



# Analysis of Household Food Security Based on the Proportion of Food Expenditures and Energy Consumption in Flood-prone Areas in Wajo District

Syamsuar Manyullei<sup>1</sup>, Andi Imam Arundhana<sup>2\*</sup>

<sup>1</sup>Department of Environmental Health, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia; <sup>2</sup>Department of Nutrition, Faculty of Public Health, Hasanuddin University, Makassar, Indonesia

## Abstract

**BACKGROUND:** Floods that inundate almost all areas in Wajo district caused difficulties for people in this district to access their daily needs, especially for foods as the distribution was inhibited. This situation was exacerbated as the food price increased leading to a greater risk of food insecurity of the household in this area.

**AIM:** The current study aimed to determine food security in flood-prone areas in Wajo District.

**METHODS:** This study was a cross-sectional conducted in the three subdistricts in Wajo Regency. The study was conducted from March to May the year 2018. A total of 304 study participants were involved in this study. The data have been collected using the developed questionnaire and observation sheet. All data analyses were performed using SPSS.

**RESULTS:** The result of the study shows that 139 households (46%) included in this study were in the condition of lack of food and 165 households (54%) were food insecure. Households with food-resistant and food vulnerable status were not found in the study area.

**CONCLUSION:** Therefore, households with food insecurity should manage their income by considering providing nutritious foods based on their income situation.

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**\*Correspondence:** Andi Imam Arundhana, Department of Nutrition Science, School of Public Health, Universitas Hasanuddin, Makassar, Indonesia. E-mail: [andi.imam@unhas.ac.id](mailto:andi.imam@unhas.ac.id)  
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## Introduction

Indonesia has achieved the first Millennium Development Goals, which is to halve the percentage of people living in hunger and extreme poverty [1]. However, issues of nutrition and stunting are still top priorities in the national development goals in the 2015–2019 [2] National Medium-Term Development Plan/RPJMN. Food security in Indonesia is still far behind and has not progressed, especially the problem of low levels of nutritional adequacy and the problem of stunting. The issue of malnutrition is still a barrier to Indonesia's potential [3].

The fulfillment of food is a human right that must be achieved because it has a key role in the development of the nation [4]. In the Indonesian Law Number 18 the year 2012, food security is defined as a condition of the fulfillment of food for the state to individuals, reflecting sufficient food (quantity and quality), safe, diverse, nutritious, equitable, and affordable. It does not conflict with the religion, belief, and culture of the community. Food security enables people to live healthy, active, and productive sustainably.

According to the Food and Agriculture Organization of the United Nations (FAO), food security consists of four dimensions, namely; food availability, accessibility, utilization, and stability. Food accessibility is a measure of the ability to obtain/secure food, usually determined by food affordability and money spent on food. In contrast, food availability is determined by the adequacy of food produced, stored, processed, distributed, and exchanged. In addition, dietary utilization refers to the essential nutrients obtained from the food consumed, including access to drinking water and food safety. It should reduce the risk of adverse effects in the other three dimensions [5]. Based on this description, it is known that food expenditure and energy consumption affect the level of food security.

Food expenditure can be determined based on the family income. If income increases, consumption patterns may be more diverse and nutritious [6]. Conversely, when the income is limited, the household will prioritize the food consumption of the family members, despite lack of nutrients of the food selected. Thus, it will take a large proportion of income to buy food [7]. Wajo is one of the areas in South Sulawesi that has low food expenditure. Based on BPS data for 2017