



MENU

[Results for A REVIEW OF SP...](#) >

A Review of Spatial Analysis Application in Childhood Malnutrition Studies



A Review of Spatial Analysis Application in Childhood Malnutrition Studies

By [Are you this author?](#) Shamsuddin, AS (Shamsuddin, Aida Soraya) ; Bakar, WAMA (Bakar, Wan Azdie MoHD A. B. U.) ; Ismail, SNSY (Ismail, Sharifah Norkhadijah S. yED) ; Jaafar, NH (Jaafar, Nurul Hazirah) ; Yassin, WM (Yassin, Wardah MoHD) ; Norhizat, M (Norhizat, Maisarah)

[View Web of Science ResearcherID and ORCID](#) (provided by Clarivate)

Source MALAYSIAN JOURNAL OF MEDICAL SCIENCES

Volume: 29 Issue: 5 Page: 24-38

DOI: 10.21315/mjms2022.29.5.4

Published 2022

Indexed 2022-11-18

Document Type Review

Abstract Approximately 230 million children under 5 years old of age suffer from malnutrition and over half of the children below 5 years old deaths are due to malnutrition nowadays. To gain a better understanding of this problem, the application of spatial analysis has risen exponentially in recent years. In this review, the present state of information on the use of spatial analysis in childhood malnutrition studies was evaluated using four databases of digital scientific journals: ScienceDirect, Scopus, PubMed and CINAHL. We chose 2,278 articles from the search results and a total of 27 articles met our criteria for review. The

following information was extracted from each article: objective of study, study area, types of malnutrition, subject, data sources, computer software packages, spatial analysis and factors associated with childhood malnutrition. A total of 10 spatial analysis methods were reported in the reviewed articles and the Bayesian geospatial regression model was the most common method applied in childhood malnutrition studies. This review highlights the importance of the application of spatial analysis in determining the geographic distribution of malnutrition cases, hotspot areas and risk factors correlated with childhood malnutrition. It also provides implications for strategic initiatives to eradicate all forms of malnutrition.

Keywords

Author Keywords: spatial analysis; Geographic Information System (GIS); mapping; childhood malnutrition

Keywords Plus: HEALTH SURVEYS; CHILDREN; AGE; OVERWEIGHT; UNDERNUTRITION; AFRICA; WOMEN

Addresses

¹ Int Islamic Univ Malaysia IIUM, Dept Nutr Sci, Kulliyah Allied Hlth Sci, Selangor, Pahang, Malaysia

² Univ Putra Malaysia UPM, Fac Med & Hlth Sci, Dept Environm & Occupat Hlth, Serdang, Selangor, Malaysia

³ Int Islamic Univ Malaysia IIUM, Dept Nutr Sci, Kulliyah Allied Hlth Sci, Kuantan Campus, Kuantan 25200, Pahang, Malaysia

**Categories/
Classification**

Research Areas: Research & Experimental Medicine

Citation [1 Clinical & Life Sciences](#) > [1.44 Nutrition & Dietetics](#) > [1.44.1198 Child Malnutrition](#)

Sustainable Development Goals: [03 Good Health and Well-being](#) ; [02 Zero Hunger](#) ; [01 No Poverty](#)

**Web of Science
Categories**

Medicine, Research & Experimental

[+ See more data fields](#)

Citation Network

Use in Web of Science