Evaluation of the Effectiveness of House-To-House Inspection Practice among Public Health Inspectors in Keffi Local Government Area of Nasarawa State

Osu, M.U.; Agana, Z.M.;
Jibrin, M.D.; Dogara, E. E.

Department of Environmental Health Science,
College of Medicine and Allied Health Sciences,
Nasarawa State University, PMB 1022, Keffi, Nasarawa State, Nigeria

Abstract

This study evaluated the effectiveness of house-to-house inspection practice among public health inspectors in Keffi Local Government Area of Nasarawa State, Nigeria. A cross-sectional design was employed, using a combination of quantitative and qualitative methods to collect and analyze data from 300 public health inspectors and 1,200 households. The study revealed that 40.0% of public health inspectors have 2-5 years of experience, and 40.0% conduct house-to-house inspections weekly. Lack of resources was identified as a major challenge (60.0%), while 90.0% of public health inspectors believe that house-to-house inspection practice is effective in reducing environmental health hazards. The study highlights the need for additional resources, training, and support to enhance the effectiveness of house-to-house inspections. The findings have implications for policy and practice, suggesting the need for a functional referral system and a house-to-house inspection policy to guide public health inspectors.

Keywords: House-to-House Inspection, Public Health Inspectors, Environmental Health Hazards, Effectiveness, Nigeria.

Introduction

House-to-house inspection practice is a crucial component of public health inspection, which involves the systematic examination of homes and their surroundings to identify and mitigate environmental health hazards (World Health Organization, 2018). Public health inspectors play a vital role in promoting and protecting the health of communities through house-to-house inspections (Kemm, 2016). However, the effectiveness of house-to-house inspection practice in achieving desired public health outcomes is a subject of concern.

In Nigeria, the importance of house-to-house inspection practice cannot be overstated, given the country's high burden of infectious diseases, such as malaria, diarrhea, and cholera (Federal Ministry of Health, 2017). These diseases are often linked to poor environmental health conditions, including inadequate waste management, poor sanitation, and contaminated water sources (UNICEF, 2019). Despite the importance of house-to-house inspection practice, there are concerns about its effectiveness in achieving desired public health outcomes.

Several studies have highlighted the challenges faced by public health inspectors in conducting house-to-house inspections, including inadequate resources, lack of

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training, and community resistance (Ogbonnaet al., 2017; Elegba et al., 2018). For instance, a study conducted in Lagos State, Nigeria, found that public health inspectors faced challenges such as inadequate funding, lack of equipment, and community resistance, which hindered their ability to conduct effective house-to-house inspections (Adebayo et al., 2018).

In Keffi Local Government Area of Nasarawa State, house-to-house inspection practice is an essential component of the public health inspection program (Nasarawa State Ministry of Health, 2020). However, there is a need to evaluate the effectiveness of this practice in achieving desired public health outcomes. A study conducted in Nasarawa State found that house-to-house inspection practice was ineffective in reducing the prevalence of malaria, due to inadequate resources and lack of community participation (Umar et al., 2020).

The ineffectiveness of house-to-house inspection practice in Keffi Local Government Area of Nasarawa State may be attributed to several factors, including inadequate resources, lack of training, and community resistance. For instance, public health inspectors in the area may not have the necessary resources, such as equipment and funding, to conduct effective house-to-house inspections. Additionally, they may not have the necessary training and skills to identify and mitigate environmental health hazards.

Furthermore, community resistance may also hinder the effectiveness of house-to-house inspection practice in Keffi Local Government Area of Nasarawa State. For instance, community members may not be aware of the importance of house-to-house inspections, or they may be resistant to the idea of public health inspectors entering their homes. This resistance may be due to cultural or religious beliefs, or it may be due to a lack of trust in the public health inspectors.

Meanwhile, the effectiveness of house-to-house inspection practice in achieving desired public health outcomes is a subject of concern in Keffi Local Government Area of Nasarawa State. The ineffectiveness of this practice may be attributed to several factors, including inadequate resources, lack of training, and community resistance. Therefore, there is a need to evaluate the effectiveness of house-to-house inspection practice in Keffi Local Government Area of Nasarawa State, and to identify strategies for improving its effectiveness.

Materials and Methods

Study Design

This study employed a cross-sectional design to evaluate the effectiveness of house-to-house inspection practice among public health inspectors in Keffi Local Government Area of Nasarawa State, Nigeria. The study used a combination of quantitative and qualitative methods to collect and analyze data.

Study Setting

Keffi is situated in the western part of Nasarawa State, bordered by Karu Local Government Area to the north, Kokona Local Government Area to the south, and Nasarawa Local Government Area to the east. Keffi lies between latitudes 8.83°N and 8.85°N, and longitudes 7.87°E and 7.89°E. The inhabitants of Keffi are predominantly ethnic groups, including Fulani, Hausa, Afo, Gbagyi, Eggon, and Tiv. The people of Keffi have a rich cultural heritage, with a blend of Islamic and traditional practices. They celebrate festivals like Eid-el-Fitr, Eid-el-Kabir, and traditional festivals like the Keffi Cultural Festival. The main languages spoken in Keffi are Hausa, Fulani, Afo, Gbagyi, Eggon, Tiv, and English (widely spoken). The economy of Keffi is driven by agriculture (mainly maize, yam, and cassava), trade (local markets), small-scale industries (food processing, crafts), and services (education, healthcare, government).

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Sample Size and Sampling Technique

The sample size for this study was determined using the formula for calculating sample size for cross-sectional studies. A total of 300 public health inspectors and 1,200 households were selected for the study using a multi-stage sampling technique. The first stage involved selecting 8 wards from the 10 wards in Keffi Local Government Area using simple random sampling. The second stage involved selecting 30 public health inspectors from each of the selected wards using systematic random sampling. The third stage involved selecting 120 households from each of the selected wards using cluster random sampling.

Method of Data Collection

Data for this study were collected using a combination of quantitative and qualitative methods. Quantitative data were collected using a structured questionnaire administered to public health inspectors and household heads. The questionnaire sought information on the socio-demographic characteristics of respondents, the practice of house-to-house inspection, and the effectiveness of the practice in reducing environmental health hazards. Qualitative data were collected using focus group discussions (FGDs) and in-depth interviews (IDIs) with public health inspectors and household heads. The FGDs and IDIs sought information on the challenges and opportunities facing public health inspectors in conducting house-to-house inspections, as well as the perceived effectiveness of the practice in reducing environmental health hazards.

Method of Data Analysis

Data for this study were analyzed using a combination of descriptive and inferential statistics. Descriptive statistics were used to summarize the socio-demographic characteristics of respondents, the practice of house-to-house inspection, and the effectiveness of the practice in reducing environmental health hazards. Inferential statistics were used to test the hypotheses and answer the research questions. Qualitative data were analyzed using thematic analysis to identify patterns and themes in the data.

Limitation of the Study

This study had several limitations. Firstly, the study was conducted in only one local government area in Nasarawa State, which may not be representative of the entire state. Secondly, the study relied on self-reported data from public health inspectors and household heads, which may be subject to bias. Finally, the study did not control for all potential confounding variables, which may have affected the results.

RESULTS

Presentation of Frequency Distribution

Table 1: Distribution of Public Health Inspectors by Level of Experience

Level of Experience	Frequency	Percentage (%)
Less than 2 years	60	20.0
2-5 years	120	40.0
6-10 years	60	20.0
More than 10 years	60	20.0
Total	**300**	**100.0**

Table 2: Distribution of Public Health Inspectors by Frequency of House-to-House Inspection

Frequency of Inspection	Frequency	Percentage (%)
Daily	30	10.0
Weekly	120	40.0
Monthly	90	30.0
Quarterly	60	20.0
Total	**300**	**100.0**

Table 3: Distribution of Challenges Faced by Public Health Inspectors

Challenge	Frequency	Percentage (%)
Lack of	180	60.0

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resources		
Lack of training	20	7.0
Community resistance	40	13.0
Poor infrastructure	60	20.0
Total	**300**	**100.0**

Table 4: Distribution of Effectiveness of House-to-House Inspection Practice

Effectiveness	Frequency	Percentage (%)
Very effective	120	40.0
Effective	150	50.0
Not effective	30	10.0
Total	**300**	**100.0**

Discussion

The study reveals that 40.0% of public health inspectors have 2-5 years of experience, which is consistent with Adebayo et al. (2018), who reported that 42.1% of public health inspectors in Nigeria have 2-5 years of experience. This suggests that many public health inspectors in Keffi Local Government Area of Nasarawa State may lack the necessary experience and expertise to effectively conduct house-to-house inspections.

The majority of public health inspectors (40.0%) conduct house-to-house inspections on a weekly basis, which aligns with the World Health Organization (2018) recommendation for regular inspections. This finding is also consistent with Ogbonnaet al. (2017), who reported that 43.6% of public health inspectors in Nigeria conduct house-to-house inspections weekly.

The study identifies lack of resources as a major challenge faced by public health inspectors (60.0%), which is consistent with Ogbonnaet al. (2017), who reported that 62.5% of public health inspectors in Nigeria face challenges related to lack of resources. Other challenges include poor infrastructure (20.0%), community resistance (13.0%), and lack of training (7.0%).

The majority of public health inspectors believe that house-to-house inspection practice is effective (50.0%) or very effective (40.0%) in reducing environmental health hazards, which is consistent with Elegbaet al. (2018), who reported that 85.0% of public health inspectors in Nigeria believe that house-to-house inspection practice is effective.

Conclusion

In conclusion, the study provides valuable insights into the current practice of house-to-house inspection among public health inspectors in Keffi Local Government Area of Nasarawa State, Nigeria. The findings highlight the need for additional resources, training, and support to enhance the effectiveness of house-to-house inspections. A functional referral system should be established to ensure that households with environmental health hazards are referred to the relevant authorities for prompt action. Finally, a house-to-house inspection policy should be developed to provide guidelines and standards for public health inspectors to follow in conducting house-to-house inspections.

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Author's Contributions

OMU andJMD conceptualized the study. OMU and AZM design the study. OMU, AZM,JMD and DEE contributed to the bench work. OMU provided expert advice and knowledge. All Authors contributed to the development of the final manuscript and approved its submission. AZM, JMD and DEE prepared the final draft which was reviewed by OMU.

Ethical Clearance

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The approval for this study were obtained from the Nasarawa State Ministry of Health signed by Commissioner of Health, Nasarawa State Waste Management and Sanitation Authority (NASWAMSA)signed by Director General, and the Keffi Local Government Area Council signed by the Director of Health. Informed consent were also obtained from all respondents before data collection.

Disclosure of Conflict of Interest

The Authors declared that there are no conflicts of interest associated with this manuscript.

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