



Description of the Nutritional Status of Children Under Five Years of Age in the Province of Yogyakarta in 2023

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ABSTRACT

Background: The nutritional status of children under five is a measure that describes the health condition of children under five based on the balance between nutrient intake and body needs for optimal growth, development, and body function. The nutritional status of children under five in the Special Region of Yogyakarta (DIY) in 2023 includes various important indicators such as stunting, wasting, and underweight. **Objective:** To provide a comprehensive picture of the nutritional status of children under five in Yogyakarta in 2023. **Methods:** The research design used was descriptive with a quantitative approach. The population in this study was all toddlers living in the Special Region of Yogyakarta in 2023. The sampling technique is purposive sampling, so that the data taken is data on toddlers aged 0-59 months who live in DIY and are contained in the SKI 2023. The data collection method used secondary data, namely the 2023 Indonesian Health Survey (IHS) data. **Results:** Stunting was highest in Gunungkidul (22.2%) and lowest in Sleman (12.4%). Underweight also had a significant prevalence, especially in Bantul (14.7%) and Gunungkidul (14.5%). Wasting had the highest prevalence in Bantul (7.9%). **Conclusion:** The most prevalent under-five nutritional status problem is stunting.

Keywords : Nutritional status; stunting; toddler; underweight; wasting.

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INTRODUCTION

The nutritional status of toddlers is a measure that describes the health condition of toddlers based on the balance between nutrient intake and body needs for optimal growth, development, and body function. Assessment of nutritional status in children under five can be done using various

indicators such as weight, height, and body mass index (BMI)(Ferreira, 2020), which are then compared with international growth standards set by WHO (Wicaksono et al., 2020). Based on the results of these measurements, toddlers can be categorized into various nutritional statuses, including good nutrition, undernutrition, malnutrition, stunting (short), wasting (thin), and obesity (WHO, 2021).

Under-five nutrition problems, such as stunting and wasting, have a serious impact on children's future physical growth and cognitive development (Mustakim et al., 2022). Stunting, for example, is the result of chronic malnutrition experienced over a long period of time, especially in the first 1,000 days of life, which affects a child's height relative to their age (Soliman et al., 2021; Saavedra and Dattilo, 2022; Azis et al., 2023). Wasting, on the other hand, is the result of acute malnutrition that causes a child's weight to not match his or her height (WHO, 2021; Singh et al., 2022). The nutritional status of children under five is influenced by various factors, including diet, access to health services, environmental sanitation, and family economic conditions (Victora et al. 2021).

Eradicating stunting is one of the focuses in the Sustainable Development Goals (SDGs), especially in achieving the second goal which targets eradicating hunger and malnutrition by 2030 and achieving food security (Roediger, Hendrixson and Manary, 2020; Basrowi et al., 2022). The predetermined target is to reduce the stunting rate in children under five by around 40% by 2025, with this the Indonesian government set a strategy based on the Minister of Health Regulation Number 39 of 2016 concerning Guidelines for Implementing the Healthy Indonesia Program with a Family Approach. SDGs have a strategy in reducing malnutrition, namely monitoring the growth of toddlers, organizing Supplementary Feeding activities, early stimulation of child development, optimal health services for toddler nutrition (Sulistiowati et al., 2020; Susanto et al., 2021)

The nutritional status of children under five in the Special Region of Yogyakarta (DIY) from 2020 to 2022 includes various important indicators such as stunting, wasting, and underweight. Stunting showed a downward trend during this period. In 2020, the prevalence of stunting in DIY reached around 19.4%, which is slightly higher than the limit set by WHO (<20%). Thanks to nutrition improvement efforts, the stunting prevalence decreased to around 17% by 2022, in line with the national program to reduce stunting rates across Indonesia (Kemenkes, 2023)

Wasting remains an issue that must be addressed, despite its lower prevalence compared to stunting. Data from 2020 to 2022 shows small fluctuations in wasting rates, but it is still in the category of requiring attention. The government continues to provide additional food for children under five with wasting through the nutritious complementary feeding program. (Kemenkes, 2023).

Underweight has also decreased. Nutrition monitoring programs and the addition of a balanced diet have helped reduce the prevalence of underweight during this period. By 2022, the

underweight rate in DIY remains lower than the national rate, although there are still children under five who require further intervention. (Kemenkes, 2023).

Improving the nutritional status of children under five requires comprehensive interventions, ranging from improving the quality of nutritional intake, access to basic health services, to strengthening the food system and educating the community about the importance of balanced nutrition (Karpati et al., 2020; Dulal et al., 2021). Various international studies have shown that appropriate interventions in the early stages of a child's life can prevent more serious nutritional problems and support optimal growth of children under five (Keats et al., 2021). Based on these explanation, this study aims to provide a comprehensive picture of the nutritional status of children under five in Yogyakarta in 2023.

METHODS

This research uses a descriptive design with a quantitative approach. The descriptive design aims to describe the phenomenon being studied thoroughly, in this case related to the nutritional status of children under five in the Special Region of Yogyakarta (DIY) in 2023. The quantitative approach allows the collection of data that is measurable, objective, and can be analyzed statistically. The population in this study includes all toddlers living in Yogyakarta in 2023. However, for sampling, this study used a purposive sampling method, in which the samples taken were specifically toddlers aged 0-59 months contained in the 2023 Indonesian Health Survey (IHS) data. Purposive sampling was chosen because it aims to obtain specific data on the under-five age group, which is very relevant for nutritional status studies.

The data collection method in this study uses secondary data from the 2023 Indonesian Health Survey (IHS). The data obtained from the IHS includes various important information, such as demographic data, nutritional status, diet, and health conditions of children under five in Yogyakarta. The use of secondary data makes it easy to obtain broad and representative data without having to conduct direct surveys. The data used in this study have been verified and validated by authorized parties before use. This means that the IHS data has gone through a checking process to ensure its accuracy, so it can be relied upon as a valid source of information in research on the nutritional status of children under five. The data obtained allows this study to analyze various factors that may affect children's nutritional status, such as demographic factors, diet, and general health conditions. Using a quantitative approach, the study can also identify trends or patterns in the nutritional status of children under five years old, whether there is a prevalence of malnutrition or stunting, and whether there are contributing environmental or social factors.

RESULTS AND DISCUSSION

The nutritional conditions in 5 Districts in the Special Region of Yogyakarta is shown in Figure 1. They are stunting, wasting, underweight and overweight in Kulon Progo, Bantul, Gunung Kidul, Sleman and Yogyakarta City. Stunting is the most common problem, with the highest percentage in Gunung Kidul (22.2%). Underweight also had a significant prevalence, especially in Bantul (14.7%) and Gunung Kidul (14.5%). Wasting, although lower, remains a problem with the highest prevalence in Bantul (7.9%).

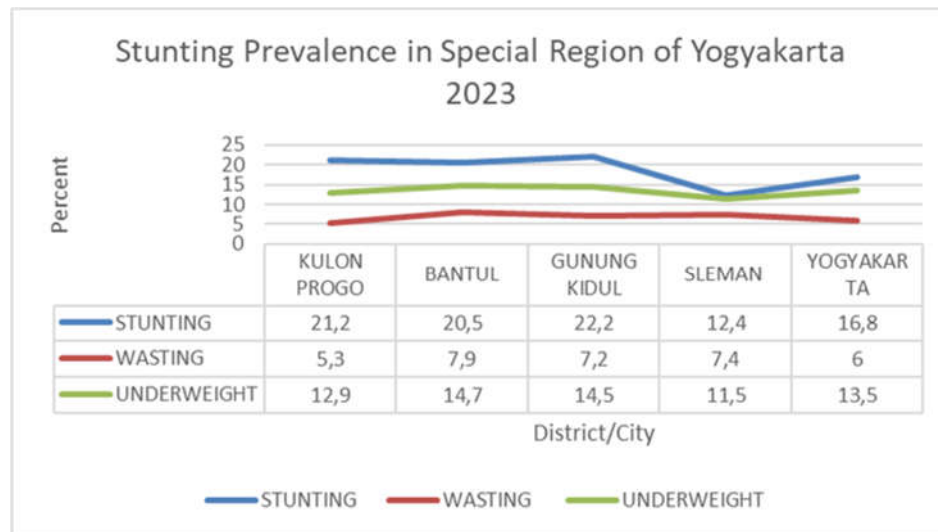


Figure 1. Prevalence of Stunting, Wasting, Underweight in DIY in 2023

The analysis of stunting prevalence in the Special Region of Yogyakarta (DIY) in 2023 shows that stunting is the most common nutritional problem in the region, with the highest prevalence in Gunung Kidul (22.2%) and the lowest in Sleman (12.4%). Despite the variation between regions, the stunting problem reflects the larger issue of unequal nutritional fulfillment among DIY children. On the other hand, the prevalence of underweight is also prominent, especially in Bantul (14.7%) and Gunung Kidul (14.5%), indicating a broader nutritional problem in addition to stunting.

Stunting is a condition where a child's growth is stunted due to lack of nutrition over a long period of time, especially in the first 1000 days of life. (Putri et al. 2024). Variations in prevalence between districts in DIY may be due to differences in access to nutritious food sources, the level of public awareness of the importance of nutrition, and the availability of health services (Siramaneerat et al. 2024). Other factors that contribute to stunting include poverty and unequal distribution of resources. (Amir-ud-Din et al. 2022). In rural areas like Gunung Kidul, access to healthy food may be more limited than in urban areas like Sleman. Low socio-economic conditions also exacerbate this problem, as families with economic limitations tend to have less access to nutritious food and adequate health services, thus worsening children's nutritional conditions.

The nutritional deficiencies that occur in these children are closely related to the socioeconomic conditions of the people in DIY. The economic growth data of DIY (Figure 2) shows

significant fluctuations from Quarter I 2023 to Quarter II 2024, with the highest growth in Quarter IV 2023 (2.9%). Even so, this fluctuating economic growth has not been able to significantly reduce the problem of malnutrition in the region, indicating that efforts to improve the economy have not been equally felt by the community, especially in terms of access and quality of nutrition.

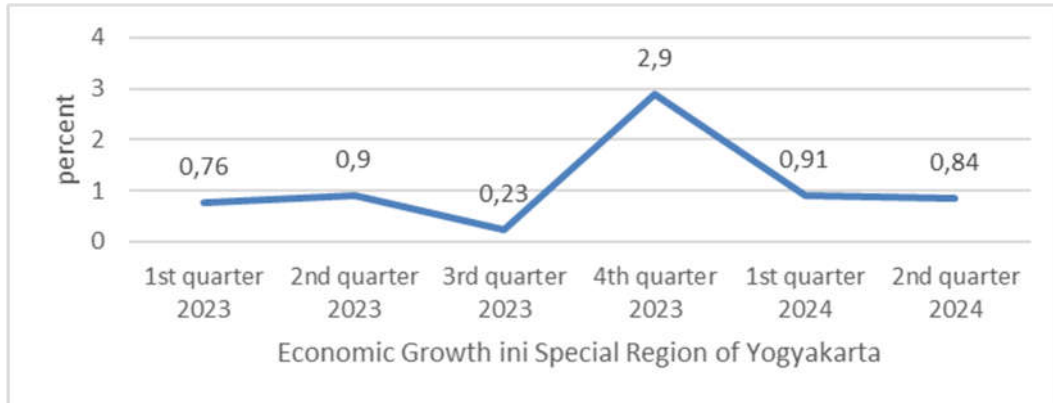


Figure 2. Economic Growth in DIY by Quarter

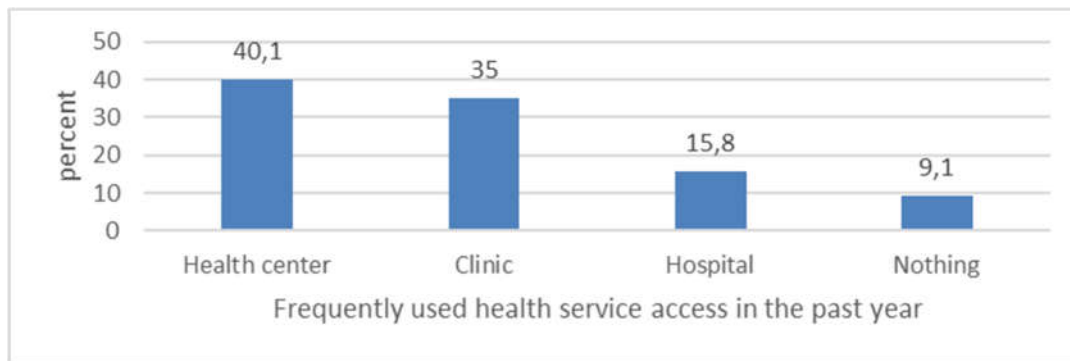


Figure 3: Access to Frequently Used Health Services in the Last 1 Year

Figure 3 shows that the distribution of the use of health services that were frequently accessed in the past year in DIY. Puskesmas was the most frequently used health service, with a percentage of 40.1%, followed by clinics or independent practices of health workers used by 35% of respondents. Hospitals were used by 15.8% of respondents, while 9.1% of respondents reported not using any health services in the past year. This shows that primary health facilities, such as puskesmas and clinics, are still the main choice for people to access health services, compared to hospitals or not accessing services at all.

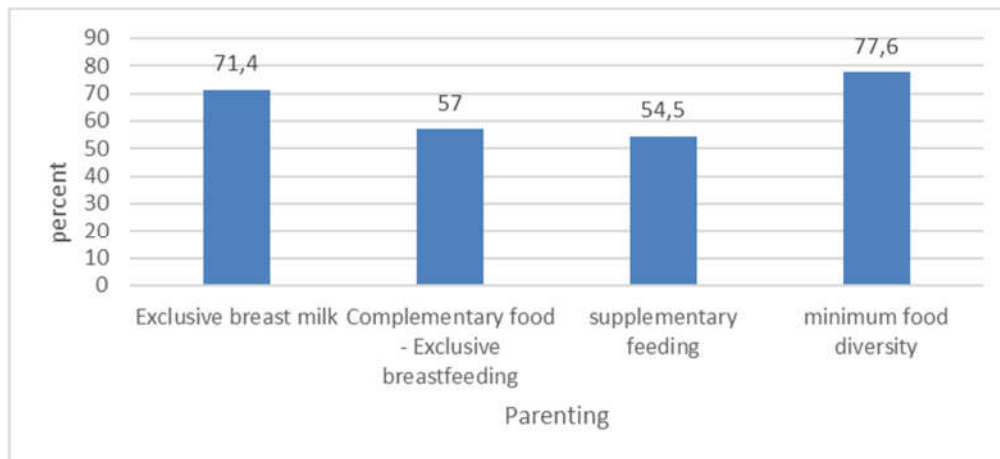


Figure 4. Frequency Distribution Based on Parenting

Figure 4 shows the percentage of parenting patterns related to child nutrition, including exclusive breastfeeding, complementary feeding, supplementary feeding, and minimal dietary diversity. The highest percentage was for Minimal Dietary Diversity at 77.6%, indicating that the majority of children received a variety of foods in their diets, although only at a minimal level. Exclusive breastfeeding was provided to 71.4% of children, which also shows high implementation. Meanwhile, complementary feeding was given to 57% of children, and PMT was applied to 54.5% of children. This data shows that exclusive breastfeeding and minimal dietary diversity were more prevalent than complementary feeding and PMT.

The nutritional parenting shown in the survey results also reveal the challenges faced in addressing stunting in DIY. Although 71.4% of children were exclusively breastfed and 77.6% received minimal dietary diversity, the lower complementary feeding (MP-ASI) and supplementary feeding (PMT) rates (57% and 54.5% respectively) indicate that there is still a lack of balanced and quality nutrition for children.

This gap in parenting may be due to a lack of parental education on the importance of nutritious complementary and supplementary foods. In addition, socioeconomic factors also play a role, where economically challenged families may not be able to provide quality supplementary food for their children. (Hadi et al., 2021). This worsens the nutritional conditions of children in the region, especially in the more remote areas.

Furthermore, access to health services in DIY shows that puskesmas is the health facility most frequently accessed by the community (40.1%), while 9.1% of the community reported not using any health services in the past year (Figure 3). This suggests that puskesmas, as primary health care services, play an important role in addressing malnutrition, including stunting, but there is still a gap in access to adequate health services for a portion of the population. Limited access to health services can be caused by several factors (Corcadden et al., 2018), such as long geographical distances and lack of transportation can hinder access to health services. This often leads to delays in getting the

necessary care, especially for the elderly and those living in remote areas especially in rural areas. Cost remains a major obstacle for low-income communities. The families with below-average incomes are more likely to experience barriers in accessing timely health care (Sciences et al., 2018), such as not being able to afford consultations, medical tests or medicines. A lack of awareness of the importance of regular health check-ups also plays a big role. Many people are not educated about the importance of accessing preventive and regular healthcare, which leads to delaying treatment until health conditions worsen. These factors contribute to the underutilization of better equipped health facilities such as hospitals, which should provide more comprehensive treatment.

Overall, the problem of stunting in Yogyakarta is influenced by various factors (Siswati et al., 2022), including economic conditions, nutritional parenting, and access to health services (Nuzuliana and Wijhati, 2021; Suratri et al., 2023). Solving this problem requires a holistic approach that includes improved nutrition, improved access to health services, and policies that support a more equitable distribution of resources across society. With fluctuations in economic growth, it is important to ensure that nutrition intervention policies are not only dependent on economic growth, but also on more specific efforts to improve children's nutritional well-being. In addition, some successful policies in reducing stunting have relied not only on economic growth but also on implementing evidence-based interventions focused on vulnerable groups, such as children under the age of five and pregnant women (Akseer et al., 2022; East and Region, 2024). These policies should address factors such as dietary diversity (Gol, Kheirouri and Alizadeh, 2022), access to clean water (Septiyani, Sulistiyani and Joko, 2021), sanitation (Rah et al., 2020), and better maternal and child health services (Simbolon et al., 2021).

CONCLUSION

The nutritional status of children under five in the Special Region of Yogyakarta highlights significant challenges, with stunting being the most prevalent issue, particularly in Gunungkidul (22.2%). Underweight is also a concern, with high rates in Bantul (14.7%) and Gunungkidul (14.5%), while wasting, though less common, remains notable in Bantul (7.9%). These findings underscore the urgent need for targeted interventions to address malnutrition, focusing on reducing stunting, underweight, and wasting. Efforts should prioritize improving dietary diversity, strengthening health services, and enhancing community education to ensure sustainable improvements in child nutrition across the region. Future research should explore the underlying socioeconomic and cultural factors contributing to these nutritional challenges to guide more effective policy interventions.

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