

Assessing the Relationship Between Environmental Factors (Water, Sanitation, Pollutants, and Accommodation) and Health Outcomes of Internally Displaced Persons (IDPs) in Makurdi, Benue State

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ABSTRACT

IDPs are individuals who have been forced to flee their homes but remain within their country's borders. The internally displaced population in Nigeria is diverse, comprising individuals from various ethnic, religious, and socio-economic backgrounds. A significant proportion of IDPs are women and children, who are particularly vulnerable to exploitation, violence, and health risks. The elderly and people with disabilities also face heightened challenges in displacement settings. This study assessed the relationship between environmental factors and health outcomes among internally displaced persons (IDPs). The project aimed to assess the relationship between environmental factors and health outcomes among IDPs in Makurdi, Benue State, Nigeria. The study will adopt quantitative analysis, a cross sectional administration of structured questionnaire designed to obtain information regarding the socio-demographic characterization, environmental conditions, health condition and accessibility of health care facilities from the IDPs (participants). The Stratified Random Sampling Technique was used. 400 Internally Displaced Persons (IDPs) cut across the three camps, in Makurdi, Benue State, Nigeria, focusing on Agan, Abagena, and Daudu camps, comprising of mainly adults were considered for the study. Descriptive statistics summarized population profiles, prevalence of environmental hazards, and health conditions, while inferential analyses, including correlation, regression, and multivariate models, examined the influence of environmental factors on health outcomes. Findings indicate that the majority of respondents were young adults (31–40 years, 47.5%), predominantly female (62.5%), with low educational attainment (27.5% had no formal education). Environmental conditions were generally poor, with less than 50% reporting access to safe water, only 32.5% having adequate sanitation, and 25% living in adequate housing. Malaria (62.5%), diarrheal diseases (45%), respiratory infections (40%), skin diseases (27.5%), and malnutrition (35%) were the most prevalent health outcomes, with significant variations across camps linked to environmental deficits. Regression analysis identified poor sanitation ($p=0.002$), unsafe water ($p<0.001$), and inadequate waste management ($p=0.019$) as significant predictors, explaining 40% of the variance in health outcomes. Healthcare access was primarily through camp clinics and mobile medical teams, with significant barriers including distance, overcrowding, long waiting times, and limited drug availability. Self-reported health status revealed worsening conditions for over one-third of respondents, underscoring the compounded effect of environmental hazards and healthcare limitations. The study concludes that environmental deficits, including unsafe water, inadequate sanitation, and poor housing, which constitutes about 40% of the health outcomes among IDPs in Makurdi. Integrated interventions addressing water, sanitation, housing, and healthcare access are essential to reduce disease burden and improve overall well-being in displacement settings.

Keywords: Environmental Factors, Health Outcome, IDPs

