

Obesity Risk-Factor Variation Based on Island Clusters: A Secondary Analysis of Indonesian Basic Health Research 2018

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Abstract: Obesity has become a rising global health problem affecting quality of life for adults. The objective of this study is to describe the prevalence of obesity in Indonesian adults based on the cluster of islands. The study also aims to identify the risk factors of obesity in each island cluster. This study analyzes the secondary data of Indonesian Basic Health Research 2018. Data for this analysis comprised 618,910 adults (≥ 18 years) randomly selected, proportionate to the population size throughout Indonesia. We included 20 variables for the socio-demographic and obesity-related 2 risk factors for analysis. The obesity status was defined using Body Mass Index (BMI) ≥ 25 kg/m². Our current study defines 7 major island clusters as the unit analysis consisting of 34 provinces in Indonesia. Descriptive analysis was conducted to determine the characteristics of the population and to calculate the prevalence of obesity within the provinces in each of the island clusters. Multivariate logistic regression analyses to calculate the odds ratios (ORs) was performed using SPSS version 27. The study results show that all the island clusters have at least one province with an obesity prevalence above the national prevalence (35.4%). Six out of twenty variables, comprising four dietary factors (the consumption of sweet food, high-salt food, meat, and carbonated drinks) and one psychological factor (mental health disorders), varied across the island clusters. In conclusion, there was a variation of obesity prevalence of the provinces within and between island clusters. The variation of risk factors found in each island cluster suggests that a government rethink of the current intervention strategies to address obesity is recommended.

Keywords: body weight; Indonesia; islands cluster; multiple logistic regression; obesity; risk factor