

**TRANSPORT COST AND THE USE OF FAMILY PLANNING  
AS A PREVENTIVE AND PROMOTION HEALTH CARE STRATEGIES  
IN RURAL AKWA IBOM STATE OF NIGERIA**

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**ABSTRACT:** *The study was designed to ascertain the effects of transport cost on the use and continuous use of family planning services in rural Akwa Ibom State. To achieve the purpose, two hypotheses were formulated. Data were collected from a representative sample size of 952 respondents who were women aged 15-49 years. Simple percentages were used in data analysis while Chi-square ( $X^2$ ) and Phi-Coefficient ( $\phi$ ) were used in testing the research hypotheses at 0.05 level of significance. The results show that there were significant relationships between transport cost and use and continuous use of family planning services in the study area. The implications of the findings were discussed and strategies for combating the effects of transport cost on utilization of family planning services in rural Nigeria in general and the study area in particular were suggested.*

**KEYWORDS:** Transport, Preventive, Promotion, Health, Cost, Utilization, Rural

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## **INTRODUCTION**

The widespread adoption of family planning represents one of the most dramatic changes of the 20<sup>th</sup> century. The growing use of contraception around the world has given couples the opportunity to choose the number of their children and has tremendous life saving benefits. Yet despite these impressive gains, contraceptive use is still low in some of the world's poorest and most populous countries (Smith et al, 2009). Sub-Saharan Africa has the highest fertility level (5.4 births per women on average) in the world (Car and Kent, 2008). A major factor underlying high birth rates is low family planning use. Only 18 percent of married women in Sub-Saharan Africa use modern methods of family planning (Clifton, et al 2008). An estimated 35 million women in Sub-Saharan Africa have an unmet need for family planning – they want to delay or stop child bearing but are not using any contraceptive method (Clifton, et al., 2008).

In Nigeria, the overall contraceptive prevalence among all women of child bearing age is 15 percent. Despite Private medical sector and public sector efforts at providing modern family

planning Services in Nigeria, the level of utilization is very low especially in rural areas. In fact, contraceptive use level in rural Nigeria is 9 percent compared to that of 26.0 percent in urban areas (National Population Commission, Nigeria and ICF Macro, 2009). The efforts of the providers are concentrated in urban areas where only about 30.0 percent of Nigerian women live. Majority of Nigerian women live in rural communities where physical mobility is difficult due to intractable transport problems (Izugbara and Ukwaji, 2005). As in other rural areas in Nigeria, a majority of the rural women in Akwa Ibom State are very poor. For Akwa Ibom State, the Nigerian Demographic and Health survey (NDHS) report of 2008 shows that 32.7% of women 15 – 49years are currently using any contraceptive method and 18.3% are currently using any modern method (National Population Commission, Nigeria and ICF Macro, 2009).

Accessibility of health care service has been shown to be an important determinant of utilization of health-care service in developing countries. Transport cost is one of the accessibility factors that receive considerable attention in the literature on barrier to the use of health-care services. In most rural areas in Africa, one in three women lives more than five kilometers from the nearest health facility (World Bank, 1994). The scarcity of vehicles especially in remote areas, and poor condition of roads make it extremely difficult for women to reach even relatively nearby health facilities. In rural Tanzania, Mekonnen and Mekonnen (2002) observed that when formal fees are low or nonexistent, informal fees such as cost of transportation pose significant barrier to women's use of health-care services.

Orubuloye and Caldwell (1975) using data on health seeking pattern in two villages in Nigeria, observed that among the uneducated, cost consideration influences the utilization of health care services Ojong et al (2011). Okafor (2007), Olajuyin (1997), and Gesler (1979) reported that the high monetary cost of transportation is a major obstacle to the utilization of health service especially when the distance to a health facility is far. The Nigeria Demographic and Health Survey report of 2008 shows that transport cost was a big problem women face in seeking health-care (National Population Commission, Nigeria and ICF Macro, 2009).

In Uganda, the demographic health survey showed that 85 percent of the population knew about family planning, but only 5 percent used contraception. The reason frequently given for non-use was that methods and services were difficult to obtain, particularly in rural areas, because of transport cost (Network, 1992). In their study, "Modernism and contraceptive use in Columbia", Baldwin and Ford (1976) found that access to supplies, rather than modernism per se influence the use of contraceptives. Restricted access to contraceptive supplies was more responsible for the limited practice of family planning among the population studied than were motivation factors associated with modernism. In Indonesia, Foster (1977) found that free health and family planning services were under-utilized apparently because of the cost involved in reaching the facilities providing these services.

In rural areas of Akwa Ibom State where there is a high desire for large family size by couples and lack of communication activities and behavior inventions to increase knowledge

and use of family planning, lack of access to family planning services can be a barrier to women's use of family planning services. Therefore, it is hypothesized that there is no significant relationship between transport cost to family planning service facilities and utilization of the services. It is also hypothesized that there is no significant relationship between transport cost to family service facilities and continuous utilization of the service.

A careful examination of studies on family planning in Nigeria communities shows that there is paucity of information on the effects of transport cost on family planning use and continuous use. This study, it is hoped would not only help in elucidating the relationship between transport cost and the utilization of family planning as a preventive and promotive health care but would also improve our knowledge of the effect of transport cost on the use and continuous use of family planning services in the study area in particular and Nigeria in general as governments intensify efforts toward achieving a range of health and development goals as outlined in the United Nations' Millennium Development Goals (MDGs)

### **The Study Area**

Akwa Ibom State is located in the South-south geo-political zone of Nigeria. It lies between latitudes 4°32' and 5°53' and longitudes 7°25' and 8°25', East. The state is sandwiched between Cross River, Abia and River States and it is bordered on the South by the Atlantic Ocean. Akwa Ibom State is one of Nigeria's 36 States with a population of over 4 million people. Eighty-five (85) percent of the population lives in rural areas. It is one of the major oil-producing states in Nigeria. It has a land mass of about 8,412 square kilometers. There are four major ethnic groups in the state. These are Ibibio, Annang, Ekid and Oron. Akwa Ibom is a civil service state. In the rural areas, majority of the people are engaged in farming, fishing and raffia works.

The people of Akwa Ibom State had been under the influence of Western type of education since the colonial days. There are many primary and secondary schools as well as tertiary institutions in the area. Unfortunately majority of the people in the rural areas of the state have not benefited much from these schools, thus they have remained predominantly illiterate. However, the rural areas in Akwa-Ibom State are characterized by poor roads and poor transport system. These areas lack good health facilities and many informal healthcare providers operate freely in these areas.

### **Data**

Data for the study were elicited from 952 respondents who were women aged between 15 and 49 years. The study was restricted to six local government areas in the state. The choice of the local government areas was made to reflect the ethnic background of the state. Two villages were selected from each of the local government areas. The twelve villages provided the 952 respondents for the study. The sampling procedures involved the combination of simple random sampling and multi-stage sampling techniques. The first stage was the selection of local government areas from the three senatorial districts. The second was the selection of villages from the local government areas and finally the selection of the households from which the respondents were interviewed. Twelve trained assistants who were all health workers from the twelve villages conducted the interviews in the local

language. The interviewers were indigenes of the twelve local government areas from which the respondents were drawn. This helped in overcoming ethnic and cultural barriers; because the interviewers were women and indigenes, the respondents were assured of confidentiality.

Structured interview was used in collecting past and current data. The interview schedule contained questions on respondents' socio-demographic characteristics. Questions concerning knowledge of family planning services use and non-use as well as continuous use were also asked. Simple percentages were used in analyzing the data while Chi-square ( $X^2$ ) and phi-coefficient ( $\Phi$ ) were used in testing the research hypotheses.

#### Socio-Demographic Characteristics of the Respondents

Data on the socio-demographic characteristics show that the respondents were aged 15 to 49 years. The majority of them were aged between 20 and 29 years (See Table 1). In terms of education, almost one-fourth of the respondents went beyond Secondary school level while 37.0 per cent had no formal education. A careful look at Table 1 shows that most of the respondents were farmers, home keepers and petty traders. They represent 78.0 per cent of the respondents. Table 1 also shows that all the respondents were Christians; in terms of marital status, the table shows that 68.0 per cent of the respondents were married while 32.0 per cent were unmarried. With regard to the number of children alive, 46.0 per cent of the respondents had between six and seven children. About 45.0 per cent had between one and five children while only 10.0 per cent had eight children and above.

Table 1: Percentage Distribution of the Respondents by Socio-demographic Characteristics

Socio-demographic characteristics	No	Percentage
Age		
15 – 19	76	8.0
20 – 24	326	34.0
25 – 29	314	33.0
30 – 34	114	20.0
35+	122	13.0
Education		
Higher education	50	5.0
Secondary school	216	23.0
Primary school	335	35.0
No formal education	351	37.0
Occupation		
Teaching	38	4.0
Farming	250	26.0
Clerical (white collar) job	102	11.0
Business	64	7.0
Home keeping	248	26.0
Petty trading	250	26.0

Religion		
Protestant	594	63.0
Catholic	358	37.0
Marital status		
Married	647	68.0
Unmarried	305	32.0
Number of living children		
1	110	12.0
2 – 3	164	11.0
4 – 5	208	22.0
6 – 7	434	46.0
8+	96	10.0

### Findings

The analysis of the relationship between transport cost and utilization of family planning services in the study area showed that of the 952 respondents who had known/heard of family planning, less than 50.0 per cent (468) were using it as at the time of the survey (see Table 2). The table (Table 2) further shows that of the 468 respondents who were using family planning services at the time of the survey, 322 (66.8 %) said their individual one-way transport fare to the nearest family planning service delivery facilities was below N20.00; 82 (17.5 %) said it was between N20.00 and N40.00, while 64 (13.7 %) said that it was above N40.00. For the 484 respondents who have used family planning sometime in the past, the table shows that 102 (21.1 %) said their individual one-way transport fare to the nearest family planning service delivery facilities was below N20.00; 108 (22.3 %) said it was between N20,00 and N40,00, while 274 (56.6 %) said it was above N40,000.

The chi-square ( $X^2$ ) statistical test was used to test whether or not there is a relationship between transport cost and utilization of family planning services. The calculated Chi-square value of 248.8 obtained was greater than the critical (table)  $X^2$  – value of 9.49 ( at 0.05 level of significance ) hence, the result was significant (see Table 2).

To further test the strength of the relationship between the two variables, phi-coefficient ( $\phi$ ) was used and the obtained value was 0.51 (see Table 3) which shows a strong significant relationship between transport cost of receiving family planning services and utilization of these services. From the analysis, we can conclude that utilization of family planning services in the study areas is affected by transport cost to the nearest facilities providing these services.

Table 2: Distribution of Respondents who had known or heard of Family Planning Services by One Way Transport Cost to the Nearest Family Planning Facilities

One way transport cost to the nearest family planning service facilities	Utilization		Total	X <sup>2</sup>
	Ever used	Never used		
Below N20.00	322 (208)	102 (216)	424	
N20.00 – N40.00	82 (93)	108 (97)	190	
Above N40.00	64 (166)	274 (172)	338	248.8
Total	468	484	952	

NOTE: Expected frequencies are in parentheses. Figures not in parentheses are observed frequencies. Calculated  $X^2 = 248.8$ ; Table  $X^2 = 9.49$ ,  $d/f = 2$ , significant at 0.05 level

Table 3: phi=coefficient test of strength of the relationship between transport cost to the nearest family planning service facilities and utilization of family planning services.

Variable	N	X <sup>2</sup>	Φ
Relationship between transport cost to the nearest family planning services delivery facilities and utilization of family planning service	952	248.8	0.51

Significant at 0.05 level.

When the relationship between transport cost and continuous utilization of family planning services was examined, Table 4 shows that out of the 468 respondents who had used family planning, only 154 were using it at the time of the survey. The Table further shows that out of the 154 respondents who were using family planning at the time of the survey 114 (74.0 %) said their individual one-way transport cost to services delivery facilities was below N20.00; 26 (16.9 %) said their individual transport cost was between N20.00 and N40.00, while 14 (9.1 %) said their individual transport cost was above N40.00. For those 314 respondents who were not using family planning at the time of the survey but had previously used it, Table 4 shows that 66 (21.0 %) said their individual transport cost when last they visited family planning service delivery facilities was below N20.00; 76 (24.2 %) said it was between N20.00 and N40.00, while 172 (54.8 %) said it was above N40.00.

The chi-square ( $X^2$ ) statistical test was used to test whether or not there is a relationship between transport cost and continuous utilization of family planning services. The calculated Chi-square value of 133.0 obtained was greater than the critical (table)  $X^2 =$  value of 9.49 (at 0.05 level of significance) hence the relationship was significant (see Table 4). To further test the strength of the relationship between the two variables, phi-coefficient ( $\Phi$ ) was used and the obtained value was 0.53 (see Table 5) which shows a strong significant relationship between transport cost of receiving family planning services and continuous utilization of the services. From the analyses, we can conclude that continuous utilization of family planning in the study areas is affected by transport cost to the nearest facilities providing these services.

Table 4: Distribution of Respondents who have used Family Planning Services according to their Family Planning Use Status by One Way Transport Cost during Last Visit to Family



## Planning Services Facilities

One way transport cost during last visit to family planning service delivery facilities	Utilization		Total	X <sup>2</sup>
	Currently in use	Currently not in use		
Below N20.00	114 (94)	66 (192)	180	
N20.00 – N40.00	26 (34)	76 (68)	102	
Above N40.00	14 (28)	172 (54)	186	133.0
Total	154	314	468	

Expected frequencies are in parentheses; figures not in parentheses are observed frequencies.  $X^2 = 133.0$  d/f = 2, significant at 0.05 level.

Table 5: Phi-coefficient Test of the Strength of the Relationship between Transport Cost during Last Visit to Family Planning Service Facilities and Continuous Utilization of Family Planning Services.

Variable	N	X <sup>2</sup>	$\phi$
Relationship between transport cost during last visit to family planning services delivery facilities and continuous utilization of family planning service	468	133.0	0.53

## DISCUSSION

The money spent or to be spent as transport cost to seek healthcare services has been shown to be a factor affecting utilization of healthcare services in general. In this study, for non-ever users and current users of family planning, transport cost was found to have bad negative impact on utilization. The number of ever users and current users of family planning decreases as transport cost increases. This finding has been observed by many studies. Studies from Nigeria (Attah, 1986), India (Bhende, 1983) and Ivory Coast (Lasker, 1981) singled out monetary cost of transportation as a major obstacle to the utilization of health services. To these scholars, although the bulk of travel in most developing countries may be undertaken by using low cost means (that is, foot or by bicycle), these modes of transportation are only possible over relatively short distances. They conclude that when the distance to a health facility increases, accessibility and utilization of services are drastically reduced because of the necessity of paying for transportation.

In Indonesia, Foster (1977:527 – 534) found that free health and family planning services were under-utilized apparently because of the cost involved in reaching them. This is because in Indonesia, women often had to take their younger children along because they had no one to leave them with; mothers with three or four small children may well spend a day's income on a single visit to the free clinics. A similar study by Boohene et al (1991) reveals that in many parts of the developing world, prospective patients (especially women in rural areas) do not travel alone to a health facility; they are accompanied by other adults and by children who

could not be left at home alone because caretakers are not available. All these additional people swell the cost of transport and thus discourage people from traveling to distant places for healthcare services such as family planning services. However, Gesler (1979) using data from Calabar, Nigeria reported that the high monetary cost of transportation was a major obstacle to the utilization of healthcare services especially when the distances to health facilities increase.

Majority of the people in the rural areas of Akwa Ibom state are low income earners who live in communities difficult to be reached from urban areas because of poor roads and topography. Due to the present economic condition in the country, transport fares from these communities to the urban areas are ridiculously high. This factor makes it difficult for rural people of Akwa Ibom State to visit urban areas easily and regularly for healthcare services provided by services facilities which exist in large numbers in urban areas. It should be noted that in a situation where women consider the transportation fare during their first or last visit to family planning service centers as being costly and feel that travelling for these services is not very important within their scheme of things, they would stay away from or discontinue with the services.

The validity of the avoid lies in the fact that among rural people of Akwa Ibom State there exists the idea that family planning just like any other maternal healthcare services, is a preventive and promotive health service that brings no serious problem if not used. This erroneous belief creates in the people the attitude of viewing travelling for family planning services outside their villages or to distant places as sheer waste of money and time that would have been used for economic activities. All these discourage the people (women) from using family planning services most especially when the services are outside their villages and when the distance is not trek able and where it involves high transport fare. Government around the world are focused on combating poverty and achieving a range of health and development goals, such as those outlined in the United Nations Millennium Development Goals (MDFs). Family planning can contribute toward achieving nearly all these goals, including reducing poverty and hunger, promoting gender equity and empowering women, reducing child mortality, improving maternal health, combating HIV/AIDS, and ensuring environmental sustainability (Population Reference bureau, 2009).

## **CONCLUSION**

Findings from this study indicate that transport cost remains an important barrier in limiting women access to the use and continuous use of family planning services. This is probably largely because of the poor conditions of the roads, the absence of systematic transport, and the high direct and indirect costs associated with it. The study shows that women living close to a facility were much more likely to use family planning services than women living far from a facility. Findings from this study call for the adoption of urgent measures, such as sitting family planning clinics and centres centrally easy accessibility, encouraging the use of traditional methods of family planning and serious commitment by government towards family planning issues.



## RECOMMENDATIONS

To combat the effect of transport cost on utilization of family planning in the study area, government should build family planning clinics and centers and supply them with family planning facilities and commodities. The services delivery clinics and centers should be sited centrally for easy accessibility and proximity. Since rural people of Akwa Ibom State use traditional practices/methods to prevent unwanted pregnancies, those concerned with family planning activities in the state and Nigeria in general should think of encouraging rural people (women) to use those locally available plants and substances (contraceptives and abortifacients) and behavior that may directly affect fertility and which are not injurious to their health for the purpose of avoiding unwanted pregnancies or for the purpose of family planning. If possible Akwa Ibom State government should ensure through the pharmaceutical companies and research institutes a regular supply of modern family planning methods while traditional health practitioners (THPs) capable of using herbs and other devices effectively for birth control should be gainfully employed in an attempt to make the THPs adoptable. This is because in the face of fluctuating government revenue, it has become imperative to improve and upgrade traditional health services which are cheaper and more accessible to a large proportion of the rural population. This is an option that requires more positive commitment by government than has hitherto been the case. Greater accessibility of family planning methods makes family planning less costly. After all, when methods of family planning used are desirable in terms of accessibility when needed, in line with the tradition of the people, cheap, easy to get and to use, no matter the cultural and social milieu of the people, knowledge and use levels would be high. And also, the relatively low costs, or even free treatment for the glory of ancestors can encourage the rural people to patronize traditional methods of family planning offered by traditional healers.

Over the last decade, health sector reforms in Nigeria have created new management challenges especially the decentralization of authority to lower administrative levels. This has led to diversion of attention and resources meant for family planning because family planning is not seen as a priority even though the need remains high. Therefore, there is need to reinvigorate interest in family planning in Nigeria in general and in Akwa Ibom State in particular. This will ensure that family planning is repositioned higher on national, state and local government agenda. Repositioning family planning should be seen as a multi-lateral initiative to ensure that access to quality family planning services remains a priority for policy makers and healthcare providers. The goal is to mobilize political commitment and resources to strengthen family planning services, which will lead to expanded access to safe and effective contraceptive methods to help women and couples have the number of children they want when they want them.

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