

Prevalence Of Stunting Among Children Under Five In Tanjung Mutiara District, Agam Regency

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Abstract: Stunting remains a chronic nutritional issue of concern in efforts to improve the health, growth, and development of children under five. This study aimed to determine the prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong, Tanjung Mutiara District, Agam Regency, during the 2021–2025 period. A quantitative approach using a descriptive method was employed. The study sample consisted of 58 children under five residing in the study area. Data were collected through field observations, questionnaires, and documentation. Prevalence was calculated by comparing the number of stunted children with the total number of children in the sample. The results showed that 25 out of the 58 children studied were stunted, yielding a stunting prevalence of 43.10%. This figure indicates that nearly half of the children under five in the study area are stunted, highlighting the persistence of the stunting problem in Nagari Tiku Selatan and Nagari Tiku V Jorong. These findings provide an overview of the stunting situation and serve as a source of information for local government and relevant stakeholders to strengthen sustainable efforts in monitoring and addressing stunting.

Keywords: prevalence, stunting, toddlers

INTRODUCTION

Stunting is a chronic nutritional issue that remains a challenge for health development in Indonesia. It is a condition of chronic malnutrition resulting from prolonged inadequate nutrient intake, causing a child's height or length to fall below the standard for their age. This condition reflects impaired growth and development occurring from early life^[1]. Globally, reducing the prevalence of stunting is also part of the Sustainable Development Goals (SDGs), particularly in efforts to address nutritional issues and improve the quality of human resources. The Government of Indonesia has mandated the acceleration of stunting reduction through Presidential Regulation Number 72 of 2021 concerning the Acceleration of Stunting Reduction.

The issue of stunting in Indonesia continues to require attention. According to the 2022 Indonesian Nutritional Status Survey (SSGI), the national stunting prevalence stood at 21.6%. This figure indicates that, despite a decline compared to previous years, stunting remains a nutritional issue that must be addressed through sustained efforts. West Sumatra also faces a similar challenge, with a stunting prevalence of 23.3% (SSGI, 2022).

Agam Regency is one of the areas in West Sumatra that continues to face the issue of stunting. Research data indicates that stunting prevalence persists in several districts within Agam Regency. This situation highlights the need for continued efforts to

reduce stunting through the monitoring of under-five growth and the provision of prevalence data that accurately reflects the conditions in each area.

One area of concern is Tanjung Mutiara District, specifically the Nagari (villages) of Tiku Selatan and Tiku V Jorong. Both are coastal areas within Agam Regency. Research data indicates that cases of stunting among children under five are still present in both areas. Tiku Selatan serves as the administrative center of Tanjung Mutiara District and enjoys relatively easy access to healthcare services, whereas Tiku V Jorong is a border area with relatively difficult access to services and daily necessities.

Measuring prevalence is necessary to determine the proportion of children under five suffering from stunting in a given area. In this study, stunting prevalence was calculated by comparing the number of stunted children under five to the total study sample. The results showed that out of the 58 children sampled, 25 were stunted, yielding a prevalence rate of 43.10%. This figure indicates that nearly half of the children in the sample were stunted.

This high prevalence indicates that stunting remains a health issue requiring attention in Nagari Tiku Selatan and Nagari Tiku V Jorong. Regional-level prevalence data serve as a crucial information base for local governments, nagari administrations, and health workers to monitor the growth of children under five and to plan sustainable efforts for stunting prevention and mitigation.

Based on the foregoing, this study aims to determine the prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong, Tanjung Mutiara District, Agam Regency.

MATERIALS AND METHODS

2.1 Research methods

This study employs a quantitative approach with a descriptive method to describe the prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong, Tanjung Mutiara District, Agam Regency. A quantitative approach is used to obtain an overview based on data that can be measured and expressed numerically^[2]. The study utilizes data on stunting incidence from the 2021–2025 period.

2.2 Population

The study population consisted of children under five years of age residing in Nagari Tiku Selatan and Nagari Tiku V Jorong. Based on sample size calculations using the Taro Yamane formula with a 13% margin of error, a sample of 58 children was obtained. Sampling was conducted using the proportionate stratified random sampling technique, with the sample distributed proportionally across each study area. The sample comprised 29 children from Nagari Tiku Selatan and 29 children from Nagari Tiku V Jorong.

2.3 Research Procedure

Research data were obtained through field observations, questionnaires, and documentation. These data were used to gather information regarding the condition and stunting status of children under five in the study area. Stunting status was assessed using the body length-for-age or height-for-age indicator (PB/U or TB/U). Stunting is a nutritional condition in children under five characterized by a body length or height that is lower than the age-specific standard^[3]. Nutritional status determination in this study was based on WHO child growth standards, with stunting categories defined by z-scores below -2 standard deviations.

Data analysis was conducted descriptively to determine the prevalence of stunting in the study area. Prevalence is used to describe the proportion of stunting cases within the population during a specific period. In this study, prevalence was calculated by dividing the number of stunted children under five by the total number of children under five in the sample, then multiplying the result by 100%. This measure was employed to provide an overview of the magnitude of the health issue within the population.

The calculation of stunting prevalence in this study uses the following formula: $\text{Prevalence} = (\text{Number of stunted children under five} / \text{Total sample size}) \times 100\%$

Based on the data analysis, 25 stunted toddlers were identified out of the 58 toddlers included in the study sample. Consequently, the prevalence of stunting in Nagari Tiku Selatan and Nagari Tiku V Jorong was found to be 43.10%. These findings are presented as percentages and distribution tables to provide an overview of the prevalence of stunting in the study area.

RESULT AND DISCUSSION

3.1 Results

A study on the prevalence of stunting was conducted among children under five years of age in Nagari Tiku Selatan and Nagari Tiku V Jorong, Tanjung Mutiara District, Agam Regency. The study sample consisted of 58 children, comprising 29 from Nagari Tiku Selatan and 29 from Nagari Tiku V Jorong. The subjects were children aged 12–59 months residing in the study area.

Based on data collection and analysis, 25 of the 58 sampled children were found to be stunted. Specifically, 11 stunted children were identified in Nagari Tiku Selatan (out of 29), while 14 were identified in Nagari Tiku V Jorong (out of 29). Thus, the number of stunting cases was higher in Nagari Tiku V Jorong than in Nagari Tiku Selatan.

Region	Sample Size	Stunted	Not Stunted
Nagari Tiku Selatan	29	11	18
Nagari Tiku V Jorong	29	14	15
Total	58	25	33

Table 1. Distribution of Children Under Five by Stunting Status Region

Based on the prevalence calculation, the number of stunted children under five was 25 out of a total sample of 58. This calculation yields a prevalence of:

$$\text{Prevalence} = (25/58) \times 100\% = 43.10\%$$

Thus, the prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong is 43.10%. The study results in the document also indicate that this figure shows stunting cases account for nearly half of the study sample.

3.2 Discussion

The study results indicate that the prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong reached 43.10%. This figure was derived from the 25 stunted children identified within the study sample of 58 children. In other words, nearly one in every two children in the sample was stunted. This situation illustrates that stunting remains a significant issue in the study area.

When analyzed by location, Nagari Tiku V Jorong recorded a higher number of stunting cases 14 out of 29 sampled children compared to Nagari Tiku Selatan, which had 11 cases out of 29. Based on the proportions within each sample, the stunting rate was approximately 48.28% in Nagari Tiku V Jorong and 37.93% in Nagari Tiku Selatan. This disparity highlights a variation in the incidence of stunting between the two areas, despite the sample sizes being equal.

The high prevalence rate underscores the importance of continuous monitoring of growth status among children under five. Prevalence data at the nagari (village) level provides insight into the magnitude of the stunting problem in a given area and serves as a foundation for local governments, village authorities, and health workers when planning health programs. The study report also emphasizes that a prevalence of 43.10% is high, as it represents nearly half of the sampled population.

These findings also highlight the importance of generating area-specific stunting data. Information regarding case numbers and prevalence can serve as a basis for strengthening growth monitoring efforts, particularly through health services and community-based monitoring activities. Understanding the prevalence rate allows for the tailoring of interventions and stunting mitigation programs to the specific conditions of the study area.

Overall, the results indicate that the prevalence of stunting in Nagari Tiku Selatan and Nagari Tiku V Jorong during the study period was 43.10%. This figure demonstrates that the issue of stunting requires serious attention and ongoing monitoring. Therefore, the results of this prevalence measurement can serve as a basis of information to support efforts to prevent and address stunting in Tanjung Mutiara District, particularly in the two nagari that served as the research sites.

CONCLUSION and RECOMMENDATIONS

The prevalence of stunting among children under five in Nagari Tiku Selatan and Nagari Tiku V Jorong, Tanjung Mutiara District, Agam Regency, was 43.10%, with 25 stunted children identified out of a sample of 58. This figure indicates that stunting remains an issue requiring attention in the study area.

Local governments, nagari administrations, and health workers are expected to enhance routine monitoring of child growth and strengthen efforts to prevent and address stunting in the study area.

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