Journal Of Nursing Practice
https://thejnp.org/
ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

A Descriptive Study of the Daily Dietary Patterns of Stunted Children

Zauhani Kusnul[1*], Yuly Peristiowati[2], Herin Mawarti[3], Dina Dewi Sartika L. Ismail[4], Wiwik Afridah[5], Duwi Basuki[6], Wahyu Sri Astutik[7], Aesthetica Islamy[8], Janes Jainurakhma[9]

[1] *Stikes Pamenang, Indonesia*
[2] *Universitas Strada Indonesia, Kediri, Indonesia*
[3] *Magister Kesehatan Masyarakat, Universitas Pesantren Tinggi Darul Ulum, Indonesia*
[4] *Universitas Brawijaya, Indonesia*
[5] *Department of public health, Faculty of Health, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia*
[6] *Universitas Bina Sehat PPNI Mojokerto*
[7] *Institut Ilmu Kesehatan Bhakti Wiyata Kediri*
[8] *STIKES Hutama Abdi Husada Tulungagung*
[9] *Universitas Kepanjen*
**Corresponding author: zauhani.kusnul@gmail.com*

ABSTRACT

Background: Toddler age is a period of very rapid growth and development. At this time, it is important to meet the need for adequate nutritional intake in terms of quantity and quality. Malnutrition is a condition where toddlers experience nutritional deficiencies due to low energy and protein intake over a long period of time. Nutritional problems at an early age not only have an impact on impaired growth and development of children, but also increase toddler mortality rates, reduce intelligence levels, increase the risk of mental retardation, and reduce work performance and productivity.

Purpose: The purpose of this study was to obtain detailed information about the daily eating patterns of stunted children.

Methods: The population of this research was stunted toddlers base in the area of Publich health services of Bendo, Pare. From the all posyandu we chooce one posyandu ada the target by randomize methods. Then we find Dahlia Posyandu as the sample. Posyandu Dahlia has five stunted toddlers so we take them as our sample. Data was taken using a food recall form filled out by the toddler's mother for one week. Furthermore, the data was processed descriptively and presented in the form of a distribution table.

Results: This study shows that all toddlers eat three main meals a day, in terms of daily vegetable and fruit consumption, the majority of children rarely eat vegetables and sufficient daily calorie intake, even more than the Daily Calorie Requirement Standard for fruit, In terms of snack food consumption, all children eat snacks very often and the types of snacks eaten are snacks with a strong savory taste and candy.

Conclusion: The problem in the diet of stunted children is not just in the adequacy of calories, but in the diversity of sources of protein, fruit and vegetables.

Keywords: Daily Diet, Stunted, Toddler

Received May 10, 2026; Revised June 12, 2026; Accepted July 3, 2026
DOI: https://doi.org/10.30994/jnp.v9i4.794

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

BACKGROUND

Toddlerhood represents a critical period of rapid physical growth and neurocognitive development that requires adequate nutritional intake in both quantity and quality. During this period, insufficient nutrient intake may impair linear growth, cognitive development, immune function, and future productivity. Nutritional status reflects the balance between nutrient intake and physiological requirements, and inadequate nutrition during early childhood remains one of the leading public health challenges in low- and middle-income countries (Supariasa, 2013).

Despite considerable progress in Indonesia, childhood malnutrition remains a significant concern. According to the 2024 Indonesian Nutritional Status Survey (Survei Status Gizi Indonesia/SSGI) conducted by the Ministry of Health, the national prevalence of stunting declined from 21.5% in 2023 to 19.8% in 2024, yet this figure remains considerably higher than the national target established in the National Medium-Term Development Plan (RPJMN). The survey also indicates that undernutrition continues to affect a substantial proportion of Indonesian children, highlighting that nutritional problems remain an important public health priority requiring sustained intervention (Ministry of Health of the Republic of Indonesia, 2025).

Stunting is a multifactorial condition resulting from chronic nutritional deficiencies during the first 1,000 days of life. Beyond impaired linear growth, stunting has long-term consequences including delayed cognitive development, poorer educational achievement, reduced work productivity, increased risk of chronic diseases in adulthood, and diminished national human capital. Consequently, reducing childhood stunting has become a strategic priority in improving population health and economic development (WHO, 2023).

Previous studies have identified numerous determinants of stunting, including maternal education, socioeconomic status, sanitation, infectious diseases, household food security, parenting practices, and dietary intake. However, although these determinants have been widely investigated, evidence specifically describing the daily dietary patterns of stunted toddlers at the household level remains relatively limited. Most previous studies have focused on identifying statistical associations between multiple risk factors and stunting prevalence, whereas fewer studies have explored the actual characteristics of children's daily eating habits, including meal frequency, food diversity, snack consumption, and caregiver feeding practices. Such information is essential because dietary behavior represents a modifiable factor that can be directly targeted through nutrition education and community-based interventions.

Considering the multifactorial nature of stunting, this study deliberately focused on dietary patterns rather than simultaneously examining all determinants. Dietary pattern was selected because it constitutes one of the most proximal and modifiable determinants of child nutritional status, can be improved through family-based behavioral interventions, and provides practical evidence for designing nutrition promotion programs at the community level. While other determinants such as socioeconomic conditions, environmental sanitation, and maternal education are undoubtedly important, these factors generally require broader structural interventions beyond the scope of the present study.

Growth monitoring through Integrated Health Posts (Posyandu) remains one of the primary community-based strategies for early identification of nutritional problems among children. Routine anthropometric monitoring enables early detection of growth faltering and provides opportunities for nutrition counselling and timely intervention. Secondary data obtained from the Dahlia Integrated Health Post in the working area of Bendo Primary Health Center showed that stunting remained one of the major nutritional problems among toddlers. The March 2022 report documented seven stunted toddlers (15.2%), indicating the need for

further investigation into modifiable factors contributing to impaired child growth in this community.

Based on these considerations, this study aimed to describe the dietary patterns of stunted toddlers in the working area of Dahlia Integrated Health Post, Bendo Primary Health Center. Understanding daily dietary practices is expected to provide evidence for developing more targeted nutritional education and family-based interventions to support stunting prevention and management.

Stunting has been widely recognized as a multifactorial condition influenced by a complex interaction of biological, socioeconomic, environmental, and behavioral factors. Recent studies have predominantly focused on identifying the determinants or risk factors of stunting, including household food insecurity, maternal education, sanitation, infectious diseases, socioeconomic status, and dietary diversity, using multivariable analytical approaches or systematic reviews (Putri, Islam and Subadi, 2018; Molani Gol, Kheirouri and Alizadeh, 2022; Vollmer *et al.*, 2025).

Although these studies have substantially improved the understanding of factors associated with stunting, relatively little attention has been given to describing the actual daily dietary patterns of children who are already stunted, particularly at the household level. Most published studies evaluate dietary diversity or feeding indicators as predictor variables within regression models rather than providing a comprehensive description of children's everyday eating behaviors, including meal frequency, food variety, snack consumption, animal-source food intake, and caregiver feeding practices.

This knowledge gap is important because dietary behavior represents one of the most proximal and modifiable determinants of child nutritional status. UNICEF recently emphasized that inadequate complementary feeding practices including poor dietary diversity, insufficient meal frequency, and limited consumption of nutrient-rich foods remain widespread globally and continue to contribute substantially to childhood undernutrition. Therefore, understanding the daily dietary patterns of stunted toddlers is essential for designing evidence-based, family-centered nutrition interventions that are tailored to local dietary practices rather than relying solely on broader epidemiological risk factors.

The present study addresses this gap by specifically describing the dietary patterns of stunted toddlers in the working area of Dahlia Integrated Health Post, Bendo Primary Health Center. Unlike previous studies that primarily examined determinants of stunting, this study focuses on characterizing daily feeding practices among children who have already experienced stunting, thereby providing practical evidence to support targeted nutrition education and community-based intervention programs.

OBJECTIVE

This study aimed to comprehensively characterize the habitual dietary intake of stunted toddlers using repeated 24-hour food recall, with particular emphasis on meal frequency, dietary diversity, energy and nutrient intake, and feeding practices. By providing a detailed description of daily dietary patterns among children with stunting, this study seeks to generate evidence that can inform the development of targeted, family-centered nutritional interventions for stunting prevention and management.

METHODS

Study design and participants

This descriptive study was conducted to obtain an in-depth description of the habitual dietary intake and caregiving practices of children with stunting. A purposive sampling technique was employed to recruit participants from the Dahlia Integrated Health Post

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

(Posyandu Dahlia), Bendo Primary Health Center. Five mothers of toddlers diagnosed with stunting were included in the study because they fulfilled the predetermined inclusion criteria, including having a child with confirmed stunting status, serving as the primary caregiver, and being willing to participate throughout the data collection process. The limited number of participants reflects the total number of eligible cases available in the study setting during the study period. Consequently, the findings are intended to provide a detailed contextual description of dietary practices among stunted children rather than to produce statistically generalizable results.

Dietary Assessment

Daily dietary intake was assessed using a standardized 24-hour food recall form administered over seven consecutive days. Mothers, as the primary caregivers, were instructed to record all foods and beverages consumed by their child during the previous 24 hours each day. For every food item, mothers documented the type of food, preparation method (when applicable), portion size using household measures (e.g., one boiled egg, one medium piece of fried tofu, one tablespoon of rice, one glass of milk), and meal occasion.

Before data collection, all participating mothers received standardized instructions from the researchers regarding the completion of the food recall form, including practical examples of estimating portion sizes using household measures. The completed forms were reviewed daily by the researchers to ensure completeness and consistency, and any unclear or missing information was verified directly with the mothers through follow-up interviews.

Dietary intake data recorded in household measures were subsequently converted into gram equivalents using the Indonesian Household Measurement Conversion Table and analyzed using the Indonesian Food Composition Table (Tabel Komposisi Pangan Indonesia, TKPI) issued by the Ministry of Health of the Republic of Indonesia. Daily energy intake was calculated by summing the caloric contribution of each food and beverage consumed, and the average daily energy intake (kcal/day) for each participant was calculated from the seven-day dietary records.

Conducting repeated 24-hour recalls over seven consecutive days was intended to minimize day-to-day variation in food consumption and to provide a more representative description of the children's habitual dietary intake than would be obtained from a single-day dietary assessment.

Assessment of caregiving practices

Information regarding caregiving and feeding practices was collected through structured face-to-face interviews with the mothers using an interview guide developed based on the study objectives. The interview explored daily feeding routines, meal preparation, feeding frequency, food preferences, snack consumption, caregiver responses to feeding difficulties, and other practices related to child nutrition. Responses were documented verbatim and subsequently organized into thematic categories. Qualitative information was analyzed using descriptive content analysis, whereby similar responses were grouped into recurring themes to facilitate interpretation of caregiving practices among participating families.

Data Analysis

Quantitative dietary data were analyzed descriptively. Daily energy intake was calculated for each of the seven dietary recalls and subsequently averaged to obtain the participants' mean daily energy intake (kcal/day). Food consumption was further summarized according to meal frequency, food groups, and dietary diversity to describe habitual dietary patterns among children with stunting.

Qualitative data obtained from the structured interviews were analyzed using descriptive content analysis. Interview responses were coded, categorized according to recurrent themes related to caregiving and feeding practices, and summarized descriptively to

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

complement the dietary assessment findings.

Ethical considerations

Prior to participation, all mothers received a complete explanation regarding the objectives, procedures, potential benefits, and voluntary nature of the study. Written informed consent was obtained from each participant before data collection commenced. Participant confidentiality and anonymity were maintained throughout the research process, and all collected information was used solely for research purposes.

RESULTS

General Characteristics of Toddlers and Mothers

Based on the following data collection results, the general characteristics of mothers and oddlers with malnutrition include; child age, gender, mother age, mother's education, other's occupation, main caregiver of the child.

Table 1. Distribution of General Characteristics of Toddlers and Mothers

Toddler code number	Toddler age (months)	Gender	Mother's age	Mother's education	Mother's job	Primary caregiver of the child
1	30	L	30	High School	Vegetable trader	mother
2	30	P	31	High School	Farmer	mother
3	24	P	24	High School	Pottery trader	mother
4	53	L	31	High School	Farmer	mother
5	57	L	35	High School	Housewife	mother

In this study, the youngest toddler was 24 months and the oldest was 57 months. Three out of five toddlers were male. The age of the mothers in this study was in the range of 24 to 35 years, the education level of all mothers of toddlers was high school. Furthermore, the majority of mothers' daily work was in the informal sector (trading and farming) and all toddlers were cared for directly by their mothers.

Children's Eating Patterns

The children's eating patterns studied in this study include the frequency of eating, consumption of vegetables, fruits and snacks in a day. Data were taken using a food recall form filled out by the toddler's mother. Data on food consumed by toddlers were filled in by the toddler's mother in household units of measurement such as; small/medium/large pieces, spoons, glasses, plates. Furthermore, the data was converted to units of weight (grams) and then from these gram units the number of calories could be calculated.

Table 2. Frequency of eating, consumption of vegetables, fruits and snacks daily in one week

Toddler code number	Main meal frequency	frequency of vegetable consumption	frequency of fruit consumption	frequency of snack consumption	Types of snacks often consumed
1	3	Quite often	seldom	Very often	Light snack with strong savory taste, candy

2	3	seldom	seldom	Very often	Light strong candy	snack savory	with taste,
3	3	Almost never	seldom	Very often	Light strong candy	snack savory	with taste,
4	3	seldom	seldom	Very often	Light strong candy	snack savory	with taste,
5	3	seldom	seldom	Very often	Light strong candy	snack savory	with taste,

Based on food recall data, all toddlers eat their main meals 3 times a day, in this case the frequency of toddlers' main meals is sufficient. In terms of daily vegetable and fruit consumption, the majority of children rarely eat vegetables and fruits. In terms of snack food consumption, all children eat snacks very often and the types of snacks eaten are snacks with a strong savory taste and candy.

Daily Calorie Intake for Toddlers

Daily calorie adequacy for toddlers is calculated based on food recall data for one week and calculated as an average per day. The average daily calorie intake for toddlers is presented in table 3.

Table 3. Daily calorie intake for toddlers

Toddler code number	Age (month)	Standard daily calorie requirements (Permenkes RI number 75, 2013)	Average daily calorie intake for toddlers	category
1	30	1125	1400	Enough
2	30	1125	1300	Enough
3	24	1125	1150	Enough
4	53	1600	1650	Enough
5	57	1600	1750	Enough

Based on food recall data, all toddlers eat 3 main meals a day, in this case the frequency of toddlers' main meals is sufficient. In terms of daily vegetable and fruit consumption, the majority of children rarely eat vegetables and fruits, fruit and vegetable consumption is not directly mentioned as a determinant of stunting in children under five years of age in Indonesia. However, it should be noted that proper nutrition is very important for the healthy growth and development of children, especially in the vulnerable toddler age group. The family, in this case the mother, has a big role in introducing and getting children used to fruits and vegetables, what the family usually eats and is given at the beginning of the child's introduction to food is important in shaping the child's eating patterns in the future (Roess *et al.*, 2018).

Fruits and vegetables are important sources of vitamins and minerals that are important for children's growth and development. According to the World Health Organization (WHO), children aged 6-23 months should consume at least four food groups per day, including fruits and vegetables (World Health Organization, 2023). However, fruit and vegetable consumption in children in Indonesia is still low (Kemenkes RI, 2023), only 8.5% of children aged 6-23 months meet the minimum dietary diversity.

Overall, although fruit and vegetable consumption is not directly mentioned as a determining factor for stunting in children under five years of age in Indonesia, it is important to ensure that toddlers get the right nutrition, including a variety of fruits and vegetables, to support their growth and health.

In terms of snack food consumption, all children eat snacks very often and the types of snacks eaten are snacks with a strong savory taste and candy. Consumption of snacks or junk food with low nutritional value is said to be a factor causing stunting in children under five years of age in Indonesia. Therefore, it is important to ensure that children, including toddlers, get the right nutrition from various sources, including snacks and healthy foods. Overall, consumption of snacks or junk food with low nutritional value can contribute to stunting in children under five years of age in Indonesia. Therefore, it is important to provide toddlers with a variety of nutritious foods, including snacks and healthy foods, to ensure their healthy growth and development. Children's snacks must receive special attention because snacks are an inseparable part of everyday life, especially for children. Children generally really like snacks and snacks sometimes shift the portion of main food consumption.

Snacks that are too sweet, too savory and salty, because they affect eating patterns so that children have difficulty eating. Foods with flavor enhancers will affect the sensitivity of the taste nerve receptors so that the standard taste of food will be perceived as bland by children (Moore et al., 2022; Young BE, 2013). The taste that is perceived as bland by children will tend to be rejected by children and children will increasingly want snacks with strong flavors. On the one hand, we can observe that the quality of snack foods in the community has a lot of low nutritional value so that it does not contribute good nutrition for children. Even snack foods are often processed with additives that do not meet quality standards or dosages so that this often triggers health problems in children such as diarrhea, sore throats, etc.

Based on the food recall data, the five toddlers in this study received sufficient daily calorie intake, even more than the standard daily calorie requirement (Kermenkes, 2023). However, the facts of this study raise the suspicion that the nutritional status of toddlers is not solely related to daily calorie adequacy. Micronutrients play an important role in metabolism. Micronutrients are very important for metabolism because they contribute to hormone formation, enzyme activity, immune system function, reproductive health, and macronutrient metabolism. Without sufficient and balanced micronutrients, sufficient calorie intake may not be significant in supporting optimal child growth and development. It is very important to ensure adequate micronutrient intake through a balanced and varied diet to support the overall health and development of toddlers.

DISCUSSION

One of the most important findings of this study is that all participating children had adequate, and in some cases excessive, average daily calorie intake based on seven-day food recall data, yet all remained classified as stunted. This finding indicates that caloric adequacy alone is insufficient to ensure optimal linear growth. Stunting is increasingly recognized as a complex condition resulting not only from insufficient energy intake but also from poor diet quality, inadequate intake of essential nutrients, recurrent infections, and suboptimal caregiving practices (WHO, 2023b).

The present study found that children routinely consumed three main meals per day, suggesting that meal frequency was generally adequate. However, the dietary pattern was characterized by low consumption of fruits and vegetables and frequent intake of commercially processed snacks and sweet foods. These findings suggest that children may obtain sufficient calories but still experience deficiencies in important nutrients required for growth. UNICEF recently introduced the concept of child food poverty, emphasizing that children may consume

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

enough food energy while lacking access to diverse and nutrient-rich foods essential for growth and development (UNICEF, 2024). Children experiencing food poverty commonly consume only a limited number of food groups and have a higher risk of poor nutritional outcomes.

This study assessed energy intake using seven-day food recall and therefore did not directly quantify protein quality or micronutrient intake. Nevertheless, the observed dietary patterns suggest that the quality of consumed foods may be insufficient to support normal growth. Previous evidence indicates that high-quality protein, particularly from animal-source foods, provides essential amino acids necessary for tissue growth and stimulates the insulin-like growth factor-1 (IGF-1) pathway, which plays a critical role in linear growth. In addition, micronutrients such as zinc, iron, iodine, vitamin A, vitamin D, and calcium are essential for bone formation, immune function, enzyme activity, and overall growth processes (WHO, 2023a)(WHO, 2023b). Deficiencies in these nutrients may contribute to growth faltering even when total caloric intake appears adequate.

Another important finding of this study was the frequent consumption of snacks with high salt, sugar, and flavor-enhancer content. Although such foods contribute to total energy intake, they generally contain low amounts of vitamins, minerals, and high-quality protein. Moreover, frequent snack consumption may reduce children's appetite for more nutritious family foods, leading to poor dietary diversity. Recent evidence suggests that increasing consumption of ultra-processed foods is associated with lower diet quality and displacement of nutrient-dense foods among children (Monteiro *et al.*, 2019).

The qualitative findings of this study also indicate that mothers frequently provided foods preferred by children, particularly snacks and sweet foods, while fruit and vegetable intake remained limited. These findings originate directly from the present study and suggest that feeding practices may influence dietary quality. Previous studies have shown that caregiver food choices, responsive feeding practices, and repeated exposure to healthy foods are important determinants of children's eating behaviors and dietary diversity (UNICEF, 2024).

Stunting should also be understood as a multifactorial condition. The present study focused on dietary patterns and caregiving practices and did not assess recurrent infections, environmental sanitation, or intestinal health. However, previous literature indicates that recurrent diarrhea, respiratory infections, poor sanitation, and environmental enteric dysfunction may impair nutrient absorption and increase metabolic demands, thereby limiting child growth despite apparently sufficient dietary intake (WHO, 2023c). Therefore, the coexistence of adequate calorie intake and stunting observed in this study may be explained by the interaction between dietary quality, micronutrient adequacy, feeding practices, and other biological or environmental factors that were not measured.

The characteristics of participating mothers should be interpreted cautiously. All mothers had completed secondary education and acted as primary caregivers. Although maternal education has been reported as a determinant of child nutritional status in previous studies, the descriptive design of the present study does not allow conclusions regarding causal relationships. Therefore, maternal characteristics in this study should be considered contextual information rather than determinants identified directly by the study findings.

The findings of this study have important implications for community nutrition programs and primary healthcare services. Nutrition interventions should move beyond emphasizing calorie sufficiency and place greater attention on improving diet quality, dietary diversity, and intake of nutrient-dense foods, including animal-source foods, fruits, and vegetables. Nutrition education delivered through Posyandu and primary healthcare services should strengthen caregivers' knowledge regarding healthy snacks, balanced diets, and appropriate feeding practices during early childhood. In addition, routine dietary assessment using simple food recall methods may help healthcare workers identify children whose energy

intake appears adequate but whose diets remain nutritionally imbalanced. UNICEF has emphasized that improving access to diverse, nutritious, and affordable foods should become a priority in addressing child malnutrition globally.

This study has several limitations. First, the study included only five participants from a single community, limiting the transferability of findings to wider populations. Second, the descriptive design precludes causal inference regarding dietary intake and stunting. Third, food recall data relied on caregiver reporting and may be subject to recall bias, although researchers verified the records daily. Finally, this study estimated calorie intake but did not directly assess protein quality, micronutrient intake, biochemical nutritional status, infection history, or sanitation conditions. Future studies involving larger samples and more comprehensive nutritional assessments are needed to better understand the complex pathways linking diet quality, caregiving practices, infections, and stunting.

CONCLUSION

The findings of this study indicate that the average daily energy intake of stunted children was generally within the adequate range. However, most children exhibited poor dietary diversity, characterized by very low consumption of fruits and vegetables and limited variation in protein sources. These findings suggest that adequate energy intake alone is insufficient to support optimal linear growth when diet quality remains inadequate. Insufficient dietary diversity may reduce the intake of essential micronutrients, including vitamins and minerals that are critical for bone formation, cellular growth, immune function, and growth-regulating metabolic processes. Therefore, nutritional interventions for stunted children should not focus solely on increasing caloric intake but should also prioritize improving dietary diversity, particularly through greater consumption of fruits, vegetables, and diverse high-quality protein sources to ensure adequate micronutrient intake and support healthy child growth.

ACKNOWLEDGMENT

Thank you to Stikes Pamenang for providing funding support for this research, as well as all partners who have contributed to this research.

CONFLICTS OF INTEREST

This research has no conflict of interest

REFERENCES

Kemenkes RI, B.K.P.K. (2023). *Survei Kesehatan Indonesia (SKI) Dalam Angka*. Jakarta.

Molani Gol, R., Kheirouri, S. and Alizadeh, M. (2022). 'Association of Dietary Diversity With Growth Outcomes in Infants and Children Aged Under 5 Years: A Systematic Review', *Journal of Nutrition Education and Behavior*, 54(1), pp. 65–83. Available at: https://doi.org/10.1016/j.jneb.2021.08.016.

Monteiro, C.A. *et al.* (2019). 'Ultra-processed foods: what they are and how to identify them', *Public Health Nutrition*, 22(5), pp. 936–941. Available at: https://doi.org/10.1017/S1368980018003762.

Putri, N.N., Islam, M.S. and Subadi, I. (2018). 'Comparison of Acute Ischemic Stroke Functional Outcome in Smokers and Non-', *Malang Neurology Jurnal*, Vol.04, p. 66. Available at: https://mnj.ub.ac.id/index.php/mnj/article/view/324.

Roess, A.A. *et al.* (2018). 'Food Consumption Patterns of Infants and Toddlers: Findings from the Feeding Infants and Toddlers Study (FITS) 2016', *The Journal of Nutrition*, 148, pp. 1525S-1535S. Available at: https://doi.org/10.1093/jn/nxy171.

ISSN: 2614-3488 (print); 2614-3496 (online) Vol.9 No.4. July 2026. Page.910-919

UNICEF. (2024). '1 in 4 children globally live in severe child food poverty due to inequity, conflict, and climate crises'. New York: UNICEF Press.

Vollmer, S. *et al.* (2025). 'Measuring child food poverty: understanding the gap to achieving minimum dietary diversity', *Public Health Nutrition*, 28(1), p. e27. Available at: https://doi.org/10.1017/S1368980025000023.

WHO. (2023a). 'Levels and trends in child malnutrition: UNICEF/WHO/World Bank Joint Child Malnutrition Estimates'. Genewa.

WHO. (2023b). 'Levels and trends in child malnutrition'. Geneva.

WHO. (2023c). 'Malnutrition Fact Sheet.' Genewa.