

ABSTRACT

Body Mass Index (BMI) is a reference in measuring nutritional status. By calculating BMI it can be seen that someone is obese or experiencing malnutrition. Obesity and malnutrition is one of the problems that must be faced by every country, even developed countries. Based on data obtained from WHO, in 2008 around 1.5 billion adults were overweight ($BMI \geq 25\text{kg} / \text{m}^2$), of which there were 200 million men and 300 million women were obese ($BMI \geq 30\text{kg} / \text{m}^2$). Even in Southeast Asia there have been 300,000 deaths due to obesity. The prevalence of obesity in Indonesia is also increasing from year to year, based on the RISKESDAS of the Indonesian Ministry of Health, in 2018 the prevalence of obesity in Indonesia is 21.8% where in 2013 the value of obesity prevalence is still 14.8%. Another problem is poor nutrition, which is generally experienced by toddlers. The main factor causing malnutrition is economic problems. The prevalence of malnutrition in children under five in Indonesia in 2018 was 3.9% and malnutrition was 13.8%.

To find out the nutritional status in an area, the government or health institutions need Body Mass Index (BMI) data. Body Mass Index (BMI) is a standard formula issued by WHO that is often used as a reference in determining nutritional status. In this case, a container that holds BMI data is then needed to be represented in a geographical information system, so that the distribution of BMI status in an area can be known.

In this Final Project a geographical information system has been implemented by utilizing BMI data that has been obtained from the calculation results to see the distribution of BMI status in Bandung Regency. Based on testing, all the functionality on the website went well and has displayed BMI data and the distribution of BMI data in Bandung Regency, then based on subjectivity testing, the results were quite good.

Keywords: *BMI, Obesity, Malnutrition, Geographic Information System.*