

## Utilization of Safe Motherhood Initiative by Female teachers in Public Secondary Schools in Enugu State, Nigeria

Okafor, Chinedu Lebechi

Department of Health Education Enugu State University of Science and Technology, ESUT, Enugu, Nigeria.

---

### ABSTRACT

Safe motherhood initiative (SMI) is a vital component of reproductive health and is of prime concern to fertility. It is a worldwide initiative whose aim is to reduce maternal morbidity and infant mortality and also to improve women's reproductive health. The study aimed at determining the extent of utilization of SMI by female teachers in public secondary schools in Enugu State. It specifically sought to ascertain the extent of utilization of Ante-natal care services by female teachers in secondary schools in Enugu state based on parity. The study adopted the descriptive survey research design. The population for the study consisted of all the 7419 female teachers in the 291 public secondary schools in Enugu State. A sample of 440 female secondary school teachers were selected using Taro Yamen formula. A self-structured instrument developed by the researcher which was validated by three experts. The instruments reliability coefficient was ascertained using Cronbach Alpha reliability estimate. The reliability index for part 1 is 0.83 while that of the entire instrument stood at 0.82. 440 copies of the instrument were administered to the respondents and collected on the spot. The data collected were analyzed using mean and standard deviation to answer the research question. The hypothesis was tested using t-test statistic. The result obtained showed that pre-natal/ante natal care services were utilized by female teachers in public secondary schools in Enugu state based on parity to a great extent. Based on the findings, the researcher recommends, among others, that government should ensure the availability of skilled midwives at health centers within the health work force development plan in Enugu State. The researcher suggested that the study be conducted in all the other states of the federation.

Keywords: Safe, Motherhood Initiative, Pre-natal, Service and Ante-natal Service

---

### INTRODUCTION

The health of mothers has long been acknowledged to be a cornerstone of public health and explains the attention to unacceptable high level maternal mortality (MM) which has been a feature of global health and development discussions since the 1980s [1]. Although a few countries have made some remarkable progress in forestalling maternal mortality in recent years, the reality has not generally followed the rhetoric health and development. According to [2], a gross inequality exists in this world and the chances of a woman dying from complications related to childbirth is 100 times higher in

resources-poor as compared to resource-rich settings.

Developing regions account for approximately 99% (302,000) of the global natural deaths in 2010 with sub-Saharan Africa alone accounting to roughly 66% (201,000) followed by southern Asia (66,000) [3] As of 2015, the two regions with highest Maternal Mortality Rate (MMR) are sub-Saharan Africa (546,511.552) and Southern Asia (187,95-381) [4] At the country level, Nigeria and India are estimated to account for over one third of all maternal deaths worldwide in 2015, with an approximate 58,000 maternal deaths 19% and 45,000 maternal deaths (15%) respectively, eighteen

other countries all in Sub-Saharan Africa are estimated to have very high. MMR in 2015, with estimates ranging from 999 down to 500 deaths per 100 1000 live births. [4].

Indications are that maternal morbidity and mortality (MMM), globally every year, reaches over half a million [5]. Most of the deaths from pregnancy related conditions occur in rural and urban areas of developing countries [6]. As at 2012, Nigeria maternal morbidity ratio was reportedly put at 630/100,000 live births making it the 10<sup>th</sup> worst country in the world [7]. In Nigeria, report has it that an average of 630 women die out of every 100,000 women who bring forth a life birth. Despite the observation that traditional societies appear to have accepted the high MMM as unavoidable, researchers have shown that MMM and other pregnancy related problems are preventable [8]. In the same vein many researchers have analyzed the, issue of MMM, and problems attributed to childbearing both in developed and developing countries and the conclusions are that they are preventable. That possibly suggests that safe motherhood is realizable.

Thus, in a bid to find a lasting solution to increasing rate of MMM, governments, international agencies of health such as WHO United Nations children's Fund (UNICEF), and non-governmental organizations (NGOs) launched the worldwide safe motherhood initiative (SMI) at the, international conference in Nairobi, Kenya in 1987 [9]. SMI represents a global effort to reduce MMM especially in developing countries. According to [10], safe motherhood initiative (SMI) is a multi year multi-stakeholder project which comprised nurses, midwives, physicians, patient safety specialists and other partners working together to standardize care in all obstetric emergencies associated with maternal mortality and morbidity. SMI offers a unique

and unprecedented opportunity to review and amend existing clinical practices to reflect current evidence-based management guidelines in a non-primitive setting; access to expert opinions and tools to understand important nomenclature for obstetric hemorrhage severe hypertension in pregnancy and venous thromboembolism [10]. [11], described it as a global effort to reduce MMM in developing countries. According to the report, the programme aims at empowering obstetrics teams to share, assess and implement strategies to reduce the incidence of obstetric hemorrhage, venous thromboembolism and severe hypertension in pregnancy.

According to [12], SMI focuses on obstetric hemorrhage, severe hypertension in pregnancy and thromboembolism which consists of step-by-step, evidence based tools to manage risk, prevent adverse event, respond and debrief. There are three main health care delivery services enlisted by the SMI for pregnant women to overcome maternal mortalities; they are prenatal care, obstetric care and family planning [9].

These laudable objectives of SMI have received some criticisms. According to [13], the problem of MM has not decreased since the initiative on set of the 1987 and the initiative has been largely ineffective. The report argued that this lack of success has been due not only to lack of knowledge of causes of MM or to lack of resources but to underutilization of the maternal services provided. There is absence of a clear focus, which has been fuelled by misconceptions about how MM might be reduced. Again, [13], support the view that MM must be addressed as a "curative" issue rather than a "preventive" one. This notwithstanding, experts in public health have generally advocated that many maternal deaths in the developing countries of the world

such as Nigeria could be prevented if pregnant women are exposed to adequate utilization of SMI components with the right attitudes on utilization of it during pregnancy [14]. Female teachers in public secondary schools in Enugu State may be exposed to the components of SMI, but their utilization of the component seems to be poor. This disposition may impact seriously on their health status during pregnancy and possible negation of the programme initiative.

It has been claimed that most of the pregnancy complications and problems being experienced are deeply rooted in improper utilization of SMI components. It includes prenatal/antenatal care, nutrition, personal hygiene, obstetric care, family planning, emergence care, postpartum care, post abortion care, prevention of sexually transmitted diseases (STIs), prevention of mother-to-child Aids and child transmission (PMTCT) of HIV and AIDS and child care [15]. In this study the utilization of SMI by female teachers in secondary schools in Enugu State was examined based on pre-natal/antenatal care, family planning essential obstetric care and child care services.

The safe motherhood initiatives components may be available to female teachers in secondary schools but the utilization may be poor. According to [16], utilization is the proportion of the available time (expressed usually as percentage) that a piece of equipment or a system is operating. Some studies on the extent of utilization of health services and facilities were conducted by experts in health and education. [17], found that the utilization of HIV and AIDS prevention strategies among students of secondary schools in Abia State was low. In a related report, [18] posited that adolescents utilization of reproductive health services (RHS) in Enugu State was low. Perhaps, the

utilization of SMI among female teachers in secondary schools in Enugu may as well be low. This is because the situation of the utilization in Enugu seems too elusive. Most pregnancy complications and problems of SMI being experienced in Enugu are deeply rooted in poor utilization. That is to say, that poor utilization of qualitative health service contributes to maternal morbidity and mortality increase rate in Enugu State

Many maternal deaths in developing world could be preventable if women are sensitized well enough to utilize prenatal/antenatal care services before conception and health care during pregnancy. Again in Enugu State, observations and chemical records have shown that maternal deaths toll is on the high side. This [19], attributed to the notion held by mothers of child bearing age that it is no use availing themselves of antenatal services before their pregnancy is five months old or utilizing post-natal services except their baby(s) are not feeling fine or they have challenge.

Antenatal care involves provision of advice and medical service to a pregnant woman by a health professional from the time of pregnancy to delivery and includes services such as urine test for albumin and sugar, haemoglobin, blood pressure, fetal auscultation and fetal palpitation [20]. Literatures show that routine pre-natal/antenatal care has three main components: education and promotion of healthy attitudes, the monitoring maternal and fetal progress, the identification of women at high risk of complications followed by treatment or referrals to appropriate equipped and staffed facilities [21].

Immunization during antenatal visits by women prevents and control childhood diseases.[22], asserted "immunization is the most powerful cost effective means of preventing some of the deadly diseases of

childhood and an important component of primary health care (PHC). Notable vaccines include BCG (given at birth, the pentavalent vaccine (five vaccines in one combining DTP, hermatite B and Hibuaccines (Haemophilns influenza type B) [23]. Female teachers in public secondary schools in Enugu State utilization of immunization schedules, nutritional and family planning services could be a hindrance to effective realization of SMI goals.

In Enugu State, safe motherhood initiative seems to be elusive. It has been claimed that most of the pregnancy complications and problems being experienced are deeply rooted in poor utilization of SMI. Poor utilization of qualitative health service continues to contribute to maternal morbidity and mortality in Enugu State [24]. When expectant women arrive at the hospital, certain

preparations are made to make the delivery safe. This also means that SMIs are carried out by the nurses. The desire and confidence to continue the utilization of nurses and midwives as well as other health personnel may be largely dependent on these health personnel. This possibly suggests that utilization of these personnel by the female/teachers mothers may be high or low with far reaching health implications. Perhaps, understanding the preferences of the people and the various factors that influence their preferences will help to improve the utilization of SMI components and thereby reduce unnecessary loss of lives. As a result of the foregoing, the researcher is poised to ascertain the extent of safe motherhood initiative utilization by female teachers in public secondary schools in Enugu State.

#### **Statement of the Problem**

Complications of pregnancy and childbirth are the leading causes of maternal mortality and morbidity in women in developing countries of the world. Observations of women in rural and urban settings of Enugu State revealed that some of them appear to patronize traditional birth attendants (TBAs) more than having to seek expert advice in Maternal Care Hospital (MCH); maternities and hospitals. This invariably means that some aspects of SMI- pre-natal/ante-natal care, family planning, essential obstetric care and child care services are neglected by female teachers teaching in public secondary schools in Enugu State as such increases mortality rate. However, it has not been established whether women are differentiated in

attendance to these facilities by any recognizable criteria. It is therefore likely that such criteria may be based on attitudinal inclinations. For instance, could the preference to use any health facility of choice be based on location or parity or could it be that the more the inclination to utilize it, the more SMIs are prevalent? Recent report indicates that Nigeria is one of the six countries of the world that account for 50% of global maternal deaths [25]. These observations are indeed the motivation or problem and crux of this study. The problem of this study, posed as a question, is: what is the extent of utilization of SMI by female teachers in public secondary schools in Enugu State?

#### **Purpose of the Study**

The study sought to examine the utilization of SMI by female teachers in public secondary schools in Enugu State. Specifically, the study sought to ascertain the extent of utilization of:

- 1) pre-natal care services by female teachers in public secondary schools in Enugu State.

#### **Research Question**

The following research questions guided the study.

- 1) To what extent do female teachers in public secondary school utilize

### Hypothesis

The following null hypotheses guided the study and were tested at alpha level of .05 level of significance and at appropriate degree of freedom.

H<sub>01</sub> There is no significant difference between the mean ratings of

primiparous and multiparous female teachers in public secondary schools in Enugu State regarding their extent of utilization of pre-natal and ante-natal care services.

### METHODOLOGY

The study adopted a descriptive survey design. The area of the study was Enugu State, Nigeria. The population for the study consisted of 7419 female teachers in the 291 public secondary schools in Enugu State. In all, we have 4491 female teachers are in urban public secondary schools and 2928 serve in rural public secondary schools. In accordance with parity, 1307 female secondary school teachers are primiparous (those that have given birth only once) while 2112 are multiparous (those that have given birth more than once). A total of 440 female teachers in public secondary schools in Enugu state were used for the study. The sample size was determined using Taro Yamane formula. The sample size consisted of 264 urban and 176 rural female teachers in public secondary schools in Enugu State. In accordance with parity, the sample size was 153 for primiparous (ie those that have given birth only once) and 287 for multiparous (ie those that have given birth more than once) female secondary school teachers in public secondary schools in Enugu State. The instrument used for data collection was a 9 items questionnaire called safe motherhood initiative Scale (SMIS). The instrument had a 4-point response scale with response category of very great extent (VGE 4Points), great extent (GE-3 points) , little extent (LE-2) and very little extent (VLE-1 Point). The instrument was validated by three experts; two from Very great extent (VGE)----4 points  
Great extent (GE)-----3 points  
Low Extent (LE)-----2 points  
Very little extent (VLE)---1 point

The decision rule for the null hypothesis is that if t-calculated is equal to or greater than t-critical at the chosen confidence level (.05) and degree of freedom ( $n_1 + n_2 - 2$ ) the null hypothesis is rejected; if on

Health Education Department and one from measurement and evaluation, all from Faculty of Education Foundation, Enugu State university of Science and Technology (ESUT), Enugu. The internal consistency of the instrument was determined using Cronbach Alpha reliability estimate and it yielded a reliability coefficient of .82. The study was carried out among the female secondary school teachers in all the secondary schools in the six education zones of Enugu state. The researcher and the research assistants administered the questionnaire to the female secondary school teachers. The administered copies of the questionnaire were collected on the spot. This helped to minimize interference which may substantially influence the outcome of the study. Through this a 100% return rate was recorded. Data collected were analyzed using mean, standard deviation and grand mean. The mean rating numerical value was added up and divided by the number of response items. This is referred to as the cut-off point which the researcher used to make inferences for the study. For the research question, any item below 2.50 signifies low extent while items equal to or above 2.50 signifies high extent. The hypothesis was analyzed using the t-test. Nominal values were assigned to different scaling options as follows;

the other hand, the calculated t-value is less than the value of the t-critical from the table value, then the null hypothesis is accepted.

### Presentation of Results

This section presents the results of the study according to the research question that guided the study.

**Analysis of Data** The data analyzed was presented in Tables 1

**Research Question 1:** To what extent do female teachers in public secondary school utilize Pre-natal/Ante-natal care services in Enugu State?

**Table1: Mean ( $\bar{X}$ ) Ratings of the Extent to which Female Teachers in Public Secondary Schools Utilize the Pre-natal/ Ante-natal Care Services in Enugu State**

N= 440

S/N	Items	VGE	GE	LE	VLE	X	SD <sub>3</sub>	Decision
1.	I go for medical check-up during pregnancy in the hospital/health centre	213	119	57	51	3.12	1.03	GE
2.	Present myself for immunization during pregnancy	187	97	83	73	2.90	1.12	GE
3.	When pregnant, I insisted on getting care from specialists during hospital visits	143	117	99	81	2.73	1.10	GE
4.	I take balanced diet	171	113	79	77	2.85	1.11	GE
5.	I adhere to antenatal health tips given during health education talks	73	91	99	177	2.13	1.12	LE
6.	I try to obtain folic acid supplements from a pharmacy	81	99	117	143	2.26	1.10	LE
7.	When pregnant I go for antenatal visits Regularly	191	157	48	44	3.40	0.76	GE
8.	I go to traditional birth attendants when pregnant	77	91	133	139	2.24	1.08	LE
9.	Child Delivery was at obstetric hospital	141	123	101	75	2.75	1.08	GE
<b>Grand Mean</b>						<b>2.71</b>	<b>1.06</b>	<b>GE</b>

Table 1 shows that of the 9 items on the extent to which female teachers in public secondary schools utilize pre-natal/ante-

natal care services in Enugu State, the respondents agreed with 6 items 1, 2, 3, 4, 7 and 9 as they recorded mean scores

of (3.12, 2.90, 2.73, 2.85, 3.40 and 2.75) which are above the cut-off point of 2.50. They however disagreed with 3 of the items (5, 6 and 8) with a mean score of (2.13, 2.26 and 2.24). The standard deviation for all the items are small signifying that there is homogeneity in the responses of the respondents. The table also shows that the respondents grand mean score of the extent to which

female teachers in public secondary school utilize pre-natal/ ante-natal care services in Enugu State is 2.71. Based on the decision rule for the interpretation of the respondents data, the answer to research question 1 is that female teachers in public secondary schools utilize pre-natal/ante-natal care services in Enugu State to a great extent.

### Hypothesis 1

There is no significant difference between the mean ratings of primiparous and multiparous female teachers in public secondary schools in Enugu State regarding their extent of utilization of pre-natal and ante-natal care services.

**Table 2: t-test Analysis of the Difference Between the ( $\bar{x}$ ) Mean Scores of Primiparous and Multiparous Female Teachers in Public Secondary Schools in Enugu State regarding their Extent of Utilization of Pre-natal and Ante-natal Care Services.**

Parity	N	$\bar{x}$	SD	df	t-cal	t-crit	Decision
Primiparous	153	2.97	1.01				NS
				338	1.04	$\pm 1.96$	Do not reject $H_{01}$
Multiparous	287	2.90	0.96				

Significant at  $P < .05$ ,  $df = 338$ , critical t-value =  $\pm 1.96$

The t-test analysis in table 2 above indicates that the calculated t-value is 1.04 while the critical t-value is  $\pm 1.96$  at .05 level of significance. This implies that the calculated t-value is less than the critical t-value. Thus, going by the decision rule, there is no significant

difference between the mean ratings of primiparous and multiparous female teachers in public secondary schools in Enugu State regarding their extent of utilization of pre-natal and ante-natal care services.

### Discussion of Findings

For the discussion of the findings inherent in this study, research question and research hypothesis that are related will be treated together. A major finding of this study showed that female teachers in public secondary schools utilize pre-natal/ante-natal care services in Enugu State to a great extent. The first hypothesis ascertained if there was a significant difference in the pre-natal/ante-natal care services utilization by female teachers in public secondary schools in Enugu State based on parity/location. The analysis showed that there is no significant difference in the pre-natal/ante-natal care services utilization by female teachers in public secondary schools in Enugu State based

on parity/location. The findings is at variance with those of [25]. In a separate report, they observed that childbearing mothers do not avail themselves of this service thus putting themselves at risk and that this account for low coverage in Africa (about 34.1%). The findings are consistent with those of [26], who found that majority of the respondents from Kano and Kaduna States have poor knowledge of safe motherhood initiative. Findings of the study also showed that safe motherhood initiatives are strongly associated with antenatal attendance, being employed or acquiring some level of education, as well as the number of deliveries a mother had.

## CONCLUSION

Conclusively from the above analysis and interpretations done and the information from related literature, it implies that

female teachers in Enugu State secondary schools utilize pre-natal/ante-natal care services to a great extent.

### Educational Implication of the Finding

This study has revealed that Ministry of Health is to be commended for the outstanding accomplishments made to date in the establishment of relevant, appropriate, and forward-

looking policy in relation to the health of mothers and children, in general, and to Safe Motherhood specifically prenatal/ante-natal care services.

### Recommendations

At the end of the study, the study recommended that:

- i. State government should ensure the availability of

skilled midwives at health centers within the health work force development plan in Enugu State.

## REFERENCES

1. World Health Organisation (WHO) (2012). Maternal Mortality in 2000: Estimates developed by WHO, UNICEF and UNFPA. Department of Reproductive Health and Research. Geneva.
2. Lonkhuijzen L. C (2011). Delay in safe motherhood. Groningen: Available on: [www.rug.nl/portal/file/s/2535137/Thesisvan/Lonkhuijzen.pdf](http://www.rug.nl/portal/file/s/2535137/Thesisvan/Lonkhuijzen.pdf), accessed, 4<sup>th</sup> June, 2017.
3. Olohiomeru, A.E. (2014). Promoting safe motherhood in the community: the case for strategies that include men. *African Journal Reprod. Health.* 5(2):10-21. doi: 0.2307/3583426.
4. WHO and UNICEF (2015). "Essential Elements of Obstetric Care at the First-Referral Level." ISBN 92 N. Geneva.
5. WHO, (2016). *Educating A mother Means educating the whole Nation.* Geneva: All well press.
6. Chiwuzie, Braimoh and Umige, (2015). Operational factors affecting maternal mortality in Nigeria. *Health Policy and Planning.* 1997;12:50-57. doi: 10.1093/heapol/12.1.50.
7. Erewuba, A.E. (2013). Knowledge, attitude and belief of pregnant women towards safe motherhood in a rural Indian setting. *Social Sciences Directory.* 1:1.
8. Royston, E and Armstrong, S. (2009). *Preverted maternal death.s.* Geneva; WHO papers,
9. Nwosu, J. & Ngozika, Q. (2011) Attitude of pregnant women towards safe motherhood initiatives-Orlu Urban, Imo state. *MED Thesis, Dept of HPE UNN, available on [www.unn.edu.ng/publications/files/images/neweditprojectpdf](http://www.unn.edu.ng/publications/files/images/neweditprojectpdf)*
10. ACOG, C.E. (2014). Delivering services and influencing policy: Health care professionals join forces to improve maternal, newborn, and child health. *International Journal of Obstetrics Gynaecology.* 2009;105:271-274. doi: 10.1016/j.ijgo.2009.01.030.
11. Weston, C (2016), *Reducing maternal deaths in countries* New York: Elsevier Publishing.
12. Maclaren, S.C, (2014), *Maternal safety and risk management in pregnancy,* London: Chapem Publishing co.
13. Maine, D.A. (2016). *Prevention of maternal deaths.* Nairobi: Delma press.
14. WHO (2011). *Safe motherhood.* Geneva: All well Press
15. Jimoh, F.G. (2013). Health care seeking behavior for safe motherhood: findings from Rural Bangladesh. *Bangladesh e J Sociol.* 2012;9(2):57-70.
16. Adamu , S.E. and Salihu, A.N (2013). Barriers to utilization of



- maternal health services in a semi-urban community in northern Nigeria: the clients' perspective. *Niger Med J.* 2013;54:27-32. doi: 10.4103/0300-1652.108890.
17. Nwankwo and Ejike (2014), Saving maternal lives in resource-poor settings: facing reality. *Health Policy.* 89(2):131-148
18. Solomon and Nnamani (2015). Risk factors for maternal mortality: a case study in Dakar hospitals. *African Journal of Reprod Health.*(1):14-24. doi: 10.2307/3583271.
19. Chiwuzie, Braimoh and Umige, (2015). Operational factors affecting maternal mortality in Nigeria. *Health Policy and Planning.* 1997;12:50-57. doi: 10.1093/heapol/12.1.50.
20. Mekonnen, E.K.(2013). *Knowledge about safe motherhood and HIV/AIDS among school pupils in a rural area in Tanzania.* *BMC Pregnancy Childbirth.* ;7:5. doi: 10.1186/1471-2393-7-5.
21. Adetokumbo, O.L. and Gillies, H.M, (2009). *Short Textbook of public health medicine for the Tropics.* 4th ed. Ibadan: Macmillan publishing solutions, Malta, 326-327.
22. Obinna, C. (2012). Safe Motherhood: Need for Access to Quality Prenatal and Delivery Services. *Vanguard Newspaper, Health Comments,* 17, 10.
23. World Bank, (2011). The Midwives Service Scheme in Nigeria. *PLoS Med.* 2012;9(5):e1001211. doi: 10.1371/journal.pmed.1001211
24. Assanand, S., Dias, M., Richardson, E., Waxten-Morrison (2009). Reducing maternal and neonatal mortality in the poorest communities. *British Medical Journal,* 329, 1166-1168.
25. WHO and UNICEF (2015). "Essential Elements of Obstetric Care at the First-Referral Level." ISBN 92 N. Geneva.
26. Okeke, E. Aradeon, S., Akerele, A., Tanko, M., Yisa, I., & Obonyo, B., (2013). Knowledge of Safe Motherhood Among Women in Rural Communities in Northern Nigeria: Implications for Maternal Mortality Reduction. *Journal of BioMed Central,* Available on <http://reproductive-Health-JournalBioMedcentral.Com/articles>.