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Assessment on the Use of Insecticide Treated Net for the Campaign Against Maternity Mortality in Tertiary Health Institution: A Case Study of Federal Medical Centre, Yenagoa, Bayelsa State.

Idimie T. Ayaowei (PhD)[1], Gilbert N. Anthony[2], Nwankwo B. Chidinma[3], Isreal D. Imarele[4], Kurokeyi, E. J. Teddy[5]

[1,4]Department of Health Information Management, Faculty of Health Science, Bayelsa Medical University, Yenagoa, Bayelsa State,
[2]Department of health Information Management, School of Allied Medical sciences, Bayelsa State College of Health Technology, Otuogidi-Ogbia town,
[3]Department of Health Care Administration & Hospital Management, Faculty of Health Sciences, Bayelsa Medical University, Yenagoa,
[5]Department of Public Health Science, Rivers State University, Port Harcourt, Nigeria

ABSTRACT

This research work was carried out with the aim of assessing the use of Insecticide Treated Net for Campaign Against Maternity Mortality in Tertiary Health Institution: A Case Study of Federal Medical Centre, Yenagoa, Bayelsa State. Descriptive survey design was use, an accidental sampling techniques was used with a sample size of 100 respondents, questionnaire was used as the instrument for data collection, data was administered using face to face method of data administration, data was analysed using statistical package for social science, the findings of the study showed that majority, 81% of the respondents that said yes that they have at least one INT in their household, 63% said they obtained their last ITN from a public health facility, 70% of the respondents said that it was easy for them in obtaining ITN, 79% of the respondents their reasons for not obtaining an ITN is because was lack of knowledge, 100% of the respondents said they did not use money to purchase ITN, that it was free. only 37% of the respondents use ITN, 21% said they use it every night. majority making 40% said they have not use it at all., 69% said there reason of not using ITN is that ITN are not available, 60% said no body is using ITN in their home, it was concluded that majority of the respondents have ITN but there is poor utilization of ITN in respect of poor knowledge on the need for the use of ITN, which was the major factors responsible for its poor usages, it was recommended that more public enlightenment programs should be directed toward women attending antennal clinic to create more awareness on the important using ITN as an effective preventive majors against malaria and more research work should carried among women attending antennal clinic women.

KEYWORD: Insecticide Treated Net, Maternity, Mortality, Federal Medical Centre, Yenagoa, Bayelsa State

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INTRODUCTION

The health system is very important to the fact that mortality statistics is a key factor in the health sector where notable communicable disease like malaria is detected and it is good to note certain serious issues because of the peculiar nature it affects childbearing mothers in the globe. According to Gilbert *et al*, (2015), state in their work that 'Mosquito exists in over 3,500 species and has been said to transmit the disease pathogens of Rift Valley fever, Wuchereria bancrofti, Encephalitis, chikungunya, malaria and filariasis. No better option could be conceived than to reduce the population of mosquitoes to reduce their damage to human health, economies, and enjoyment (Breeding Habitat Source Reduction). This has been reported to be achieved by, source reduction, biocontrol, larviciding, or adulticiding. The source reduction methods involve reducing the conducive environments where

mosquitoes breed (Chevillon *et a*l, 2019)., allowing mosquito predators Gambusiaaffinisto feed on mosquito (Service, 2013) and the use of large pumps and culverts with gates to control water level within an impounded marsh. Biocontrol involves the use of mosquitofish (Gambusiaaffinis), cyprinids (carps and minnows), killifish, Tilapia, dragonfly naiads, some species of lizard and gecko. birds, bats, lizards and frogs, to consume mosquito larvae (Durden, 2002). The use of Methoprene as a contact poison, alongside growth regulators, surface films, stomach poisons aim at larviciding while application of residual chemical insecticides aims at adulticiding (Walker,2002). The state of maternal health is one of the key indicators of a society's level of development, as well as an indicator of performance of health care delivery system (Okeibunor et al, 2010). Consequently, reduction in maternal mortality is a major agenda of many global initiatives such as Millennium Development Gaols (MDGs). However, five years to 2020, the year targeted for achieving a global reduction in maternal mortality, the continuing high rate of maternal mortality ratios in Nigeria remains worrisome. According to the UN and World bank statistics, an estimated 144 women die each day in Nigeria from pregnancy related complications, making her one of the worst countries for women to deliver babies in the world (Daily Champion, 2009). Available statistics indicate that Nigeria's 59,000 annual maternal deaths rank second after India's 117,000 maternal deaths, in terms of global hierarchy of the burden of maternal mortality. However, India with a population of over one billion people reduced its maternal mortality from 136,000 to 117, 000 between 2000 and 2005(Okeibunor et al, 2010). By contrast, Nigeria's maternal mortality deaths rose from 37, 000 in 2000 to 59,000 in 2005 with a population of 140 million (Abdul'Aziz, 2009). Despite the free maternity services, utilization of maternity services and materials are still poor in some states in Nigeria especially in the rural areas. Only about 50% of women in the city centre attend antenatal care which is lower than the National average of 60% (Galadanci *et al*, 2010).The 2008 Nigeria Demographic and Health Survey (NDHS) results indicate that 17% of households in Nigeria own a mosquito net (treated or untreated), and 8% of households own more than one mosquito net and 16% of households own at least one net that has never been treated. The average number of ITNs per household was less than one, which could be attributed to a weak supply and distribution mechanism (Onyeneho, 2013). In recent years, the distribution of ITNs has been inadequate, with only a few local government areas targeted in various states. This has made it impossible to attain saturation in any one area. The approach since 2009 has been to start afresh a coordinated strategy to deliver two nets to every household across the country through a series of stand-alone campaigns to achieve universal coverage (Okafor et al, 2020). The aim of this study is to **assess** the use of insecticide treated net for campaign against maternity mortality in tertiary health institution: a case study of Federal Medical Centre, Yenagoa, Bayelsa State.

Purpose of Study

The overall purpose of this study is to investigate the assessment and use of insecticide treated net for campaign against maternity mortality in tertiary health institution: a case study of Federal Medical Centre, Yenagoa, Bayelsa State.

Research questions.

1) What is the level of insecticide treated nets availability in federal Medical Centre, Yenagoa
2) What is the level of accessibility of insecticide treated nets to pregnant women in federal Medical Centre, yenagoa
3) What is the level of use concerning insecticide treated nets in the hospital?

METHODS

The study employed the descriptive survey design. The population for this study was pregnant women attending antenatal care (ANC) at the time of carrying out this research work in federal medical Centre yenagoa, Bayelsa State. An accidental sampling technique was used to determine 100 participants using convenience sampling method and the instrument used to collect data was semi structured questionnaire. The questionnaire is titled 'the use of insecticide treated net for campaign against maternity mortality in tertiary health institution: a case study of federal medical centre, yenagoa, bayelsa state' is divided into four sub-sections namely (A, B, C and D). Section (A) focused on socio demographic characteristics of the respondent such as. Age, Marital status, Sex, educational background, etc. Section (B) was design to examine the extent the availability of insecticide treated nets in federal medical centre, Yenagoa, Section (C) examined extent of accessibility of insecticide treated nets by antenatal care women in the hospital and Section (D) examined the extent of use of insecticide treated nets by pregnant mothers in federal Medical Centre Yenagoa, out of the 100 questionnaires distributed to the respondents in the various hospitals in the health information management departments, 80 questionnaires were retrieved and used for the analysis. This was achieved through the help of research assistance in the various hospitals within 3 weeks in the study area. The set of data collected for the study were analyzed using Statistical Package for Social Sciences (SPSS) version 20. The results were presented using frequency counts and percentage distribution, mean and standard deviation. All ethical issues surrounding data collection analysis and reporting was observed in the course of study.

ETHICAL CONSIDERATION

Ethics Approval and Consent to Participate the study protocol was reviewed and approved by the ethical review committee and Informed consent was obtained from each study participant. Permission letters also obtained from Federal Medical Centre. Names of participants and other personal identifiers were not included in the data collection tool.

RESULT

Table 1. Demographic Data of Respondents

Age	**Responses (N=100)**	**Percentage**
15-20	12	12
21-25	24	24
26-30	33	33
31-35	16	16
36-40	9	9
41years and above	6	6
Educational level	Responses	Percentage
No formal education	4	4
SSCE	22	22
ND	31	31
HND/BSC	28	28
Others	15	15
Occupation:	Responses	Percentage
housewife Business Civil servant	15 44 41	15 44 41
Religion	Responses	Percentage
Christian Muslim African tradition	82 12 6	82 12 6

Source: Field work, 2025

The findings of the study showed that majority (33%) of the respondents where within the ages of 26-30years 31% have ND, 44% said they are business women, while 82% said they are Christians

Table 2. AVAILABILITY OF INSECTICIDE-TREATED NETS (ITNS)

Items	**Frequency**	**Percentage**
Do you have at least one ITN in your household?		
Yes	81	81
No	9	9
2. How many ITNs do you have in your household?		
a)1	51	51
b)2	22	22
c)3	14	14
b)4	13	13
3. Where did you obtain your last ITN?		
(a) Public health facility	63	63
(b) Private sector	21	21
(c) Non-governmental organization (NGO)	16	16

Source: Field work, 2025

At least 81% of the respondents that said yes that they have at least one INT in their household, 9% said no, 51% said yes that they have 1 ITNS, 22% said 2, 14% said 3, 13% said they have 4, 63% said they obtained their last ITN from a public health facility,21% said private sector, while 16% said non-governmental organization

Table 3.Accessibility of Insecticide-Treated Nets (ITNs)

Items	**Responses**	**Percentage (%)**
1. How easy was it for you to obtain your last ITN?		

(a) Very easy	70	70%
(b) somewhat easy	12	12%
(c) Neutral	8	8%
(d) Somewhat difficult	7	7%
(e) Very difficult)	3	3%
2. What was the main reason for not having an ITN if you don't have one?		
(a) Too expensive	-	
(b) Not available	21	21%
(c) Lack of knowledge	79	79%
3. How much did you pay for your last ITN?		
(a) Free	100	100%
(b) 1000-2000 (c) 3000-4000		
(d) 5000 and above		

Source: Field work, 2025

The findings of the table above showed that 70% of the respondents said that it was easy for them in obtaining ITN, 12% said somewhat easy, 8% said neutral, 7% said somewhat difficult, while 3% said it was very difficult. 21% of the respondents their reasons for not obtaining an ITN is because it was not available, 79% said it was lack of knowledge, while 100% of the respondents said they did not use money to purchase ITN, that it was free.

Table 4 Use of Insecticide-Treated Nets (ITNs)

Items	**Responses**	**Percentage**
1. Do you use an ITN regularly?		
(a) Yes	37	37%
(b) No	63	63%
2. How often do you use an ITN?		
(a) Every night	21	21%
(b) Most nights	17	17%
(c) Some nights	14	14%
(d) Rarely	8	8%
(e) Never	40	40%
3. What is the main reason for not using an ITN if you don't use one?		
(a) Lack of knowledge	18	18%
(b) Not comfortable	69	69%
(c) Not necessary	13	13%
Who in your household uses the ITN(s)?		
(a) Yourself	7	7%
(b) Children under 5	21	21%
(c) Pregnant women	12	12%
D) None	60	60%

Source: Field work, 2025

The findings of the table above showed that 37% of the respondents use ITN, 63% said No, 21% said they use it every night, 17% said most night, 14% said some night, 8% said they use it rarely, and 40% said they have not use it at all. 18% said the reason why they don't have ITN is lack of knowledge, 69% said ITN are not available, 13% said the use of ITN is not necessary, 7% said they use ITN by their self, 21% said ITN is used by children under 5years, 12% said pregnant women, 60% said no body is using ITN in their home.

DISCUSSION

The findings of the study showed that majority (81%) of the respondents that said yes that they have at least one INT in their household, 63% said they obtained their last ITN from a public health facility. This showed that majority of household have ITN and it was obtained from public health facilities. 70% of the respondents said that it was easy for them in obtaining ITN. 79% of

the respondents their reasons for not obtaining an ITN is because was lack of knowledge, while 100% of the respondents said they did not use money to purchase ITN, that it was free. Findings showed that only 37% of the respondents use ITN, and only 21% said they use it every night and majority making 40% said they have not use it at all., 69% said there reason of not using ITN is that ITN are not available, and 60% said no body is using ITN in their home., the findings of this research work recorded that majority of the respondents have ITN in their house hold , at least majority of the household have 1 ITN, but only few percentage make regular use of it, this mean that there is poor usage of ITN and it was reveals that majority the respondents did not knowledge the need for ITN. The findings was similar with previous findings of the 2008 Nigeria Demographic and Health Survey (NDHS) results which indicate that 17% of households in Nigeria own a mosquito net (treated or untreated), and 8% of households own more than one mosquito net and 16% of households own at least one net that has never been treated. The average number of ITNs per household was less than one, which could be attributed to a weak supply and distribution mechanism (Onyeneho, 2013). In recent years, the distribution of ITNs has been inadequate, with only a few local government areas targeted in various states. This has made it impossible to attain saturation in any one area, the findings of this research were also similar with previous findings of Idris *et al*, (2013). One of the reasons for the poor use of formal health system in that community is the belief that health care providers have a negative attitude; consequently, many women would rather give birth at home or at a traditional health center (Idris *et al*, 2013). In Esan and Etsako LGAs of Edo State Nigeria, some authors reported that perception of maternal healthcare quality plays a major role is the use of health services, with 25% of women, which is perhaps under-reported, in that community delivering at home even when a primary healthcare facility is located close to where the women reside.

CONCLUSION

Conclusively, this research work was carried out with the aim of assessing on the use of insecticide treated net for campaign against maternity mortality in tertiary health institution: a case study of federal medical centre, yenagoa, Bayelsa State**.** The findings of this research work revealed that, majority of the respondents have ITN but there is poor utilization of ITN and also poor knowledge on the need for the use of ITN was the major factors responsible for its poor usages, therefore it is recommended that more public enlightenment programs should be directed toward women attending antennal clinic to create more awareness on the important using ITN as an effective preventive measures against malaria.

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