

The Significance of Tackling Stunting for The Economic Prosperity of A Nation – A Narrative Review

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ABSTRACT: Stunting is a condition where a child's length or height is shorter for their age due to chronic malnutrition and recurrent infections that occur in the first 1000 days of life. Based on data from the Ministry of Health, the stunting rate in Indonesia in 2023 was recorded at 21.5 percent, only down 0.1 percent from the previous year which was 21.6 percent. The high prevalence of stunting has serious implications for the nation's economic welfare. This research aims to examine stunting prevention in terms of the economic welfare of a nation. This research uses a narrative review method. The phenomenon of stunting carries profound implications for a nation's health and economic well-being. Children who experience stunting are predisposed to a higher risk of chronic illnesses, exhibit lower intelligence quotients, and are likely to be less productive in their adult years. These factors can impede the trajectory of a nation's economic advancement and amplify the strain on its public health infrastructure. From an economic perspective, this manifests as a reduction in income per capita, an escalation in healthcare costs, and a deceleration in economic growth. This underscores the urgent need to address stunting in order to safeguard the future prosperity of the nation.

Keywords- Stunting, Prevention, Economic Welfare

INTRODUCTION

Stunting is a child's growth and development disorder caused by chronic malnutrition and recurrent infections, which is characterized by below standard body length or height. According to WHO, stunting is defined as a condition of being short or very short based on length or height for age which is less than -2 standard deviation (SD) on the WHO growth curve. This condition occurs due to insufficient nutritional intake and/or recurrent or chronic infections that occur in the first 1000 days of life (HPK) (Susanti, 2022).

Based on the 2023 SKI results, the national average was recorded The prevalence of stunting is 21.5% and there has been a decline prevalence of stunting over the last 10 years (2013-2023). However,

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this progress has not been able to meet the target RPJMN 2020-2024 which targets the prevalence of stunting by 14% in 2024 (Kemenkes, 2023).

The high prevalence of stunting has serious implication for the nation's economic welfare because stunting is not merely an issue of short stature. Children who are stunted tend to develop chronic illness and experience delayed cognitive development which can reduced learning abilities and low academic achievement (Soliman et al., 2021; Pratiwi, 2021). Stunting also has negative effects in both the short and long term. Short-term effects include impaired physical growth, problems in cognitive development, and motor problems. Meanwhile, the long-term effects include decreased intellectual ability due to impaired nerve and brain cell function. Children who are stunted are also at a higher risk of developing hypertension, obesity and metabolic disorders as adults (Paramita et al., 2023).

Childhood stunting rates among the current workforce vary greatly between countries, depending on the history of stunting rates and the age distribution of the population. Only 6% of the workforce in Hong Kong SAR, China, experienced stunting in childhood. In Chile, the figure is 8%. In contrast, two-thirds of India's workforce currently experiences childhood stunting. More than 70% of Bangladesh's workforce experiences stunting in childhood. It is because of these differences that the impact of stunting, in terms of the reduction in per capita income of the part of the current workforce who experienced stunting in childhood, varies greatly between countries – from 1% to 13%, with an average of 7% (World Bank Group, 2018).

This, in turn, can reduce the chances of getting a good job in the future and contributing productively to the economy, thereby reducing state income. So by reducing the prevalence of stunting, not only can children's health and development be improved, but the nation's economic potential can also be increased through improving the quality of human resources.

METHODS

This research uses a narrative review method. The narrative review method aims to identify and summarize previously published articles, avoid repetition of research, and look for new areas of study that have not been explored (Greenhalgh et al., 2016). This method aims to synthesize information from various sources on the topic of stunting. Data were collected through literature searches in various scientific databases Google Scholar. Data were analyzed qualitatively using the thematic analysis method.

RESULTS AND DISCUSSION

Improving the nutritional status of the population is the foundation for building quality human resources, which should start at an early age (Yaco & Abidin, 2018). Nutrition plays a crucial role in

overcoming nutritional problems, especially in malnourished children (Prasadajudio et al., 2023). In Indonesia, a problem that still often arises is the problem of fulfilling community nutrition. Malnutrition is still experienced by many people with low economic levels. One of the nutrition problems is stunting. Stunting is a condition where a child's physical growth is inhibited or stopped, so that the child has a shorter height than it should be according to their age (Sairah et al., 2023).

Stunting is caused by a variety of complex factors, both directly and indirectly, which affect children's nutritional status. Some of the main causes of stunting include lack of adequate nutrient intake, especially protein, energy and other essential nutrients; chronic infections that often occur during early growth; inappropriate feeding practices, such as feeding a diet that is not balanced or appropriate for the child's nutritional needs; poor sanitation and limited access to clean water, which can increase the risk of infection and impaired nutrient absorption; and socioeconomic factors such as poverty, low maternal education and gender inequality, which also play an important role in stunting risk. The combination of these factors can lead to impaired physical and cognitive growth of children, which can ultimately result in stunting (Khoiriyah & Ismarwati, 2023).

In low income countries, the prevalence of stunting is usually higher due to problems with access to a good quality food, limited access to necessary health facilities, and rampant poverty that prevent an enabling environment that supports optimal child growth. Reducing stunting therefore requires a comprehensive approach, including increased access to nutritious food, nutrition counselling, improved sanitation infrastructure, as well as policies that increase household income and reduce socio-economic disparities. By improving overall socio-economic conditions, it is hoped that an environment that supports better growth and development of children will be created, thereby reducing stunting rates in the future (Berkat & Lumentah, 2022).

Stunting not only causes physical growth disorders, but also increases the risk of disease in children and disrupts brain development and intelligence. Therefore, stunting is a serious threat to the quality of human resources in Indonesia (Khairani, 2020). Children who are stunted tend to have a higher risk of illness, and face difficulties in learning and participating in social activities. The long-term impact of stunting can affect productivity and the ability to contribute to economic and social development. Here are some of the key findings from various studies on the economic impact of stunting:

1. Inhibition of Economic Growth and Productivity

Stunting can hinder economic growth and reduce labor productivity. Evidence shows that countries can lose up to 11% of their Gross Domestic Product (GDP) due to the high prevalence of stunting. In addition, stunting can also reduce the earnings of adult workers by up to 20% (Wapres RI, 2017).

2. Relationship with Poverty and Economic Growth

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A study in Indonesia found that stunting prevalence has a direct impact on long-term poverty and economic growth (Renyonet et al., 2016).

3. Loss in GDP per Capita.

Research by the World Bank shows that on average countries lose around 7% of GDP per capita by not addressing stunting in children who will later become adult workers (World Bank Grup, 2018).

4. Decrease in GDP per Capita

Another study found that a 1% increase in stunting prevalence can result in a 0.4% decrease in GDP per capita (Mary, 2018).

Thus, addressing stunting is a top priority in efforts to improve the quality of Indonesia's human resources, through a holistic and collaborative approach between the government, communities and other stakeholders (Paninsari et al., 2020).

Stunting, which is a condition of chronic malnutrition during childhood, can have a direct impact on labor productivity in adulthood and the long-term economic growth of a country. Stunted children tend to have delays in physical growth and cognitive development, which can hinder their ability to produce productively in adulthood. Collectively, the prevalence of stunting can also affect a country's human capital capacity, reducing its economic potential due to the lack of optimal contributions from future generations in reaching their full potential (Aida, 2019). Several studies have shown that the prevalence of stunting can cause a country to lose a portion of its potential GDP, up to 11%, and reduce adult labor income by up to 20%. In Indonesia, stunting has been shown to have a direct causality to poverty and a 0.02% reduction in long-term economic growth. Studies from the World Bank also indicate that countries generally experience a 7% drop in GDP per capita when stunting is not properly addressed from childhood. Thus, addressing stunting not only impacts the health of individual children, but also has major implications for a country's economic development (Kustanto, 2021).

Presidential Regulation Number 72 of 2021 concerning the Acceleration of Stunting Reduction states that there are two types of interventions that can be carried out. First, specific interventions that include activities carried out by stakeholders and the community to address the direct causes of stunting. Second, sensitive interventions involve activities aimed at addressing the indirect causes of stunting (Rahman et al., 2023). Through sensitive and specific intervention strategies, both approaches have aimed to reduce stunting rates by addressing both the direct and indirect causes of the problem (Basrowi et al., 2022).

Stunting prevention can be started by improving the community's nutritional literacy and knowledge. There is a significant relationship between understanding of nutrition and the incidence of stunting. Nutritional literacy and knowledge can influence how infants and children are fed, the selection and preparation of nutritious foods, understanding of child development, stunting prevention,

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access to health services, food safety, and knowledge of the nutritional value of traditional foods. Thus, these efforts can effectively reduce the prevalence of stunting (Wahyuni et al., 2023).

Stunting prevention has a very important role in improving the economic welfare of a nation. Stunting, which is often caused by a lack of adequate nutrition and nutrient intake in early life, can adversely affect an individual's physical, cognitive and productivity growth later in life. Therefore, by reducing the prevalence of stunting, a country can improve the quality of its human capital, which in turn will support long-term economic growth. Children who avoid stunting have the potential to grow into a healthier, smarter, and more productive generation, which will have a positive impact on labor productivity, human resource quality, and the overall economic competitiveness of a nation. Therefore, tackling stunting is not only an investment in children's health, but also an investment in the economic future and well-being of a nation.

CONCLUSION

Stunting has a significant impact on the health and economic well-being of the nation. Stunted children are susceptible to chronic diseases, have lower IQs, and show low productivity as adults. These impacts can directly hinder a nation's economic progress and increase the burden of public health. Economically, stunting results in a decrease in per capita income, an increased burden on the health system, and a slowdown in overall economic growth. Proper management of stunting cases involves a comprehensive and multidimensional approach. First, it is important to ensure adequate nutritional intake by providing additional foods rich in nutrients and ensuring pregnant women receive the necessary supplements to support healthy fetal growth. Apart from that, it is necessary to educate and increase awareness among mothers and families regarding the importance of balanced nutrition and good feeding practices. Immunization programs and access to adequate health services must also be improved to prevent and treat infections and diseases that can worsen stunting conditions. Other interventions include improving sanitation and access to clean water to prevent infectious diseases that can hinder nutrient absorption. At the policy level, the government needs to implement programs that support food security, access to health services, and family economic empowerment to reduce the overall risk of stunting. With an integrated approach involving various sectors, stunting case management can be more effective in preventing and overcoming this problem.

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