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Community Health Education And Anthropometric Screening Of Children Under Five At Tegal Sari Public Health Center In 2026

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Abstract

Child health is an important component of public health development, particularly during the first five years of life, which represent a critical period for growth and development. Regular monitoring of children's nutritional status through anthropometric measurements is essential for the early identification of growth disorders and nutritional problems. This community service activity aimed to improve parental awareness and promote the importance of child health through health education and anthropometric screening at Tegal Sari Public Health Center in 2026. The activity was conducted through health education sessions and direct anthropometric examinations involving children under five and their parents. The screening included measurements of body weight and height to assess children's growth conditions. A total of 21 children participated in the activity, with 11 boys and 9 girls, while one participant's sex was not recorded. Most participants were aged 3–4 years. The recorded body weight ranged from 19 to 22 kg, while height ranged from 93 to 100 cm. The activity provided an opportunity to monitor children's physical growth and increase parental awareness regarding the importance of balanced nutrition, regular anthropometric measurements, and routine visits to community health services. It can be concluded that community health education combined with anthropometric screening represents an important promotive and preventive approach to supporting early childhood health. Continuous growth monitoring and parental involvement are expected to contribute to improved awareness and better nutritional health practices among families

Keywords: ***Community Health Education; Anthropometric Screening; Children Under Five; Nutritional Status; Growth Monitoring.***

INTRODUCTION

The first five years of life represent a critical period in human growth and development. During this stage, children experience rapid physical growth, brain development, and the maturation of various body systems. Adequate nutrition, appropriate healthcare, environmental conditions, and parental involvement are essential factors in supporting optimal child development. Nutritional problems during early childhood, including stunting, wasting, underweight, and overweight, may have consequences for children's physical development, health, and long-term quality of life. Therefore, early identification and continuous monitoring of children's growth are important components of preventive and promotive healthcare services.

Child malnutrition remains a significant global public health concern. According to the 2025 edition of the UNICEF, World Health Organization (WHO), and World Bank Joint Child Malnutrition Estimates, approximately 150.2 million children under five years of age worldwide were affected by stunting in 2024, equivalent to 23.2% of the global under-five population. Furthermore, approximately 42.8 million children experienced wasting, while 35.5 million children were classified as overweight. These figures demonstrate that nutritional problems among children under five remain a major public health challenge and require sustained interventions through nutrition education, early detection, and accessible healthcare services (UNICEF, WHO, & World Bank, 2025).

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World Health Organization+1

In Indonesia, improving the nutritional status of children under five remains an important national health priority. The Indonesian Ministry of Health, through the 2024 Indonesian Nutritional Status Survey (Survei Status Gizi Indonesia or SSGI), reported that the national prevalence of stunting decreased from 21.5% in 2023 to 19.8% in 2024. Although this decline indicates progress in national efforts to reduce childhood malnutrition, the prevalence remains a concern and requires continuous collaboration among healthcare professionals, government institutions, families, and communities. Strengthening community-based health interventions is therefore essential to support early identification of nutritional problems and improve the quality of child health services (Ministry of Health of the Republic of Indonesia, 2025).

Kesprimkom+1

Anthropometric assessment is one of the most practical and important approaches to monitoring the nutritional status and physical growth of children. It involves measuring body weight and body length or height, which can subsequently be interpreted using standardized growth indicators. According to the Indonesian Ministry of Health Regulation No. 2 of 2020 concerning Child Anthropometric Standards, nutritional status assessment in children is based on indicators including weight-for-age (W/A), length/height-for-age (L/H/A), weight-for-length/height (W/L/H), and body mass index-for-age (BMI/A). These indicators are used to identify different nutritional conditions, including underweight, stunting, wasting, and overweight. The interpretation of anthropometric measurements must consider the child's exact age, sex, and the applicable growth reference standards to ensure accurate assessment (Ministry of Health of the Republic of Indonesia, 2020).

JDIH Ministry of Health+1

Regular anthropometric screening provides valuable information for healthcare workers and parents regarding children's growth patterns. Measurements of body weight and height can help identify children who may require further nutritional assessment, counseling, or medical intervention. However, a single measurement does not always provide sufficient information to determine a child's overall growth condition. Repeated measurements and comparison with standardized growth charts are necessary to evaluate growth trends and identify possible growth deviations at an early stage. Consequently, anthropometric screening should be integrated into routine child health monitoring services at community health centers and community-based health posts.

In addition to anthropometric assessment, health education plays an important role in improving parental knowledge and awareness regarding child nutrition and healthy growth practices. Parents and caregivers are responsible for providing appropriate food, maintaining hygiene, recognizing early signs of illness, and ensuring that children receive regular health examinations. Limited knowledge about balanced nutrition, age-appropriate feeding practices, and the importance of growth monitoring may contribute to inadequate nutritional practices within families. Through structured health education, parents can gain a better understanding of nutritional requirements, healthy food choices, appropriate feeding practices, and the importance of regularly monitoring their children's physical development.

Community-based health education also supports preventive healthcare by encouraging active participation from families in maintaining children's health. Public health centers (Puskesmas) have an important role in delivering promotive and preventive services through health counseling, nutritional assessment, growth monitoring, and early identification of health problems. Collaboration between healthcare professionals, parents, and the surrounding

community is necessary to ensure that children receive continuous and appropriate health support. Combining health education with direct anthropometric screening can provide a more comprehensive approach because it integrates knowledge improvement with practical monitoring of children's growth conditions.

At the local level, strengthening child health services through community participation is particularly important to ensure that growth monitoring reaches families consistently. Tegal Sari Public Health Center serves as an important primary healthcare facility in providing health promotion, preventive services, and basic health assessments for children under five. The integration of community health education and anthropometric screening at this facility is expected to support early recognition of potential nutritional problems while increasing parental understanding of the importance of maintaining children's nutritional health. Nevertheless, the specific nutritional profile of children attending the health center should be established through systematic measurements and appropriate interpretation of individual anthropometric data rather than assumptions based on general population statistics.

RESEARCH METHODS

Research Design

This study employed a descriptive community service approach using health education and anthropometric screening activities. The approach was designed to promote awareness of child health and nutritional status among parents and caregivers while providing direct monitoring of the physical growth of children under five years of age. The activity integrated health education with anthropometric examinations to provide information about the importance of balanced nutrition, regular growth monitoring, and early identification of potential nutritional problems.

The descriptive approach was selected to document the implementation of the community health intervention and describe the anthropometric characteristics of participating children. The activity did not employ an experimental design or a control group.

Location and Time of Activity

The community service activity was conducted at Tegal Sari Public Health Center, Indonesia, in 2026. The location was selected because public health centers play an important role in providing promotive and preventive healthcare services, particularly maternal and child health services, nutritional counseling, and growth monitoring.

The activity was implemented through coordination with healthcare personnel at the public health center and involved parents or caregivers accompanying children under five years of age.

Participants and Sampling Technique

The participants consisted of children under five years of age who attended the community health service activity at Tegal Sari Public Health Center. A total of 21 children participated in the anthropometric screening.

Participants were recruited using an accidental sampling approach, involving children who were present and met the activity's participation criteria during implementation.

The inclusion criteria were:

1. Children under five years of age.
2. Children accompanied by their parents or caregivers.

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3. Parents or caregivers willing to participate in the health education and anthropometric screening activities.

The demographic characteristics recorded included age and sex. Based on the available data, the participants consisted of 11 boys and 9 girls, while the sex of one participant had not been documented. Most participants were aged 3–4 years.

Instruments and Anthropometric Measurements

Anthropometric screening was conducted to obtain information regarding the physical growth characteristics of participating children. The measurements include body weight and height.

The instruments used in the activity included:

a) Digital weighing scale: Used to measure children's body weight in kilograms (kg).
b) Height measuring instrument: Used to measure children's height in centimeters (cm).
c) Data recording sheets: Used to document participants' demographic characteristics and anthropometric measurement results.
d) Health education materials: Used to deliver information regarding balanced nutrition, child growth monitoring, and the importance of maintaining nutritional health.

Body weight was measured using a weighing scale, while height was measured using an appropriate anthropometric measuring instrument. Measurements were recorded regularly to support the documentation and evaluation of children's physical growth.

The recorded body weight ranged from 19 to 22 kg, while the recorded height ranged from 93 to 100 cm.

For nutritional status assessment, anthropometric measurements should be interpreted according to the WHO Child Growth Standards, considering the child's exact age and sex. The indicators include weight-for-age, height-for-age, weight-for-height, and body mass index-for-age. Since complete individual-level data were not available for this report, the measurements were presented descriptively without assigning nutritional status classifications.

RESULTS AND DISCUSSION

Results

Characteristics of Participants

The community health education and anthropometric screening activity at Tegal Sari Public Health Center in 2026 involved a total of 21 children under five years of age. The participants were assessed based on their demographic characteristics, including age and sex. The collected data provided an overview of the characteristics of children who participated in the activity.

Table 1. Distribution of Participants Based on Sex

No.	Sex	Frequency (n)	Percentage (%)
1	Male	11	52.38
2	Female	9	42.86
3	Not recorded	1	4.76
	Total	21	100.00

Based on Table 1, male participants accounted for 11 children (52.38%), while female participants accounted for 9 children (42.86%). The sex of one participant (4.76%) was not

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documented in the available records. The findings indicate that male participants represented the largest recorded sex category in the anthropometric screening activity.

Age Characteristics of Participants

Age is an important variable in monitoring children's growth and development because nutritional requirements and expected physical growth patterns vary according to age.

Table 2. Age Characteristics of Children Under Five

No.	Age Group	Description
1	0–2 years	Other age groups
2	3–4 years	Most frequently represented age group
3	5 years	Other age groups

Based on the activity records, the largest proportion of participating children belonged to the 3–4-year age group. This finding indicates that preschool-aged children represented the most frequently encountered group during the screening activity. However, the exact frequency and percentage for each age group were not available in the collected summary data.

Anthropometric Measurement Results

Anthropometric screening was conducted to obtain information regarding the physical growth characteristics of participating children. The measurements focused on body weight and height.

Table 3. Anthropometric Measurement Characteristics

No	Anthropometric Variable	Recorded Measurement
1	Body weight	19–22 kg
2	Height	93–100 cm

The anthropometric screening revealed that the recorded body weight of participating children ranged from 19 to 22 kg, while their height ranged from 93 to 100 cm. These measurements provided basic information about the physical characteristics of the children attending the community health activity.

It is important to emphasize that the recorded measurement ranges represent descriptive findings rather than confirmed nutritional status classifications. Individual nutritional status requires interpretation using the child's exact age, sex, and appropriate WHO Child Growth Standards.

Implementation of Community Health Education

The health education component was implemented alongside anthropometric screening. The educational activity focused on increasing parental awareness of the importance of maintaining children's nutritional health and monitoring their physical growth.

The educational topics included the importance of balanced nutrition, adequate food consumption, regular monitoring of body weight and height, recognition of potential nutritional problems, and utilization of healthcare services for routine child health examinations.

The integration of health education and anthropometric screening provided an opportunity for parents and caregivers to receive information about child health while participating in direct growth-monitoring activities.

However, because no pre-test and post-test measurements were documented, the improvement in parental knowledge cannot be quantified from this activity.

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Discussion

Characteristics of Children Under Five Participating in the Activity

The findings showed that a total of 21 children participated in the community health education and anthropometric screening activity at Tegal Sari Public Health Center. Based on the available demographic records, boys represented 52.38% of the total participants, while girls represented 42.86%. One participant's sex was not recorded. The difference in the number of male and female participants was relatively small, indicating that the activity involved children from both sexes.

The age distribution showed that children aged 3–4 years constituted the largest participating age group. This finding is important because preschool-aged children continue to experience physical growth and developmental changes that require adequate nutritional intake and regular health monitoring. During this period, children's dietary habits, food preferences, physical activity, and daily hygiene practices are also influenced by their family environment.

Monitoring children during this developmental stage is essential because nutritional inadequacy may affect physical growth and overall development. Parents and caregivers therefore need to understand that maintaining children's health requires more than providing sufficient food; it also involves ensuring dietary diversity, adequate protein intake, appropriate feeding practices, and regular health examinations.

Anthropometric Screening and Nutritional Status Monitoring

Anthropometric screening in this activity identified a body weight range of 19–22 kg and a height range of 93–100 cm among the participating children. These measurements represent the physical growth characteristics documented during the activity.

Anthropometry is an important method for evaluating child growth because it provides objective measurements that can be compared with internationally recognized growth standards. The World Health Organization (WHO) Child Growth Standards include several indicators, namely weight-for-age, height-for-age, weight-for-height, and body mass index-for-age. These indicators provide different information about children's nutritional conditions and growth patterns (WHO, 2006).

World Health Organization+1

The recorded body weight and height ranges should not be interpreted independently as evidence of normal or abnormal nutritional status. A child weighing 19 kg, for example, may have a different nutritional classification depending on their exact age, sex, and height. Therefore, individual anthropometric assessment is necessary before determining whether a child is experiencing undernutrition, stunting, wasting, overweight, or obesity.

In this context, the screening activity provided an important opportunity to introduce parents to the importance of objective growth monitoring. Parents should not rely solely on their children's physical appearance or appetite when assessing nutritional health. Instead, regular measurements and appropriate interpretation using standardized growth charts are necessary to identify possible growth deviations.

The findings also emphasize the importance of integrating anthropometric measurements into routine primary healthcare services. Public health centers and community health posts can facilitate early detection by conducting regular growth monitoring and providing appropriate nutritional counseling to parents.

The Importance of Community Health Education in Improving Parental Awareness

Health education was an important component of this community service activity. The educational sessions focused on balanced nutrition, adequate food intake, regular growth

monitoring, and the importance of utilizing healthcare services for children's health examinations.

Parental knowledge is an important factor in supporting appropriate childcare and feeding practices. Parents who understand children's nutritional requirements are better equipped to make informed decisions regarding food selection, meal preparation, feeding frequency, and healthy dietary habits.

The importance of nutrition counseling is also emphasized in WHO guidance for primary healthcare facilities. Healthcare professionals are encouraged to provide appropriate nutrition counseling to caregivers as part of efforts to prevent and manage nutritional problems among children under five (WHO, 2017).

NCBI Bookshelf

Furthermore, health education can encourage parents to become more actively involved in monitoring their children's physical development. Information regarding the importance of body weight and height measurements can motivate families to attend regular growth-monitoring services and seek professional advice when growth problems are suspected.

However, the effectiveness of the educational intervention in this activity cannot be quantitatively determined because no documented pre-test and post-test assessments were available. Therefore, the contribution of health education is discussed in terms of its implementation and potential role in strengthening parental awareness rather than a statistically measured increase in knowledge.

The Role of Public Health Centers in Preventing Childhood Nutritional Problems

Public health centers play a strategic role in promoting child health through preventive and promotive healthcare interventions. These services include nutritional counseling, anthropometric screening, immunization, growth monitoring, and early identification of potential health problems.

In Indonesia, childhood nutritional problems remain an important public health concern. According to the 2024 Indonesian Nutritional Status Survey (SSGI), the national prevalence of stunting among children under five decreased from 21.5% in 2023 to 19.8% in 2024. The prevalence of wasting also decreased from 8.5% to 7.4%, while the prevalence of overweight decreased from 4.2% to 3.4% (Ministry of Health of the Republic of Indonesia, 2025).

Kesprimkom+1

These national figures demonstrate that although progress has been achieved, nutritional problems among children under five continue to require attention. They also highlight the importance of strengthening community-based health interventions, particularly those involving parents, healthcare professionals, and local communities.

The activity at Tegal Sari Public Health Center represents a practical approach to supporting these broader public health objectives. By combining health education with anthropometric screening, the activity provides an opportunity to increase awareness while facilitating basic growth monitoring.

Nevertheless, national nutritional prevalence data should not be interpreted as representing the nutritional conditions of the 21 children participating in this activity. Specific nutritional prevalence at the study location requires complete individual anthropometric measurements and appropriate nutritional classification.

Integration of Health Education and Anthropometric Screening

The integration of health education and anthropometric screening represents an important approach to improving community participation in early childhood health monitoring.

Anthropometric measurements provide objective information about children's physical growth, while health education helps parents understand how to maintain and support healthy growth.

These two components complement each other. Screening without adequate parental understanding may limit the ability of families to respond appropriately to children's nutritional needs. Conversely, health education without objective growth monitoring may make it difficult to recognize children who require further nutritional assessment.

Through the integration of these activities, parents can become more aware of the importance of balanced nutrition, regular measurement of body weight and height, and early consultation with healthcare professionals when growth abnormalities are suspected.

The implementation of this activity also supports the broader objective of preventive healthcare by encouraging families to participate actively in maintaining children's health. Sustainable collaboration between public health centers, healthcare professionals, parents, and communities is necessary to ensure that growth monitoring becomes a regular practice rather than an occasional activity.

Limitations of the Activity

Several limitations should be considered when interpreting the findings of this community service activity.

First, the number of participants was relatively small, involving only 21 children attending the activity at Tegal Sari Public Health Center. Therefore, the findings cannot be generalized to all children under five in the Tegal Sari service area.

Second, the available anthropometric data were presented as measurement ranges rather than complete individual-level records. Exact age in months, individual body weight, individual height, and corresponding sex were not fully available for nutritional classification using WHO growth standards.

Third, one participant's sex was not documented, resulting in an inconsistency between the total number of participants and the recorded sex distribution.

Fourth, the educational intervention was not evaluated using standardized pre-test and post-test instruments. Consequently, the extent of improvement in parental knowledge following the educational sessions could not be statistically assessed.

Future community service activities should include more comprehensive individual data collection, standardized anthropometric procedures, nutritional status classification, and evaluation of parental knowledge before and after health education.

Overall Findings and Implications

The community health education and anthropometric screening activity at Tegal Sari Public Health Center demonstrated the practical implementation of an integrated approach to promoting child health. The participation of 21 children provided an opportunity to document physical growth characteristics and introduce parents to the importance of regular nutritional monitoring.

The findings highlight three important implications:

1. Early growth monitoring: Regular anthropometric measurements are necessary to identify potential growth deviations among children under five.
2. Parental involvement: Health education can support greater awareness of balanced nutrition and appropriate childcare practices.
3. Strengthening primary healthcare services: Integrating nutritional education and anthropometric screening into routine community health activities can support preventive healthcare efforts.

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Overall, combining health education and anthropometric screening provides a relevant community-based approach to supporting early childhood health. Continued implementation, accompanied by more comprehensive data collection and evaluation, is necessary to strengthen the effectiveness and sustainability of these interventions.

Below is the documentation of the community service activity, which included height and weight screenings for toddlers.









CONCLUSION

The community health education and anthropometric screening activity conducted at Tegal Sari Public Health Center in 2026 provided an opportunity to promote awareness of child health and the importance of monitoring growth and nutritional status among children under five. A total of 21 children participated in the activity, consisting of 11 boys and 9 girls, with one participant's sex not documented. Most participants were aged 3–4 years. The anthropometric measurements showed that body weight ranged from 19 to 22 kg, while height ranged from 93 to 100 cm.

The integration of health education and anthropometric screening represents an important promotive and preventive approach to supporting early childhood health. Through this activity, parents and caregivers were provided with information regarding balanced nutrition, appropriate childcare practices, regular growth monitoring, and the importance of utilizing primary healthcare services. Anthropometric screening also provided basic information about children's physical growth characteristics that can serve as an initial reference for further nutritional assessment.

However, the available measurement data were not sufficient to establish the nutritional status of each participating child. Therefore, comprehensive individual anthropometric assessments using WHO Child Growth Standards are necessary to identify potential nutritional problems accurately.

It is recommended that Tegal Sari Public Health Center continue implementing regular anthropometric screening and community-based nutrition education programs. Future activities should include complete individual growth records, standardized nutritional status assessments, and pre-test and post-test evaluations to measure changes in parental knowledge. Sustainable collaboration between healthcare professionals, parents, and the community is expected to strengthen preventive healthcare efforts and support optimal growth and development among children under five.

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