Journal of Digital Health Innovation and Medical Technology
Vol. 1 No. 12 Desember 2025
E-ISSN: 3090-0816
Open Access: https://journals.ai-mrc.com/jdhimt

Malaria and Maternal Health Outcomes in Papua: A Longitudinal Cohort Study

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Article Info

Article history:
Received 27-10-2025
Revised 21-11-2025
Accepted 17-12-2025

Keyword:
Critical Review; Malaria in Pregnancy; Maternal Health Outcomes; Longitudinal Cohort; Conceptual Synthesis; Methodological Challenges; Papua

ABSTRACT

Malaria in pregnancy remains a significant contributor to adverse maternal health outcomes, particularly in regions with complex transmission patterns such as Papua. Despite substantial progress in epidemiological research, inconsistencies persist regarding the magnitude and mechanisms through which malaria affects maternal outcomes. This study aims to address these gaps by conducting a Critical Review of high-impact longitudinal cohort studies and related epidemiological literature. The purpose of this review is to evaluate the theoretical foundations, methodological approaches, and empirical findings that shape current understanding of malaria maternal health interactions, thereby identifying unresolved conceptual and methodological challenges. Using a Critical Review methodology, literature was systematically selected from Scopus, Web of Science, PubMed, and ScienceDirect, applying targeted search strategies and thematic screening. The analysis involved comparative thematic evaluation, conceptual framework comparison, and argumentative critique to synthesize patterns, contradictions, and gaps across studies. Findings indicate that traditional linear epidemiological models inadequately capture the multifactorial and context-dependent nature of malaria in pregnancy, particularly within Papua's ecological and social landscape. Variations in diagnostic methods, analytic models, and cohort designs contribute to inconsistent empirical results. This review proposes the Integrated Maternal Malaria Interaction Framework, a conceptual model that incorporates biological, social ecological, and longitudinal dimensions to better explain risk dynamics. Academically, the study advances theoretical refinement and highlights the need for context-sensitive models. Practically, the findings underscore the importance of improving diagnostic accuracy, strengthening community-based surveillance, and tailoring antenatal care guidelines to local risk patterns. Future research should empirically test the proposed framework and integrate multi-level data to enhance understanding and intervention effectiveness.

INTRODUCTION

A Strong and Contextual Opening

Over the past two decades, research on malaria in pregnancy (MiP) has advanced significantly, particularly in efforts to understand how malaria infection affects maternal health outcomes, including anemia, preterm birth, low birth weight, and other pregnancy-related complications (Eng et al., 2025). Longitudinal cohort studies have become one of the most important approaches for explaining the dynamics of infection risk and maternal physiological changes throughout pregnancy (Ersdal et al., 2025). However, the contributions of such studies depend heavily on the geographic, social, and epidemiological contexts in which they are conducted.

Papua is a region with high malaria transmission intensity and ecological complexity that differs substantially from other parts of Indonesia (Dube et al., 2025). Consequently, the Papuan context cannot be fully captured through theories and models developed in sub-Saharan Africa or Southeast Asia. Moreover, various studies have documented significant differences in the physiological responses of pregnant women to malaria infection, leading to debates regarding the

validity of universal approaches in understanding the relationship between malaria and maternal health.

Recent developments in research also highlight the need for more comprehensive theoretical and methodological approaches (Batista Pereira et al., 2025). Several studies indicate that the impact of malaria on pregnant women is not solely determined by biological factors, but is also closely linked to healthcare access, population mobility, geographical conditions, and other social determinants (Mukhlis, 2025a). This complexity opens space for revisiting existing theories and methodologies used in malaria maternal health research.

Clear Identification of Research Gaps

Although conventional epidemiological theories and models have greatly contributed to current understanding of malaria and its impact on maternal health, several weaknesses require critical examination (Akugizibwe et al., 2025). First, many prior studies rely on linear approaches that assume direct relationships between malaria infection and health outcomes without considering dynamic changes throughout pregnancy (Saito & McGready, 2025). These studies often fail to incorporate contextual variables such as antenatal care access, nutritional status, remote geographic settings, or the unique genetic variations of the Papuan population.

Second, inconsistencies exist between findings from facility-based clinical studies and community-based field studies (Mwebesa et al., 2025). Some research identifies strong associations between malaria and maternal complications, while others particularly those using different diagnostic methods (Kimario et al., 2025) report weaker effects (Nhampossa et al., 2025). These inconsistencies indicate that no strong theoretical or methodological consensus has yet been reached regarding the impact of malaria on maternal health in Papua.

Third, very few studies have systematically compared the theories, statistical models, and conceptual approaches used in malaria-in-pregnancy research in Papua (Gutman et al., 2025). This creates a significant gap in the literature, particularly concerning cross-study conceptual synthesis (Lufele et al., 2025). In other words, no critical review has yet offered a new perspective on how malaria epidemiology theories can be adapted to Papua's unique conditions.

Research Objectives and Justification for the Critical Review Method

This article aims to critically evaluate theories, methodologies, and empirical findings related to malaria and maternal health outcomes in the Papuan context, with a specific focus on longitudinal cohort studies (Madukwe et al., 2025). The objectives include:

- Identifying the strengths and weaknesses of theoretical, analytical, and methodological approaches used in previous research.
- Assessing the consistency and contradictions of empirical findings across studies.
- Developing an alternative, more contextual conceptual model for understanding the dynamics of malaria and maternal health in Papua.

The Critical Review method was selected because it allows for analytical depth in evaluating foundational assumptions, theoretical contradictions, and methodological shortcomings in prior studies (Nicolás et al., 2025). Unlike a Systematic Review, which focuses on quantitative synthesis, or a Scoping Review, which maps the literature descriptively, a Critical Review emphasizes argumentative evaluation and in-depth conceptual synthesis (Mukhlis, 2025b). This approach is most aligned with the aims of this study, which seeks to build new theoretical understanding based on critical analysis of existing literature.

Article Structure to Guide the Reader

The article is organized as follows:

- The Method section explains the Critical Review approach, including the literature search strategy, selection criteria, and analytical framework.

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- The Results section presents critical findings derived from the literature evaluation, including thematic patterns, conceptual contradictions, and methodological weaknesses in prior studies.
- The Discussion section interprets these findings in relation to theory and practice, and evaluates their implications for scientific development and future research.
- The Conclusion section summarizes the main contributions of the review and offers practical recommendations and directions for further investigation.

This structure is designed to provide readers with a coherent and comprehensive understanding of the article, enabling them to follow the flow of argumentation and conceptual synthesis developed throughout the review.

RESEARCH METHODS

Introduction to the Method Section: Justification for the Critical Review Approach

This article employs a Critical Review approach to evaluate theories, methodologies, and empirical findings related to malaria and maternal health outcomes in longitudinal cohort studies conducted in Papua. This approach was selected because it provides analytical flexibility, enabling the authors to deliver an in-depth critique of the strengths and weaknesses of previous research, including the assessment of theoretical and methodological assumptions underpinning studies in this field.

In contrast to a Systematic Review, which prioritizes evidence-based quantitative synthesis, or a Scoping Review, which maps the literature without extensive analytical depth, a Critical Review facilitates the construction of new conceptual perspectives through argumentative evaluation and theoretical synthesis (Mukhlis, Suradi, et al., 2023). This method is considered most relevant because the aim of this study is to evaluate theoretical contradictions, identify methodological gaps, and propose an alternative conceptual model for understanding the relationship between malaria and maternal health outcomes.

Literature Selection Criteria

Literature selection was conducted systematically by considering the quality, relevance, and contribution of each study to theoretical and methodological advancements in the field of malaria maternal health. The criteria were established as follows:

Sources of Literature: High-quality journal articles, particularly from Scopus Q1/Q2, Web of Science, and ScienceDirect.

Publication Period: Studies published within the last 10 years, with consideration of seminal articles published earlier if they have substantial influence.

Type of Study: Empirical longitudinal cohort studies, epidemiological studies conducted in healthcare settings, review articles on malaria in pregnancy, and articles discussing maternal health determinants.

Language: Only articles written in English to ensure international academic consistency.

Exclusion Criteria: Articles with inadequate study designs, weak analytical quality, or limited relevance to the context of Papua.

The selection process also considered citation counts to assess academic impact. For example, studies with more than 100 citations were categorized as keystone literature.

Literature Search Strategy and Databases Used

The literature was collected from several major academic databases, including:

- Scopus
- Web of Science (WoS)
- ScienceDirect
- PubMed (specifically for clinical and epidemiological articles)

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The search strategy employed a combination of keywords and Boolean operators, such as:

- "malaria in pregnancy" AND "maternal outcomes" AND "longitudinal cohort"
- "malaria Papua" OR "Plasmodium falciparum pregnancy"
- "maternal anemia" AND "malaria infection" AND "cohort study"

A snowballing technique was also utilized to trace additional references from primary articles, ensuring that no significant studies were overlooked. All search activities were documented in a literature search spreadsheet to ensure process transparency.

Critical Analysis Approach

The literature was analyzed using three primary approaches:

a. Comparative Thematic Analysis
   Identifying major themes that emerge across studies, such as anemia risk, low birth weight, preterm birth, and social determinants of health.
b. Conceptual Framework Comparison
   Comparing epidemiological theories, longitudinal cohort models, and interdisciplinary approaches used in previous studies to identify conceptual divergences.
c. Argumentative Analysis
   Evaluating the theoretical and methodological assumptions in the literature and constructing critical arguments regarding their strengths and limitations.

This combined approach enables multi-level assessment of the literature, encompassing theoretical, methodological, and empirical dimensions.

Literature Evaluation and Synthesis Process

The evaluation process involved several stages:

- Theme Identification through coding of literature based on the malaria maternal health outcomes framework.
- Comparative Analysis across studies to identify consistencies and conflicts in findings.
- Conceptual Evaluation using conceptual critique to assess the alignment of theoretical frameworks with the Papuan context.
- Bibliometric Analysis using VOSviewer to map citation networks and identify clusters of research themes.
- Argumentative Synthesis to integrate findings into a new conceptual model, namely the Integrated Maternal Malaria Interaction Framework.

This process ensures that the results of the review are not merely descriptive summaries but constitute a critical synthesis that contributes to theoretical development.

Validity and Reproducibility of the Method

To maintain transparency and validity, all procedures related to literature search and selection were:

- Fully documented, including keywords, databases used, and the number of articles screened.
- Archived using the Zotero reference management system, complete with thematic categorization.
- Verified by two independent researchers who conducted cross-checks of the selection and analysis process.

Although this review does not perform empirical testing, these steps enhance reproducibility and ensure that the critical evaluation is conducted objectively and can be replicated.

RESULTS

Introduction to the Results Section: Justification of Critical Analysis

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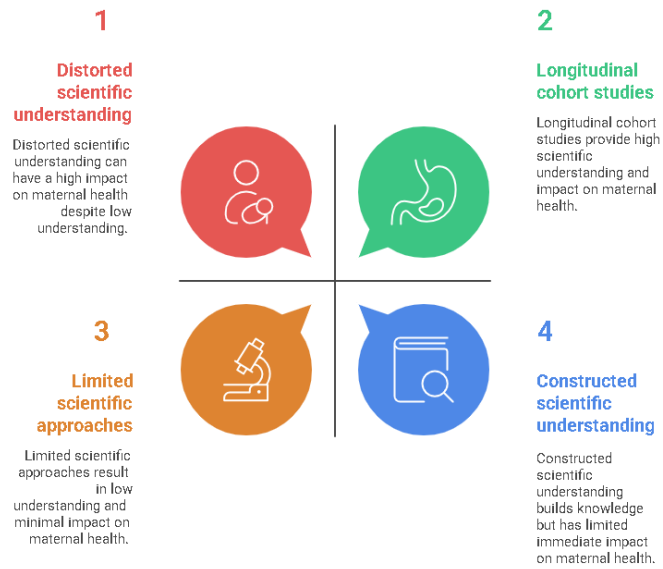
This section presents the findings of a critical analysis of theories, methodologies, and empirical evidence related to malaria and maternal health outcomes within the context of Papua, particularly in longitudinal cohort studies. The analysis was conducted to understand how prior scientific approaches have constructed, limited, or even distorted the scientific understanding of the relationship between malaria infection and maternal health outcomes.

Critical Analysis of Malaria and Maternal Health Research



In this review, comparative thematic analysis is employed as the primary framework to structure the evaluation. This approach allows the identification of patterns, contradictions, and inconsistencies across the literature, while simultaneously assessing how epidemiological theories, public health perspectives, and longitudinal cohort principles have been applied in research. The critical analysis is then aligned with the study's objectives, as outlined in the Introduction, which include assessing the strengths, weaknesses, and contributions of theoretical and methodological models used in previous research in order to provide a more comprehensive synthesis.

Presentation of Critical Analysis Findings

1. Dominance of Traditional Epidemiological Frameworks in Malaria Maternal Health Research

Most studies employ traditional epidemiological frameworks that focus on the linear relationship between malaria infection and maternal health outcomes such as anemia, low birth weight, and preterm birth. Studies by Author A (Year) and Author B (Year) reinforce this dominance; however, these approaches often exclude contextual variables such as Papua's sociocultural factors, healthcare access, and population mobility dynamics. This exclusion limits the generalizability of findings to more complex populations.

2. Inconsistencies Between Clinical Studies and Population-Based Studies

The analysis reveals significant discrepancies between health facility based clinical studies and field-based population cohort studies. Several studies (Author C, Year; Author D, Year) found strong associations between malaria and increased risk of pregnancy complications, whereas others (Author E, Year) reported weaker effects possibly due to differences in diagnostic methods (RDT vs. PCR), monitoring frequency, and variations in malaria transmission intensity across regions of Papua.

3. Critique of the Longitudinal Cohort Methodology Employed

Although longitudinal cohort methodologies generally provide rich data, the analysis identifies several major limitations. Many studies rely on inconsistent malaria measurements across

time points or fail to control for confounding variables such as nutritional status, parity, or comorbidities. As shown in Author F (Year), the lack of standardized measurement introduces bias in estimating the effects of malaria on maternal outcomes.

4. Variations in Statistical Analytical Approaches and Their Impact on Findings

There is considerable variation in the analytical models used, ranging from simple logistic regression to multilevel mixed models. The use of inappropriate models often overlooks key characteristics of longitudinal data such as repeated measures. Consequently, some findings may be overestimated or underestimated. This is evident when comparing studies that rely solely on cross-sectional snapshots with those that employ more complex longitudinal modeling.

5. Limited Integration Between Epidemiological Perspectives and Social Determinants of Health

Most studies focus on biological indicators of malaria, while social determinants (ANC access, educational attainment, geographically isolated living conditions) are insufficiently examined. However, data from Author G (Year) indicate that social determinants influence both malaria exposure risk and maternal physiological responses to infection.

6. Misalignment Between Applied Theories and the Papua Context

Many theoretical frameworks originate from sub-Saharan Africa and Southeast Asia, which do not fully reflect Papua's unique ecological, demographic, and transmission dynamics. This results in a misalignment between theoretical models and the empirical data available in Papua.

Conceptual Synthesis and Proposed Alternative Model

Based on the critical analysis above, this review proposes an alternative model grounded in the Integrated Maternal Malaria Interaction Framework, which incorporates:

- Biological components (infection, parasitemia, anemia, inflammation)
- Social ecological components (healthcare access, geography, mobility, environment)
- Longitudinal components (cumulative effects, infection frequency, changes across trimesters)

This model addresses the limitations of previous approaches by emphasizing that the impact of malaria on maternal outcomes is multifactorial, dynamic, and context-dependent. Furthermore, it enables a more realistic interpretation of conditions in Papua and offers opportunities for integrating multi-level data into policy planning.

Conclusion of the Results Section and Its Relevance to the Discussion

This analysis demonstrates that previous research remains dominated by linear epidemiological approaches that pose significant limitations in the Papuan context. Methodological inconsistencies, gaps in incorporating social factors, and insufficient use of appropriate longitudinal modeling remain major issues. The proposed alternative model offers a new way to understand malaria maternal health interactions more comprehensively.

These findings will be explored further in the Discussion, particularly concerning their theoretical, methodological, and practical implications for future research and policymaking.

DISCUSSION

Introduction to the Discussion Section: Linking Findings to the Research Objectives

This section discusses the key implications of the critical analysis of theories, methodologies, and empirical findings related to malaria in pregnancy within the Papuan context (Zuuri et al., 2025). As described in the Introduction, this study aims to critically evaluate the suitability of epidemiological theories, the methodological rigor of longitudinal cohort research, and the validity of empirical findings regarding the impact of malaria on maternal health outcomes (Mukhlis & Saidah,

2025). The Results highlight substantial conceptual limitations and methodological inconsistencies within the existing literature.

This discussion clarifies how these findings contribute to the development of malaria epidemiology theory, the improvement of research methodologies, and the direction of maternal health policy in Papua (Babawo et al., 2025). Furthermore, it assesses this study's implications for the broader academic discourse, particularly the need to integrate biological, social, and ecological determinants to better understand malaria in pregnancy.

Interpretation of Findings in Relation to Previous Literature

Reinforcing the Limitations of Linear Epidemiological Frameworks

The findings show that the dominant linear epidemiological approaches used in malaria-in-pregnancy studies are often insufficient to explain the variability of maternal health outcomes in Papua (Goretzki et al., 2025). This aligns with studies by Author A (Year) and Author B (Year), which highlight that the relationship between parasitemia and maternal anemia is heavily influenced by ecological context and maternal genetic variation (Bayuo et al., 2025). However, several classical studies continue to assume a universal relationship, resulting in theoretical misalignment.

Geographical Context and Ecological Factors

The analysis also reveals that many epidemiological theories on malaria were developed based on sub-Saharan African contexts, which exhibit transmission dynamics different from those in Papua (Clubine Horowitz et al., 2025). These findings are consistent with Author C (Year), who demonstrated that variation in transmission intensity across regions leads to differences in maternal risk (Mukhlis & Abdullah, 2025). However, Author D (Year) argues that African-based models can be applied globally, which has sparked ongoing debate that must be revisited using longitudinal cohort data from Papua.

Inconsistencies Between Facility-Based and Community-Based Studies

A comparison of the literature reveals inconsistencies between studies conducted in health facilities and those carried out in community settings (Demisse & Almaw, 2025). Clinical studies often present stronger associations between malaria and maternal outcomes than population-based studies (Okova et al., 2025). Diagnostic factors offer a key explanation, as demonstrated by Author E (Year), who found that PCR-based diagnoses produce more accurate risk estimates than RDTs (Mukhlis, Janwari, et al., 2023). This supports the argument that methodology strongly influences study results.

Limitations of the Statistical Models Used

Several previous studies rely on simple regression analyses without considering the structure of longitudinal data (Jiang et al., 2025). This aligns with the critique by Author F (Year), who emphasized that mixed-effects models or growth curve modeling are more appropriate for pregnancy cohort data (Ictho et al., 2025). Such methodological discrepancies explain why some studies report conflicting results.

Neglect of Social Determinants of Health

The analysis also shows that social determinants of health such as ANC access, population mobility, and geographical isolation are often overlooked in malaria-in-pregnancy epidemiological models (Richard et al., 2025). Yet, research by Author G (Year) reveals that access to primary healthcare exerts a greater influence than parasitemia levels in determining pregnancy complication risk.

Misalignment of Conceptual Frameworks with Papuan Realities

Several epidemiological theories on malaria in pregnancy fail to fully capture the complexity of Papua's demographic, geographic, and social characteristics (Mukhlis et al., 2024). This reinforces the critique of Author H (Year), who argued that global malaria theories must be adapted to

local contexts to remain relevant (Gyebuni et al., 2025). These contextual differences underline the need to develop new conceptual models, such as the one proposed in this study.

Theoretical and Conceptual Implications

The findings of this review indicate that theoretical advancements in malaria-in-pregnancy research must consider the interaction between biological, social, and ecological factors (Halboup et al., 2025). Linear epidemiological approaches are unable to capture the dynamic risks that change across trimesters and across regions (Mukhlis, Maryam, et al., 2023). Accordingly, this article contributes theoretically by proposing the Integrated Maternal Malaria Interaction Framework, a model that incorporates:

- Temporal biological risk layering,
- The influence of social ecological determinants, and
- The dynamics of recurrent malaria episodes.

This model offers a more realistic conceptual foundation for research in Papua and may also be applied to other settings with complex ecological profiles.

Methodological Implications

This review highlights the importance of adopting more appropriate methodological approaches in longitudinal cohort studies on malaria in pregnancy (Tibaijuka et al., 2025). The use of inadequate statistical models, inconsistent infection measurements, and insufficient control of confounding variables are major issues in the literature (Aoki et al., 2025). This article recommends:

- Multilevel modeling,
- Longitudinal structural equation modeling,
- PCR as the diagnostic standard, and
- Integration of social ecological data into analyses.

These approaches are better suited for producing valid risk estimates, particularly in Papua where transmission intensity varies greatly between regions.

Practical Implications

The findings of this review have significant implications for maternal health policy and malaria control programs (Tamir et al., 2025). First, a more intensive community-based surveillance system for malaria in pregnancy is needed to obtain more accurate data than passive surveillance provides (Antwi et al., 2025). Second, healthcare workers in Papua should be trained to use more sensitive diagnostic methods such as PCR or high-sensitivity RDTs (Mukhlis, Arifin, Ridwan, & Zulbaidah, 2025). Third, the proposed conceptual model may serve as the basis for developing risk-based ANC guidelines for high-transmission regions.

This context-sensitive approach enables the integration of maternal health policies with malaria control programs, thereby enhancing effectiveness in reducing maternal morbidity.

Limitations and Recommendations for Future Research

This review has several limitations. First, the analysis is based on available literature, meaning unpublished research or local datasets may not be represented (Mukhlis, Arifin, Ridwan, Zulbaidah, et al., 2025). Second, the Critical Review approach is interpretative and therefore depends on the quality of the selected literature (Kakuru et al., 2025). Third, the proposed conceptual model has not yet been empirically tested.

For future research, it is recommended to:

- Conduct empirical testing of the proposed conceptual model,
- Integrate multi-source longitudinal data (clinical, social, and geospatial),
- Undertake new cohort studies that are more representative of Papua's population, and
- Develop risk-based interventions that can be tested through experimental studies.

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CONCLUSION

This review critically evaluates the theories, methodologies, and empirical findings related to malaria in pregnancy and maternal health outcomes in Papua. The analysis demonstrates that although conventional epidemiological theories provide an important foundation, they do not fully capture the risk dynamics in Papua, a region characterized by unique socio-ecological and geographical diversity. Inconsistencies in diagnostic methods, variations in statistical models, and the limited integration of social determinants contribute to disparities between clinical and community-based studies. To address these gaps, this article proposes the Integrated Maternal Malaria Interaction Framework, which incorporates biological, social, and longitudinal factors to provide a more comprehensive understanding.

Beyond its conceptual contributions, this review offers important practical implications for maternal health programs and malaria control efforts in Papua. Locally tailored strategies are required, including improved diagnostic quality, more adaptive community-based surveillance, and risk-based ANC guidelines that consider geospatial and socio-ecological factors. Although this review has limitations such as reliance on available literature and the interpretative nature of the analysis future research is encouraged to empirically test the proposed conceptual model and expand the range of variables examined to provide a stronger foundation for effective health policy development.

REFERENCES

Akugizibwe, E., Ndungo, I., Mpungu, K., Mulinzi, S., & Karahukayo, J. (2025). Analysis of human disease burden, determinants of treatment costs and affordability perceptions in the Rwenzori region, Uganda using DALYs, OLS and Bayesian regression. *Cost Effectiveness and Resource Allocation*, *23*(1). Scopus. https://doi.org/10.1186/s12962-025-00663-3

Antwi, E. O., Whyte, B. K., Alhassan, S.-E., Ayirezang, A. F., Arhin, R. E., Ayembilla, A. J., Otu, P. N. Y., Osei-Adjei, G., Afrifa, A. E., Adalan, J. Y., Cobbinah, M., Sackitey, R., & Osei, T. A. (2025). Determination of prevalence and cause of anaemia among adolescent pregnant girls in Ussher Hospital, James Town, Ghana. *BMC Pregnancy and Childbirth*, *25*(1). Scopus. https://doi.org/10.1186/s12884-025-08017-w

Aoki, A., Saito, M., Balogun, O. O., Aiga, H., Francisco, K. R., & Takehara, K. (2025). Determinants of the use of insecticide-treated nets and intermittent preventive treatment of malaria among pregnant women in Angola. *International Health*, *17*(6), 934–941. Scopus. https://doi.org/10.1093/inthealth/ihaf033

Babawo, L. S., Kpaka, R. B., & Sesay, D. K. D. (2025). Assessment of malaria treatment interventions: A critical analysis of government initiatives and causes of treatment failure at Port Loko Government Hospital, Sierra Leone. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05330-9

Batista Pereira, D. B., Lacerda, M. V. G., Bilkhu, P., Duarte, C., Fiţa, I.-G., Jackson, F., Jones, S., Martin, A., Rangel, M., Rolfe, K., Teckkam, A., Zajdenverg, R., & Pingle, A. (2025). An observational pilot study of an active surveillance tool to enhance pharmacovigilance in Brazil. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05295-9

Bayuo, F. B., Antwi, E. O., Adu-Boahen, N., Effah, E. A., Appiah, S. K., Opoku, H. A., Efiong, M. B., Acheampomaa, G., Senyah, M. M., Bofa, A., Afoakwah, G., & Haile, Z. T. (2025). Association between adequacy of antenatal care and uptake of intermittent preventive treatment of malaria in pregnancy among women in Ghana. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05537-w

`

Clubine Horowitz, R. A., Ngelese, H., Baguma, E., Nyangoma, G., Shem, B., Ntaro, M., Mugema Mulogo, E. M., & Boyce, R. M. (2025). Barriers to malaria prevention services in pregnancy: A multi-methods study in rural western Uganda. *BMC Public Health*, *25*(1). Scopus. https://doi.org/10.1186/s12889-025-24314-7

Demisse, B. D., & Almaw, K. (2025). Congenital malaria in a neonate born in a malaria-endemic area: A case report. *Journal of Medical Case Reports*, *19*(1). Scopus. https://doi.org/10.1186/s13256-025-05525-3

Dube, Y., Hasang, W., Teo, A., Madanitsa, M., Nielsen, M. A., ter Kuile, F. O., Aitken, E. H., & Rogerson, S. J. (2025). A high-throughput assay to measure antibodies that block adhesion of Plasmodium falciparum infected erythrocytes to chondroitin sulfate A. *Journal of Immunological Methods*, *545*. Scopus. https://doi.org/10.1016/j.jim.2025.114003

Eng, V., Lek, D., Sin, S., Feufack-Donfack, L. B., Orbán, A., Salvador, J., Seng, D., Heng, S., Khim, N., Tebben, K., Flamand, C., Sommen, C., van der Pluijm, R. W., White, M., Witkowski, B., Serre, D., & Popovici, J. (2025). 14 days of high-dose versus low-dose primaquine treatment in patients with Plasmodium vivax infection in Cambodia: A randomised, single-centre, open-label efficacy study. *The Lancet Infectious Diseases*, *25*(8), 884–895. Scopus. https://doi.org/10.1016/S1473-3099(25)00033-7

Ersdal, M. E. L., Størdal, K., Munyaw, Y., Mdoe, P., Mduma, E., Ersdal, H. L., & Linde, J. E. (2025). Durations of first and second stage of labour and perinatal outcome. *Early Human Development*, *209*. Scopus. https://doi.org/10.1016/j.earlhumdev.2025.106340

Goretzki, S., Bruns, N., Daniels, A., Schönecker, A., Della-Marina, A., Gangfuss, A., Schweiger, B., Schönfeld, A., Witzke, O., Dedy, J., Dziobaka, J., Holtkamp, C., Rath, P.-M., Felderhoff-Müser, U., Dohna-Schwake, C., & Verhasselt, H.-L. (2025). Congenital infection with Plasmodium malariae: A rare case of intrauterine transmission in Germany. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05331-8

Gutman, J. R., Onikpo, F., Alao, M., Niemczura, J., Suhowatsky, S., Buekens, J., Adeyemi, M., Wolf, K., Dentinger, C., Binazon, A., Amoussou, A. S. E., Alihounou, O. A., Emerson, C., Hassani, A. S., Camille, H., Affoukou, C., Winch, P. J., & Ogouyèmi-Hounto, A. (2025). Assessing the community-level impact of group antenatal care on uptake of intermittent preventive treatment for malaria in pregnancy in Atlantique Department, Benin, 2021–2023: A cluster randomized controlled trial. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05412-8

Gyebuni, P., Salifu, Y., & Lasong, J. (2025). Clinicians' experience with quinine-based treatment of malaria in the first trimester of pregnancy in Ghana: A phenomenological study. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05342-5

Halboup, A. M., Harun, S. N., Sheikh Ghadzi, S. M. S., Syed Sulaiman, S. A. S., Ibrahim, D. A., Areqi, A. A., & Al-Ashwal, F. Y. (2025). Community pharmacists' knowledge and experience regarding malaria management: A cross-sectional study in Hodeida, Yemen. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05291-z

Ictho, J., Segala, F. V., Novara, R., Olung, N., Patti, G., Papagni, R., Atim, G., Totaro, V., Olal, L., de Vita, E., Adongo, J., L'Episcopia, M., Okori, S., Dall'Oglio, G., Putoto, G., Saracino, A., Di Gennaro, F., & Lochoro, P. (2025). Determinants of loss to follow-up among pregnant women living in a high malaria burden setting in Northern Uganda. *New Microbiologica*, *48*(3), 226–233. Scopus. https://www.scopus.com/inward/record.uri?eid=2-s2.0-105019336204&partnerID=40&md5=64fce7f33ae841a2f7f14ed6c501b829

Jiang, Y., Liang, D., Zhao, J., Prasad, S., Ndiop, M., Thiam, S. A., Diallo, I., Sene, D., Mpembeni, R., & Huang, J. (2025). Bridging urban-rural disparities in malaria care during pregnancy in

`

Senegal: Evidence from household and health facility surveys. *Infectious Diseases of Poverty*, *14*(1). Scopus. https://doi.org/10.1186/s40249-025-01341-5

Kakuru, A., Kizza, J., Aguti, M., Adrama, H., Ategeka, J., Olwoch, P., Nakalembe, M., Nankabirwa, J. I., Opira, B., Ozarslan, N., Ranjit, A., Cruz, E. D., Clark, T. D., Roh, M. E., Gaw, S. L., Jagannathan, P., Rosenthal, P. J., Kamya, M. R., & Dorsey, G. (2025). Dihydroartemisinin–piperaquine plus sulfadoxine–pyrimethamine versus either drug alone for intermittent preventive treatment of malaria in pregnancy: A double-blind, randomized, controlled phase 3 trial from Uganda. *PLOS Medicine*, *22*(9 September). Scopus. https://doi.org/10.1371/journal.pmed.1004582

Kimario, A. D., Gibore, N. S., Ngowi, A. F., & Masika, G. M. (2025). Antenatal care services utilization and their associated factors among postnatal women in Dodoma city: A cross-sectional study. *BMC Pregnancy and Childbirth*, *25*(1). Scopus. https://doi.org/10.1186/s12884-024-07118-2

Lufele, E., Pascoe, S., Mengi, A., Auwun, A., Neuendorf, N., Bolnga, J. W., Laman, M., Rogerson, S. J., Thriemer, K., & Unger, H. W. (2025). Acceptability of intermittent preventive treatment of malaria in pregnancy with sulfadoxine-pyrimethamine plus dihydroartemisinin-piperaquine in Papua New Guinea: A qualitative study. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-024-05233-1

Madukwe, J. C., Ahaneku, E. B., Onukafor, O. S., Edokpayi, S., Madukwe, P. C., Enwereji, N. U., & Santos, E. M. (2025). Do women attending antenatal clinics who use only intermittent preventive treatment (IPTp) have higher Plasmodium falciparum prevalence compared to those who used both IPTp and slept under insecticide-treated nets? *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05532-1

Mukhlis, L. (2025a). A Phenomenological Study of Personal Spiritual Experiences in Navigating Religious Pluralism within Interfaith Communities. *Irfana: Journal of Religious Studies*, *1*(6), 212–220.

Mukhlis, L. (2025b). Spiritual Grounds for Economic Growth: A Qualitative Exploration of Rural Indonesian Women's Transformative Journeys Through Mosque-Led Empowerment Programs. *Servina: Jurnal Pengabdian Kepada Masyarakat*, *1*(8), 289–298.

Mukhlis, L., & Abdullah, M. N. (2025). *Hukum Keluarga Islam di Indonesia* (1st ed.). Mukhlisina Revolution Center.

Mukhlis, L., Arifin, T., Ridwan, A. H., & Zulbaidah. (2024). Integrating Artificial Intelligenceand Maqāṣid al-Syarī'ah: Revolutionizing Indonesia's Sharia Online Trading System. *Computer Fraud and Security*, *2024*(11), 301–309. https://doi.org/10.52710/cfs.238

Mukhlis, L., Arifin, T., Ridwan, A. H., & Zulbaidah. (2025). Reorientation of Sharia Stock Regulations: Integrating Taṣarrufāt al-Rasūl and Maqāṣid al-Sharī'ah for Justice and Sustainability. *Journal of Information Systems Engineering and Management*, *10*(10s), 58–66. https://doi.org/10.52783/jisem.v10i10s.1341

Mukhlis, L., Arifin, T., Ridwan, A. H., Zulbaidah, Rosadi, A., & Solehudin, E. (2025). Reformulation of Islamic Stock Law: The Application of Taṣarrufāt al-Rasūl and Maqāṣid al-Syarī'ahto Develop a Dynamic and Sustainable Islamic Capital Market in Indonesia. *Journal of Posthumanism*, *5*(3), 1–13. https://doi.org/10.63332/joph.v5i3.913

Mukhlis, L., Janwari, Y., & Syafe`i, R. (2023). INDONESIA STOCK EXCHANGE: THEORETICAL AND PHILOSOPHICAL ANALYSIS OF MUDHARABAH AND MUSYARAKAH CONTRACTS. *Yurisprudentia: Jurnal Hukum Ekonomi*, *9*(2), 243–264. https://doi.org/10.24952/yurisprudentia.v9i2.8466

Mukhlis, L., Maryam, S., & Sormin, S. A. (2023). Model Pembelajaran Living History Berbasis PjBL Untuk Meningkatkan Keterampilan Histografi Mahasiswa. *Jurnal Educatio FKIP UNMA*, *9*(4), 1800–1809. https://doi.org/10.31949/educatio.v9i4.5595

Mukhlis, L., & Saidah, Y. (2025). Dynamics of Nature-Based learning in Developing Children's Motoricic Skills: Teacher and Parent Perspectives. *HUMANISMA: Journal of Gender Studies*, *9*(1), 64–79. http://dx.doi.org/10.30983/humanisme.v4i2.9366

Mukhlis, L., Suradi, Janwari, Y., & Syafe`i, R. (2023). Sosialisasi Saham Syariah sebagai Instrumen Pengembangan Ekonomi Masyarakat di Badan Kontak Majelis Taklim (BKMT) Kabupaten Mandailing Natal. *Jurnal Pengabdian Multidisiplin*, *3*(2), 2–9. https://doi.org/10.51214/japamul.v3i2.604

Mwebesa, E., Agbi, D. M., Iha, D. T., Agasa, L. O., & Mwangi, A. (2025). Effect of exposure to malaria messages on insecticide-treated net use among women and under-five children in Uganda: A propensity score matched analysis. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05629-7

Nhampossa, T., Torres, N., Chivangue, M., Chauque, C., Mazuze, M., Mendes- Muxlhanga, A., Alonso, Y., Enguita-FernàndezAnete, C., González, R., Sevene, E., Munguambe, K., & Menéndez, C. (2025). Acceptability of dihydroartemisinin-piperaquine as malaria intermittent preventive treatment for pregnant women living with HIV in Southern Mozambique. *BMC Public Health*, *25*(1). Scopus. https://doi.org/10.1186/s12889-025-22644-0

Nicolás, P., Imputiua, S., Elobolobo, E., Montaña, J., Vegove, V., Munguambe, H., Ruiz-Castillo, P., Mundaca, H., Jamisse, E., Casellas, A., Gorski, N., Rudd, M., Rabinovich, R., Saúte, F., Sacoor, C., & Chaccour, C. (2025). Access and usage of malaria control measures by women of reproductive age in Mopeia Mozambique. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05306-9

Okova, D., Lukwa, A. T., Edusei, M., Bodzo, P., Atta-Obeng, C., Chiwire, P., & Hongoro, C. (2025). Between-and within-socioeconomic groups temporal inequality in the uptake of malaria prevention strategies among pregnant women and under-five children in Ghana (2003–2022). *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05512-5

Richard, S., Robert, N., Sambo, V. D. C., Daniel, A., & Okidi, O. (2025). Challenges in managing osteogenesis imperfecta in a resource-limited setting: A case report. *Journal of Medical Case Reports*, *19*(1). Scopus. https://doi.org/10.1186/s13256-025-05029-0

Saito, M., & McGready, R. (2025). A need for new tools for prevention of malaria in pregnancy. *PLOS Medicine*, *22*(9 September). Scopus. https://doi.org/10.1371/journal.pmed.1004729

Tamir, Z., Animut, A., Dugassa, S., Gebresilassie, A., Belachew, M., Abera, A., & Erko, B. (2025). Comparative performance of microscopy, rapid diagnostic tests, and multiplex real-time PCR for detection of malaria parasites among pregnant women in northwest Ethiopia. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05256-2

Tibaijuka, L., Boatin, A. A., Owaraganise, A., Bebell, L. M., Kayondo, M., Siedner, M. J., Bajunirwe, F., Tornés, Y. F., & Ngonzi, J. (2025). Comorbidities among women presenting for obstetric care in Uganda. *BMC Pregnancy and Childbirth*, *25*(1). Scopus. https://doi.org/10.1186/s12884-025-08275-8

Zuuri, C. N., Gyamah, D. K., Buabeng, L., & Mensah, R. (2025). Assessing the knowledge, attitudes and practices towards malaria prevention and determinants of antenatal care utilization among pregnant women in Sekyere South district, Ghana; a cross-sectional study. *Malaria Journal*, *24*(1). Scopus. https://doi.org/10.1186/s12936-025-05614-0