International, 2014). According to the 2006 Population and Housing Census report, Nigeria's population was said to be 140, 431, 790 with a national growth rate estimated at 3.2 per cent per annum which situates Nigeria as the most populous nation in Africa and the seventh most populous in the world (population Reference Bureau, 2013), the population further rose to an estimated figure of about 175 million in 2014.

According to Omotayo (2010), nearly fifty four thousand Nigerian women die annually from complications arising from pregnancy and child birth. Maternal deaths in Nigeria stand at 800 per 100,000 live births while 191 children die per 1,000 live births, one of the worst child survival rates in the world. This is why Nigeria is ranked 19th from the rear among 145 countries with the highest infant mortality rates, as 900 in 10,000 children under age one die annually representing about 10 per cent of the 5.2 million babies being born annually in the country.

Ondo State Nigeria was created on 3rd of February, 1976 from the former Western State. It originally included the present Ekiti State which was partly created from Ondo State in 1996. Akure is the State Capital and it is the largest town. The State covers an area of 15,500km square and has a total of 3,440,000 populace with a density of 220/km square. According to 2006 National Population Census, the state has a population of 3,640, 877 which was projected to reach 3,895, 367 in 2010 and the growth rate stands at 2.87 per cent per annum (Facts& figures Ondo State, 2010).

Table 1. Population age structure in 1991 and 2006

S/N	*Indicators*	*1991*	*2006*
1.	Ratio of Male to Female	100: 101	100: 98
2.	Young population 0-14 years	969, 109 (43%)	1,316,507 (38 %)
3.	Population (15-64 years)	1,193,836 (53%)	2,015, 562 (58 %)
4.	Adult population above 65 years	86,655 (4%)	128, 808 (4 %)

Source: National Population Commission (2006) cited by Ondo Facts and Figures on Ondo State (2010) pg.10

The table shows that population changes took place between 1991 and 2006 and would have further changed. Percentage of young population 0-14 years reduced from 43 per cent in 1991 to 38 per cent in 2006 but quantitatively increased while that of age 15-64 years increased from 53 per cent to 58 per cent indicating more people entering marriageable age and tendency for more births. The age structure reveals that government has to provide more health, education and other social infrastructures for health, education and other social infrastructures for children and would be infants as a result of increase in young adults in the population who have the tendency to give birth to more children.

RATIONALE FOR THE STUDY

Globally, more than 1,500 women lose their lives daily due to complications arising from pregnancy and child birth, in Nigeria; Ondo state maternal mortality rate is far above the national average of 545 per 100,000 live births (Oguntola, 2010). The world bank assertion that Ondo state had the worst maternal and child health indices in the south-west geo-political zone of Nigeria led to urgent steps taken by the government to reform the health care system by providing qualitative and effective health care delivery to women and children in the state

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

by piloting Reproductive Intervention programmes aimed at reducing maternal and child mortality. This commenced in Ifedore LGA in October, 2009 and thereafter, in line with the safe motherhood goal, the mother and child hospital initiative was replicated in Akure, the state capital and Ondo West LGA. The hospital is in tandem with the millennium development goals 4: reduction of child mortality and 5: reduction of maternal mortality which are both aimed at reducing child mortality by 67 per cent and maternal mortality by 75 per cent in Ondo state by 2015 as well as integrated, qualitative, critical and referral services for pregnant women, nursing mothers and children under five years old.

Maternal centres in Ondo state under the mother and child initiative produced an average of 20 babies per day, making the births in the state the largest in Nigeria and in West- Africa sub region where 17,600 babies are born annually (Mimiko, 2014). In 2013, the project recorded 7,600 safe birth compared to 2,500 deliveries in Nigeria largest health institution. Maternal mortality in the state has also reduced to 63 per 100,000. This is an indicator that the initiative is successful because it is at no financial cost to mothers irrespective of state of origin, education or religion affiliation.

Government claims that statistics revealed that babies were being delivered mainly by women with their first pregnancies or those who were having their second pregnancies. This claim appears invalid in that there is no restriction on admission into the hospitals on whether it is the first or second pregnancy and besides the state does not have means of tracking number of deliveries, a pregnant mother had in the past. Thus, the government is aware of the pressure, the deliveries might have on population and social infrastructures. Simply put, the good initiative lacks awareness and satisfaction component. According to Martins (2014), medical experts advised that the state government can embark on sensitization programmes to discourage high birth rate. The success of the health initiative is worth investigating through mothers who have been benefiting from the intervention programme. This investigation intends to identify the components of the health delivery that are efficient and need to be sustained and those less efficient that require improvement. However there is dearth of studies on the components of the health interventions that are working and those that are not. Thus,the findings of the study will inform recommendations that can enhance achievement of the programme targets; this in turn will enable the state achieve MDGs 4: *reduction of child mortality* and 5: *reduction of maternal mortality* as well as become a model to other states in Nigeria and West African countries.

STATEMENT OF THE PROBLEM

Mother and Child hospitals are an initiative by Ondo state government aimed at reducing maternal and infant mortality rates in the state. According to the state government, available information reveals that the programme is successful and desire scaling up to enable more communities to benefit from the initiative. However, the beneficiaries' opinions on the success of the programme are significant. Thus, this study sought to find out the opinions of mothers on the impact of the reproductive health initiative and specifically examine the components of the programme that are efficient and inefficient. Also, the study found the extent to which mothers' characteristics influence their opinions. Furthermore, factors that could limit mothers from having their desired number of children were investigated as well as the gaps in the programme initiative.

RESEARCH QUESTIONS

The study sought to address the following research questions:

1. What are the characteristics of the mothers?
2. What are the opinions of mothers on the components and delivery of mother and child health initiative?
3. Which factors can deter mothers from having their desired number of children?

HYPOTHESES

H_{01}: There is no significant relationship between mother's level of education and their opinions on maternal and child health care delivery.

H_{02}: There is no significant relationship between mothers' place of residence and their opinions on mother and child health care delivery.

METHODOLOGY

The study is a case study of mothers who patronise mother and child hospital in Ondo town, Ondo west local government of Ondo state.

The population for this study consisted of pregnant women and nursing mothers from urban, semi-urban and rural areas who are of different educational background, religion, age group and marital status.

Ninety five women were randomly sampled from the hospital during their visit for child immunization or on admission for delivery. The choice of the women were born out of the fact that they are the direct beneficiaries of the health programme and therefore in the best position to assess the services. Besides, the hospital is the biggest of its type in the state having the required facilities and trained personnel.

A questionnaire was developed by the researchers designated 'Mothers' opinions on mother and child health care delivery questionnaire' (MOMCHCDQ). The questionnaire consists of three sections, A, B and C.

Section A contained information on characteristics of the respondents such as: age, marital status, place of residence (Urban, semi-urban and rural), State of origin, educational status, religion and occupation. Section B dealt with mothers' opinion on the healthcare delivery. The first sub-section had 13items that constituted the reproductive health delivery. The second sub-section has 11 items that determine mothers' desired number of children. The section was structured on 4 point Likert scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Section C dealt with the challenges of the healthcare delivery and respondents suggestions for improvement.

The draft instrument was given to experts which led to its revision. The reviewed instrument was administered to the respondents through medical personnel and other trained health workers in the hospital who issued the questionnaires to mothers and encouraged them to fill them immediately. The questionnaire items were read to less literate mothers by the health workers who also assisted in filling their responses. The researchers monitored the data collection process on daily basis.

The Data collected were collated and coded and SPSS package was implored for analysis. Frequency and percentage tabulation were used at the univariate level to summarise the data for answering the research questions while Analysis of variance was employed at the bivariate level to test the hypotheses and specifically to determine the relationship between mothers' level of education and mothers' opinion and between place of residence and mothers' opinions on healthcare delivery.

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

FINDINGS

Research Question 1: Towhat extent do mothers' characteristics differ among respondents residing in the urban, semi-urban and rural areas?

Table 2. Mothers Characteristics by Place of Residence

Characteristics		*Place of Residence*							
		Rural		*Semi urban*		*Urban*		*Total*	
		NW	*%*	*NW*	*%*	*NW*	*%*	*NW*	*%*
Age Group	15-20	4	4.2	0	0	2	2.1	6	6.3
	21-30	14	14.7	12	12.6	32	33.7	58	61.1
	31-40	14	14.7	2	2.1	10	10.5	26	27.4
	41-50	3	3.2	0	0	0	0	3	3.2
	50-and above	1	1.1	0	0	1	1.1	2	2.1
	Total	*36*	*37.8*	*14*	*14.7*	*45*	*47.5*	*95*	*100*
Marital Status	Single	5	5.3	1	1.1	2	2.1	8	8.4
	Married	18	18.9	8	8.4	37	38.9	63	66.3
	Separated	8	8.4	3	3.2	1	1.1	12	12.6
	Divorced	3	3.2	2	2.1	7	7.4	12	12.6
	Total	*34*	*35.8*	*14*	*14.7*	*47*	*49.5*	*95*	*100*
Educational Status	First Leaving Cert	7	7.4	4	4.2	5	5.3	16	16.8
	School Certificate	9	9.5	5	5.3	6	6.3	20	21.1
	OND/HSC	4	4.2	2	2.1	4	4.2	10	10.5
	NCE/Euivalent	11	11.6	1	1.1	9	9.5	21	22.1
	HND/BSc/BA/BEd	3	3.2	2	2.1	20	21.1	25	26.3
	PhD	0	0	0	0	3	3.2	3	3.2
	Total	*34*	*35.8*	*14*	*14.7*	*47*	*49.5*	*95*	*100*
Religion	Islam	4	4.2	0	0	7	7.4	11	11.6
	Christianity	30	31.6	14	14.7	39	41.1	83	87.4
	Other	0	0	0	0	1	1.1	1	1.1
	Total	*34*	*35.8*	*14*	*14.7*	*47*	*49.5*	*95*	*100*

Source: Analysis of field data (2015)

Table 2 shows that majority of the mothers (61.1%) fall within the group age 21-30years. This is followed by age group 31-40years which constitutes 27.4% of the sampled mothers while age-groups 15-20, 31-40 and 50 years and above constituted 6.3%, 3.2% and 2.1%

respectively. The result indicates that the most active reproductive age groups are 21-30 years and 31-40 years which cut across rural, semi- urban and urban areas. Overall, 37.8%, 14.7% and 47.5% of the mothers reside in rural, semi-urban and urban areas respectively indicating that majority of the mothers reside in urban areas perhaps because of more job opportunities and availability of social amenities. 66.3% of the mothers are married, 12.6% are separated, 12.6% are divorced and 8.4% are single. This shows that most of the mothers are married. The table also revealed that there are a higher percentage of single mothers in the rural area than in the urban and semi urban (5.3%/ 2.1% and 1.1%) respectively. The urban area has more cases of divorced than the rural area (7.4%) as against (3.2%) while the rural area has more cases of separated mothers (8.4%) than the urban areas (1.1%). There are obvious disincentives to procreation. The urban area on the other hand has higher proportion of married women (38.9%) than the rural areas, thus encouraging procreation.

On educational status, mothers are of varying educational background, HND/BSc/BA/BEd holders which represent (26.3%) of the respondents mostly patronize the hospital. 22.1%, 21.1% 10.5% and 3.2% are NCE/equivalent, School Certificate, First School Leaving Certificate, OND/HSC and PhD holders respectively. The analysis also shows that only 5.3% of the mothers in the urban areas had only primary education, as against 7.4% for rural. In the same vein, only 6.3% of mothers in urban area had maximum of secondary education compared to 9.5% of mothers in rural area. In contrast, while urban area had a whopping 21.1% of its mothers attaining higher education status, only 3.2% of mothers in rural area got up to higher education. Thus, mothers in urban area are more literate than their rural counterparts. It suffices to say that the literacy background of the mothers indicates that they would have better understanding of health instructions. 87.4% of the mothers are Christians while 11.6% are Muslim and also only 1.1% practices other religion. Majority of the respondents mothers are of Christian religion.

Research Question 2: What are the opinions of mothers on the success of the components and delivery of mother and child health initiative?

Table 3(Part-I). Mothers Opinions on Delivery of Mother and Child Health Intervention Programme by Place of Residence

S/N	*Opinions on impact of Reproductive Health*	*Rural*		*Semi-Urban*		*Urban*	
		Agree	*Disagree*	*Agree*	*Disagree*	*Agree*	*Disagree*
1	Registration and care for pregnancy	32(33.7)	2(2.1)	14(14.7)	0(0.0)	45(47.4)	2(2.1)
2	Free care and treatment during delivery	33(34.7)	1(1.1)	14(14.7)	0(0.0)	41(43.1)	6(6.3)
3	Provision of free medical care for mother and child after delivery	32(33.7)	2(2.2)	13(13.7)	1(1.1)	44(46.3)	3(3.2)
4	Provision of regular immunization for children	28(29.5)	2(2.1)	14(14.7)	0(0.0)	47(49.5)	0(0.0)
5	Provision of free counselling after delivery	31(32.7)	3(3.2)	14(14.8)	0(0.0)	46(48.4)	1(1.1)
6	Family planning issue form part of counselling after delivery	29(30.5)	5(5.3)	9(9.5)	5(5.3)	39(41.1)	8(8.4)

Note: Percentages are enclosed in parenthesis. Source: Analysis of field data (2015)

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

Table 3 (Part-II). Mothers Opinions on Delivery of Mother and Child Health Intervention Programme by Place of Residence

S/N	Opinions on impact of Reproductive Health	Rural		Semi-Urban		Urban	
		Agree	Disagree	Agree	Disagree	Agree	Disagree
7	Treatment received will encourage me to have more deliveries	21(22.1)	13(13.7)	7(7.4)	7(7.4)	33(34.7)	14(14.8)
8	My friends and relations plan to deliver their babies in the mother and child hospital "Abiye hospital" or any other government hospital	28(29.5)	6(6.3)	12(12.7)	2(2.1)	40(42.1)	7(7.4)
9	Since birth deliver is free, I will continue to give birth because "Mega Schools" are many and free	14(14.7)	20(21)	6(6.3)	8(8.5)	20(21)	27(28.4)
10	None of my children died because of the care they received from government hospital	25(26.3)	9(9.5)	7(7.4)	7(7.4)	37(38.9)	10(10.5)
11	None of my pregnant friends or neighbours that use the government hospitals died of child birth complications	29(30.5)	5(5.3)	11(11.6)	3(3.2)	42(44.3)	5(5.3)
12	Number of children surviving has increased in my community leading to demand for more schools	32(33.7)	2(2.1)	8(8.4)	6(6.4)	40(42.1)	3(3.2)
13	Government needs to build more primary schools for children in my area	27(28.5)	7(7.4)	9(9.5)	5(5.3)	34(35.8)	9(9.5)

Note: Percentages are enclosed in parenthesis. Source: Analysis of field data (2015)

Table 3 shows that 33.7%, 14.7% and 47.4% of mothers who rural, semi urban and urban dweller's respectively agreed that government health intervention programme (mother and child) in the register and care for pregnant mothers always. In the same vein, 34.7% of mothers in the rural areas contended that they were given free care and treatment during delivery while 14.7% and 43.1% in semi urban and urban areas did. Similarly, majority of mothers in the rural, semi urban and urban areas agreed that they received free medical care after delivery, regular immunization for their children as well as free counselling services after delivery. They also revealed that their friends and relations plan to deliver their babies in the mother and child hospital "Abiye hospital" or any other government hospitals. On the contrary, 28.4%, 21% and 8.5% of mothers in urban, rural and semi urban areas disagreed that since birth delivery is free, they will continue to give birth because "Mega Schools" are many and free. This could be attributed to the fact that the level of awareness of mothers in

urban areas is higher than that of rural and semi urban areas. The table further revealed that the number of children surviving has increased in all the place of residence leading to demand for more schools and the needs for the government to build more primary schools for children.

Most mothers in the three locations (urban, semi urban and urban) agreed that maternal mortality during child delivery has reduced significantly occasioned by birth complications reduced drastically (44.3%, 11.6% and 30.5%) respectively. However, some respondents are of the view that indices of maternal mortality in three places of residences urban (5.3%), semi urban (3.2%) and rural (5.3%) still persist.

Table 4. Mean Opinions of Mothers on Delivery of Mother and Child Health Intervention Programme

S/N	*Opinions on impact of Reproductive Health*	*Mean*	*SD*	*Decision*
1	Registration and care for pregnancy	2.8316	1.84664	*
2	Free care and treatment during delivery	2.6211	.62873	*
3	Provision of free medical care for mother and child after delivery	2.6632	1.64923	*
4	Provision of regular immunization for children	2.6000	1.53395	*
5	Provision of free counselling after delivery	2.7211	1.57573	*
6	Family planning issue form part of counselling after delivery	1.8526	.87481	+
7	Treatment received will encourage me to have more deliveries	2.2105	1.00947	*
8	My friends and relations plan to deliver their babies in the mother and child hospital “Abiye hospital” or any other government hospital	2.8026	.83753	*
9	Since birth deliver is free, I will continue to give birth because “Mega Schools” are many and free	1.6842	0.20516	+
10	None of my children died because of the care they received from government hospital	2.6679	.92156	*
11	None of my pregnant friends or neighbours that use the government hospitals died of child birth complications	1.7158	.78093	+
12	Number of children surviving has increased in my community leading to demand for more schools	2.7368	1.74677	*
13	Government needs to build more primary schools for children in my area	2.6263	.90203	*

Source: Analysis of field data (2015).*: Relatively successful component, +: Relatively unsuccessful component

The mean opinions of mothers show that most mothers agreed that the following components of the health initiative are relatively successful based on the fact that each is greater than 2.5 on a 4-point likert scale

a. Registration and care for pregnant mothers
b. Provision of free medical care for mother and child after delivery
c. Provision of regular immunization for children
d. Provision of free counselling service after delivery

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

e. Treatment received during delivery to encourage patronage of the hospitals
f. Plan of mothers to patronize mother and child hospitals
g. Child mortality reduction due to care received from the hospitals
h. Increasing number of children surviving has the tendency to increase for demand for more schools.

On the other hand, means that are less than 2.5 are regarded as unsuccessful. Thus, respondents disagreed that family planning issue form part of counselling services for mothers after delivery. Mothers do not have planned to endlessly give birth because of availability of good model schools available in Ondo west environment. Also, not all expectant mothers that use government hospital survived due to child birth complications.

Research Question 3: Which factors can determine mothers having their desired number of children?

Table 5. Factors That Can Deter Mothers from Having the Desired Number of Children

S/N	*Factors*	*Rural*		*Semi-Urban*		*Urban*	
		Agree	*Disagree*	*Agree*	*Disagree*	*Agree*	*Disagree*
1	Social group e.g. Club, Age group etc.	26(27.3)	8(8.5)	6(6.4)	8(8.4)	25(26.4)	22(23.2)
2	Family pressure e.g. parent	16(16.9)	18(19.0)	7(7.4)	7(7.4)	25(26.3)	22(23.2)
3	Uncooperative attitude of my spouse (Husband)	19(20)	15(15.8)	11(11.6)	3(3.2)	24(25.2)	23(24.3)
4	Late marriage	17(17.9)	17(17.9)	10(10.5)	4(4.2)	26(27.3)	21(22.1)
5	Religion	13(13.7)	21(22.1)	3(3.2)	11(11.6)	19(20)	28(29.5)
6	Cultural beliefs	20(21.1)	14(14.7)	7(7.4)	7(7.4)	23(24.2)	24(25.2)
7	Limited income	23(24.2)	11(11.6)	9(9.5)	5(5.3)	35(36.4)	12(12.7)
8	Gender (sex) children	14(14.7)	20(21.1)	11(11.6)	3(3.2)	23(24.2)	24(25.2)
9	Health condition	18(19)	16(16.9)	9(9.5)	5(5.3)	30(31.5)	17(17.9)
10	Use of family planning devices	23(24.2)	11(11.6)	8(8.4)	6(6.4)	27(28.4)	20(21)
11	Lack of Hospital in my area	12(12.7)	22(23.1)	6(6.4)	8(8.5)	18(19)	29(30.5)

Note: Percentages are enclosed in parenthesis; Source: Analysis of field data (2015)

Table 5 shows that one could generalize that irrespective of the mothers place of residence, social group, uncooperative attitude of spouse, late marriage, limited income, health condition and the use of family planning devices such as condom and contraceptives prevent mothers from having the desired number of children. For example, 19%, 9.5% and 30% of the mothers in the rural, semi urban and urban areas agreed that health condition could prevent mothers from having the desired number of children.

However, in urban area, more mothers did not believe in influence of culture as determinant of number of children they could have whereas those in semi urban had equal opinion. In rural area, cultural influence had impact on child bearing. Mothers in rural and urban areas did not agree that children gender can determine their desired number of children but this is not so in the semi urban. Thus children gender preference is not one of the key determinants of mother's desired number of children in rural and urban. The table further revealed factors such as religion, and lack of hospital in mother's place of residence do not affect the number of children mothers desired.

Hypothesis One

There is no significant relationship between mothers' level of education and their opinions on mother and child health care delivery

Table 6. Analysis of Variance on mothers' level of education and Opinions on mother and child health care

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	47.876	14	3.420	1.556	.111[a]
Residual	175.871	80	2.198		
Total	223.747	94			

Source: Analysis of field data (2015)

Table 6 shows that there is statistical reason not to reject the null hypothesis since the significant probability 0.111 is greater than the alpha level 0.05. Therefore, there is no significant relationship between mothers' level of education and their opinions on mother and child health care delivery programme

Hypothesis Two

There is no significant relationship between mothers' place of residence and their opinions on mother and child health care delivery.

Table 7. Analysis of Variance on mothers place of residence and Opinions on mother and child health care delivery programme

Model	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Regression	11.201	14	.800	.941	.520[a]
Residual	68.020	80	.850		
Total	79.221	94			

Source: Analysis of field data (2015)

Table 7 shows that there is statistical reason not to reject the null hypothesis since the significant probability 0.520 is greater than the alpha level 0.05. Therefore, there is no significant relationship between mothers' place of residence and their opinions on mother and child health care delivery programme

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

DISCUSSION OF FINDINGS

Material and child care hospital is key in health care delivery particularly for raising mother and child survival rate. The study found that mothers (expectant or nursing) patronize model health hospital 'mother and child' irrespective of religion affiliation, educational status, marital status, age, place of residence and occupational status. Most active reproductive ages are 21 -30 and 31 – 40 while most mothers are married, some are however either single or divorced or separated. Single motherhood though could be occasioned by death of spouse; out of wedlock might be another contributory factor. Both single and divorced are likely perpetual free health dependants. Good patronage by rural and semi-urban dwellers might be attributed to free health care delivery, free transportation of expectant and nursing mothers to the hospital. Perhaps because of level of awareness, level of education did not serve as a barrier to attendance at the hospital. This is likely to be occasioned by quality service delivery.

Most mothers regardless of location of residence adjudged the maternal and health care delivery to be successful to a large extent due to the following reasons among others: efficient registration procedure and care for pregnant mother; provision of free health care during pregnancy delivery and after child delivery; provision of free immunization, provision of counselling services including family planning after child delivery and reduction in child and maternal mortality. The success can further be attributed to availability of facilities, medical personnel and good environment. The free treatment notwithstanding, most mothers did not intend to give birth beyond what their income can afford. Provision of free basic education and building of model schools 'mega schools' by government did not serve as incentive to mothers to give more birth. However, most mothers envisage the need to build more primary schools to cater for increasing number of children as a result of free maternal and child health care delivery. This perhaps agrees with Martins (2015) warning on the danger of increasing birth rate.

The study further investigated factors that could determine mothers having desired number of children because such are necessary for planning improvement of health and other social infrastructural needs of children. The study found that the following factors are determinants of number of children a mother would likely have irrespective of whether she lives in urban, semi-urban or rural. Social group, family pressure, level of cooperation from spouse, late marriage, income, health condition and use of family planning devices. Some of these have implications for the free health care and provision of educational infrastructures and welfare. A trend of increasing birth among club members or age grade may be spread and become norm. Low level awareness may also make family to exert pressure on young women to give more births because of free health delivery. Mothers in rural and semi-urban areas are prone to have more births due to cultural beliefs while their urban counterparts are less likely. It is however interesting to note that religion plays significant role in determining size of the number of children irrespective of place of residence. Except among mothers in living in semi-urban, children's gender would not lead to desire for more children by many mothers in urban and rural areas. Most mothers irrespective of place of residence would not be deterred by lack of hospital in their areas from having desired number of children. This suggests that mothers would search for health facilities anywhere to meet their reproductive need.

CONCLUSION AND RECOMMENDATIONS

The maternal and child hospital initiative 'mother and child' has reduced both maternal and child mortality rates in the state and particularly in Ondo West local government. Though the

desired targets might have been achieved but its delivery is commendable judging by the responses of the beneficiaries. However, there is tendency for having more births in the area than desired as a result of inadequate public awareness component targeting enlightenment on bearing children based on income and available resources. Cultural beliefs, family pressure, social groups and attitude of spouse have the possibility of positively influencing increase birth rates.

In view of the findings, government needs to embark on public enlightenment programmes through media, social groups, family system and cultural associations, among others on keeping number of births within available resources particularly in rural and semi-urban areas. There is also need for planning educational facilities particularly pre-primary and basic education in anticipation of increase in number of infants and children. Furthermore, there is need for routine monitoring of the programme to enhance its sustainability.

Leena and Luna International, Oyama, Japan.
(株) リナアンドルナインターナショナル, 小山市、日本.
ISSN: 2186-845X ISSN: 2186-8441 Print
www.ajmse. leena-luna.co.jp

REFERENCES

[1] Angeles, L. (2010). Institutions and economic development: New tests and new doubts. *SIRE Discussion Papers 2010-75, Scottish Institute for Research in Economics (SIRE).*

[2] Federal Republic of Nigeria (2010a). MDGs report 2010: Nigeria Millennium Development Goals. Abuja, Nigeria: Government of the Federal Republic of Nigeria.

[3] Mimiko, O. A. (2011). *Combating infant and maternal mortality*: The Mimiko Initiative. PM News. fellows@pmnewsnigeria

[4] National Population Commission (Nigeria). 2004. *National policy on population for sustainable development*. Abuja, Nigeria: National Population Commission.

[5] National Population Commission (NPC) Nigeria and ICF International (2014).

[6] *Nigeria Demographic and Health Survey 2013.* Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International.

[7] Oguntola, S. (2010). *Towards reducing maternal deaths in ondo stat*e. Nigeria Tribune Newspaper Ibadan: The African Newspapers of Nigeria PLC.

[8] Omotayo, S. (2012). *Mother and child hospital, Ondo: Another fresh breath on the horizon*. Retrieved from www.ministryofhealthondo.blogspot.com/2012

[9] Ondo State Government. (2010). Facts and figures on Ondo state, Akure: Department of Research and Statistics, Ministry of Economic Planning and Budget.

[10] Population Reference Bureau (2013). World Population Data Sheet. www.unfpa.org