



# Determinants of Consistent Insecticide-Treated Net Use Among Pregnant Women in Cross River State, Nigeria: A Rainy Season Intervention Study

**Ekanem Bassey<sup>1,2</sup>, Chinwe Okonkwo<sup>2,3</sup>, Amina Suleiman<sup>3</sup>**

<sup>1</sup> Department of Clinical Research, University of Port Harcourt

<sup>2</sup> Nigerian Institute of Advanced Legal Studies (NIALS)

<sup>3</sup> University of Port Harcourt

**Published:** 24 March 2019 | **Received:** 03 January 2019 | **Accepted:** 18 February 2019

**Correspondence:** [ebassey@yahoo.com](mailto:ebassey@yahoo.com)

**DOI:** [10.5281/zenodo.18531671](https://doi.org/10.5281/zenodo.18531671)

## Author notes

*Ekanem Bassey is affiliated with Department of Clinical Research, University of Port Harcourt and focuses on Medicine research in Africa.*

*Chinwe Okonkwo is affiliated with University of Port Harcourt and focuses on Medicine research in Africa.*

*Amina Suleiman is affiliated with University of Port Harcourt and focuses on Medicine research in Africa.*

## Abstract

Malaria is a leading cause of illness and death among pregnant women in Nigeria. Transmission intensifies during the rainy season, making consistent use of insecticide-treated nets (ITNs) essential. Consistent use during this high-risk period remains suboptimal, with its determinants inadequately explored in contexts such as Cross River State. This study aimed to identify the key determinants of consistent ITN use among pregnant women during the rainy season in Cross River State, Nigeria, and to assess the effect of a targeted intervention addressing these factors. A quasi-experimental study was implemented across four local government areas. A baseline survey of 420 pregnant women assessed knowledge, attitudes, and practices. The intervention group received a package of intensified health education, practical net-hanging demonstrations, and community engagement. Post-intervention surveys and focus group discussions evaluated changes. Data were analysed using descriptive statistics and logistic regression. Post-intervention, consistent ITN use in the intervention group rose from 42% to 78%. Key determinants positively associated with consistent use were: receiving practical hanging support (adjusted odds ratio 3.2), belief in the net's effectiveness, and spousal encouragement. The main barrier identified was discomfort due to heat. The intervention improved consistent ITN use in the rainy season. Beyond distribution, addressing practical and socio-cultural factors through hands-on support and spousal involvement is critical for sustained use. Malaria elimination programmes should integrate practical net-hanging support and spousal education into antenatal care. Community health workers require training to deliver context-specific communication addressing seasonal barriers like heat discomfort. Malaria prevention, insecticide-treated nets, antenatal care, health behaviour, maternal health, Nigeria. This study provides evidence on modifiable determinants of ITN use in pregnancy during high-transmission seasons and demonstrates the effectiveness of a practical, multi-component intervention within a routine service setting.

**Keywords:** *malaria prevention, insecticide-treated nets, antenatal care, Sub-Saharan Africa, health behaviour, intervention study, rainy season*

## ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

**Email:** [info@parj.africa](mailto:info@parj.africa)

Request your copy of the full paper today!

## SUBMIT YOUR RESEARCH

**Are you a researcher in Africa? We welcome your submissions!**

Join our community of African scholars and share your groundbreaking work.

**Submit at:** [app.parj.africa](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge