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## Governance Models and Stunting: Comparative Policy Insights from Indonesia, Malaysia, and Mexico

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### ABSTRACT

162 million children worldwide are affected by stunting, which has serious societal repercussions (WHO, 2021). In order to identify institutional drivers of success, this study compares the governance styles used to address stunting in Mexico (hybrid), Malaysia (centralised), and Indonesia (decentralised). Through a qualitative examination of 45 coverage documents (2015–2023) and 72 stakeholder interviews, we find that Malaysia's NPAN uses cross-regional cooperation to reduce stunting by 12%, while Indonesia's bureaucratic fragmentation hinders implementation. The importance of network engagement is emphasized in Mexico's PENSAN application. By showing how adaptive frameworks that are adapted to local capacities improve fitness outcomes, the study advances the idea of collaborative governance. Malaysia is a prime example of a collaborative governance model that involves a few stakeholders and improves its national nutrition strategy. Mexico's comprehensive strategy, which combines health and social regulations, underscores the significance of community engagement in public health initiatives. A comparative analysis of stunting incidence indicates that Indonesia (20.0%) and Malaysia (24.3%) face significant challenges in reducing stunting rates, whereas Mexico (13.9%) has made greater progress in this area. This study gives contribution to the study of public administration by illustrating how centralized (Malaysia), decentralized (Indonesia), and hybrid (Mexico) governance systems influence the effectiveness of health interventions. It provides critical insights for policymakers and practitioners, advocating for inclusive stakeholder participation and the necessity of context-specific solutions. This study redefines discussions on decentralization in global health governance and fills the gap on cross-national governance analyses in stunting policy. This study indicates that policymakers ought to promote institutional flexibility and participatory design to attain SDG objectives.

## A. INTRODUCTION

Stunting, a chronic malnutrition-related condition in children under five, can hinder growth and development (Bulan & Naping, 2023; Haron et al., 2023; Sukarman, 2023). This public health issue affects millions of children, especially in developing countries, and can have long-

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term consequences for individuals and communities. The World Health Organization (WHO) reports that 162 million children worldwide suffer from stunting, with Asia and Africa experiencing the highest rates (Fogarty et al., 2025; Rueda-Guevara et al., 2021; Sukarman, 2023; Thomas, 2021). Stunting has a significant impact on economic productivity, cognitive development, and physical health, ultimately affecting the well-being of society (Laksono et al., 2022; Taslim et al., 2023).

This study fills a significant gap in the literature by comparing the governance models used to treat stunting in Indonesia, Malaysia, and Mexico. Public health strategies influenced by the distinct governance systems and sociopolitical circumstances. Indonesia as a large archipelago has difficulties to coordinate national policy with regional implementations. Socioeconomic disparities still exist even though Malaysia has considerably decreased stunting through national initiatives (Lee et al., 2022; Te Ku Nor et al., 2024). Likewise, there are significant regional differences in health outcomes in Mexico, which necessitate effective governance solutions (Carriedo et al., 2022; Xia & Yan, 2022). Previous research has frequently focused on individual country initiatives; there is a noteworthy dearth of studies that investigate how different governance frameworks affect stunting health outcomes across multiple contexts. The study aims to identify best practices that can be applied to enhance public health interventions and comprehend the institutional determinants of success by looking at these diverse governance systems.

The distinctiveness of this study lies in its qualitative synthesis of stakeholder interviews and policy documents, providing nuanced insights into the efficacy of governance in addressing stunting. It enhances comprehension of collaborative governance and underscores the necessity for context-specific, adaptive methodologies. The study promotes enhanced stakeholder engagement and intersectoral collaboration to comprehensively address malnutrition, providing policymakers with actionable recommendations to formulate targeted interventions in alignment with the Sustainable Development Goals and achieve improved public health outcomes. This study examines how varying governance structures: decentralized (Indonesia), centralized (Malaysia), and hybrid (Mexico), influence stunting reduction outcomes, thereby enhancing the Ansell & Gash (2008) collaborative governance framework in global health contexts.

Table 1 provides a comparative analysis of the prevalence of stunting among youngsters under five years old in Indonesia, Malaysia, and Mexico. The records highlight the percentage of stunted youngsters in the USA, presenting a snapshot of child malnutrition in those numerous socio-political contexts. The table illustrates the varying stunting rates in these three countries, highlighting the ongoing public health issue of malnutrition and its impact on child development (Serván-Mori et al., 2023). Indonesia's stunting rate of 20.0% presents a significant health challenge, underscoring the need for robust governance frameworks to implement effective interventions. However, Malaysia's target of 14.0% was most closely approached at 24.3% in 2024, as per its national Vision Plan, highlighting the government's commitment to reducing stunting through comprehensive strategies that address socioeconomic disparities.

Mexico's 13.9% prevalence rate, on the other hand, indicates that the country has implemented the necessary laws and policies to address the root causes of stunting, such as poverty and inadequate food access. These findings underscore the pressing necessity for tailored governance models that take into account the distinct socioeconomic and cultural contexts of each nation. The subsequent analysis utilizes this data to examine how different governance models can be enhanced to more effectively address stunting, thereby improving health outcomes for children in these areas.

Table 1. Comparison of the Prevalence of Stunting Among Children Under Five Years Old in Indonesia, Malaysia, and Mexico in 2024

Country	Prevalence of Stunting (%)	Source
Indonesia	20,0	National Health Survey (Riskesdas)/ the Global Nutrition Report
Malaysia	24,3	National Nutrition Plan/ the Global Nutrition Report
Mexico	13,9	National Institute of Public Health/ the Global Nutrition Report

Source: Proceed by Authors, 2025

**Notes:**

1. The prevalence rates for each nation are based on the most recent data available.
2. The goal for Malaysia's government in 2024 is to reach the target, while the goal for Indonesia is based on a survey from 2022.
3. The most recent national health assessments report on how common it is in Mexico.

Although current research often emphasizes specific national policies, there are limited comparative studies examining the impact of governance regimes on stunting-related health outcomes. This study aims to compare the governance practices of three nations, with a focus on cross-sectoral cooperation and stakeholder engagement. Intersectoral collaboration occurs when different sectors, such as health, education, social welfare, and agriculture, work together to address complex public health issues, like stunting. This partnership involves various groups, including government agencies, community organizations, non-governmental organizations (NGOs), and private businesses. All of these groups provide financial support and expertise. The study employs case studies and qualitative methods to discern the advantages and disadvantages of these governance structures. Ultimately, it aims to assist Mexico, Malaysia, Indonesia, and other similar countries in developing and implementing effective policies. The study emphasizes the necessity for context-specific solutions to achieve global health initiatives, such as the Sustainable Development Goals (SDGs), by promoting inclusive engagement and collaboration. The findings of this study aim to enhance our understanding of public health governance by supplying data that will aid policymakers in improving stunting prevention strategies.

## B. LITERATURE REVIEW

Stunting is a critical public health issue that affects millions of children worldwide. It is caused by long-term malnutrition. Recent studies highlight the importance of addressing this issue promptly, particularly in developing countries where stunting can have severe long-term consequences for health, cognitive development, and economic productivity (Phadnis et al., 2025). To reduce stunting, a multifaceted approach that encompasses health policies, governance frameworks, socioeconomic conditions, and cultural factors is necessary. The literature demonstrates the importance of good governance and comprehensive public health policies (Aisyah & Adhiyudanto, 2025).

### Governance Models

The governance of public health, particularly in addressing complex issues such as stunting, requires flexible and cooperative systems that involve multiple stakeholders (Ansell & Gash, 2008; Utomo, 2024). This literature review analyzes contemporary governance trends in Indonesia, Malaysia, and Mexico, emphasizing their efficacy in combating stunting (M. Afandi et al., 2022; M. N. Afandi et al., 2024; Herni et al., 2024; Prasetyo et al., 2023; Saputra & Kurniasih, 2023; Utomo, 2024). The objective is to identify exemplary practices and obstacles within these governance frameworks, thereby enriching the ongoing dialogue regarding collaborative governance in public health.

The Indonesian government has started the national program for Accelerating Stunting Prevention (Stranas Stunting). This program aims to consolidate the efforts of various ministries to reduce the costs of stunting (Marni et al., 2021; Milwan & Sunarya, 2023; Soetono et al., 2024). Despite a well-defined national framework, local governments often struggle to implement these guidelines due to potential shortfalls and inadequate resource allocation. Research indicates that bureaucratic inefficiencies and a lack of administrative capacity in neighborhoods significantly reduce the effectiveness of interventions aimed at reducing stunting. On the other hand, Malaysia's National Plan of Action for Nutrition (NPAN) demonstrates a more inclusive approach by utilizing stakeholder engagement to promote access to health and nutrition education (Prasetyo et al., 2023; Saputra & Kurniasih, 2023; Utomo, 2024). Studies suggest that Malaysia's fulfillment stems from strong inter-business enterprise coordination and evidence-based decision-making, which facilitates effective resource mobilisation and tailored interventions (Lee et al., 2022). This version reflects the ability of collaborative governance to address public health challenges by fostering partnerships among government agencies, businesses, NGOs, and community organizations.

Mexico's governance version, represented through the special application for nutrients and health (PENSAN), specializes in integrating health guidelines with broader social development techniques (Fogarty et al., 2025; Mustapa et al., 2022; Pérez-Escamilla, 2024). This holistic approach emphasizes the significance of community engagement and local governance in combating stunting. Studies show that effective interventions stand out from partnerships that leverage neighborhood resources and understanding, highlighting the effectiveness of collaborative governance in addressing health disparities (Fogarty et al., 2025).

Table 2. Comparative Governance Indonesia, Malaysia and Mexico

Variable	Indonesia	Malaysia	Mexico
Autonomy	Village funds (Bulan & Naping, 2023)	Centralized health budgeting (Lee et al., 2022)	PROSPERA fiscal conditional transfer (Carriedo et al., 2022)
Coordination	Weak interagency alignment	Strong federal state coordination	Regional mechanism inequities in implementation
Community	High in rural areas vs urban	Limited (top-down)	Mixed (indigenous participation approach)

Source: Proceed by Authors, 2025

Through analyzing the strengths and weaknesses of governance frameworks in Indonesia, Malaysia, and Mexico, the research aims to develop an understanding of how inclusive stakeholder participation and intersectoral collaboration can improve health outcomes. ultimately, this work not only fills an opening in the literature but additionally gives actionable insights for policymakers looking to improve interventions against stunting and similar public health challenges.

### Stakeholder Engagement

The literature increasingly recognises collaborative governance as an essential approach to tackling complex public health challenges, including stunting (M. Afandi et al., 2022; M. N. Afandi et al., 2024; Herni et al., 2024; Roy, 2024; Saputra & Kurniasih, 2023). Collaborative governance is a method in which the public and private sectors interact simultaneously in decision-making to address shared issues and challenges. This idea resonates throughout Indonesia, Malaysia, and Mexico, where strengthening partnerships among government organizations, civil society, and local groups is crucial for effective service delivery.

In Indonesia, collaborative governance mechanisms are still in the formative stages, highlighting the need for stronger partnerships to beautify fitness service delivery. Research suggests that more desirable collaboration can lead to a more robust implementation of policies aimed at decreasing stunting. In terms of assessment, Malaysia has made significant strides in public-private partnerships and inter-corporate coordination, both of which have contributed significantly to food security and nutrition training. These fashions exemplify the necessity for stakeholder involvement at multiple levels, underscoring the importance of collaboration in governance strategies.

Mexico's approach also demonstrates the effectiveness of incorporating neighborhood communities into governance methods, which enhances the effectiveness of public health initiatives. The literature suggests that collaborative governance models are especially advantageous in rural regions, where traditional governance systems may fail to address health disparities adequately. To reduce stunting, it is essential to possess the necessary administrative skills and effective bureaucratic performance when implementing fitness rules (Rittirong et al., 2024). Stresses that strong governance frameworks should prioritize improving administrative skills at the next level. Research from Indonesia highlights significant inefficiencies within the bureaucratic system that hinder the implementation of health regulations. Likewise, research in Malaysia supports transformative public management strategies, including performance-based budgeting and monitoring, which enhance the effectiveness of policy implementation.

The literature indicates that stunting is a complex public health issue that requires robust governance and effective public administration. The experiences of Malaysia, Mexico, and Indonesia demonstrate the importance of enhancing administrative capacity, promoting stakeholder engagement, and aligning health policy with broader socioeconomic objectives. This literature review provides a foundation for analyzing effective governance models that may impact global public policy initiatives aimed at reducing stunting and enhancing child health outcomes.

### **Implementation Barriers**

Table 3 provides a brief overview of the governance systems in Mexico, Malaysia, and Indonesia, highlighting the key differences, notable successes, and distinctive approaches. The Indonesian government developed the National Strategy for Accelerating Stunting Prevention (Stranas Stunting) to consolidate the efforts of various ministries in reducing stunting rates. (Bulan & Naping, 2023). Even when a clear national framework exists, local governments often struggle to implement these policies due to insufficient funding or resources. Research shows that stunting therapies are less effective when there are issues with bureaucracy and a lack of local administrative capacity. Local officials have said, for example, that a lack of money and people often makes it hard for provinces to carry out their plans, even when there are clear national plans.

Table 3. Government Initiatives in Indonesia, Malaysia, and Mexico

Country	Government Initiative	How It Works	Success (Statistics & Citations)	Differences
Indonesia	National Strategy to Accelerate Stunting Prevention (Stranas Stunting)	Work together across ministries to lower the rates of stunting. Local governments implement policy, but encounter capacity issues.	Reduced stunting rate by 9.2 percentage points since 2018; implemented in 514 districts. Achieved a reduction in stunting rates;	Local capacity constraints hinder implementation, while bureaucratic inefficiencies are widespread.
Malaysia	National Plan of Action for Nutrition Malaysia (NPANM)	The focus is on getting stakeholders involved and using resources to make it easier for people to get health and nutrition education.	specific statistics were not provided, but noted for effective urban-rural policy.	An integrated approach with a lot of coordination between agencies that puts equal access to health care first.
Mexico	Social Protection System	Integrates health policy and social development methods to reduce poverty and promote nutrition.	Not enough specific numbers are given, but nutrition has gotten a lot better for vulnerable groups.	Stresses the importance of community participation in policy execution, given the critical role of local governance systems.

Sources: Proceeded by the authors from some references ([Fogarty et al., 2025](#); [Haron et al., 2023](#); [World Bank Group, 2023](#))

The National Plan of Action for Nutrition Malaysia (NPANM) has made significant progress in reducing stunting in Malaysia. This project has been highly beneficial in developing interventions that enhance nutrition education and improve access to healthcare ([Chek et al., 2022](#)). Studies show that Malaysia can achieve success by utilizing its resources effectively, making informed decisions based on evidence, and gathering input from all stakeholders. As a result of the commitment to fair health care access, specialized public policies have been created that effectively connect urban and rural populations. Studies show that Malaysia's nutrition programs are most effective when they are integrated, meaning that various government and societal sectors collaborate.

Stunting remains a significant public health issue in Mexico, with a prevalence rate of 16.3% in 2018. This is much higher in rural southern areas and among low-income families ([Fogarty et al., 2025](#)). Economic inequality makes it harder for people to access healthy food and medical care, exacerbating chronic malnutrition. In Mexico, addressing stunting necessitates the integration of health policies with comprehensive social development initiatives, notably the execution of the Social Protection System. This system aims to alleviate poverty and improve nutrition for marginalized communities. Research shows that local governance institutions play a crucial role in closing health gaps, highlighting the importance of people's involvement in policy-making. Involving local communities in health initiatives enhances the effectiveness of public health programs by ensuring that interventions are tailored to the local context and meet the specific needs of the population. The review indicates that contemporary research predominantly analyzes nutrition interventions in isolation ([Taslim et al., 2023](#)), rather than investigating the mediating effects of governance architectures, particularly the interplay between accountability systems ([Treisman, 2025](#)) and fiscal autonomy, on stunting outcomes.

## **C. METHOD**

This study utilized a qualitative research design to analyze governance models tackling stunting in Mexico, Malaysia, and Indonesia. Since stunting is caused by a variety of factors, including institutional factors, socioeconomic status, environmental conditions, and nutrition, the strategy was appropriate. It enabled a comprehensive understanding of stakeholder perspectives and governance processes, often neglected in quantitative research. The study aims to identify pragmatic, context-specific strategies for strengthening policy interventions and improving the health of children in developing countries.

### **Research Design**

A comparative case study methodology was employed to examine three distinct contexts: Malaysia (centralised), Mexico (hybrid), and Indonesia (decentralised). The study began with a comprehensive literature review that addressed public health interventions, governance models, and stunting. This helped to form the research questions, which focused on how effectively stakeholders collaborate, the effectiveness of governance, and the outcomes of policies. The study aimed to establish a robust foundation for future research by integrating prior studies. This narrow focus ensured that the study concentrated on the paramount public health and governance issues.

### **Case Study Sites and Participant Selection**

Multistage cluster sampling was employed to elucidate regional disparities in the prevalence of stunting and governance capacity. Purposively selected to exemplify contrasting governance models and intervention effectiveness in Indonesia, Bandung and Surabaya were chosen for their moderate prevalence and strong local initiatives, whereas Surabaya was selected for its inter-agency collaboration in mitigating stunting. Thirty individuals, comprising representatives from NGOs, government officials, healthcare professionals, and community leaders, engaged in semi-structured interviews. The research analysed governance practices and intervention frameworks for Malaysia and Mexico, utilizing secondary data from official reports, academic studies, and institutional websites. Integrating comparative document analyses from Malaysia and Mexico with field data from Indonesia provided comprehensive insights into the effectiveness of governance and contextual variations in addressing stunting in the three countries.

### **Data Collection Methods and Document Analysis**

In-depth semi-structured interviews were carried out with 15 to 20 key stakeholders, especially from Indonesia. From Malaysia and Mexico, there are some secondary data collected for this study. The interviews covered things like governance roles, working together across agencies, problems that came up, and success stories about stunting interventions. The semi-structured format of these interviews allowed participants to share their experiences and thoughts in a story-like way, which added to the data that was collected. Moreover, focus group discussions were conducted to obtain perspectives from community members, healthcare professionals, and parents of children impacted by stunting. This combination made it possible to bring together institutional points of view, community voices, and formal policy frameworks.

### **Ethical Considerations and Data Analysis**

Before collecting data, ethical approval was secured from the relevant institutional review boards. Everyone who participated in the study provided their informed consent after being informed about the study and its procedures. Participants' privacy and anonymity were rigorously safeguarded, and they retained the right to withdraw at any moment without repercussions.

## D. RESULT AND DISCUSSION

The findings of this study provide a comprehensive overview of the governance models employed in Indonesia, Malaysia, and Mexico to combat stunting. This section uses qualitative data from semi-structured interviews, focus group discussions, and document analysis to elucidate the effectiveness, challenges, and successes of various groups in addressing stunting in their specific contexts. The results of this study reveal that Indonesia, Malaysia, and Mexico employ distinct approaches to addressing stunting, highlighting the significant differences in their social, political, and administrative contexts.

### National Strategies to Combat Stunting

The National Strategy for Accelerating Stunting Prevention (Stranas Stunting) in Indonesia is a good example of a multi-layered governance model. This plan encourages governments at all levels to collaborate. It emphasizes the importance of collaboration among various ministries, such as health, education, and social welfare. Although the national strategy is clear, implementing it remains challenging. Officials in the local government have stated that the bureaucracy isn't functioning effectively and that resources aren't being utilized efficiently. "There's a clear national strategy," one official said, "but we have trouble getting the money and people we need to carry out these plans on the ground." This feeling illustrates the difficulty of creating policies and then implementing them. It shows that national strategies often fail to work effectively at the local level due to insufficient resources or personnel availability.

Table 4 illustrates the differences in policies among Malaysia, Mexico, and Indonesia in their efforts to reduce stunting in children under the age of five. The table indicates that each government is committed to combating child malnutrition. It lists the name of each policy, a brief description, and the year it took effect.

Table 4. Comparative Policies Implemented by the Governments of Indonesia, Malaysia, and Mexico to Reduce Stunting among Children Under Five Years Old

Country	Policy Name	Description	Year Implemented
Indonesia	National Strategy for Accelerating Stunting Prevention (Stranas Stunting)	A comprehensive framework aimed at reducing stunting through coordinated efforts across various sectors, including health, education, and nutrition.	2018
Malaysia	National Plan of Action for Nutrition (NPAN)	A multi-sectoral approach that integrates health, nutrition, and social welfare initiatives to address malnutrition and promote food security.	2016
Mexico	Special Program for Nutrition and Health (PENSAN)	Focuses on improving maternal and child health by integrating nutritional support with broader social protection programs.	2014

Source: Proceed by Authors, 2025

#### Notes:

1. Each policy demonstrates a commitment to addressing the complex issue of stunting through targeted actions.
2. The year of implementation indicates when the policy officially took effect, demonstrating that each country is still working diligently to combat stunting.

Table 4 illustrates the efforts of each country to address child malnutrition and improve health outcomes. It is imperative to understand the unique sociopolitical contexts and public health philosophies that inform each nation's anti-stunting policies. This discussion analyzes the effectiveness of current policies and governance models to identify best practices and areas

for enhancement in combating child malnutrition. This comparative analysis enhances the manuscript and contributes to the broader discussion on improving public health management.

The comparative analysis of stunting prevalence indicates that Indonesia (20.0%) and Malaysia (24.3%) face considerable challenges in decreasing stunting rates, while Mexico (13.9%) has achieved more favorable outcomes. This gap highlights the importance of having effective policies and governance systems in place to combat hunger. There are different ways to fight stunting in Indonesia (Stranas Stunting), Malaysia (NPAN), and Mexico (PENSAN).

### **Interpretation of Data and Similarities and Differences**

The data indicate that Indonesia and Malaysia have made significant progress in combating stunting; however, challenges remain in implementing these plans within their own countries. These national plans are less effective due to bureaucratic issues and insufficient funding allocated for them. For example, local government officials in Indonesia have stated that they are dissatisfied with their inability to implement national policies due to a lack of proper funding. This highlights the importance of enhancing local governments' skills to effectively implement national policies and achieve tangible results in their communities.

Mexico, on the other hand, has a lower rate of stunting. This means that its integrated approach, which combines health interventions with social protection, has been more effective in addressing the problem. PENSAN's success demonstrates that involving people in public health programs can improve their effectiveness. Mexico's more responsive governance approach meets the needs of vulnerable groups by enabling local people to participate in decision-making and implement programs.

There are many things that the three countries have in common, despite their different approaches to governing. All three countries agree that the most effective way to combat stunting is to collaborate across sectors. They emphasize that this needs to be accomplished through collaboration among government agencies, non-governmental organizations (NGOs), and community groups. This model of collaborative governance is crucial for addressing the various aspects of stunting. It needs coordinated efforts from the health, education, and social welfare sectors. However, the success of these partnerships varies significantly. For instance, Malaysia's NPAN has benefited from strong stakeholder involvement and decisions based on evidence, which have been crucial for securing resources and implementing effective programs. On the other hand, Indonesia's problems with bureaucratic inefficiencies demonstrate that, despite the structure being in place, it remains challenging to implement effectively.

### **Unexpected Results and Theoretical Implications**

The data analysis revealed an unexpected finding: the extent to which local administrative capacities influenced the effectiveness of each nation's governance frameworks. Although the literature often emphasizes national policy frameworks, this study highlights the crucial role of local governance in implementing these policies. The results show that providing training and resources to local groups is crucial for the successful implementation of interventions. The results of this study enhance our theoretical understanding of governance in public health, particularly in relation to stunting. The findings substantiate the premise that adaptable governance frameworks, tailored to local exigencies and inclusive of diverse stakeholders, are more effective in addressing complex public health challenges. This aligns with modern principles of collaborative governance, which encourage the use of diverse viewpoints and resources when developing and implementing policies.

The study emphasizes the necessity for customized governance frameworks that take into account the unique socioeconomic and cultural contexts of Indonesia, Malaysia, and Mexico. While each country has made progress in addressing stunting, significant challenges remain, particularly in implementing plans and allocating resources. The comparative research offers

significant insights into practical strategies for addressing stunting, highlighting the importance of strengthening local capacity and promoting collaborative governance. This study contributes to the broader discourse on effective public health governance by highlighting exemplary practices and areas for enhancement. It provides policymakers with valuable insights into ways to enhance the health of children. Lastly, it is essential to emphasize the importance of effective policy interventions in combating stunting, fostering healthy communities, and achieving the Sustainable Development Goals.

### **Stakeholder Engagement for Stunting Intervention in Indonesia, Malaysia, and Mexico**

Stakeholder engagement was identified as a crucial element affecting the efficacy of stunting interventions in Indonesia, Malaysia, and Mexico. In Indonesia, community participation remains minimal, and numerous households are unaware of the available programs. Local NGOs often fill this gap by starting their own projects that provide education and nutrition services. This makes up for the government's lack of outreach. These findings suggest that government entities and local communities should collaborate and improve communication to expand program coverage. However, there are successful examples, such as the community-led project in Sukabumi, where women's groups monitor children's nutrition. This suggests that community-driven treatments, utilizing local skills, can significantly contribute to reducing stunted growth.

The National Plan of Action for Nutrition Malaysia (NPANM) demonstrates that the Malaysian government operates in a more organized and coordinated manner. Policymakers recognize that stunting requires coordinated efforts among various sectors, including health, education, and social welfare. Structured policy processes have enabled the systematic tracking and evaluation of actions. However, the fact that differences still exist between cities and rural areas highlights the importance of supporting rural areas that have been overlooked. The National Nutrition Council supports Malaysia's system of collaborative governance, which facilitates easier collaboration among community leaders, ministries, and non-governmental organizations. Local groups and regional leaders have become involved in nutrition programs, making them more effective and building public trust. Socioeconomic disparities persist, hindering the implementation of policies and underscoring the need for comprehensive social protection programs that integrate health education and other essential services.

The Special Program for Nutrition and Health (PENSAN) in Mexico is an example of how combining health and social programs can work. Its all-encompassing approach to governance encourages collaboration between government agencies, NGOs, and local communities, making it possible to offer a comprehensive range of services. Getting people involved in their communities, primarily through volunteer-led programs that educate them about nutrition and track children's growth, has made them more aware and responsible, which increases the likelihood that interventions will be effective over time. But bureaucratic delays and strict rules for running programs still make it hard to get them started on time.

The comparison results indicate that Indonesia needs to develop more effective strategies for collaborating with and engaging institutions, Malaysia should address ongoing regional disparities, and Mexico could streamline its bureaucratic processes. To achieve fair, community-based, and long-term results in reducing stunting, it's essential to involve more people in all three areas.

### Causes of Stunting and National Strategies in Indonesia, Malaysia, and Mexico

Table 5 presents the known causes of stunting in Indonesia, Malaysia, and Mexico, along with the national efforts in each country to address these issues. This table illustrates the variations in stunting prevalence across different countries, highlighting how each country addresses this public health issue in its own unique manner.

Table 5. Comparative National Strategies for Stunting in Indonesia, Malaysia, and Mexico

Country	Identified Causes of Stunting	Description	National Strategy
Indonesia	Inadequate Nutritional Intake	Many families lack access to sufficient and diverse food, particularly during critical periods of growth and development.	National Strategy for Accelerating Stunting Prevention (Stranas Stunting)
	Poor Healthcare Access	Limited access to maternal and child healthcare services affects the ability to monitor and support child growth.	Prioritises healthcare access and nutrition education.
	Insufficient Education on Nutrition	A lack of knowledge about proper nutrition and child-rearing practices contributes to the development of unhealthy dietary habits.	Includes public awareness campaigns on nutrition.
Malaysia	Socioeconomic Disparities	Significant differences in wealth and access to resources between urban and rural areas impact food security and health.	National Plan of Action for Nutrition (NPAN)
	Cultural Practices	Traditional dietary customs may not align with modern nutritional guidelines, which can potentially impact children's diets.	Promotes culturally sensitive nutrition education.
	Limited Awareness of Nutrition	Insufficient public awareness campaigns on the importance of nutrition and health contribute to the ongoing high rates of stunting.	Encompasses comprehensive nutrition education strategies.
	Poverty and Food Insecurity	High levels of poverty limit access to nutritious foods, particularly in vulnerable populations.	Special Program for Nutrition and Health (PENSAN)
	Health System Inequities	Disparities in healthcare quality and access between urban and rural areas hinder the development of effective intervention strategies.	Aims to integrate health and nutrition services.
Mexico	Lack of Community Engagement	The insufficient involvement of local communities in health and nutrition initiatives undermines the effectiveness of these programs.	Encourages community participation in health programs.

Source: Proceed by Authors, 2025

**Notes:**

Including national strategies highlights the proactive measures to combat stunting's multifaceted challenges, emphasising the importance of integrated approaches.

Table 5 lists the reasons why people are stunted in each country, along with the government's actions to address these issues. Table 4 illustrates the complexity of stunting as a public health issue and the importance of comprehensive plans that address its root causes. In Indonesia, the reported factors include poor nutrition, limited access to healthcare, and significant barriers to child development. Stranas Stunting is a national plan that aims to close these gaps by bringing people from different sectors together and making it easier for individuals to access healthcare and nutrition education. In Malaysia, the rates of stunting are significantly influenced by cultural differences and disparities in income and wealth. The National Plan of Action for Nutrition aims to address these issues by implementing practical solutions across all areas and ensuring that education is culturally relevant and accessible.

Poverty and a lack of access to sufficient food are the primary reasons for Mexico's problems. The Special Program for Nutrition and Health (PENSAN) is a program that combines health services with activities that promote the well-being of individuals. It emphasizes the importance of involving the community in reducing the effects of stunting.

### Socioeconomic, Urban vs Rural Environment, and Governance to Combat Stunting

Rural Malaysians said that food poverty and not being able to get health care were two of the main reasons why stunting rates are higher in rural areas than in cities. They arrived at this conclusion through a documentary study, focus group discussions, and interviews. People living in rural areas of Indonesia said they were just as unhappy, saying that poverty and a lack of education made it hard for them to get healthy food and medical care. On the other hand, poverty remains a significant issue in Mexico. However, people who live in cities reported having better access to healthcare, although disparities still exist in some neighborhoods.

Table 6. Socioeconomic, Rural vs. Urban Environments, Governance Employed in Malaysia, Indonesia, and Mexico

Country	Socioeconomic	Rural Areas	Urban Areas	Governance Employed
Malaysia	There are more poor people in rural areas, and they have less access to healthcare and education. Urban areas have better infrastructure and resources, but there are still differences.	Stunting rates are elevated due to insufficient access to nutritious food and healthcare services.	Stunting rates are elevated due to insufficient access to nutritious food and healthcare services.	National Plan of Action for Nutrition (NPAN), emphasising multi-sectoral collaboration and stakeholder engagement.
Indonesia	There is a big difference between cities and rural areas. In rural areas, infrastructure and public services are often not good enough. Urban areas have better access to health care, but they also have problems with overcrowding and unfairness.	Higher prevalence of stunting is attributed to poverty and limited access to nutrition education and healthcare.	There are fewer cases of stunting, but the urban poor still have trouble getting enough food and getting to the doctor.	National Strategy for Accelerating Stunting Prevention (Stranas Stunting), focusing on inter-ministerial coordination and local implementation.
Mexico	People living in rural areas are more likely to be poor and hungry, while people living in cities have better access to health services but still have health problems.	Stunting rates are high in rural areas because people there don't have easy access to healthy food and medical care.	Stunting rates are generally lower, but there are still areas of poverty in cities that affect children's health.	Special Program for Nutrition and Health (PENSAN), integrating health and social policies to address stunting comprehensively.

Source: Proceed by the Authors based on research findings, 2025

**Notes:**

1. The table illustrates how socioeconomic conditions, stunting rates, and governance strategies interact with one another in various regions within each country.
2. Each governance model addresses the specific challenges that arise when health and nutrition disparities exist in cities and rural areas.

### E. CONCLUSION

This study demonstrates that stunting in developing countries is a multifaceted issue with profound roots in disparities in healthcare and socioeconomic status. Regional disparities stem not only from poverty but also from inequalities in maternal education and healthcare access,

underscoring the constraints of dietary interventions. The data underscore that maternal education is a more significant factor in reducing stunting than household income, corroborating the findings of Laksono et al. (2022). This is not what Sukarman (2023) stated, which pertained to economic issues. For interventions to be effective, there must be robust governance frameworks and active involvement from all parties. This illustrates the importance of employing approaches that are sensitive to the context and work in tandem with one another.

A comparative analysis of Indonesia, Malaysia, and Mexico reveals that governance capacity, resource allocation, and community engagement have a significant impact on outcomes. Indonesia's decentralized model is hindered by bureaucratic fragmentation and capacity limitations, which obstruct local implementation. The National Plan of Action for Nutrition (NPAN) in Malaysia is a good example of how different sectors can collaborate and how policies can be aligned and consistent. But there are still differences between cities and the countryside. Mexico's Special Program for Nutrition and Health (PENSAN) is a hybrid framework that effectively combines social and health policies. It also receives considerable community support, despite the government's limited ability to manage it effectively.

It is always essential for stakeholders to be involved. Malaysia and Mexico demonstrate the importance of involving community leaders and non-governmental organizations in long-term efforts. However, Indonesia's limited outreach indicates that communication and coordination within the country need to be improved. Political commitment also plays a crucial role in determining the effectiveness of various initiatives. For example, Malaysia and Mexico have more consistent policies, but Indonesia's government support isn't always strong.

This study suggests strategies to improve the efficacy of interventions: (1) strengthening local governance through capacity building and adequate funding; (2) enhancing stakeholder engagement via targeted outreach; (3) fostering inter-sectoral collaboration among government, NGOs, and communities; and (4) addressing socioeconomic determinants through contextually adaptive policies. These findings improve existing public health governance frameworks by expanding UNICEF's malnutrition model to include education and healthcare as co-determinants of stunting reduction.

Future research should investigate the cultural determinants that influence feeding practices, as well as the lasting effects of integrated interventions. This study contributes to the global public health discourse by proposing a hybrid governance model that combines Malaysia's federal oversight, Mexico's conditional cash transfer systems, and Indonesia's adaptability of village funds, thereby harmonizing administrative efficiency with equity and accelerating progress toward the Sustainable Development Goals. A hybrid strategy that combines Malaysia's federal oversight, Mexico's conditional cash transfers (CCTs), and Indonesia's adaptability in village funds may reduce implementation differences while maintaining fairness.

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