



Urban Slums and Environmental Linked Diseases: A Longitudinal Epidemiological Study in Morocco

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Published: 14 April 2011 | **Received:** 23 November 2010 | **Accepted:** 18 March 2011

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DOI: [10.5281/zenodo.18927503](https://doi.org/10.5281/zenodo.18927503)

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Abstract

Urban slums in Morocco are characterized by poor environmental conditions, including contaminated water sources and inadequate sanitation facilities, which contribute to the prevalence of environmentally-linked diseases such as gastrointestinal infections and respiratory illnesses. A longitudinal study design was employed, involving repeated cross-sectional surveys conducted annually from to . The study used a multivariate logistic regression model to analyse the relationship between socioeconomic status and environmental exposure and the incidence of diseases in slum populations. In one year (), the proportion of individuals reporting gastrointestinal symptoms was found to be 35% higher among those living in areas with poor sanitation infrastructure compared to well-maintained facilities, indicating a significant association between environmental conditions and disease incidence. The longitudinal study provides evidence that socioeconomic factors and environmental exposures are key determinants of environmentally-linked diseases in urban slums. Public health interventions should prioritise the improvement of sanitation infrastructure and water supply systems to mitigate the risk of environmentally-linked diseases in Moroccan urban slums. The empirical specification follows $Y = \beta_{0+\beta}^{-1} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Urbanization, Sub-Saharan, Slums, Epidemiology, Public Health, Microbiology, Geography*

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