



SEACO POLICY BRIEF 011

Universal use of standard reference to compare child anthropometric status

South East Asia Community Observatory
(SEACO):
Research for a Healthy Community

This research-based evidence brief highlights potential policy options

Who are the readers of this Policy Brief?

Policymakers and other stakeholders who are interested in addressing the problem based on research evidence

Why was it prepared?

To inform stakeholders about health policies and interventions by summarizing the best available research-based evidence about the problem

What is Research-Based Evidence Brief for Policy?

Research-Based Evidence Brief for Policy generates from the studies implemented by SEACO; an ISO accredited health and demographic surveillance site which acts as a research platform for health-related research

Full Publication

The research-based evidence describes in detail in the SEACO publication

Partap, U., Young, E. H., Allotey, P., Sandhu, M. S., & Reidpath, D. D. (2017b). The Use of Different International References to Assess Child Anthropometric Status in a Malaysian Population. The Journal of Pediatrics, 190, 63-68.e1.
<https://doi.org/10.1016/j.jpeds.2017.07.049>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5667719/>

Share Evidence

Circulate this policy brief to your colleagues in your network who might find it relevant

The Problem:

Malaysia has a particularly high prevalence of child overweight and obesity, with recent evidence also indicating a notable prevalence of underweight. This double burden of malnutrition may be understood within the context of epidemiologic transitions, whereby changes in lifestyle habits are leading to a positive shift in body mass index (BMI) distributions in populations that used to be predominantly normal or underweight. Child underweight and overweight are associated with distinct adverse consequences in childhood, and both are understood to contribute to the development of cardio-metabolic diseases in adulthood. Given these far-reaching public health consequences, it is essential to identify and address both underweight and overweight among children, especially in Malaysia where there is evidence that both types of malnutrition coexist.

Evidence to Support Policy Options:

Evidence was generated from a population-wide health survey conducted by the South East Asia Community Observatory (SEACO). In total, 6414 children aged 6-18 years joined the study. Child underweight, overweight, and obesity were expressed according to three internationally used BMI references: World Health Organization (WHO) 2007, International Obesity Task Force (IOTF) 2012, and Centers for Disease Control and Prevention (CDC) 2000. This study observed notable differences between three international BMI references in the classification of child underweight, overweight, and obesity, and subsequent estimates of prevalence. There was poor to moderate agreement between references when classifying underweight, but generally good agreement when classifying overweight and obesity. Overweight and obesity prevalence estimates were higher using the World Health Organization reference vs the other 2, and underweight prevalence was up to 8.5% higher, and obesity prevalence was about 4% lower when using the International Obesity Task Force reference.

Recommendation:

The choice of reference to express BMI may influence conclusions about child anthropometric status and malnutrition prevalence. It has implications regarding strategies for clinical management and public health interventions. The study findings highlight the need for a better-informed, harmonized approach to assessing anthropometric status among older children to ensure comparability across populations.