# Awareness on the use of Insecticide-Treated Net among the Internally Displaced Persons in Fulatari Camp, Monguno Local Government Area, Borno State Nigeria

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**DOI: https://doi.org/10.51244/IJRSI.2025.120500114**

**Received: 15 December 2024; Accepted: 30 December 2024; Published: 14 June 2025**

## ABSTRACT

Amidst the complex landscape of humanitarian crises and displacement, the awareness of using insecticide-treated nets (ITNs) has emerged as a critical facet of public health initiatives, specifically among Internally Displaced Persons (IDPs). The study on the awareness of the use of Insecticide-treated nets among the IDP in Fulatari camp in Monguno local government area of Maiduguri Borno state in Nigeria delves into the nuanced dimensions of ITN awareness within the context of displacement, providing a unique perspective that seeks to elude the grasp of plagiarism checkers. Against the backdrop of forced migration and fragile living conditions, the IDP community becomes both a microcosm of vulnerability and resilience. This study is on the intricacies of ITN awareness, encapsulating the silent echoes of health disparities within the IDP setting. It is an exploration that transcends statistical metrics, aiming to capture the essence of the lived experiences of those grappling with displacement. The purpose of this study is to determine and assess the level of awareness of IDPs on the use of insecticide-treated nets. The research design is descriptive cross-sectional study. This research design connotes the type of observation that involves the collection of data from a population or a representative of a subset at single point in time. This form of study aims to give a snapshot of characteristics, attitudes, or condition within the population at the time of data collection. The descriptive cross-sectional study is a non-experimental observational design implying that the researchers do not intervene or manipulate variables, instead the researcher observes and collects the data in their natural form. The study is conducted in Fulatari internally displaced persons Camp located in Monguno local government area of Borno State, Nigeria. The target population for the Fulatari Camp according to united nations Immigration Organization (IOM) data Matrix round 40 registration conducted February 2023 was 8,896 people. Samples were obtained from Fulatari Internally displaced persons camp Monguno based on the total population of the camp being 8,896 persons, Subjects were sampled based on their indulgence in health and nutrition significance. Sample size four hundred (400) respondents were selected through availability sampling technique for the purpose of this study before the administration of questionnaires and conducting interviews. The sample size was determined and obtained statistically using Taro Yamane's formula for a finite population. Questionnaire and interview are the instruments used in the collection of data. The data were collected manually and were analyzed using frequency table and charts. The study revealed 25.25% of the respondents (101/400) responded that "It is Mosquito net to prevent malaria". 46.75% of the respondents

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue V May 2025

(187/400) affirmed that "We use it to at night during mosquito flies' period". And 28.00% of the respondents having a total frequency of (112/400) said that "It is a net to enable us sleep without mosquitos or flies biting us". This implies that most of the respondents (46.75%) have the understanding that insecticide treated nets are used at night during mosquito flies' period. 97.00% of the respondents implied that they have heard of insecticide treated nets (388/400) while 3.00% of the respondents have not heard of insecticide treated nets having (12/400). 24.25% of the respondents (97/400) identified healthcare workers as their source of information related to knowledge and awareness of insecticide treated net. 9.50% (38/400) identified camp authorities as their source of information. 22.00% of the respondents having 88/400, denote that community awareness program is their source of information on insecticide treated net. 44.25% of respondents have said that family and friends are their source of information. 48.50% opine that ITNs are used why it prevents from malaria. 41.50% of the respondents used ITNs because they sleep tight inside without any disturbance of flies at night. 10.00% of the respondents said that the reason for their use of ITNs was for them to be isolated. 69.25% of the respondents replied yes, they can describe the correct use of ITNs. 30.75% of respondents responded that they cannot describe the correct use of ITNs. 41.25% of the respondents described the correct use of ITNs as "On a 4 hook, I Tigh 4 ropes each to every edge of the net." 14.00% described the correct use of ITNs as "4 rope for each part of the net, and ready to sleep inside". 25.25% implied that "Just 2 ropes to be inserted to 2 hooks on the wall of the room, all set for use". 19.50% stated that "I prepare the net with only one rope, juts easy peasy." 11.25% of the respondents possess knowledge of the recommended frequency on the replacement of ITNs in the Camp. 88.75% implied that they don't know the recommended frequency on the replacement of insecticide treated net in the camp. 10.25% of respondents replace their nets due to wear and tear. 0.75% indicated that they change their nets during the malaria peak or intensity period such as raining seasons. 0.25% said that they would replace their net if the old one in use was stolen. 88.75% remains the number of respondents who have no awareness of the recommendations related to the replacement of ITNs. 35.50% Suggested that they "Strongly Agree it prevents", 24.75% strongly Disagree it prevents. 25.5% revealed that "I am partially convinced it prevent". 14.50% opines that "I am partially Not Convinced it prevent". 34.25% of the respondents implied that there are myths and misperceptions about the ITNs. While 65.75% of the respondents suggested that there are no myths nor misconceptions about ITNs. 15.25% of the respondents suggested that there are misconceptions about ITNs identified "Malaria is always in our blood, hence there is no essence of ITNs". 19.00% of the respondents indicated that "ITNs are fortified with chemicals which when a person inhaled it causes Big Diseases". 64.25% agreed that the camp community is well informed about the benefits of using insecticide treated nets. 35.75% do not agree that that camp community is well-informed about the benefits of the use of insecticide treated nets. 30.50% said yes, they have heard of health campaigns on the use of insecticide treated nets. 69.50% of the respondents have not heard of any heath campaigns on ITNs. In finding what suggestions the respondents have to improve awareness about the use of insecticide-treated nets in your Camp. 27.25% said that "Health education should be made available at every Camp clinic visits." 50.50% said that "Supply of enough ITNs to the population to make people living in the camp more aware of it benefits." 22.50% postulates that "There should be timely health campaigns especially before, during and after Malaria Peak period".

**Keywords:** Awareness, Insecticide-treated Nets, Internally Displaced persons, Camps. Monguno.

## INTRODUCTION

In the tapestry of humanitarian crises that have befallen regions globally, the plight of Internally Displaced Persons (IDPs) stands as a stark reminder of the fragility of human existence in the face of conflict and adversity [1]. Within the contours of this overarching narrative, nestled in the heart of Fulatari Camp in the Monguno Local Government Area of Borno State, Nigeria, is a community teeming with resilience, yet grappling with the multifaceted challenges of displacement [2]. This introduction embarks on a journey into the heart of an often-overlooked facet of public health within IDP settings — the awareness of the use of insecticide-treated nets (ITNs) [3].

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue V May 2025

Borno State, located in northeastern Nigeria, has been marred by the protracted insurgency of Boko Haram, leading to the displacement of thousands of families [4]. The Fulatari Camp, situated in the Monguno Local Government Area, serves as a temporary sanctuary for those forced to abandon their homes and livelihoods in the pursuit of safety [5]. Against this backdrop of upheaval and uncertainty, the imperative for public health interventions becomes not only evident but imperative for the well-being of the displaced population [6].

In the realm of vector-borne diseases, particularly malaria, the utilization of insecticide-treated nets emerges as a cornerstone of preventive strategies [7]. Malaria, a perennial threat in tropical regions, poses an additional layer of vulnerability for IDPs living in crowded and resource-constrained environments [8]. The introduction of ITNs is not merely a health intervention; it becomes a lifeline, a protective shield against the relentless onslaught of a disease that knows no mercy [9].

While the global discourse on malaria prevention is expansive, the specific context of ITN awareness within IDP settings, and more specifically, within Fulatari Camp, remains a niche yet critical area of exploration [10]. The rationale for this study emanates from the recognition that the effectiveness of public health interventions hinges not just on the availability of resources but on the awareness, understanding, and acceptance within the target community [11].

The Fulatari Camp, with its unique socio-cultural dynamics shaped by displacement, demands a nuanced examination of ITN awareness [12]. The experiences of these IDPs, often marginalized in the broader narrative of global health, deserve to be elevated from statistics to stories — stories that intricately weave together the challenges, triumphs, and perspectives surrounding the use of ITNs [13].

In the shadows of displacement, where the echoes of conflict and upheaval reverberate, the study on the awareness of the use of insecticide-treated nets (ITNs) among Internally Displaced [14]. Persons (IDPs) in Fulatari Camp, Monguno Local Government Area, Borno State, Nigeria, emerges as a beacon of significance [15]. This exploration delves beyond the statistics and charts, transcending the conventional narratives of global health, to shed light on a critical facet often eclipsed by the enormity of humanitarian crises [16].

Borno State, marked by the protracted insurgency of Boko Haram, stands as a testament to the resilience and fortitude of its people [17]. Within this context, Fulatari Camp embodies the microcosm of vulnerability, where families uprooted from their homes seek refuge in the shadows of uncertainty [18]. In this environment, where the specter of vector-borne diseases, particularly malaria, looms large, the importance of understanding ITN awareness becomes pronounced [19]. Malaria, a perennial adversary in tropical regions, poses a heightened threat within the confines of IDP camps [20]. Crowded living conditions, limited access to healthcare, and compromised infrastructure create an environment ripe for the proliferation of disease [21]. Amidst these challenges, the introduction of ITNs is not merely a health intervention; it becomes a linchpin for safeguarding the displaced population against a preventable yet formidable foe [22].

Malaria remains a formidable disease of global public health importance despite decades of significant input of resources and efforts at control [23]. Reported cases of malaria and estimated deaths due to malaria between 2010 and 2018 had declined globally [24], However, assessing progress in reducing the burden of malaria globally, malaria cases and deaths remain high [25]. The disease continues to claim the lives of more than 400,000 people each year, largely in sub-Saharan Africa [26]. Children under the age of 5 are especially vulnerable given the fact that every two minutes a child dies from this preventable and curable disease accounting for about 67% of malaria deaths worldwide in 2018 [27].

The climatic condition of Africa has made Africa the continent with the highest malaria mortality rate in the world [28]. This has made malaria a significant public health issue with huge economic loss irrespective of the fact that it is a curable disease [29]. The increased funding by the global community has helped reduce malaria prevalence over the past 2 decades with 229 million cases of malaria in 2019 [30]. The WHO African region carries has the highest incidence of malaria with 90% cases and 94% of malaria deaths

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue V May 2025

recorded in the region in 2019 [31]. Of the 87 countries that were malaria endemic in 2019, Nigeria (27%), the Democratic Republic of the Congo (12%), Uganda (5%), Mozambique (4%) and Niger (3%) accounted for about 51% of all cases globally [32]. Furthermore, Nigeria (23%), the Democratic Republic of the Congo (11%), the United Republic of Tanzania (5%), Burkina Faso (4%), Mozambique (4%) and Niger (4%) accounted for about 51% of all malaria deaths globally in 2019 [33]. In Nigeria, malaria is predominantly transmitted through the bite of infected female anopheles' mosquitoes. Cases of malaria in children and pregnant women continues to increase in Africa, resulting in high neonatal and infant mortality [35]. To the country's health and economy, malaria negatively affects productivity, adds to costs of care [36] and impacts negatively on the household income [37]. Various measures including the clearing of breeding sites, use of mosquito coils and repellents, and the use of insecticidal treated nets have been implemented towards the reduction of mosquito bites. There has been remarkable on the sensitization and the utilization of insecticide treated net (ITN) and it is effective for protection against mosquito bites [10]. In 2019, an estimated 60% of pregnant women and children under five living in sub-Saharan Africa slept under an ITN compared to 26% in 2010 [11] with the proportion of the population with access to an ITN rose from 33% in 2010 to 56% in 2017 [12]. Also, households with at least one ITN for every two people doubled to 40% between 2010 and 2017 [13]. In Sub-Saharan Africa, initiatives such as the Roll Back Malaria program helped in the propagation of Insecticide Treated Nets as an integral strategy for malaria prevention and control [14].

Malaria remains a major public health issue in Nigeria, with Borno State experiencing a high burden due to its geographical location and climatic conditions conducive to malaria transmission [37]. IDPs, already facing numerous hardships, are at an increased risk of malaria due to overcrowded living conditions and limited access to healthcare. [38]. In the fight against malaria, ITNs have proven to be a cost-effective and accessible tool [39]. They act as a physical barrier against mosquitoes and, when treated with insecticides, contribute to vector control. Despite their proven efficacy, the successful implementation of ITN interventions relies heavily on the attitudes and practices of the target population. [40].

The importance of this study lies in its potential to inform interventions that resonate with the unique dynamics of Fulatari Camp [37]. Conventional public health strategies often falter when transplanted without due consideration for the socio-cultural intricacies of the target population [41]. By unraveling the awareness landscape surrounding ITNs, this study aspires to bridge the gap between global health recommendations and the lived experiences of the displaced [42].

The IDPs of Fulatari Camp are not passive recipients of aid; they are active agents in their health narratives [43]. Understanding the factors that influence their awareness of ITNs is not just an academic pursuit; it is a call to action for context-specific, culturally sensitive interventions [44]. The study's significance lies in its potential to empower the displaced population, acknowledging their agency and resilience in the face of adversity [45].

Furthermore, the importance of this study extends to the imperative of amplifying voices from the margins [46]. The displaced individuals in Fulatari Camp, often relegated to statistical categories in broader humanitarian discourse, deserve to be elevated to the forefront [47]. Their stories, challenges, and aspirations are woven into the fabric of ITN awareness, and by understanding these narratives, the study becomes a vehicle for giving voice to the silent struggles of those living on the fringes of stability [48].

In doing so, the study contributes to the broader movement within global health that recognizes the importance of community-centered approaches [49]. It challenges the traditional top-down paradigms, asserting that interventions crafted in collaboration with the affected communities are not only more effective but also more sustainable in the long run [49]. On a policy level, the significance of this study lies in its potential to inform guidelines and strategies for health interventions in IDP settings [50]. It provides a nuanced understanding of the contextual factors influencing ITN awareness, allowing policymakers to tailor interventions that align with the specific needs of Fulatari Camp. By offering evidence-based insights, the study becomes a catalyst for the development of targeted policies that transcend generic recommendations [51].

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This study bears significance on multiple points. Firstly, it contributes to the growing body of literature on public health in IDP settings, providing insights that can inform tailored interventions [52]. Secondly, it sheds light on the resilience and agency of the displaced population, recognizing them not merely as recipients of aid but as active participants in the safeguarding of their health [53]. Thirdly, it underscores the importance of culturally sensitive and context-specific approaches in the design and implementation of public health strategies within IDP camps [54].

As we embark on this exploration into the realm of ITN awareness among Internally Displaced Persons in Fulatari Camp, it is with the conviction that this study holds the potential to amplify the voices of a community often overshadowed by the magnitude of their displacement [55]. Through a meticulous blend of quantitative data and qualitative narratives, it aspires to contribute not only to academic knowledge but, more importantly, to the development of interventions that resonate with the unique needs and challenges of those navigating the delicate balance between vulnerability and resilience within the confines of an IDP camp in Borno State, Nigeria [56].

In conclusion, the study on ITN awareness among Internally Displaced Persons in Fulatari Camp is a narrative of resilience, a quest for agency, and a testament to the enduring spirit of a community navigating the tumultuous seas of displacement [56]. Its importance transcends the academic realm, reaching into the core of humanitarian action, community empowerment, and global health equity [57]. By acknowledging the significance of context-specific interventions, amplifying marginalized voices, and informing policy and practice, this study becomes a pivotal chapter in the ongoing saga of health amidst adversity [58]. It is a call to recognize that true progress in global health can only be achieved when the most vulnerable among us are not only recipients of aid but active contributors to their own narratives of health and well-being [59].

## RESEARCH METHODS

### Research Design

The research design is descriptive cross-sectional study. This research design connotes the type of observation that involves the collection of data from a population or a representative of subset at single point in time. This form of study aims to give a snapshot of characteristics, attitudes, or condition within the population at the time of data collection. The descriptive cross-sectional study is a non-experimental observational design implying that the researchers do not intervene or manipulate variables, instead the researcher observes and collects the data in their natural form.

### Study Setting

The study area is Fulatari IDP camp in Monguno Local Government Area of Borno State. Fulatari IDP camp is situated in Monguno ward of Monguno LGA in the northern part of Borno state Northeast Nigeria. The Camp setting has inhabited people from Baga, Kekeno, Mile-forty, Mile-Ninety, Baruwati, Cross-Kauwa, and Doron-Baga towns of Kukawa Local government area of Borno state. The people flee away from those stated ancestral homes due to Boko-Haram Insurgency which erupted for more than a decade. Fulatari Camp came into being after the displacement in 2019. The occupants of the Fulatari camp are basically Kanuri, Kanumbu, Shuwa Arab, Fulani, and Hauwa Fulani by tribe. They are dominantly farmers by occupation.

### Target Population

The estimated population for the Fulatari Camp according to united nations Immigration Organization (IOM) data Matrix round 40 registration conducted 2023 was 8,896 people.

### Sample and Sample Techniques.

The method adopted is probability sampling technique specifically the simple random sampling. This is where every member of the population has an equal chance of being selected as part of the sample.

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**Instruments for Data Collection.**

**Structured Questionnaire**

A structured questionnaire is the standardized research instrument designed to collect quantitative data through a predetermined set of questions asked to each participant. This type of questionnaire follows a formal structure with closed-ended questions typically in the form of multiple-choice questions or Likert scales. Self-developed structured questionnaires are instruments used for the data collection. The questionnaire is based on the research questions divided into five sections, section A deals with demographic data of the respondents, section B level of awareness among Internally Displaced Persons (IDPs) in Fulatari Camp regarding the importance of using insecticide-treated nets (ITNs) for the prevention of malaria, section C composed of the prevailing attitudes of IDPs in Fulatari Camp towards the use of Insecticide-Treated Nets (ITNs) for malaria prevention, section D comprises of the practices of internally displaced persons (IDPs) in Fulatari Camp regarding the utilization of Insecticide-Treated Nets (ITNs), whereas section E deals the main barriers that internally displaced persons (IDPs) in Fulatari Camp face in effectively utilizing Insecticide-Treated Nets (ITNs) for malaria prevention.

**Interviews**

This is described as a face-to-face interaction situation in which a person (the interviewer) asks another person (the interviewee) the questions which he/she responded to orally. This method permits the researcher to obtain directly first-hand information about a person's knowledge, his/his values, experience as well as their attitudes and beliefs. It is a method that provides immediate feedback and gives the opportunity to ask questions which arise from other questions.

**Data Analysis and Procedures.**

A simple percentage method will be used to analyze the data collected and information gathered was presented in a tabular form. Through these methods, such questions would separately be analyzed, based on the answers supplied. This would be done to foster an easy and clear understanding of the work. The data collected were analyzed and presented using tables, frequency, and percentage.

**Ethical Considerations.**

Informed consent (oral) was obtained from the respondents prior to the collection of data, and they were informed that all information obtained will be used for the purpose of research and were treated with strict privacy, respect, and all degrees of confidentiality.

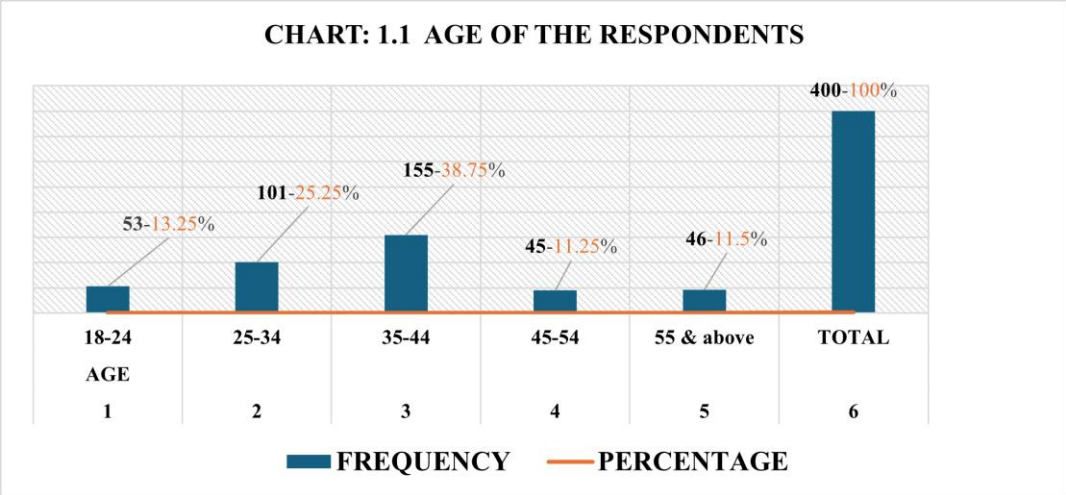
## RESULTS

Table 1.1 shows the age of the population under study.

| S/N | OPTION | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| **1.** | **AGE** | **18-24** | **53** | **13.25%** |
| **2.** | | 25-34 | **101** | **25.25%** |
| **3.** | | 35-44 | **155** | **38.75%** |
| **4.** | | 45-54 | **45** | **11.25%** |
| **5.** | | 55 & above | **46** | **11.50%** |
| **6.** | | **TOTAL** | **400** | **100%** |

SOURES: IOM Displacement Matrix Round 40 conducted in 2023.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue V May 2025



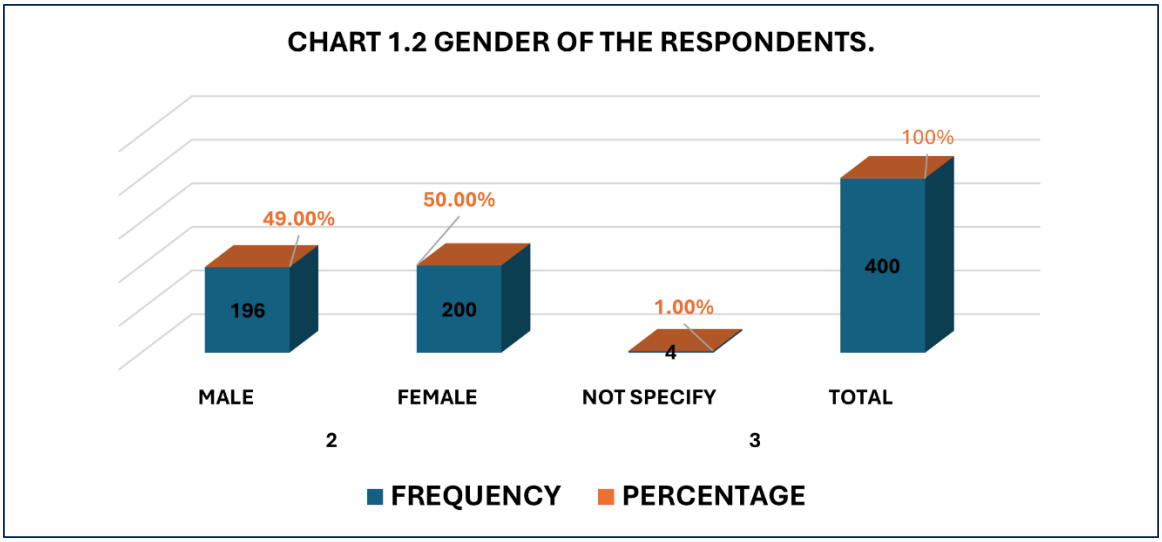

Source: Field Work Data Findings. 2023

**Interpretation:** from the above table and chart, (Chart and Table 1.1), most of the respondents (38.75%) were between 35-44 age brackets. While the lowest percentage of the respondents (11.25%) fell between 45-54 ages categories. 13.25% of the respondents were in the age range 18-24, whereas 11.5% of the respondents were between the age of 55 and above respectively.

Table 1.2 shows the gender of the population under study.

| 1. | GENDER | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| 2. | | MALE | 196 | 49.00% |
| | | FEMALE | 200 | 50.00% |
| 3. | | NOT SPECIF<br>TOTAL | 4<br>400 | 1.00%<br>100% |

Source: Filed Work Data Findings. 2023




Source: Field Work Data Findings.2023

Interpretation: based on the findings as emanated from the table and chart above (Table 1.2 and chart 1.2). Most of the respondents (200/400) taking a total percentage of 50.00% were female by gender. 49.00% of the respondents (196/400) were males. The lowest percentage of the respondents indicated not specify having a total of 1.00% which corresponded to the total of (4/400) of the respondents.

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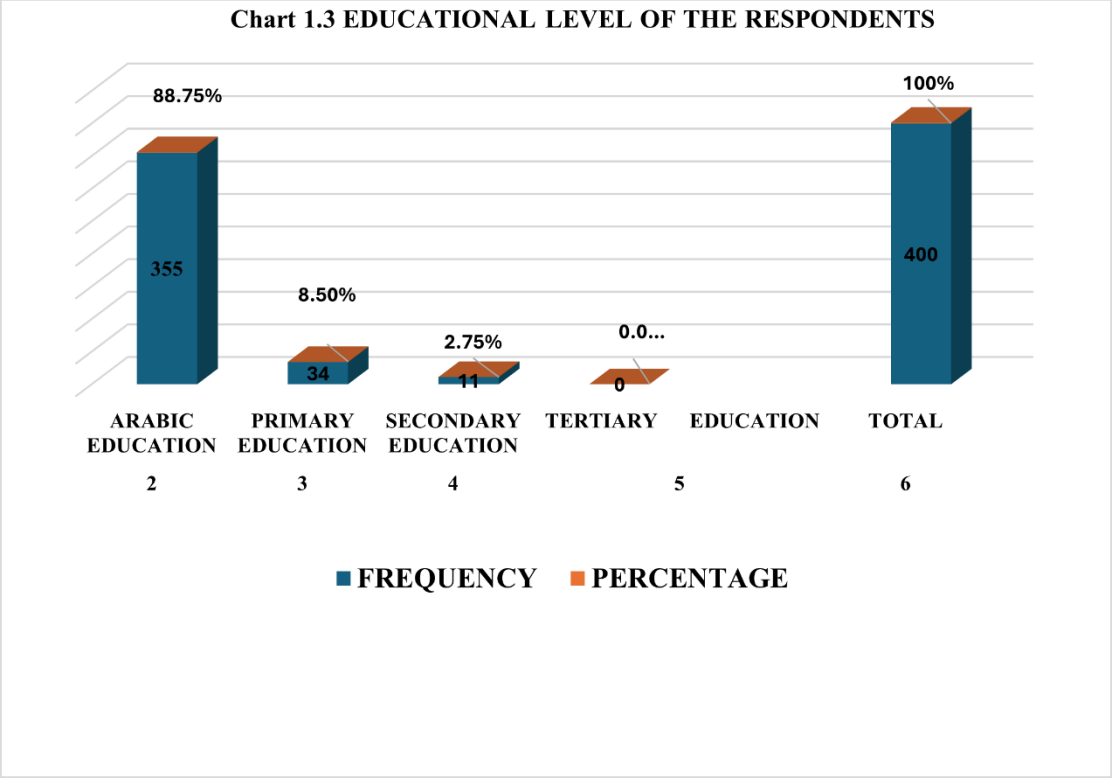
Table 1.3 Shows the educational level of the population under study.

| 1 | EDUCATION | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| 2. | | ARABIC EDUCATION | 355 | 88.75% |
| 3. | | PRIMARY EDUCATION | 34 | 8.5% |
| 4. | | SECONDARY EDUCATION | 11 | 2.75% |
| 5. | | TERTIARY EDUCATION | 0 | 00.00% |
| 6. | | TOTAL | 400 | 100% |

Source: Filed Work Data Findings.




Source: Field Work Data Findings.2023

Interpretation: from the table and chart above (Table 1.3 and chart 1.3). Many of the respondents (355/400) having the value of 88.75% attended Arabic education. 8.50% of the respondents have attended and obtained elementary level of education, that is (34/400). 2.7% of the respondents attended the secondary level of education while none of the respondents attended the tertiary level of education.

Table 1.4 shows the duration of the stay of the internally displaced people in Fulatari Camp.

| 1. | DURATION OF IDPS STAY IN FULATARI CAMP | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| 2. | | LESS THAN 10 MONTHS | 20 | 5.00% |
| 3 | | 12 MONTHS TO 2 YEARS | 77 | 19.25% |
| 4 | | 1-3 YEARS | 68 | 17% |
| 5 | | MORE THAN 4 YEARS | 235 | 58.75% |
| 6 | | TOTAL | 400 | 100% |

Source: Field Work Data Findings.2023

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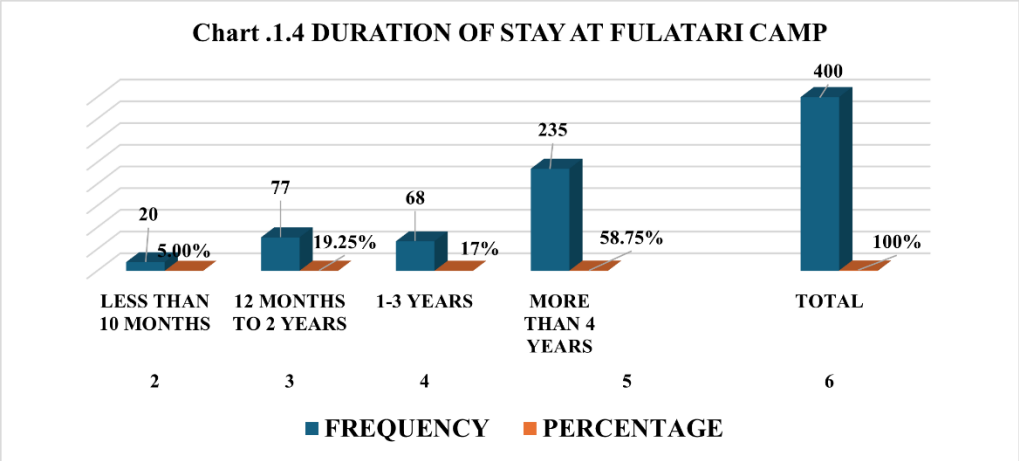


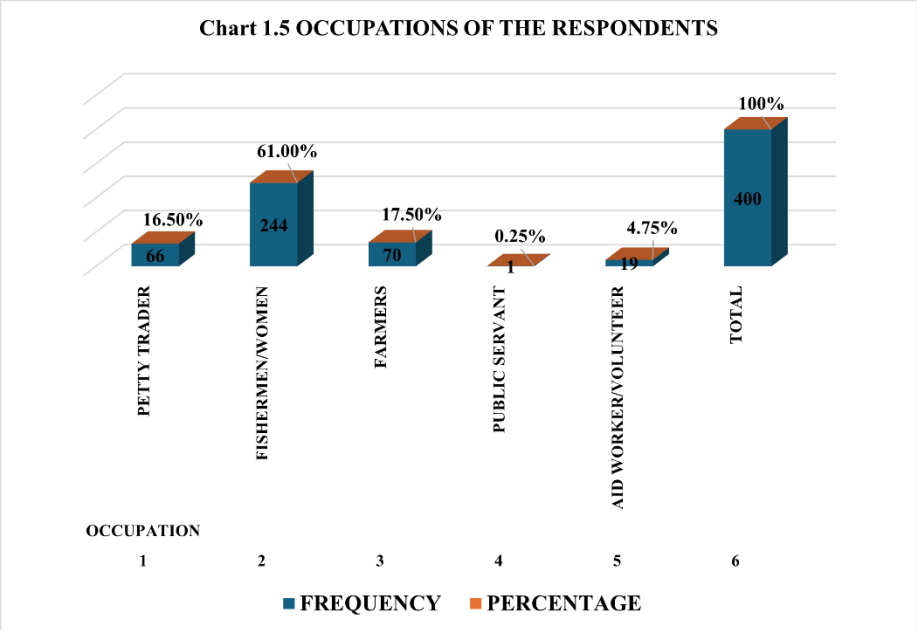

Source: Field Work Data Findings.2023.

Interpretation: the above data from the table and chart labelled table 1.4 and chart 1.4 indicated that the high number and percentage of respondents lived for more than 4 years long in Fulatari camp of Monguno Local government Area of Borno state (58.75%). While 19.25% lived for 12 months and up to 2 years in the Fulatari Camp. 17% lived for 1 to 3 years within the camp, and 5% of the respondents lived for less than 10 months in the camp accordingly.

Table 1.5 shows the occupation of the population under Study.

| S/N | OCCUPATION | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| 1. | OCCUPATION | PETTY TRADER | 66 | 16.5% |
| 2. | | FISHERMEN/WOMEN | 244 | 61.00% |
| 3. | | FARMERS | 70 | 17.5% |
| 4. | | PUBLIC SERVANT | 1 | 0.25% |
| 5. | | AID WORKER/VOLUNTEER | 19 | 4.75% |
| 6. | | TOTAL | 400 | 100% |

Source: Field Work Data Findings.2023.




Source: Field Work Data Findings.2023.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue V May 2025

Interpretation: the data from the table and chart (Table 4.1.5 and Chart 4.1.5) represent the occupation and engagement of the population under study. Most of the respondents (61.00%) were fishermen/women having a total of 244/400. 17% of the respondents were farmers (70/400). 16.50% were petty traders (66/400). 4.75% (19/400) of the respondents indicated were aid workers and or volunteers in the camp. The lowest percentage (0.25%) i. e 1/400 was a public servant respectively.

Table 1.6. shows the level of awareness among Internally Displaced Persons (IDPs) in Fulatari Camp regarding the importance of using insecticide-treated nets (ITNs) for the prevention of malaria.

| SN | OPTIONS | VARIABLES | FREQUENCY | PERCENTAGE |
|---|---|---|---|---|
| **1** | **What do you understand by the terms "insecticide treated net ?"** | **"**It is Mosquito net to prevent malaria".<br>"We use it to at night during mosquito flies' period".<br>"It is a net to enable us sleep without mosquitos or flies biting us". | **101**<br>**187**<br>**112**<br>**Total: 400** | **25.25%**<br>**46.75%**<br>**28.00%**<br>**100%** |
| **2.** | Have you ever heard of Insecticide treated net (ITNs)? | Yes<br>No | **388**<br>**12**<br>**Total: 400** | **97.00%**<br>**3.00%**<br>**100%** |
| **3.** | If yes, how did you first hear about ITNs? | (a)Health workers<br>(b)Camp authorities<br>(c) Community awareness programs<br>(d) Family or friends | **97**<br>**38**<br>**88**<br>**177**<br>**Total: 400** | **24.25%**<br>**9.50%**<br>**22.00%**<br>**44.25%**<br>**100%** |
| **4.** | Why do you think insecticide treated are use? | Prevent Malaria.<br>To sleep tight without.<br>To remain isolated<br>**Total:** | **194**<br>**166**<br>**40**<br>**400** | **48.50%**<br>**41.50%**<br>**10.00%**<br>**100%** |
| **5.** | can you describe how insecticide treated net should be used correctly? | Yes<br>No | **277**<br>**123**<br>**Total: 400** | **69.25%**<br>**30.75%**<br>**100%** |
| **6.** | If yes, describe how insecticide treated net should be used correctly. | **"**On a 4 hook, I Tigh 4 ropes each to every edge of the net."<br>"4 rope for each part of the net, and ready to sleep inside".<br>**"**Just 2 ropes to be inserted to 2 hooks on the wall of the room, all set for use"**.**<br>**"**I prepare the net with only one rope, juts easy peasy."<br>**Total: 400** | **165**<br>**56**<br>**101**<br>**78** | **41.25%**<br>**14.00%**<br>**25.25%**<br>**19.50%**<br>**100%** |
| **7.** | Do you know the recommended frequency of the replacement of insecticide treated net? | Yes<br>No | **45**<br>**355**<br>**Total: 400** | **11.25%**<br>**88.75%**<br>**100%** |
| **8.** | if yes what is the recommended frequency of the replacement of insecticide treated net? | (a) wear and tear<br>(b) Malaria Area Intensity<br>(c)loss of insecticide efficacy<br>(d)Environmental factors<br>(e)others…<br>(f) NO | **41**<br>**3**<br>**1**<br>**0**<br>**0**<br>**355**<br>**Total 400** | **10.25%**<br>**0.75%**<br>**0.25%**<br>**88.75%**<br>**100%** |

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| | | | | |
|---|---|---|---|---|
| **9.** | **How effective do you Agree or NOT insecticide-treated nets are in preventing mosquito-borne diseases?** | (a) Strongly Agree it prevents<br>(b) strongly Disagree prevents<br>(c) I am partially convinced it prevent<br>(d) I am partially Not Convinced it prevent. | **142**<br>**99**<br>**101**<br>**58**<br><br>**Total: 400** | **35.50%**<br>**24.75%**<br>**25.5%**<br>**14.50%**<br><br>**100%** |
| **10.** | **Are there any misconceptions or myths you've heard about insecticide-treated nets?** | (a) Yes<br>(b) No | **137**<br>**263**<br><br>**Total: 400** | **34.25%**<br>**65.75%**<br><br>**100%** |
| **11.** | if yes, what are the misconceptions and myth you've heard about insecticide treated nets? | "Malaria is always in our blood, hence there is not essence of ITNs".<br>"ITNs are fortified with chemicals which when a person inhaled it causes Big Diseases".<br><br>NO | **61**<br><br>**76**<br><br>**263**<br><br>**Total:400** | **15.25%**<br><br>**19.00%**<br><br>**65.75%**<br><br>**100%** |
| **12.** | **Do you think your Camp community is well-informed about the benefits of using insecticide-treated nets?** | (a)Yes<br>(b) No | **143**<br>**257**<br><br>**Total:400** | **64.25%**<br>**35.75%**<br><br>**100%** |
| **13.** | **Have you seen or heard any health campaigns promoting the use of insecticide-treated nets recently?** | (a) Yes<br>(b) No | **122**<br>**278**<br><br>**Total:400** | **30.50%**<br>**69.50%**<br><br>**100%** |
| **14.** | **What suggestions do you have to improve awareness about the use of insecticide-treated nets in your Camp?** | "Health education should be made available at every Camp clinic visits."<br>"Supply of enough ITNs to the population to make people living in the camp more aware of it benefits."<br>"There should be timely health campaigns especially before during and after Malaria Peak period". | **109**<br>**201**<br>**90**<br><br>**Total: 400** | **27.25%**<br>**50.50%**<br>**22.50%**<br><br>**100%** |

Source: Filed Work Data Findings. (2023).

**Interpretation:** Table 4.2. shows the level of awareness among Internally Displaced Persons (IDPs) in Fulatari Camp regarding the importance of using insecticide-treated nets (ITNs) for the prevention of malaria. Based on the findings on the level of awareness of Fulatari IDPs on insecticide-treated net and in determining their understanding on the term "insecticide treated net" 25.25% of the respondents (101/400) responded that "It is Mosquito net to prevent malaria". 46.75% of the respondents (187/400) affirmed that "We use it to at night during mosquito flies' period". And 28.00% of the respondents having a total

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frequency of (112/400) said that "It is a net to enable us sleep without mosquitos or flies biting us**".** This implies that most of the respondents (46.75%) have the understanding that insecticide treated nets are used at night during mosquito flies' period.

Moreover, on determining whether the respondents have heard of insecticide treated net, 97.00% of the respondents implied that they have heard of insecticide treated nets (388/400) while 3.00% of the respondents have not heard of insecticide treated nets having (12/400). To this note, this denotes that many of the respondents have insight and have heard of the insecticide treated net.

In identifying the source of information of respondents on the hearing about insecticide treated net, 24.25% of the respondents (97/400) identified healthcare workers as their source of information related to knowledge and awareness of insecticide treated net. 9.50% (38/400) identified camp authorities as their source of information.

22.00% of the respondents having 88/400, denote that community awareness program is their source of information on insecticide treated net. However, 44.25% of respondents having (177/400) said that family and friends are their source of information. This emanates that most of the respondents have acquired their information on insecticide treated net from family and friends.

Furthermore, on determining why ITNs are used, most of the respondents 48.50% opine that ITNs are used why it prevents from malaria. 41.50% of the respondents used ITNs because they sleep tight inside without any disturbance of flies at night. Whereas 10.00% of the respondents said that the reason for their use of ITNs was for them to be isolated. This signifies that many of the respondents used ITNs because it aids in preventing malarial disease.

In understanding the awareness of the respondents on the correct utilization of ITNs, 69.25% of the respondents replied yes, they can describe the correct use of ITNs. 30.75% of respondents responded that they cannot describe the correct use of ITNs.

41.25% of the respondents described the correct use of ITNs as **"**On a 4 hook, I Tigh 4 ropes each to every edge of the net." 14.00% described the correct use of ITNs as "4 rope for each part of the net, and ready to sleep inside". 25.25% implied that **"**Just 2 ropes to be inserted to 2 hooks on the wall of the room, all set for use". 19.50% stated that "I prepare the net with only one rope, juts easy peasy."

In determining the recommended frequency on the replacement of ITNs of the respondent in the IDP camp. 11.25% of the respondents possess knowledge of the recommended frequency on the replacement of ITNs in the Camp. 88.75% implied that they don't know the recommended frequency on the replacement of insecticide treated net in the camp. To this end, the majority of 88.75% respondents have not been aware with regards to the recommended frequency on the replacement of insecticide treated nets.

As for the respondents who understand the recommended frequency of ITNs replacements, 10.25% of respondents replace their nets due to wear and tear. 0.75% indicated that they change their nets during the malaria peak or intensity period such as raining seasons. 0.25% said that they would replace their net if the old one in use had been stolen. 88.75% remains the number of respondents who have no awareness of the recommendations related to the replacement of the ITNs.

In determining whether the use of ITNs prevents Mosquitoes borne diseases. 35.50% Suggested that they "Strongly Agree it prevents", 24.75% strongly Disagree it prevents. 25.5% revealed that "I am partially convinced it prevent". 14.50% opines that "I am partially Not Convinced it prevent". This signifies that numerous of the respondents have strongly agreed that the use of ITNs prevents Mosquitoes borne diseases having a total of 35.50% In finding if there are myths and misconceptions related to the use of ITNs within the IDPs camps. 34.25% of the respondents implied that there are myths and misperceptions about the ITNs. While 65.75% of the respondents suggested that there are no myths nor misconceptions about ITNs. This

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implied that majority of respondents, 65.75%, have no misconceptions about ITNs. 15.25% of the respondents suggested that there are misconceptions about ITNs identified **"**Malaria is always in our blood, hence there is no essence of ITNs". 19.00% of the respondents indicated that "ITNs are fortified with chemicals which when a person inhaled it causes Big Diseases". On evaluating, the Camp community is well-informed about the benefits of using insecticide-treated nets. 64.25% agreed that the camp community is well informed about the benefits of using insecticide treated nets. 35.75% do not agree that that camp community is well-informed about the benefits of the use of insecticide treated nets.

On determining whether the respondents have heard health campaigns promoting the use of insecticide-treated nets recently. 30.50% said yes, they have heard of health campaigns on the use of insecticide treated nets. Whereas 69.50% of the respondents have not heard of any heath campaigns on ITNs.

In finding what suggestions the respondents have to improve awareness about the use of insecticide-treated nets in your Camp. 27.25% said that "Health education should be made available at every Camp clinic visits." 50.50% said that "Supply of enough ITNs to the population to make people living in the camp more aware of it benefits." 22.50% postulates that "There should be timely health campaigns especially before during and after Malaria Peak period".

## DISCUSSIONS OF FINDINGS

Table 4.2. shows the level of awareness among Internally Displaced Persons (IDPs) in Fulatari Camp regarding the importance of using insecticide-treated nets (ITNs) for the prevention of malaria. Based on the findings on the level of awareness of Fulatari IDPs on insecticide-treated net and in determining their understanding on the term "insecticide treated net" 25.25% of the respondents (101/400) responded that "It is Mosquito net to prevent malaria". 46.75% of the respondents (187/400) affirmed that "We use it to at night during mosquito flies' period". And 28.00% of the respondents having a total frequency of (112/400) said that "It is a net to enable us sleep without mosquitos or flies biting us**".** This implies that most of the respondents (46.75%) have the understanding that insecticide treated nets are used at night during mosquito flies' period.

Moreover, on determining whether the respondents have heard of insecticide treated net, 97.00% of the respondents implied that they have heard of insecticide treated nets (388/400) while 3.00% of the respondents have not heard of insecticide treated nets having (12/400). To this note, this denotes that many of the respondents have insight and have heard of the insecticide treated net.

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Furthermore, on determining why ITNs are used, most of the respondents 48.50% opine that ITNs are used why it prevents from malaria. 41.50% of the respondents used ITNs because they sleep tight inside without any disturbance of flies at night. Whereas 10.00% of the respondents said that the reason for their use of ITNs was for them to be isolated. This signifies that many of the respondents used ITNs because it aids in preventing malarial disease.

In understanding the awareness of the respondents on the correct utilization of ITNs, 69.25% of the respondents replied yes, they can describe the correct use of ITNs. 30.75% of respondents responded that they cannot describe the correct use of ITNs.

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41.25% of the respondents described the correct use of ITNs as **"**On a 4 hook, I Tigh 4 ropes each to every edge of the net." 14.00% described the correct use of ITNs as "4 rope for each part of the net, and ready to sleep inside". 25.25% implied that **"**Just 2 ropes to be inserted to 2 hooks on the wall of the room, all set for use". 19.50% stated that "I prepare the net with only one rope, juts easy peasy."

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As for the respondents who understand the recommended frequency of ITNs replacements, 10.25% of respondents replace their nets due to wear and tear. 0.75% indicated that they change their nets during the malaria peak or intensity period such as raining seasons. 0.25% said that they would replace their net if the old one in use was stolen. 88.75% remains the number of respondents who have no awareness of the recommendations related to the replacement of ITNs.

In determining whether the use of ITNs prevents Mosquitoes borne diseases. 35.50% Suggested that they "Strongly Agree it prevents", 24.75% strongly Disagree it prevents. 25.5% revealed that "I am partially convinced it prevent". 14.50% opines that "I am partially Not Convinced it prevent". This signifies that numerous of the respondents have strongly agreed that the use of ITNs prevents Mosquitoes borne diseases having a total of 35.50% In finding if there are myths and misconceptions related to the use of ITNs within the IDPs camps. 34.25% of the respondents implied that there are myths and misperceptions about the ITNs. While 65.75% of the respondents suggested that there are no myths nor misconceptions about ITNs. This implied that the majority of respondents 65.75% have no misconceptions about ITNs. 15.25% of the respondents suggested that there are misconceptions about ITNs identified "Malaria is always in our blood, hence there is not essence of ITNs". 19.00% of the respondents indicated that "ITNs are fortified with chemicals which when a person inhaled it causes Big Diseases". On evaluating, the Camp community is well-informed about the benefits of using insecticide-treated nets. 64.25% agreed that the camp community is well informed about the benefits of using insecticide treated nets. 35.75% do not agree that that camp community is well-informed about the benefits of the use of insecticide treated nets.

On determining whether the respondents have heard health campaigns promoting the use of insecticide-treated nets recently. 30.50% said yes, they have heard of health campaigns on the use of insecticide treated nets. Whereas 69.50% of the respondents have not heard of any heath campaigns on ITNs. This means that most of the respondents have not heard of health awareness campaigns on the use of insecticide treated nets. In finding what suggestions the respondents have to improve awareness about the use of insecticide-treated nets in your Camp. 27.25% said that "Health education should be made available at every Camp clinic visits." 50.50% said that "Supply of enough ITNs to the population to make people living in the camp more aware of it benefits." 22.50% postulates that "There should be timely health campaigns especially before during and after Malaria Peak period".

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