

Determinants of Severe Malaria Among Hospitalized Children in Sub-Saharan Africa: A Narrative Review with Comparative Data from an Urban Referral Hospital in Kinshasa, Democratic Republic of Congo

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Submitted: 2026, Jan 20; Accepted: 2026, Jun 30; Published: 2026, July 23

Citation: Moses, B. K., Fatou, I. S., Kanza, S. (2026). Determinants of Severe Malaria Among Hospitalized Children in Sub-Saharan Africa: A Narrative Review with Comparative Data from an Urban Referral Hospital in Kinshasa, Democratic Republic of Congo. *J Surg Care*, 5(3). 1-02.

Abstract

Background: Severe malaria remains a major cause of pediatric morbidity and mortality in sub-Saharan Africa, particularly in rapidly urbanizing settings.

Objective: To synthesize evidence on determinants of severe malaria among children in sub-Saharan Africa and compare these findings with aggregated institutional data from an urban referral hospital in Kinshasa.

Methods: A narrative review of literature published between 2010 and 2024 was conducted, complemented by descriptive analysis of aggregated hospital data from the Centre Hospitalier University Renaissance (CHUR).

Results: Determinants of severe malaria included young age, low socioeconomic status, poor housing conditions, environmental sanitation deficits, delayed healthcare seeking, and self-medication. Findings from CHUR were consistent with regional evidence.

Conclusion: Severe malaria in African children is driven by interconnected social, environmental, and healthcare factors, particularly in large urban settings such as Kinshasa.

1. Introduction

Malaria remains a leading cause of preventable childhood illness and death in sub-Saharan Africa. Children living in urban African settings face compounded risks related to poverty, environmental exposure, and barriers to timely healthcare. Kinshasa, one of the largest African cities, illustrates these challenges.

2. Methods

This study combined a narrative literature review with comparative aggregated hospital data from CHUR Kinshasa. Only summarized institutional data were used; no individual-level data were reconstructed or analyzed.

3. Results

Across sub-Saharan Africa, severe malaria in children is consistently associated with young age, low parental education, poor housing, inadequate sanitation, delayed care seeking, and self-medication. CHUR data demonstrated strong concordance with these regional patterns.

4. Discussion

Findings confirm that severe malaria is shaped by structural and behavioral vulnerabilities. Urbanization without adequate infrastructure amplifies malaria risk and disease severity in African cities.

4.1. Limitations

The study relied on aggregated data and narrative synthesis, limiting causal inference and multivariable analysis.

5. Conclusion

Reducing severe malaria in African cities requires integrated interventions addressing environmental, social, and healthcare access determinants [1-9].

Ethics Statement

Aggregated anonymized data were used; no ethical approval was required.

Data Availability

Aggregated data are available from the corresponding author upon reasonable request.

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