

Author: Peter McGlynn

Co Author: Stanley Luchters (Burnet Institute), Andre Renzaho (University of Western Sydney), Jane Fisher (Monash University), Mike Toole (Burnet Institute), Minh Pham (Burnet Institute)

Topic: Community health and nutrition programs

Title: Critical examination of evidence for the nutritional status of children in Papua New Guinea – a systematic review.

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Introduction

Studies on nutritional outcomes for children in Papua New Guinea (PNG) vary in design, measurement protocols and quality. We conducted a systematic review to critically assess the existing evidence to estimate the prevalence of child undernutrition across different study populations, geographical locations and time periods.

Methods

Six electronic databases (MEDLINE, EMBASE, CINAHL, SCOPUS, Web of Science and Global Health) and additional grey literature were searched for articles describing the nutritional status by wasting, stunting and underweight, of PNG children under five years of age, published between 1990 and April 2015. Prevalence data using different scales of measurement and reference populations were standardized according to current WHO protocols.

Results

The search yielded 566 articles, of which, 31 studies met the inclusion criteria. Children in PNG showed a higher prevalence of wasting (range 1-76%), stunting (5 -92%) and underweight (14 -59%) compared to the global population. Stunting is the most severe manifestation of undernutrition nationwide, especially in Highland communities. Wide variations exist according to the index used for measurement, the population characteristics and the geographical region in which they live.

Conclusions

Undernutrition in PNG children is significantly higher than the global average. It is due to a complex interplay of poverty, disease, environmental and socio-political issues requiring an equally complex mix of solutions for governments, health systems and

communities to address. Prevalence estimates from studies using outdated scales of measurement and population references increase significantly when they are standardized to the current WHO protocols, increasing the number of children requiring interventions.