



ORIGINAL ARTICLE

Multisector Policy to Accelerate Stunting Reduction in South Kalimantan

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ARTICLE INFO	ABSTRACT
Received: Jul 21, 2024	Stunting is a major public health problem in most developing countries. Data from the 2023 Indonesian Health Survey (SKI) shows that the prevalence of stunting in Indonesia is 21.5%, only decreasing by 0.1% from 2022 which was 21.6%. The Indonesian government is committed to reducing the prevalence of stunting by 14% by 2024. Reducing the prevalence of stunting is also the goal of the 2025 Global Nutrition Target and the main indicator in the Sustainable Development Goals. Cross-sector collaboration is very necessary to achieve the stunting reduction target. This research aims to analyze multisectoral policies in accelerating stunting reduction in South Kalimantan. This research uses a mix of qualitative methods and a literature review (scoping review). The data collection technique uses the focus group discussion method. The research results show that the factors causing stunting in South Kalimantan are maternal parenting, inadequate access to clean water, and inadequate sanitation. To address this problem, specific and sensitive nutritional interventions are carried out through multisector collaboration involving several related parties. Thanks to integrated efforts and synergy between these sectors, the stunting rate in South Kalimantan has been decreasing slowly.
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INTRODUCTION

Stunting is a major public health problem in most developing countries. This disease is the most important risk factor in the burden of disease which is directly and indirectly responsible for more than half of deaths in children [1]. Stunting in children under five shows poor linear growth during the critical period and is diagnosed as height for age less than -2 standard deviations of the median Z Score. Stunting is caused by continuously insufficient daily energy and nutrient intake and not meeting needs [2]. In addition to this, repeated infections and inadequate psychosocial stimulation can also cause stunting which leads to impaired growth and development. Stunting has an impact on the health and future of children throughout the world, especially in developing countries. The short-

term impact of stunting includes increased morbidity and mortality [3]. The long-term impact of stunting is poor child development and learning capacity, and reduced productivity and economic capacity. Apart from that, it also increases the threat of obesity, increases the risk of infection and non-communicable diseases in adulthood [4].

Data from the Indonesian Health Survey (SKI) in 2023 released by the Indonesian Ministry of Health shows that the prevalence of stunting in Indonesia in children aged 0-59 (toddlers) is 21.5%. Conditions only decreased by 0.1% from 2022 which was 21.6%. This does not achieve the Government's target of reducing the prevalence of stunting by 3.8% in 2023. The Indonesian Government is committed to reducing the prevalence of stunting by 14% in 2024 (Presidential Regulation Number 72 of 2021 concerning the Acceleration of Reducing Stunting) [5]. Reducing the prevalence of stunting is also the goal of the 2025 Global Nutrition Target and the main indicator in the Sustainable Development Goals [2]. South Kalimantan is one of the provinces in Indonesia which has a stunting prevalence of 24.6%. The highest prevalence is in 5 districts, namely: Barito Kuala 33.6%; New City 31.6%; Upper Middle River 31.3%; Balangan 29.8%; and Hulu Sungai Utara 28%. Therefore, serious efforts are still needed to overcome the problem of stunting to reduce the prevalence of stunting [6].

Interventions and policies are important to find out what factors are related to the risk of stunting in South Kalimantan. Previous research has shown that the risk of stunting is related to poor fetal growth and stunted growth in the first two years of life (first 1000 days of life), poor nutritional intake, high exposure to disease, and poor childcare practices [6]. Other research states that early marriage and teenage pregnancy are factors causing stunting. Efforts to accelerate stunting reduction need to target priority groups which include pregnant women, breastfeeding mothers and adolescent girls [7]. Considering that stunting is a complex problem, coordination is needed not only from the health sector (specific) but also from the non-health sector (sensitive). Therefore, cross-sector collaboration and joint commitment are very necessary to achieve the stunting reduction target [8]. Ali's research (2021) states that the low reduction in stunting rates in Pakistan is due to not using a multisectoral approach in addressing various determinants of stunting [3]. Therefore, multisectoral cooperation is very necessary to reduce stunting [9]. This is evident from several research studies in various countries from various perspectives which show that success in accelerating stunting reduction can only be achieved through nutritional fulfillment, collaboration, coordination and convergence of multi-sectoral interventions. The research results of Huicho et al., (2020) show that the success in reducing the prevalence of stunting in Peru was due to multisectoral efforts with a focus on socio-economic indicators, reducing disparities such as food security, reducing poverty, better access to health care, and better policies. extent and supporting factors in society [10]. Research by Rajpal et al., (2020) also provides empirical evidence that supports that a multisectoral approach can accelerate the reduction of child malnutrition in India [11]. Gani's research results (2020) stated that the prevalence of stunting decreased by 2.18% in a year after the convergence intervention program was carried out in Banggai Regency, Central Sulawesi, Indonesia [12]. However, the reduction in stunting has not yet reached the government's target of reducing the prevalence of stunting every year [13]. It needs to be studied more deeply regarding policies or interventions that are effective in reducing stunting and evaluation can be carried out [14]. Thus, this research aims to analyze multisector policies that can accelerate the reduction of editing in Indonesia, specifically in South Kalimantan

MATERIALS AND METHODS

The research design uses a mixed method literature review (scoping review) and qualitative.

Literature Review (Scoping Review)

The scoping review design is a way to identify literature in depth through various literature sources related to the study problem being considered. According to Arksey and O'Malley, the steps of a

scoping review are as follows: 1) specify the research question, 2) identify relevant literature, 3) select studies, 4) map out the data, 5) summarize, synthesize, and report the results, and 6) include expert consultation [15]. Searching and selecting articles used the PRISMA (Preferred Reporting Items for Systematic Review & Meta Analysis) method through four stages, namely identification, screening, eligibility, and included [16]. The inclusion criteria in this method are stunting policies, multisectoral approaches, and interventions to reduce stunting. research is a search engine used to search for literature, namely Google Scholar, Science Direct, and PubMed with a time span of 10 years, namely from 2014 to 2024. The literature search used the keywords "stunting policy", "multisectoral intervention", "multisectoral nutrition" and "stunting intervention".

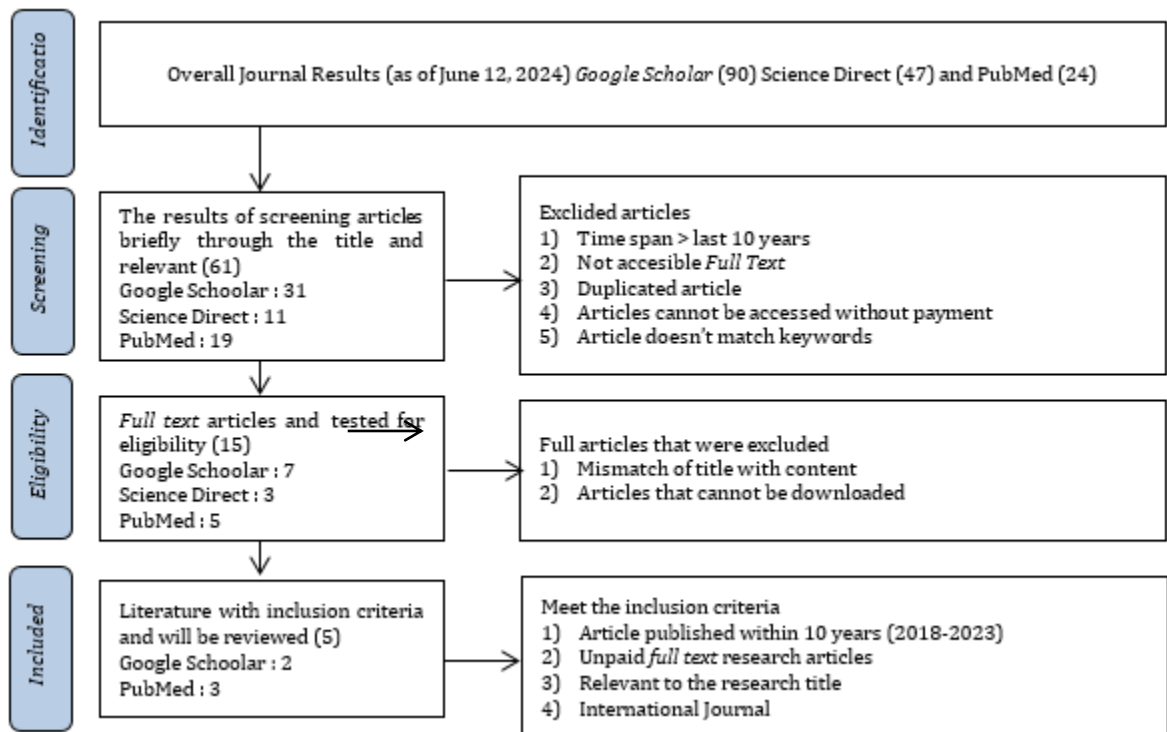


Figure 1. PRISMA Diagram David Moher et al (2009)

Focus Group Discussion (FGD)

Collecting qualitative data through FGD consisting of monitoring and evaluating programs to accelerate stunting reduction, cross-sector collaboration, coverage of specific and sensitive nutritional interventions, the role of Nutrition Driving Force, and innovative strategies in accelerating stunting reduction in collaboration with each other. The entire FGD process was recorded and then transcribed verbatim. The FGD respondents were policy stakeholders such as the Provincial Health Service, District Health Service, Education Office, Ministry of Religion, Academics, District and Village Officials, KUA, Community Health Center (Puskesmas), Midwives, and Posyandu Cadres. Triangulation of research data was carried out by source triangulation and method triangulation. Data analysis uses the Miles and Huberman model which includes data reduction, data presentation, and drawing conclusions [17].

RESULTS AND DISCUSSION

Based on the results of an article search using the PRISMA method, 90 articles were found from Google Scholar, 47 articles from Science Direct, and 24 from PubMed for a total of 161 articles. Then screening by reading the title and abstract to 15 articles. In the full text screening, 5 articles were found that could be analyzed according to the specified keywords.

Tabel 1. PRISMA Results Research Article

No.	Title	Author and Year of Publication	Policy/Intervention	Research result
1.	Translating Multisectoral Nutrition Policy into Community Practice: Participation of Nutrition Officers in Tanzania Fosters Effective Collaborative Strategies to Improve Child Nutrition	Gina C Klemm et al., 2022	Nutrition education to the community, providing food at schools, gardening activities to overcome food insecurity, providing vitamin A supplements, household visits.	Four districts succeeded in forming action teams that bridged the communication gap between administrators and implementers; achieve progress in advocacy, collaboration, and nutrition budgeting; and starting the implementation of multisector nutrition in the community.
2.	Multisector nutrition gains amidst evidence scarcity: scoping review of policies, data and interventions to reduce child stunting in Afghanistan	Christine Kim et al., 2020	<ol style="list-style-type: none"> 1. Specific nutritional interventions: anthropometric measurements, Infant and Young Child Feeding (IYCF), exclusive breastfeeding and complementary foods, vitamin A supplementation, anemia prevention, immunization, community management of acute malnutrition, and hygiene awareness. 2. Sensitive nutrition interventions: improved toilets and clean drinking water, awareness of food diversity and food security. 	This review shows the breadth of nutrition programs, policies, and data in Afghanistan. Multisectoral approaches face challenges in achieving adequate coverage as they often include packages of food security, livelihoods and health interventions, but each is implemented independently.
3.	Child Undernutrition and Convergence of Multisectoral Interventions in India: An Econometric Analysis of National Family Health Survey 2015–16	Sunil Rajpal et al, 2020	<ol style="list-style-type: none"> 1. Health Sector: Antenatal Care (ANC), child immunization, vitamin supplementation, breastfeeding counseling, food intake, Iron Folic Acid (IFA) supplementation, worming in children, disease prevention and treatment, reproductive health, anemia prevention. 2. Ministry of Women and Child Development: Utilization of Integrated Child Development Services (ICDS), marriage. 3. Environmental Health Sector: Cleanliness, sanitation and clean water. 4. Education sector: women's education. 5. Ministry of Oil and Gas: Cooking fuel. 6. Ministry of Finance/Ministry of Rural Development: Economic welfare 	Interventions are classified into six sectors, namely the health sector, women's and children's development sector, education sector, environmental health sector, energy sector, and growth sector. Estimate the potential for reducing stunting and underweight among children in a counterfactual "convergence" scenario in which all interventions in all sectors are implemented simultaneously and successfully.
4.	Reducing malnutrition in Cambodia. A modeling exercise to prioritize multisectoral interventions	Arnaud Laillou et al., 2018	Anthropometric measurements, infant and child feeding practices (breastfeeding and complementary feeding, feeding frequency, food diversity), Water Sanitation and Hygiene (WASH).	The research results show that there is a complex interaction between various factors that contribute to stunting and wasting in children. An integrated, cross-sectoral, equity-focused approach that takes into account children's food quality, water conditions, household sanitation and hygiene, maternal education, and poverty will likely have the greatest impact in achieving further

No.	Title	Author and Year of Publication	Policy/Intervention	Research result
				improvements in nutritional status among children Cambodia.
5.	Addressing chronic malnutrition through multi-sectoral, sustainable approaches: a review of the causes and consequences	Kristuba Reinhardt and Jessica Fanzo, 2014	Providing infant and young child food (IYCF), micronutrient supplements, integrated management of childhood diseases (IMCI), promotion of hand washing, improvement of sanitation and water quality, promotion of exclusive breastfeeding and complementary foods, increasing dietary diversity.	This research reviews the definition, causes, consequences and interventions of chronic malnutrition. The main obstacle in current interventions is related to human capacity and resources.

Based on 5 articles analyzed regarding multisector interventions in accelerating stunting reduction, several programs were found to be used in various countries to prevent and overcome stunting. The programs carried out through specific nutritional interventions are nutritional education [8], Infant and Young Child Feeding (IYCF) [18], Antenatal Care (ANC), child immunization, micronutrient supplementation, Iron Folic Acid (IFA) supplementation, deworming in children, prevention of anemia [11], anthropometric measurements [19], Integrated Management of Childhood Illnesses (IMCI), and promotion of hand washing. Specific nutrition interventions include improving sanitation and water quality, food security and dietary diversity, utilization of Integrated Child Development Services (ICDS), marriage guidance, women's education, and economic welfare [20].

Klemm's (2022) research states that multisectoral interventions show better results in children's nutritional growth compared to interventions isolated from health programs alone [8]. Kim's research (2020) states that multisectoral efforts to overcome stunting at the policy level have been carried out in Afghanistan. The integrated interventions related to specific and sensitive nutrition include anthropometric measurements, vitamin A supplementation, feeding practices for infants and young children, environmental health, food security and food diversity, nutrition education, and Integrated Management of Childhood Illness (IMCI) [18].

Lailou's (2018) research states that specific nutritional interventions and sensitive nutritional interventions are the best way to improve positive nutritional status. Multisectoral interventions in reducing breastfeeding carried out in Cambodia include anthropometric measurements, infant and child feeding practices (breastfeeding and complementary feeding, feeding frequency, food diversity), Water Sanitation and Hygiene (WASH) [19]. The multi-sector interventions in India based on research by Rajpal (2020) include cooperation in the health sector, women's and children's development sector, environmental health sector, education sector, energy sector and growth sector. This research states that the successful implementation of interventions in various sectors simultaneously through convergent actions can significantly reduce the burden of malnutrition levels in children [11]. Reinhardt's (2014) research also shows that interventions with a multisectoral approach to improve nutrition have proven effective. This research states that there are at least 3 sectors that need to be involved, collaborate and contribute to improving nutrition, namely the agricultural sector, the health sector and the environmental sector [20].

Nutrition targets based on various national and international commitments can be achieved if interventions in various sectors are carried out effectively [18]. Intervention policies with a multisectoral approach have been implemented in Indonesia, specifically in South Kalimantan, to accelerate stunting reduction. A multisector approach through synchronization of national, local and community programs at the central and regional levels [21]. Policies and strategies more specifically target certain vulnerable groups such as pregnant women, adolescent girls and children under 5 years of age [22]. Efforts to reduce stunting are carried out through two interventions, namely specific nutritional interventions to address direct causes and sensitive nutritional interventions to address indirect causes of stunting [12].

Based on the results of the FGD, it is known that the factor causing stunting in South Kalimantan is the mother's parenting style. Based on field facts, mothers' parenting patterns in providing food intake to children are still less than optimal. Many mothers do not provide nutritious food regularly which has an impact on the quality of children's health and development. Apart from that, mothers often do not regulate their toddler's diet properly, so that the child's nutritional needs are not met adequately [14].

"Last year we provided additional food once a day for 3 months with Village funds. We as midwives are confused, the village provides Additional Food Provision (PMT) assistance in the form of milk. Toddlers' weight increases with milk feeding for 3 months. After we stopped the supplements, he lost weight. After that, budget parenting activities by bringing in a psychologist. The Puskesmas has also provided various kinds of counseling but there has been no change. "When it comes to parenting patterns, we cannot monitor how the mother's parenting patterns are implemented at home" (Midwife of Tanah Habang Kiri Village, Tabalong Regency).

Poor environmental sanitation factors including inadequate access to clean water and the use of unhealthy latrine facilities are also indicated as factors causing stunting in toddlers [24]. In South Kalimantan, there are still several households that do not have toilets and experience difficulties in accessing clean water, which has an impact on children's health and growth. Lack of proper sanitation facilities causes the spread of disease, which in turn can hinder the absorption of nutrients by the child's body. In addition, unhygienic environmental conditions increase the risk of infections and gastrointestinal diseases, which contribute to malnutrition problems [25].

"In 2023, I have provided village funds to the community in the form of toilets for 1 house, I have done that and what is still lacking is clean water. Indeed, PAMSIMAS entered our place yesterday. Some roads turned out to be less capable in the sense that the water capacity consumed by the community was larger so that within a few hours it ran out and the water operator was the one who was poor. Well, yesterday we also proposed to the head of the Public Works Department, yesterday they promised us additional clean water reservoirs so that the cooperative's hours of clean water consumption by the community will be longer. Yesterday the operator complained that within 2-3 hours the water had run out while his livelihood was not based on it because the proceeds from it for operations were still insufficient. Now, the initiative from the village head will provide education to the community about the importance of clean water for life because the impact of consuming unclean water is one of the causes of stunting (Head of Tamba Jaya Village, Barito Kuala Regency).

"We have been trying to improve how people can live healthier lives. Kalumpang Village is still very far from defecation facilities, where out of 175 houses there are around 112 houses that still do not have toilets. This means that people still defecate in the open or in swampy areas. "We as village heads have made efforts by asking the PUPR Service to build these defecation facilities" (Head of Kalumpang Dalam Village, North Hulu Sungai Regency).

CONCLUSION

Policies and regulations issued by the government regarding efforts to overcome malnutrition through specific and sensitive nutritional intervention programs have been implemented by the health and non-health sectors with targeted and sustainable objectives. Multi-sector collaboration involving various parties, including health institutions, education, local government and non-government organizations in implementing programs to accelerate stunting reduction has shown positive results. Thanks to integrated efforts and synergy between these sectors, the stunting rate in South Kalimantan has been decreasing slowly. This proves that the role of multisector is very important for the success of achieving public health levels through nutritional interventions.

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