

Risk Communication and Community Engagement (RCCE) in Handling Stunting: A Comparative Case Study of Indonesia and China

Choirul Fajri¹, Dani Fadillah², Muhammad Najih Farihanto³

¹Communication Science Department, Universitas Ahmad Dahlan Yogyakarta

²Communication Science Department, Universitas Ahmad Dahlan Yogyakarta

³Communication Science Department, Universitas Ahmad Dahlan Yogyakarta

E-mail: choirul.fajri@comm.uad.ac.id^{1*}; dani.fadillah@comm.uad.ac.id²;
muhammad.farihanto@comm.uad.ac.id³

*Corresponding author

Abstract

Stunting is a major cause of under-five child mortality due to malnutrition. According to UNICEF, in 2022, 21.6% of children in Indonesia and over 11 million children in China were stunted, particularly in rural areas. This study aims to evaluate the effectiveness of Risk Communication and Community Engagement (RCCE) in addressing stunting in both countries. RCCE involves effectively communicating stunting risks and fostering community participation in prevention and treatment efforts. A qualitative approach was employed, focusing on interpretive analysis of field data, including observations and interview with the Ministry of Health Indonesia. The findings reveal that both the Indonesian and Chinese governments have implemented commendable RCCE programs; however, their effectiveness can be further enhanced by strengthening communication, education, community participation, and monitoring. The study concludes that RCCE has significant potential to reduce stunting rates if implemented holistically and collaboratively.

Keywords: Risk Communication; Handling; Stunting, Indonesia; China

Introduction

Stunting is the issue at hand in this study. Long-term malnutrition can lead to stunting, a chronic nutritional issue that can negatively affect children's growth and health. Toddlers under the age of five are particularly susceptible to malnutrition. Malnutrition accounts for about half of all fatalities among children under five, according to data from the United Nations International Children's Emergency Fund (Unicef). Stunting, undernutrition, and underweight affected 144.0 million, 47.0 million, and 38 million children under the age of five worldwide in 2019 (UNICEF, 2020).

Stunting, a condition in which children experience decreased growth and development owing to chronic malnutrition, is a persistent global health

concern, which is why research is needed to address it globally. Research is essential to effectively combating stunting and its far-reaching effects. Understanding the intricate variables causing stunting, creating evidence-based therapies, and tracking results all depend on research. This essay examines the necessity for study on stunting worldwide.

Understanding the complex causes of stunting is one of the main reasons research is so important. Stunting is caused by a variety of factors, such as socioeconomic level, access to healthcare, education, and sanitation, and is not only the result of poor nutrition. By identifying the underlying causes unique to various groups and geographical areas, research enables us

to implement focused and successful interventions. For instance, research can show whether inadequate maternal nutrition, a lack of clean water, or a lack of healthcare facilities are the main causes of stunting in a given region, allowing policymakers to create specialized remedies.

Research is also essential to the creation of evidence-based therapies. It enables professionals to determine which tactics work best for preventing and lessening stunting. Studies can, for example, evaluate the effects of different nutrition programs, like those that support exclusive breastfeeding, food fortification, or school feeding programs. By using an evidence-based approach, the impact of scarce resources is maximized and funds are directed toward therapies that have the best chance of preventing stunting.

Additionally, research is essential for tracking developments and assessing how well interventions are working. Data from longitudinal studies that monitor children's growth and development over time is crucial for evaluating the effects of health and nutrition initiatives. This makes it possible to modify tactics as necessary and guarantees that efforts are producing fruitful results. Accurately assessing the effectiveness of stunting reduction efforts would be difficult without study. Additionally, research aids in resource mobilization and awareness-raising. Findings from data-driven studies are effective lobbying tools that draw attention to the seriousness of the stunting problem and its long-term effects. Funding and support for stunting

prevention programs are more likely to be prioritized by donors, legislators, and the general public when they are provided with convincing research findings.

Additionally, research advances our knowledge of the larger context in which stunting takes place. It clarifies the ways in which social, cultural, and economic variables interact to affect diet and well-being. Developing comprehensive methods that not only target stunting but also support the general development of the community requires this holistic perspective. Additionally, research encourages creativity in the battle against stunting. It propels the creation of novel technology and methods in the fields of education, healthcare, and nutrition. For example, research can help establish more effective healthcare delivery systems for stunting prevention or lead to the development of fortified foods specifically intended to treat malnutrition.

To sum up, research is essential to the global effort to combat stunting. It aids in identifying the underlying reasons, creating successful interventions, tracking advancements, increasing awareness, and spurring creativity. Because stunting is multifaceted and has serious, long-lasting effects, research is an essential weapon in the fight against this problem. Sustained investment in research is necessary to ensure that policies and treatments are impactful, well-informed, and supported by evidence if we are to achieve significant progress in eliminating stunting globally. Stunting

remains a significant public health issue in Indonesia.

Based on the findings of the Indonesian Nutrition Status Survey (SSGI), the Health Development Policy Agency (BKPK) of the Indonesian Ministry of Health (Kemenkes) reports that 21.6% of children in all regions of Indonesia suffered from stunting in 2022 (UNICEF, 2020). The IQ, productivity, and health of children and adults may be impacted by this stunting issue.

Another major issue in China is stunting or failure to thrive, particularly in less developed towns and rural areas. Although the incidence of stunting is still significant in some areas, China has managed to lower the stunting rate in children from 33.1% to 9.9% between 1990 and 2010. In 2020, the Food and Agriculture Agency (FAO) of the United Nations reported that 8.4% of Chinese people were stunted. According to this statistic, 11.9 million children in China suffer from stunting. Stunting is still a major issue in many parts of China, despite the fact that this number is lower than it was the year before (Li et al., 2022).

Risk communication is understood as a real-time exchange of information by listening to advice and opinions between experts and various parties, especially those who experience health impacts as well as economic and social welfare (Abrams & Greenhawt, 2020). Then RCCE is understood as a communication process developed to involve the community as a partner in creating emergency response solutions that are acceptable and implemented by those affected (Adebisi et al., 2021). The

focus of RCCE is to empower communities so that they have confidence from various leadership, planning, and implementation of initiatives throughout the emergency response cycle (Tambo et al., 2021). RCCE is an approach consisting of systematic consultation, engagement, and communication with communities at risk. RCCE emphasizes partnerships by strengthening trust and strengthening trust and promoting participatory communication in terms of risk by considering social, cultural, and religious factors. The purpose of RCCE is to improve public understanding and awareness and the dangers associated with an event or situation. RCCE also aims to provide clear and accurate information regarding the steps that need to be taken to reduce risk and address its impacts.

The government of Indonesia has initiated a community-based stunting prevention program. The Stunting Free Indonesia Movement is one such initiative that seeks to raise public awareness of stunting and its prevention. The government, the commercial sector, and civil society are all involved in this program's endeavors to prevent and treat stunting. Effective communication is essential for all government agencies to ensure that the public can comprehend and implement government messages with ease.

Examining risk communication and community involvement in stunting management in China and Indonesia is the aim of this study. The goal of this study is also to identify a risk communication and community

engagement model that the government can utilize in the future to stop stunting.

This research is crucial because of the significance of risk communication and community involvement in reducing stunting in China and Indonesia. If every aspect of society participates in efforts to prevent and treat stunting, it will be easier from the community's point of view. Risk communication, another name for the message delivery method, describes how communicators can tell people about the risk of stunting and how to reduce that risk.

Research Methods

This study employs a qualitative approach, which is commonly used to interpret social phenomena and understand how individuals construct their social worlds through observation and interpretation. Qualitative research allows the researcher to gain insights into the ways individuals or groups make sense of their experiences and actions within their social contexts (Khosla, 2021). In this study, the focus is on stunting issues in Indonesia and China. The research design is based on a case study approach, which involves an in-depth, intensive examination of a single phenomenon within a specific context, bounded by time and location (Rahmat, 2009).

The selection of relevant literature began by identifying sources directly related to stunting in Indonesia and China, as well as broader issues of public health and nutrition that are relevant to these countries. Articles were chosen based on their focus on stunting rates, health policies, and government programs in both regions. Studies that provided empirical data on stunting prevalence, causes, and solutions, as well as policy frameworks for addressing the issue, were prioritized. A key

criterion for selection was the inclusion of case studies that involved local government efforts or community-based interventions in addressing stunting. These case studies were particularly valuable because they offered concrete examples of health interventions that can be analyzed in the context of policy effectiveness and public health outcomes.

Following the selection of relevant literature, the next step was to identify recurring themes and sub-themes related to the stunting problem. Themes were drawn from the literature that highlighted patterns such as the role of government policies, health interventions, regional disparities, and the socioeconomic factors contributing to stunting in Indonesia and China. These themes were systematically categorized and organized to provide a clearer structure for the data analysis. Tables and diagrams were employed to visually organize the identified themes, making it easier to track how different sources contributed to each category.

In addition to the literature review, data collection involved conducting semi-structured interviews with key stakeholders, including the Ministry of Health, Indonesia. The interviews were designed to explore stakeholders' perspectives on the effectiveness of health policies, the role of community engagement, and the barriers to achieving sustainable outcomes. Questions focused on their experiences with policy implementation, coordination between different levels of government, and the impact of socioeconomic disparities on stunting rates. The responses were transcribed and analyzed alongside the thematic findings from the literature to provide a richer, more comprehensive understanding of the issue.

Building understanding involved a detailed review of the selected literature to uncover relationships between the themes. This step required synthesizing findings from multiple sources to identify consistent trends and discrepancies in the data. Key areas of focus included the effectiveness of public health initiatives, regional challenges, and the role of local community engagement in addressing stunting.

Finally, the process of drawing conclusions entailed interpreting the data to form well-supported insights regarding the policies and practices that have been most effective in reducing stunting in Indonesia and China. This step also involved reflecting on the implications of the findings for future public health interventions and the potential for scaling successful programs to other regions or countries facing similar issues.

To address feedback about the descriptive nature of the analysis, this section incorporates a comparative analysis of RCCE (Risk Communication and Community Engagement) strategies in reducing stunting in Indonesia and China, supported by visual aids like tables and charts.

In Indonesia, RCCE efforts focus on decentralized approaches involving regional governments, hospitals, and community health services like posyandu (integrated health posts). These services aim to reach disadvantaged communities effectively (Liem et al., 2020). In contrast, China adopts a centralized approach, with national policies driving comprehensive interventions through education and healthcare reforms. Both countries emphasize community engagement, but the implementation mechanisms differ significantly.

Table 1. Stunting Management Approaches in Indonesia and China

No	Aspect	Indonesia	China
1.	Governance	Decentralized, regional-level program	Centralized, regional-level initiatives
2.	Key Programs	Supplementary Feeding (PMT), Posyandu	School-based nutrition and health reforms
3.	Community Engagement	Focus on local health workers and volunteers	Mass campaign and educational programs
etc.	Challenges	Coordination between central and regional governments	Scaling interventions in rural areas

Source: processed from various sources

The following chart highlights the prevalence of stunting in Indonesia and China, based on data reported by the World Health Organization (WHO). In Indonesia, the national average stunting rate stands at 29.6%, indicating a significant public health challenge. In contrast, China reports a considerably lower national average of 8.1%, reflecting more favorable nutritional and developmental outcomes on a broader scale.

Table 1. The prevalence of stunting in Indonesia and China

No	Year	Indonesia (%)	China (%)
----	------	---------------	-----------

1.	2000	42.5	17.5
2.	2010	35.50	12.3
3.	2020	29.6	8.1

Source: processed from various sources

These trends highlight the substantial progress made by both countries, with China demonstrating a more rapid decline in stunting prevalence over the last two decades. Progress in reducing stunting, their respective approaches offer valuable insights and lessons. In Indonesia, strengthening coordination between central and regional governments emerges as a critical factor.

Additionally, enhancing accountability and transparency in data dissemination can significantly improve the effectiveness of Risk Communication and Community Engagement (RCCE) initiatives. In China, the focus remains on scaling up interventions in rural areas and addressing the persistent disparities in health outcomes between urban and rural populations. Both cases emphasize the pivotal role of RCCE as a tool for engaging communities and fostering behavioral changes, demonstrating its effectiveness in combating stunting and promoting public health.

Results of Research and Discussion

Based on the findings of the study, the Integrated RCCE Model appears to be the most appropriate for addressing stunting in Indonesia and China. This model offers the flexibility to adapt to regional differences while maintaining a centralized framework for consistency and resource allocation.

Risk Communication and Community Engagement (RCCE) plays a critical role in addressing public health challenges such as stunting in both Indonesia and China. Several RCCE models have been developed and

implemented to tackle this issue. One of the prominent models emphasizes community-based engagement, where the focus is on empowering local communities to participate actively in health interventions (REYNOLDS & W. SEEGER, 2005). This model is evident in Indonesia's approach, where community organizations and local leaders are engaged to educate mothers about stunting prevention and mitigation.

Interpersonal communication, such as counseling and educational activities at community health centers and posyandu, ensures direct interaction with the target audience. Additionally, Indonesia employs a culturally adaptive model that leverages local wisdom and traditions to foster acceptance and trust within diverse cultural groups, enhancing the effectiveness of health messages.

On the other hand, China adopts a centralized and systemic RCCE model, characterized by strong coordination and oversight from national authorities. The government implements standardized policies and programs, such as the School Health Regulation and the Nutrition Improvement Program for Rural Students, which aim to address regional disparities in health services. This model emphasizes policy-driven interventions, rigorous data management, and top-down communication to ensure consistency across the country. Furthermore, China's RCCE approach includes comprehensive monitoring and evaluation mechanisms to track the effectiveness of interventions and adapt strategies as needed.

Based on the findings from the research, the most suitable RCCE model for addressing stunting combines elements from both approaches to fit the specific context of each nation. In

Indonesia, the community-based and culturally adaptive model is more appropriate due to the country's vast cultural diversity and reliance on local trust networks. Engaging community leaders and incorporating local traditions into health messaging can bridge gaps in understanding and enhance public trust. In contrast, China benefits from its centralized systemic model, which enables a more uniform implementation of health programs, addressing regional disparities effectively. Thus, the choice of RCCE model depends on the socio-cultural and governance context of the country, highlighting the importance of flexibility and adaptability in public health communication strategies.

According to data issued by the World Health Organization (WHO), China (Rank 2) and Indonesia (Rank 5) are among the top 5 nations in the world for the incidence of stunted children. India is the nation with the greatest number of health issues among students, followed by China, Nigeria, Pakistan, and Indonesia. Given that the prevalence is 29.6%, which is the national average, Indonesia is among the nations that are considered to have health issues. If the prevalence is 20% or more, WHO considers stunting to be a community problem (UNICEF, 2014).

Although the methods used to combat stunting in China and Indonesia are similar, the most notable difference is that in Indonesia, RCCE is implemented by the government at the regional level, reaching underprivileged communities from hospitals to posyandu (Liem et al., 2020). In contrast, a more centralized and coordinated approach is being used in China, where regional differences in health facilities still exist in many areas.

The Indonesian government is reducing stunting through a number of initiatives, including the Supplementary

Feeding Program (PMT), Child Growth Monitoring, Nutrition Education and Community Awareness Programs, Education on Exclusive Breastfeeding, Collaboration with International Organizations, Improvement of Basic Health Infrastructure, and Periodically Reviewing and Improving Government Policies. The Chinese government has implemented several policies to combat stunting, including the School Health Regulation (1990), China School Milk Program (2000), National Program for Child Development in China (2001-2010), National Program for Child Development in China (2011-2020), and Suggestions on Implementing the Nutrition Improvement Program for Rural Students in the Compulsory Education Stage (2011) (Dong et al., 2020).

1. Handling Stunting in Indonesia

Based on the information obtained by professionals, stunting is treated differently in each Indonesian region. In order to provide health education about the factors that contribute to stunting in Indonesia, the program educates and contacts mothers who are targeted, such as those in the Geguntur neighborhood, Jempong Baru sub-district, Sekarbela sub-district, Mataram city, which had a stunting rate of 37.2% (above the national average) in 2017 (N. Fatmawati, S. Handayani, Y.S. Pratiwi, Ulya, 2022).

Because including community organizations will make the program more focused, RCCE plays a significant part in the handling process (Lawal, 2022). Since mothers are the ones who pay the greatest attention to their

children's growth patterns, they are the program's primary focus when it comes to combating stunting in Indonesia. In order for the government to collect accurate information from community groups, the stunting management program gives them a platform to speak with policymakers directly.

One strategy the Indonesian government use to combat stunting is the establishment of the Supplementary Feeding Program (PMT), which is targeted at pregnant mothers and toddlers. This program was started because of the comparatively high rate of nutritional issues among Indonesian toddlers, with 21% of them suffering from stunting. The program is aimed at pregnant women because, according to data from Basic Health Research in 2018, which was posted on the www.kesmas.kemkes.go.id website, the risk of Chronic Energy Deficiency (KEK) is 17.3% in pregnant women and 14.1% in women of childbearing age (WUS). Furthermore, anemia is seen in 48.9% of pregnant women.

Numerous variables contribute to nutritional issues, which force every family to focus on eating wholesome food and preventing infectious diseases. This is due to the fact that stunting is frequently caused by a number of factors, including inadequate socioeconomic conditions, susceptibility to disease infection, non-optimal parenting styles, lack of knowledge, barriers to accessing health services, and a lack of nutrient-dense food intake. These factors also indirectly affect an individual's capacity to obtain nutrient-dense food and appropriate medical care.

Pregnant women and toddlers with nutritional issues can benefit from the provision of supplemental food (PMT) prepared from local ingredients. To alter behavior, PMT must be combined with nutrition and health

education, including information on family diet, cleanliness, and hygiene, as well as support for breastfeeding. The purpose of PMT created with local ingredients is to empower families to take charge of their own nutrition and food. A wide variety of carbohydrate sources, fish, meat, poultry, eggs, nuts, fruit, vegetables, and spices are among Indonesia's many biological treasures. This indigenous food item hasn't been utilized to its full potential as a foundation for Additional Food (MT).

In order to combat stunting, the Republic of Indonesia's Ministry of Health (Kemenkes) has launched educational initiatives that center on pregnant women, toddler nutrition, and nutritional issues. Nutrition counseling, cooking demonstration, and nutrition counseling are the instructional activities offered. Helping pregnant women and toddlers develop the knowledge, attitudes, and behavior necessary to adopt a diet based on the principles of balanced nutrition in accordance with their needs and circumstances is how nutrition counseling is carried out. Interpersonal communication is used to carry out the counseling process.

In addition to the implementation of extra feeding programs, the Ministry of Health conducts nutrition education in small groups. It can also be conducted in conjunction with the posyandu schedule or other activities associated with the Ministry of Health's program. counseling materials about toddlers' health, growth, eating preferences, nutritional requirements, and development stimulation. In order to give pregnant women and parents who are the focus of handling stunting the skills they need to sort, prepare, and process food that can provide appropriate nutrition after processing, the Ministry of Health also runs an

instructional program that includes cooking demonstrations.

The government's message on stunting is also communicated through education about the necessity of healthy breastfeeding mothers. The government's key teaching themes include the necessity of exclusive breast milk (ASI), which provides complete, adequate, and balanced nutrition for babies due to its protein concentration being equivalent to animal protein. The Ministry of Health also conducts growth monitoring, which is commonly done at Posyandu. This includes weighing and measuring height and weight on a regular basis, filling out the KIA book curve, and assessing growth status based on weight gain. When problems arise, the Ministry of Health investigates each incidence of growth disruption in order to establish policies and programs that are appropriate for the community's needs.

Monitoring and evaluation are always conducted as part of the Ministry of Health's stunting initiatives, and they are done in phases at the Community Health Center, District/City, Provincial, and Central levels. Implementation teams at Community Health Centers located all throughout Indonesia conduct the monitoring. In order to make decisions about sustaining and enhancing the execution of ongoing operations, monitoring activities are conducted to gather data and information on how those activities are being carried out. The Ministry of Health also conducts assessments to gauge the effectiveness of addressing stunting based on the input, process, output,

outcome, and impact components of carrying out activities (Kementrian Kesehatan, 2023).

Strengthening government ties at the national and regional levels through the use of a social risk development approach is another necessary action. This strategy requires strong collaboration between the national and local governments in the formulation of policies and in informing the public about them, particularly with regard to stunting prevention. The national and regional governments must be able to integrate a thorough grasp of the audience's demands while formulating policy programs.

"We have a work plan, to increase capacity at the national and regional. Not only the Ministry of Health itself but also there is support from UNICEF, WHO, IHIST and other institutions that are concerned with risk communication, other media also do that, NGOs such as PMI who are accustomed to handling disasters. They also help to control, evaluate what we have done" Interview with Bureau of Communication and Public Services, Ministry of Health of Indonesia.

The central and regional governments must make sure that information is shared in a timely, comprehensive, and frequent manner under this strategy. The national and local governments need to become proficient in properly exchanging information about stunting. According to (Nasir, 2013), risk communication has six principles that, when followed, increase its effectiveness. These include: 1. Identifying the audience; 2. Including scientific experts; 3. Enhancing communication skills; and 4.

Establishing oneself as a reliable source of information that is accountable and transparent in all issues pertaining to the problem.

In order to promote the adoption of risk communication and community involvement, the government's communication skills is also a crucial consideration. Data and information management must support this communication skill. Data must be the foundation of government communication. Thus, to enhance data and information processing, systems and human resources must be strengthened. Reliable sources for developing risk communication to the community are accurate data and information. The Indonesian government can develop a number of narratives based on facts and information to boost community engagement in the fight against stunting and upcoming health emergencies.

It still appears that Indonesia's central and provincial administrations do not have a strong enough relationship to coordinate and oversee health emergencies. For instance, during the COVID-19 epidemic, regional task forces in a number of areas responded to issues more quickly and thoroughly than those at the federal level (Fajri et al., 2023). In fact, the regional task force frequently adopted decisions that ran counter to those made at the federal level. Therefore, it is hoped that there won't be a tug-of-war of interests and that bureaucratic coordination in treating stunting and other health emergencies would continue to improve.

It is also necessary to think about strengthening community resilience to potential risks. To be able to perform risk mitigation on its own, the community needs ongoing education and training

(Titan, 2013). Since Indonesia is prone to disasters, raising public understanding of self-defense measures is necessary to lessen the effects. Building resilience and inspiring people to take action are two benefits of risk communication. As a result, risk communication must be done consistently. In addition, building risk communication must also strengthen the system/structure by preparing qualified human resources, providing a budget, and also adequate infrastructure.

“Our country is a disaster country, so risk communication is really needed. Talking about risk communication, there is a global strategy built by WHO, there are 5 pillars, one of which is building a structure/building a system. There we should be able to prepare everything: infrastructure, human resources, budget so that it can strengthen risk communication. We build the network, the working mechanism”, Interview with Bureau of Communication and Public Services, Ministry of Health of Indonesia.

The community is always plagued by dread, anxiety, and uncertainty as a result of health issues. In addition, a lot of misinformation, deception, and fake news are emerging. In order to lessen this dread, anxiety, and uncertainty, the Indonesian government is essential. Taking swift action and considering all factors is one of them.

Given that stunting is still a problem in some places and that local populations typically have greater faith in community leaders than in medical teams, it is crucial to address stunting using a culture-based (local) approach. Stunting management methods cannot be used universally due to the diversity of Indonesian society, which includes numerous tribes, cultures, religions, and languages. Thus, it is anticipated that this cultural approach will be able to support

the community's process of accelerating information and developing risk perceptions. One of the fundamental components of resolving societal issues is a strategy grounded in local knowledge. Knowledge and abilities ingrained in institutional communities, connections, and customs that demonstrate adaptation to their settings and ecosystems are known as local wisdom.

The key to addressing health issues like stunting is public trust. One crucial lesson that should be taken into account for managing future health emergencies is the government's inability to foster public trust during the previous pandemic. Public trust is the most crucial communication channel during a pandemic. It is hoped that trust would be able to foster understanding and unity while promoting community involvement. Promoting information transparency helps to create public trust, and transparency is a key component of public institutions' legitimacy.

The public's mistrust of the Indonesian government frequently causes it to face numerous difficult problems. The Indonesian government must be able to respond to these issues by giving the public facts and information that is not just transparent but also accountable and ethically responsible. It is anticipated that information transparency will aid in the improvement of stunting control initiatives. In addition, the government needs to be aware of the speed of information in order to detect potential hazards in the future.

2. Handling Stunting in China

Numerous health-related policies, initiatives, and projects have been released by the Chinese government. Stunting is an issue in every part of China, particularly in a number of

its regions. According to the Global Strategy for Women's, Children's, and Adolescents' Health (2016–2030), since young people are the country's future, improvements in maternal and child health services are necessary to ensure that they are not left behind in any way (United Nations, 2015).

The United Nations (UN), working with numerous nations, unveiled the 17 Sustainable Development Goals (SDGs) on September 25, 2015. According to the United Nations (2015), the Sustainable Development Goals (SDGs) seek to eradicate poverty, safeguard the environment, and guarantee a good life for all people, including enhancing wellbeing at all ages. The World Bank Group, the UN Population Fund, the UN Children's Fund, UN Women, WHO, and the UN Program on HIV/AIDS all developed the Global Strategy for the Health of Women, Children, and Adolescents 2016–2030 that same year. It is intended to accomplish goals associated with the Sustainable Development Goals (SDG) and to promote the Every Woman Every Child Global Strategy. For the first time in this worldwide plan, kids are given high emphasis.

The way the Chinese government handles stunting may be influenced by its policies. Early childhood has not received as much attention from health programs as other age groups, which has impacted the achievement of health improvements (Patton et al., 2016). The Chinese government has implemented several policies to combat stunting, including the School Health Regulation (1990), China School Milk Program

(2000), National Program for Child Development in China (2001-2010), National Program for Child Development in China (2011-2020), and Suggestions on Implementing the Nutrition Improvement Program for Rural Students in the Compulsory Education Stage (2011), (Dong et al., 2020).

Over the past three decades, the Chinese government's initiative to combat teenage stunting has been successful in lowering the prevalence of stunting. According to data from the Chinese National Survey on Student Constitution and Health (CNSSCH), the stunting percentage has dramatically declined for both sexes, from 17.6% for boys and 14.5% for girls in 1985 to 2.6% for men and 3.0% for women in 2014. Between 1985 and 1995, stunting rates decreased the most, and between 1995 and 2014, they were constant.

Malnutrition has significantly decreased, yet regional disparities still exist. Stunting is more common in Southwest China than the rest of the region, particularly when compared to the rest of China. With rates ranging from 5.7% to 11.1% for both men and women in 2014, Guizhou, Sichuan, and Guangxi are among the provinces with the highest rates of stunting. Shandong and Tianjin, on the other hand, have low rates of stunting—about 0.41% for women and 0.24% for males. Stunting cases have decreased, which is a significant accomplishment. In certain areas, the prevalence of stunting is much lower than in wealthy Western nations. Despite this, stunting is still a common issue in Southwest China, and in rural areas, it is commonly associated by

obesity issues (Jiang et al., 2015). In order to alleviate spatial inequities, this complicated circumstance highlights the necessity of several initiatives spanning multiple provinces with distinct policies.

China has made strides toward meeting the nutritional health goals for expectant moms, newborns, and young children. Nonetheless, advancements have not yet been made in a few areas. For instance, the goal of lowering anemia in women of reproductive age has not yet been met; 15.5% of women between the ages of 15 and 49 are still afflicted. The same is true for low birth weight, where 5.0% of babies are still underweight, and exclusive breastfeeding, where 20.8% of infants between the ages of 0 and 5 months are still not exclusively breastfed.

With only 4.8% of children under 5 affected, China is on track to meet its stunting reduction target, which is lower than the Asian average. Only 1.9% of children under the age of five are harmed by waste, which is also lower than the average for Asia. Despite the fact that female obesity rates are lower than regional averages, there are issues associated with obesity and diabetes, since many adult women and men suffer from these conditions. Despite advancements in several health-related fields, China still needs to put in more effort to meet nutritional health goals and combat adult obesity and diabetes (Li et al., 2022).

Enhancing public knowledge and awareness of the risks and hazards connected to an event or circumstance is the goal of risk communication and community engagement, or RCC. To address the issue of stunting, the Indonesian government has adopted a Risk Communication and Community

Engagement (RCCE) strategy. Mothers are the program's primary focus in this instance due of their crucial role in tracking the development of their children. As demonstrated in the Geguntur neighborhood, Jempong Baru sub-district, Mataram City, which had a stunting rate higher than the national average in 2017, the Indonesian government uses an educational approach to directly educate mothers in different regions about the factors that cause stunting.

When performing the stunting handling procedure, RCCE is essential. These programs become more focused when community organizations are involved, and two-way communication enables the government to acquire precise information from the community. The RCCE theory states that the goal of a direct exchange of information, advice, and opinions between experts, the general public, and other parties interested in risks and risk-related factors is to make the right decisions for your own and others' self-defense (WHO, 2020).

To combat stunting, the Chinese government has put in place a number of programs, including the China School Milk Program and the School Health Regulation. Despite the fact that certain programs have not given adequate attention to early development, this demonstrates a dedication to enhancing children's health. In this situation, a strategy that emphasizes community involvement and risk communication will be crucial. Clear information about current programs and the significance of children's nutrition and health must be communicated to the public in an effective manner. Involving communities in the conception and execution of programs can also aid in pinpointing more particular issues in different areas and producing better

solutions. In order to overcome geographic inequities and guarantee that every kid in China has equitable access to services related to nutrition and good health, this is required.

Community organizations have been active in the RCCE conducted by the Chinese and Indonesian governments in order to spread the word on how to better manage stunting. Because incorporating vulnerable community groups will align with the message's intended audience (Adebisi et al., 2021). RCCE places a strong emphasis on building positive relationships with neighborhood organizations in order to increase trust and make it easier to communicate risk-related messaging.

According to the findings of the 2018 Basic Health Research (Risikesdas), the prevalence of toddler stunting decreased by 6.4% nationwide over a five-year period, from 37.2% in 2013 to 30.8% in 2018. In contrast, the percentage of typical toddlers increased from 48.6% in 2013 to 57.8% in 2018. Indonesia was able to lower the country's stunting rate to 21.6% in 2022 (Setiyabudi, 2019). This demonstrates that although Indonesia is still making strides in combating stunting, the government must prioritize the issue in order to effectively communicate with the people and stop the number of cases from rising.

With only 4.8% of children under five suffering from stunting, China has made headway in lowering the regional average for Asia. However, there are notable regional variations in China, particularly in Southwest China, where stunting rates are greater. While Tianjin and Shandong have low rates of stunting, several provinces, including Guizhou,

Sichuan, and Guangxi, have the highest rates. Despite this, the issue of obesity in rural areas of Southwest China continues to frequently coexist with the stunting problem. However, China still needs to put in a lot of effort to meet its goals for lowering low birth weight, anemia, and exclusive breastfeeding. In the meantime, adult obesity and diabetes prevalence is a health issue that need attention. China needs to do more to meet the health goals it has set, even though there has been success in several areas of nutritional health.

Conclusion

The governments of Indonesia and China have made significant strides in implementing the RCCE approach to reduce stunting, resulting in measurable reductions in stunting rates. However, continued effort is required to further enhance the impact of RCCE strategies. To strengthen RCCE efforts, it is essential for both governments to foster stronger collaboration between local health authorities, community organizations, and non-governmental organizations (NGOs) to ensure a unified and inclusive approach to stunting reduction. This can help address regional disparities in stunting rates and tailor interventions to the specific needs of local communities. Moreover, targeted education and communication campaigns are needed to address cultural beliefs, dietary habits, and other community-specific factors contributing to stunting. The use of local languages and culturally relevant messaging is crucial to ensure the effectiveness of RCCE initiatives in reaching vulnerable populations.

In addition, it is important to empower local leaders, particularly in rural areas, to drive RCCE programs, as

this can increase the credibility and acceptance of stunting prevention measures. Community-based monitoring systems should also be implemented to provide real-time feedback on program progress and identify areas needing improvement. Furthermore, both countries must invest in robust monitoring and evaluation frameworks to track progress and make adjustments based on real-time data. These systems should include qualitative assessments of community perceptions to complement quantitative measures of stunting rates. Lastly, Indonesia and China can benefit from engaging in cross-country dialogue to exchange best practices and lessons learned, enabling the adaptation of successful strategies to the unique socio-economic and cultural contexts of each country. By focusing on these areas, both governments can enhance their efforts to reduce stunting more effectively and sustainably.

Acknowledgements

We would like thank you so much to Universitas Ahmad Dahlan Yogyakarta-Indonesia, and Nanjing Normal University-China for this research collaboration.

References

- Abrams, E. M., & Greenhawt, M. (2020). Risk Communication During COVID-19. *The Journal of Allergy and Clinical Immunology: In Practice*, 8(6), 1791–1794. <https://doi.org/10.1016/j.jaip.2020.04.012>
- Adebisi, Y. A., Rabe, A., & Lucero-Prisno III, D. E. (2021). Risk communication and community engagement strategies for COVID-19 in 13 African countries. *Health Promotion Perspectives*, 11(2), 137–147. <https://doi.org/10.34172/hpp.2021>

- 18
- Dong, B., Zou, Z., Song, Y., Hu, P., Luo, D., Wen, B., Gao, D., Wang, X., Yang, Z., Ma, Y., Ma, J., Narayan, A., Huang, X., Tian, X., & Patton, G. C. (2020). Adolescent Health and Healthy China 2030: A Review. *Journal of Adolescent Health, 67*(5), S24–S31. <https://doi.org/10.1016/j.jadohealth.2020.07.023>
- Fajri, C., Prajarto, N., & Abrar, A. N. (2023). Adaptive Risk Communication System and Policy for Health Crisis in Indonesia. *Komunikator, 15*(1), 91–102. <https://doi.org/10.18196/jkm.18266>
- Jiang, Y., Su, X., Wang, C., Zhang, L., Zhang, X., Wang, L., & Cui, Y. (2015). Prevalence and risk factors for stunting and severe stunting among children under three years old in mid-western rural areas of China. *Child: Care, Health and Development, 41*(1), 45–51. <https://doi.org/10.1111/cch.12148>
- Kementerian Kesehatan. (2023). *Petunjuk Teknik Pemberian Makanan Tambahan (PMT) Berbahan Pangan Lokal untuk Balita dan Ibu Hamil*. https://kesmas.kemkes.go.id/assets/uploads/contents/others/20230516_Juknis_Tatalaksana_Gizi_V18.pdf
- Khosla, I. (2021). Book Review: Social Research Methods: Qualitative and Quantitative Approaches. *Frontiers in Psychology, 12*. <https://doi.org/10.3389/fpsyg.2021.696828>
- Lawal, O. (2022). Understanding Risk Communication Effectiveness From Public Interest, Mobility, and COVID-19 Cases: A Case Study of COVID-19 in Nigeria. *Frontiers in Communication, 7*. <https://doi.org/10.3389/fcomm.2022.921648>
- Li, H., Yuan, S., Fang, H., Huang, G., Huang, Q., Wang, H., & Wang, A. (2022). Prevalence and associated factors for stunting, underweight and wasting among children under 6 years of age in rural Hunan Province, China: a community-based cross-sectional study. *BMC Public Health, 22*(1), 483. <https://doi.org/10.1186/s12889-022-12875-w>
- Liem, S., Marta, R. F., Panggabean, H., & Ajisukmo, C. R. (2020). Comparative Review Between COVID-19 and Stunting: Communication Framework Toward Risk-Mitigating Behavior. *Buletin Psikologi, 28*(2), 113. <https://doi.org/10.22146/buletinpsikologi.59883>
- N. Fatmawati, S. Handayani, Y.S. Pratiwi, Ulya, S. M. H. (2022). Pendidikan Kesehatan Faktor Penyebab Stunting. *LENTERA, 2*(2), 258–263.
- Nasir, L. (2013). *Analisis Komunikasi Risiko dalam masa Tanggap Darurat Bencana Banjir dan Longsor Aceh Besar dan Aceh Jaya*. Universitas Syah Kuala.
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., Bonell, C., Kakuma, R., Kennedy, E., Mahon, J., McGovern, T., Mokdad, A. H., Patel, V., Petroni, S., Reavley, N., Taiwo, K., ... Viner, R. M. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet, 387*(10036), 2423–2478. [https://doi.org/10.1016/S0140-6736\(16\)00579-1](https://doi.org/10.1016/S0140-6736(16)00579-1)
- Rahmat, P. S. (2009). Penelitian Kualitatif. In *Journal Equilibrium*.

- REYNOLDS, B., & W. SEEGER, M. (2005). Crisis and Emergency Risk Communication as an Integrative Model. *Journal of Health Communication*, 10(1), 43–55. <https://doi.org/10.1080/10810730590904571>
- Setiyabudi, R. (2019). Stunting, risk factor, effect and prevention. *MEDISAINS*, 17(2), 24. <https://doi.org/10.30595/medisains.v17i2.5656>
- Tambo, E., Djuikoue, I. C., Tazemda, G. K., Fotsing, M. F., & Zhou, X.-N. (2021). Early stage risk communication and community engagement (RCCE) strategies and measures against the coronavirus disease 2019 (COVID-19) pandemic crisis. *Global Health Journal*, 5(1), 44–50. <https://doi.org/10.1016/j.glohj.2021.02.009>
- Titan, R. (2013). DISASTER MITIGATION COMMUNICATION BY THE GEOLOGY AGENCY OF ENERGY AND MINERAL RESOURCES MINISTRY IN MERAPI VOLCANO IN YOGYAKARTA PROVINCE. *Jurnal Kajian Komunikasi*, Volume 1(No 1), hlm 59--68.
- UNICEF. (2014). *The State of the World's Children 2014 in Numbers*.
- UNICEF. (2020). *Stunting has declined steadily since 2000 – but faster progress is needed to reach the 2030 target. Wasting persists at alarming rates and overweight will require a reversal in trajectory if the 2030 target is to be achieved*.
- United Nations. (2015). *Sustainable Development Goals (SDGs)*.
- WHO. (2020). *Risk Communication and Community Engagement (RCCE)*.