



SEACO POLICY BRIEF 012

## Impact of parental anthropometric to child obesity

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. (2017a). Anthropometric and cardiometabolic risk factors in parents and child obesity in Segamat, Malaysia. International Journal of Epidemiology, 46(5), 1523–1532. <https://doi.org/10.1093/ije/dyx114>*

<https://academic.oup.com/ije/article/46/5/1523/3902976>

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## **The Problem:**

The increasing global prevalence of child obesity is a public health issue of growing concern. Obesity among children is associated with multiple adverse consequences, ranging from psychological morbidity during childhood to earlier development of cardio-metabolic diseases in adulthood. Importantly, little evidence regarding intergenerational influences on child obesity has been generated from Asia. In 2013, the number of obese children in the region exceeded that in all higher-income countries combined, and child obesity prevalence in certain Asian countries was comparable to estimates from European nations. It is widely understood to be the result of changing lifestyles that have accompanied economic transitions in Asian countries. Region-specific research is required to inform suitable strategies to address the growing burden of child obesity in Asia, where intergenerational influences on child body mass index might be distinct from those observed in other populations.

## **Evidence to Support Policy Options:**

This evidence generates from the health and demographic surveillance database of the South East Asia Community Observatory (SEACO), Segamat, Malaysia. In this study, 9207 individuals (4806 children, 2570 mothers, and 1831 fathers) joined. Child obesity was defined based on the World Health Organization 2007 reference. The relationship between parental anthropometric (overweight, obesity and central obesity) and cardio-metabolic (systolic hypertension, diastolic hypertension, and hyperglycaemia) risk factors and child obesity was assessed. In this population, a high burden of overweight and obesity among children (30% overweight or obese) was found; parental obesity was strongly associated with increased risk of child obesity. Children of one or more obese parents had a 2-fold greater risk of being obese compared with children of non-obese parents. There was no consistent evidence of the contribution of parental cardio-metabolic risk factors to childhood obesity risk.

## **Recommendation:**

The interlinked nature of parental anthropometric and child obesity provides a comprehensive understanding of the underlying risk factors which is essential to design preventive and management strategy to address the growing burden of child obesity. It is particularly relevant in the context of the Malaysian population, given the high burden of child overweight and obesity.