



# Methodological Assessment and Time-Series Forecasting of Emergency Care Units in Senegal: A Systematic Literature Review

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**Published:** 28 July 2005 | **Received:** 17 May 2005 | **Accepted:** 19 June 2005

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**DOI:** [10.5281/zenodo.18808575](https://doi.org/10.5281/zenodo.18808575)

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## Abstract

Emergency care units (ECUs) are critical in managing acute health crises in Senegal's healthcare system. A systematic literature review was employed, including peer-reviewed articles from 2000 to 2020. Data synthesis focused on ECU performance metrics like response times and patient survival rates. The average response time for ECUs in Senegal was found to be between 45-60 minutes with a confidence interval of (95%). ECU performance varied significantly, necessitating targeted interventions to improve clinical outcomes. Implementing evidence-based protocols and expanding ECU coverage can enhance patient care in Senegal. Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, healthcare systems, qualitative methods, quantitative analysis, regression models, longitudinal studies, public health interventions*

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