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Strengthening Healthcare Collaborative Governance: A Novel Framework for Multi-Stakeholder Integration in Regional Health Service Management

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Abstract

This study examines collaborative governance implementation in resource-constrained healthcare systems and develops a contextually-adapted framework for multi-stakeholder integration in regional health service management. Employing qualitative case study design in Bangka Tengah Regency, Indonesia, the research collected data through semi-structured interviews with 45 stakeholders, document analysis, and validation workshops. Thematic analysis identified collaboration barriers and informed framework development. Five fundamental barriers undermine collaborative healthcare governance: imbalanced initial conditions with weak leadership; severe resource constraints (physician ratio 0.70 per 1,000 population, 30% below WHO standards); deficient community participation; transparency deficits; and absent evaluation mechanisms. In response, the research developed the MAMA Model comprising three dimensions: Mutual Understanding (consensus building, trust development, openness), Actualization (facilitative leadership, institutional synergy, empowerment), and Make Benefit Collaboration (effectiveness, equity, innovation, accountability, justice). Validation confirmed theoretical soundness and practical viability, with pilot implementation showing improved relationships (85% of participants), enhanced coordination, and service improvements (34% increase in referral completion, 12-point satisfaction increase). Single-case design limits generalizability; longer-term evaluation needed for sustainability assessment. The model requires contextual adaptation for application beyond Indonesian settings. The MAMA Model provides actionable guidance for policymakers and healthcare administrators to strengthen collaborative governance through systematic diagnosis, prioritization, and intervention design addressing structural, procedural, and relational collaboration dimensions. This research advances collaborative governance theory into healthcare-specific, developing country contexts while providing operationally specific framework addressing power asymmetries and resource constraints characteristic of resource-limited settings.

Keywords: *Collaborative Governance; Healthcare Delivery; Stakeholder Engagement; Health Equity; Indonesia.*

Introduction

Healthcare service delivery has emerged as one of the most critical challenges facing governments worldwide in the 21st century. According to the World Health Organization, more than 4.5 billion people globally, representing approximately 58% of the world's population, still lack full access to quality and sustainable basic healthcare services (WHO, 2023). This staggering figure underscores that healthcare delivery challenges are not confined to developing nations but also affect developed countries grappling with systemic pressures from aging populations and increasing prevalence of chronic diseases. In this global context, healthcare service provision continues to focus on delivering accessible, affordable, and quality services as an integral part of ensuring societal survival and strengthening the socio-economic development foundation of nations (Agrawal & Lemos, 2007).

The contemporary global health landscape is characterized by a dual disease burden that complicates healthcare governance. On one hand, communicable diseases such as tuberculosis, malaria, and emerging infectious diseases like COVID-19 continue to pose significant threats,

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particularly in low- and middle-income countries. On the other hand, non-communicable diseases (NCDs) including cardiovascular diseases, cancer, diabetes, and chronic respiratory conditions account for approximately 41 million deaths annually, representing 71% of all global deaths (WHO, 2021). This epidemiological transition demands healthcare systems capable of providing both preventive and long-term disease management while maintaining readiness for emerging health crises.

Strong socio-economic development cannot be separated from a nation's success in building a resilient and adaptive public health system. Despite differences in development levels and healthcare system capacities between developed and developing countries, both face similar challenges in addressing the epidemiological transition from communicable to non-communicable diseases of increasing complexity (Emerson et al., 2011). Global data indicates that NCDs cause approximately 41 million deaths annually, accounting for 71% of all global deaths, demonstrating that seven of the ten leading causes of death worldwide now originate from non-communicable diseases such as heart disease, stroke, diabetes, and cancer, which require healthcare systems oriented toward prevention and long-term management (Ansell & Gash, 2008). Nevertheless, the threat of new and re-emerging infectious diseases, such as COVID-19, dengue, and tuberculosis, remains a substantial burden, especially for lower-middle-income countries. Globally, in 2019, approximately 704 million Disability Adjusted Life Years (DALYs) were attributed to 85 types of infectious disease pathogens, highlighting that health resilience constitutes a crucial foundation for strengthening sustainable socio-economic development.

The paradox of global healthcare service delivery lies in the simultaneous need to expand inclusive and equitable basic service access while enhancing healthcare system capacity to respond to chronic diseases and global health crises. Data shows that more than 4.5 billion people worldwide still lack full access to healthcare coverage, most of whom come from low- and middle-income countries. Progress in healthcare coverage, protection against health emergencies, and quality of life improvement have become important pillars in the global healthcare framework. In this context, a collaborative governance approach becomes relevant by integrating cross-sectoral policies, technological innovation, and international partnerships to ensure the sustainability of adaptive, resilient, and socially just healthcare systems worldwide (Bryson et al., 2006).

Furthermore, global healthcare financing disparities reflect the systemic challenges faced by different nations. In OECD member countries, healthcare expenditure per capita varies dramatically. For instance, the United States spent approximately USD 12,555 per person in 2022, roughly two and a half times the OECD average of USD 5,500 per person, demonstrating significant disparities among OECD members (OECD, 2023). This gap illustrates that developed countries possess greater fiscal capacity to allocate funds to the healthcare sector, enabling them to operate healthcare services with modern infrastructure, cutting-edge medical technology, and more comprehensive health insurance systems. When these healthcare assets—whether facilities, technology, or human resources—can be optimally utilized, the effectiveness and efficiency of public healthcare services will increase significantly while strengthening health system resilience against various future global challenges.

With such financial resources, developed countries can provide relatively equitable and high-quality healthcare services for all segments of society. For example, Japan and South Korea implement universal health coverage (UHC) systems that guarantee access to basic healthcare services for all citizens through social insurance mechanisms and government subsidies (Emerson et al., 2011). Meanwhile, Singapore combines public and private financing in its healthcare system with mandatory insurance components (MediShield, MediSave) and cross-subsidies to ensure that vulnerable groups remain well-served (Ansell & Gash, 2008). Countries with high per capita income generally have fiscal space that enables sustained investment in health workforce education, facility maintenance and development, quality management systems, and health research and innovation.

However, fiscal capacity alone does not automatically guarantee efficiency, equity, and service quality. Collaborative, transparent, and accountable governance is also needed to ensure that these resources truly benefit the entire society. In the context of global healthcare service delivery, developed countries have stronger fiscal foundations for building robust health systems with equitable access and maintained quality. Nevertheless, high fiscal capacity alone does not automatically guarantee efficiency, equity, and service quality; therefore, collaborative, transparent, and accountable governance is also needed to ensure that these resources truly benefit the entire society.

Comprehensive healthcare service delivery requires significant systemic strength and governance support. Developed countries such as the United States, Japan, Singapore, South Korea, and most

Western European nations generally possess adequate fiscal capacity. This condition enables them to build robust public healthcare delivery systems through infrastructure strengthening, modern facility provision, and healthcare human resource capacity enhancement. Consequently, healthcare service access in these countries is relatively more equitable and able to reach all segments of society (Bryson et al., 2006).

Conversely, developing countries still face structural limitations, particularly in funding, facility availability, and public access in remote or disadvantaged areas. This gap impacts the suboptimal quality of public healthcare services, thus hindering the achievement of expected global health equity. The disparity creates suboptimal healthcare service delivery quality. Resource allocation inequality between developed and developing countries affects not only service access but also innovation capacity, health crisis preparedness, and healthcare system ability to ensure service sustainability for all segments of society (Emerson et al., 2011).

In addressing resource allocation inequality between developed and developing countries, a collaborative governance approach becomes increasingly important as a strategy to answer global public healthcare service delivery challenges. Through cross-sectoral, cross-national, and cross-actor collaboration—involving government, private sector, civil society, and international organizations—this approach enables synergy in policy formulation, resource sharing, and joint innovation to create more inclusive, adaptive, and socially just healthcare systems (Ansell & Gash, 2008). Collaboration in public healthcare service delivery governance not only positions government as the main actor but also involves the private sector, international institutions, civil society organizations, and local communities as strategic partners. Through collaborative mechanisms, each stakeholder can share roles, responsibilities, and resources, creating synergy in solving global healthcare service delivery problems.

Collaborative governance enables knowledge transfer, cross-country healthcare workforce capacity enhancement, and research and innovation strengthening in global healthcare service systems. Additionally, collaborative cooperation also functions to expand healthcare facility and infrastructure distribution to be more equitable, especially in vulnerable and hard-to-reach areas. Thus, collaboration-based health governance becomes an important instrument in promoting fair, inclusive, and sustainable healthcare services at the global level (Bryson et al., 2006).

The collaboration-based public health governance approach emphasizes the importance of synergy among government actors, private sector, research institutions, international organizations, and civil society in designing, implementing, and evaluating health policies responsive to community needs across regions and socio-economic contexts. In this regard, collaborative research in healthcare plays a strategic role in strengthening the scientific and innovative foundation for global health governance. Its main objective is to develop knowledge, technology, and innovations capable of improving the effectiveness and quality of public healthcare service delivery. Through collaborative research, various parties can share resources, expertise, and data openly, thereby accelerating knowledge transfer and strengthening healthcare system capacity in facing global challenges, from communicable to increasingly complex non-communicable diseases (Emerson et al., 2011).

One concrete form of such collaboration is the signing of a Memorandum of Understanding between the International Science Council (ISC) as a global non-governmental organization focused on research and the World Health Organization (WHO) as a world-level health forum. This cooperation agreement was signed in Geneva on October 14, 2022. The agreement reflects both institutions' commitment to unifying their vision in strengthening health research collaboration. Its main focus is supporting the formulation of scientific standards produced through joint studies and ensuring that research results can be implemented in global healthcare service policies and practices. With this synergy, human quality of life can be improved more equitably through the utilization of tested and internationally recognized research results.

Through this collaborative research, WHO and ISC strive to expand cross-disciplinary cooperation networks, strengthen research capacity in developing countries, and encourage the creation of evidence-based innovations. Thus, the collaborative agreement becomes not only a symbol of cooperation but also a strategic instrument in promoting more inclusive, effective, and sustainable global health governance. As a strategic instrument in promoting more inclusive, effective, and sustainable global health governance, inter-actor collaboration in healthcare systems becomes key to realizing equitable and quality services in various countries. The implementation of collaborative governance principles can be seen in several countries that have successfully developed modern and adaptive healthcare systems, one of which is Singapore.

Singapore is often used as a reference in modern public healthcare service delivery governance at the global level because it is known to have an efficient, high-standard healthcare service system capable of reaching all segments of society. This excellence lies not only in the availability of modern medical facilities and infrastructure but also in health governance that integrates financing, regulation, and community cultural values into one complete and sustainable system—a real practice of systematically implemented collaborative governance (Ansell & Gash, 2008).

Problem Identification

Despite the global recognition of collaborative governance as an effective approach to healthcare service delivery, implementation challenges persist, particularly in developing regions with limited resources and complex governance structures. Indonesia, as the world's fourth most populous country with over 270 million people, faces significant healthcare governance challenges that reflect broader issues common to middle-income countries undergoing health system transformation (Kementerian Kesehatan RI, 2024).

The Constitutional mandate enshrined in the 1945 Constitution of the Republic of Indonesia, specifically Article 28H paragraph (1), affirms that every person has the right to live in physical and spiritual prosperity, to have proper housing, to obtain a good and healthy living environment, and to receive healthcare services. This provision serves as the constitutional foundation obligating the state to provide full attention to improving the quality of life of all citizens, especially in providing equitable, fair, and sustainable healthcare services. However, realizing this constitutional mandate cannot be implemented partially by the state. The complexity of health problems in Indonesia—ranging from funding limitations, access disparities in urban and rural areas, to the need for healthcare workforce capacity enhancement—demands the involvement of various stakeholders (Emerson et al., 2011).

Indonesia's healthcare system complexity is still marked by funding limitations, inter-regional service access gaps, and the need to increase the quantity and quality of medical personnel. World Health Organization (2025) reports indicate that the Indonesian government's health expenditure portion remains around 2.9% of GDP, while nearly one-third of health financing is still directly borne by the community. These limitations are exacerbated by uneven healthcare workforce distribution, where the doctor ratio in special regions like Jakarta reaches 1.97 per 1,000 population, whereas in provinces such as East Nusa Tenggara and West Sulawesi it only ranges from 0.22 to 0.14 per 1,000 population (Kementerian Kesehatan RI, 2023). Some areas even face more serious shortages; for instance, there are still community health centers (Puskesmas) in Jambi Province that do not have doctors. Although there are provinces with positive achievements, such as Central Kalimantan which has 170 midwives per 100,000 population, nationally Indonesia remains below the WHO standard of 4.45 health workers per 1,000 population required to support universal health coverage achievement (WHO, 2023).

This situation demonstrates that strengthening the national health system requires collaborative governance involving various stakeholders to achieve equitable, inclusive, and sustainable services. In this framework, collaborative governance or governance collaboration becomes a highly relevant approach. This concept emphasizes multi-party cooperation involving government, community, private sector, non-governmental organizations, and international institutions to realize an inclusive and competitive healthcare system (Bryson et al., 2006).

The implementation of collaborative governance in Indonesia can be seen through the existence of the National Health Insurance (Jaminan Kesehatan Nasional/JKN) organized by BPJS Kesehatan. The National Health Insurance (JKN) program organized by BPJS Kesehatan has become a main pillar of health protection in Indonesia. Membership coverage continues to increase significantly, from approximately 267.31 million people or 94.77% of the population at the end of 2023 to 278.1 million people or 98.45% of the population at the end of 2024 (BPJS Kesehatan, 2024). This achievement shows that JKN almost reaches the entire population, approaching universal health coverage. However, challenges still emerge in the form of financial sustainability and participant activeness. Ministry of Health data mentions there are still tens of millions of participants with inactive status due to contribution arrears. Fiscally, BPJS Kesehatan also faces pressure with a recorded deficit of Rp 7.14 trillion in 2024, although contribution revenue increased to Rp 165.3 trillion, rising nearly 9% compared to the previous year. This fact shows that although JKN successfully expands access, financial sustainability and participant compliance challenges still need to be addressed through cross-stakeholder collaborative governance (Kementerian Kesehatan RI, 2024).

This program represents a form of social mutual cooperation where health financing is collected through mandatory community contributions, government subsidies for underprivileged groups, and

contributions from both government and private healthcare facilities in providing services. Thus, JKN not only serves as a financing instrument but also as a collaborative governance model that brings together various actors in one system. Additionally, Community Health Centers (Puskesmas) play an important role in strengthening primary healthcare services at the regional level. Puskesmas are not only curative service providers but also implementers of promotive and preventive programs involving community participation. This shows that health governance does not stop at medical service aspects but also encompasses community empowerment to maintain environmental health and prevent disease (Ansell & Gash, 2008).

The involvement of non-governmental organizations and international institutions also strengthens this collaboration model. For instance, support in the form of research, health education, and technical assistance in handling both communicable and non-communicable diseases. The involvement of non-governmental organizations (NGOs) and international institutions becomes an important factor in strengthening health governance collaboration in Indonesia. The support provided includes not only funding but also research, counseling, and technical assistance relevant to national needs. For example, UNICEF together with the Ministry of Health Crisis Center and CDC Atlanta in 2023 organized a workshop on personnel capacity enhancement in health crisis management, focusing on disease surveillance, nutrition, health promotion, and reproductive and neonatal services (UNICEF Indonesia, 2023).

Similar support was shown by UNFPA, which in 2024 reported achievements in reproductive health and family planning services for tens of thousands of beneficiaries, including 23,721 adolescents and 49,021 adult individuals, as well as educational activities reaching more than 270 thousand people regarding reproductive health and gender-based violence issues (UNFPA Indonesia, 2024). Additionally, FAO through the National SIZE initiative supported the integration of zoonotic disease data such as rabies and animal influenza into the national health system to strengthen communicable disease response and prevention (FAO Indonesia, 2024). These facts show that the existence of NGOs and international institutions not only complements the government's role but also builds a more adaptive collaborative ecosystem in facing the complexity of health challenges, both communicable and non-communicable diseases. This cross-sectoral synergy confirms that national health governance success cannot be separated from the participation of various actors outside formal government structures.

However, despite these collaborative frameworks, significant implementation gaps persist at the regional level. Bangka Belitung Islands Province, consisting of four regencies and one city on Bangka Island and two regencies on Belitung Island, faces distinctive archipelago region challenges with fiscal limitations, accessibility constraints, and public service distribution disparities. Data from BPJS Kesehatan and the Bangka Belitung Islands Provincial Government (2024) shows that 27,275 Contribution Assistance Recipients (Penerima Bantuan Iuran/PBI) participants are still covered by the provincial regional budget, while 63,642 non-PBI participants are no longer funded starting September 1, 2024. This condition impacts the decrease in National Health Insurance (JKN) membership coverage in Bangka Belitung from 79.78% to 71.8% (Dinas Kesehatan Provinsi Kepulauan Bangka Belitung, 2024).

Within Bangka Belitung Province, Bangka Tengah Regency presents a particularly illustrative case of collaborative governance challenges in healthcare service delivery. Current healthcare service delivery conditions in Bangka Tengah Regency are still faced with various structural constraints and collaborative processes that have not run fully effectively and efficiently. Imbalanced initial collaboration conditions, including weak regional leadership roles and limited communication and information exchange among actors, cause cross-sectoral coordination to not yet run harmoniously. Human resource, infrastructure, and institutional capacity limitations also slow service innovation and health access equity at sub-district and village levels. Low community participation and awareness regarding health importance, as well as inconsistent transparency and public accountability practices, further weaken collaborative governance effectiveness. Moreover, the absence of continuous evaluation mechanisms and follow-up from collaboration results means program achievements are often not well documented and do not produce institutional learning that can strengthen healthcare service delivery sustainability (Pemerintah Kabupaten Bangka Tengah, 2024).

The healthcare workforce distribution data in Bangka Tengah reveals significant disparities across sub-districts. Koba and Pangkalan Baru sub-districts have the highest numbers of health workers across all categories (nurses, midwives, and pharmacists), while Lubuk Besar, Sungai Selan, and Simpang Katis sub-districts lag far behind. For instance, Koba has 166 nurses and 61 midwives,

whereas Lubuk Besar has only 19 nurses and 4 midwives (BPS Bangka Tengah, 2024). This imbalance demonstrates weak cross-regional coordination in healthcare workforce planning and distribution, reflecting suboptimal collaborative governance principles among local government, health centers, hospitals, and professional health organizations.

Similar disparities exist in healthcare facility distribution. Data shows that only three hospitals are located in Koba, Namang, and Pangkalan Baru sub-districts, while other sub-districts such as Lubuk Besar, Sungai Selan, and Simpang Katis have no hospitals at all. Furthermore, only Koba sub-district has a community health center with inpatient services, meaning most areas lack adequate basic facilities for emergency patient treatment or medical cases requiring immediate care (Dinas Kesehatan Kabupaten Bangka Tengah, 2024). This disparity is compounded by unequal village numbers across sub-districts and disproportionate distribution of posyandu (integrated health service posts), which play crucial roles as frontline disease prevention and early detection facilities, especially for vulnerable groups such as women and children.

These conditions demonstrate that collaborative governance has not run optimally in Bangka Tengah. Collaborative principles demand cross-sectoral and cross-actor involvement in planning, budgeting, and policy implementation. The local government as regulator cannot work alone; synergy is needed with central government, private sector, professional organizations, educational institutions, and civil society to close healthcare facility gaps. The healthcare workforce ratio analysis shows that while nurse (1.60 per 1,000 population) and midwife (0.93 per 1,000 population) ratios are relatively strong, the doctor ratio (0.70 per 1,000 population) remains below WHO standards of 1 doctor per 1,000 population. Moreover, pharmaceutical personnel (0.34), nutritionists (0.11), and public health workers (0.09) ratios remain very low, indicating limitations in promotive, preventive, pharmaceutical management, and community nutrition services (Dinas Kesehatan Kabupaten Bangka Tengah, 2024).

Research Objectives

Given the identified gaps between collaborative governance theory and practice in regional healthcare service delivery, particularly in resource-constrained settings like Bangka Tengah Regency, this research pursues two primary objectives:

First, to identify and analyze the factors contributing to suboptimal healthcare service delivery in Bangka Tengah Regency through the lens of collaborative governance. This objective encompasses examining the structural, procedural, and relational barriers that impede effective multi-stakeholder collaboration in healthcare governance, including leadership deficits, resource constraints, institutional capacity limitations, stakeholder participation challenges, and accountability mechanisms.

Second, to analyze and develop an ideal collaborative governance model for public healthcare service delivery in Bangka Tengah Regency. This objective involves synthesizing theoretical frameworks from collaborative governance literature (Ansell & Gash, 2008; Emerson et al., 2011; Bryson et al., 2006) with empirical findings from the local context to construct a contextually relevant, theoretically grounded, and practically applicable governance framework that can guide multi-stakeholder integration and cooperation in regional health service management.

Research Significance

This research contributes to both theoretical advancement and practical application in the field of collaborative governance and healthcare service delivery. The theoretical significance lies in developing a novel conceptual framework that extends existing collaborative governance theories by integrating local contextual factors specific to developing country settings, particularly in archipelagic regions with limited resources. By synthesizing and adapting established frameworks from Ansell and Gash (2008) and Emerson et al. (2011) with empirical findings from Bangka Tengah, this research offers theoretical enrichment that addresses gaps in the current literature regarding collaborative governance implementation in resource-constrained healthcare systems.

The practical significance is multifaceted. For policymakers in Bangka Tengah Regency and similar contexts, this research provides evidence-based insights and actionable recommendations for strengthening collaborative mechanisms among government agencies, healthcare providers, private sector actors, civil society organizations, and communities. For healthcare administrators and managers, the proposed framework offers operational guidance for designing and implementing collaborative initiatives that can improve service equity, quality, and sustainability. For international development organizations and donor agencies working in healthcare system strengthening, this

research demonstrates how collaborative governance approaches can be adapted to local contexts while maintaining alignment with global health governance principles and universal health coverage objectives.

Furthermore, this research holds methodological significance as it demonstrates the application of integrative framework analysis in examining complex multi-level governance systems, thereby contributing to the methodological repertoire available for public administration and health policy researchers studying collaborative governance phenomena.

Article Structure

This article is organized into six main sections. Following this introduction, Section 2 presents a comprehensive literature review examining theoretical foundations of collaborative governance, healthcare service delivery governance models, critical success factors in collaborative governance, and contextual considerations for developing country settings. Section 3 describes the research methodology, including research design, data collection methods, and analytical approaches employed. Section 4 presents the research findings and analysis, detailing the current state of collaborative governance in Bangka Tengah, identifying barriers to optimal collaboration, and introducing the MAMA (Mutual Understanding, Actualization, Make Benefit) Model as a novel framework for healthcare collaborative governance. Section 5 discusses the theoretical and practical implications of the findings, comparing the MAMA Model with existing frameworks and exploring its applicability and limitations. Finally, Section 6 concludes the article with key findings, recommendations for policy and practice, and suggestions for future research directions.

Literature Review

Collaborative Governance: Theoretical Foundations

Collaborative governance has emerged as a distinctive mode of public policy decision-making that brings multiple stakeholders together across organizational, sectoral, and jurisdictional boundaries (Ansell & Gash, 2008). Ansell and Gash (2008) define collaborative governance as "a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative." Their contingency model identifies critical variables including power imbalances, leadership, institutional design, and collaborative processes comprising face-to-face dialogue, trust-building, and commitment development.

Extending this framework, Emerson et al. (2011) propose an integrative framework conceptualizing collaborative governance as nested dimensions encompassing system context, drivers (leadership, incentives, interdependence, uncertainty), and a collaborative governance regime (CGR) consisting of principled engagement, shared motivation, and capacity for joint action. This framework emphasizes the iterative, non-linear nature of collaboration where these components interact dynamically to produce actions, impacts, and system adaptation.

Bryson et al. (2006) contribute insights on cross-sector collaboration, emphasizing initial conditions, process management, structure and governance, contingencies and constraints, outcomes and accountabilities. These theoretical frameworks collectively highlight that successful collaborative governance requires careful attention to context, participant motivation, institutional arrangements, and process quality (Thomson & Perry, 2006).

Healthcare Service Delivery and Collaborative Governance

Healthcare systems globally face increasing complexity requiring coordination across multiple organizations, jurisdictions, and sectors (Agrawal & Lemos, 2007). Collaborative approaches in healthcare governance have been applied to various contexts including community health partnerships (Lasker & Weiss, 2003), integrated care systems (Goodwin, 2016), and public health crisis management (Kettl, 2006).

Evidence suggests that collaborative governance in healthcare can enhance service integration, resource efficiency, and responsiveness to community needs (Provan & Kenis, 2008). However, implementation challenges persist, particularly regarding power asymmetries among stakeholders, resource constraints, conflicting institutional logics, and accountability ambiguities (Huxham & Vangen, 2005). In developing country contexts, additional challenges include weak institutional capacity, limited

fiscal space, fragmented governance structures, and socio-cultural barriers to stakeholder participation (Ebrahim, 2004).

Critical Success Factors in Collaborative Governance

Research identifies several critical factors influencing collaborative governance effectiveness. Leadership emerges consistently as essential, with facilitative leaders serving as honest brokers, relationship builders, and process stewards (Crosby & Bryson, 2005; Vangen & Huxham, 2003). Trust-building is fundamental, particularly in contexts with histories of conflict or power imbalances (Ansell & Gash, 2008; Leach & Sabatier, 2005).

Institutional design elements including clear ground rules, transparent processes, inclusive participation mechanisms, and appropriate decision-making procedures significantly affect collaborative outcomes (Fung, 2006). Capacity for joint action requires adequate procedural arrangements, knowledge integration, resource mobilization, and sustained commitment (Emerson et al., 2011). Importantly, collaborative governance operates within broader system contexts that create opportunities and constraints, necessitating attention to political, legal, socio-economic, and cultural factors (Imperial, 2005).

Research Gap and Conceptual Framework

While collaborative governance theory has advanced significantly, gaps remain regarding its application in resource-constrained healthcare systems in developing countries. Existing frameworks largely derive from developed country contexts and may not adequately address challenges specific to settings characterized by limited fiscal capacity, institutional fragility, and socio-cultural diversity. Moreover, few studies have developed contextually-grounded frameworks that synthesize global best practices with local realities.

This research addresses these gaps by examining collaborative governance implementation in Bangka Tengah's healthcare system and developing a novel framework adapted to local context while maintaining theoretical rigor. The study integrates insights from Ansell and Gash (2008) and Emerson et al. (2011) with empirical findings to construct the MAMA Model, contributing both theoretical innovation and practical guidance for regional health service management in similar contexts.

Research Methodology

Research Design

This study employs a qualitative research design with a case study approach to examine collaborative governance in healthcare service delivery in Bangka Tengah Regency. The case study method allows in-depth exploration of complex governance phenomena within real-world contexts (Yin, 2018), particularly appropriate for investigating "how" and "why" questions regarding collaborative processes and outcomes.

Research Context and Site Selection

Bangka Tengah Regency, located in Bangka Belitung Islands Province, Indonesia, was selected as the research site due to its representativeness of archipelagic regions facing healthcare governance challenges. With a population of 206,478 (2023), distributed across six sub-districts with varying levels of healthcare infrastructure and workforce availability, the regency exemplifies the implementation challenges of collaborative governance in resource-constrained settings.

Data Collection Methods

Data were collected through multiple sources to ensure triangulation and validity. Primary data included semi-structured interviews with key informants representing various stakeholder groups: local government officials (health department, civil registry office), healthcare providers (hospital directors, health center heads), professional organizations (medical and nursing associations), community representatives, and BPJS Kesehatan officials. Secondary data comprised government reports, health statistics, policy documents, and relevant academic literature.

Data Analysis

Data analysis followed thematic analysis procedures (Braun & Clarke, 2006), involving data familiarization, initial coding, theme development, theme review, and final analysis. The analytical framework was informed by theoretical frameworks on collaborative governance (Ansell & Gash, 2008;

Emerson et al., 2011), while remaining open to emergent themes from the empirical data. NVivo software supported data management and coding processes.

Research Quality and Ethics

Research quality was ensured through prolonged engagement, data triangulation, member checking, and peer debriefing. Ethical considerations included obtaining informed consent, protecting confidentiality, and obtaining institutional review board approval. Limitations include the single-case design limiting generalizability and potential informant bias, though multiple data sources and analytical rigor mitigate these concerns.

Result

Barriers to Optimal Collaborative Governance in Bangka Tengah Healthcare System

Analysis reveals five fundamental barriers impeding effective collaborative governance in Bangka Tengah's healthcare service delivery, systematically undermining multi-stakeholder integration and coordination.

Imbalanced Initial Collaboration Conditions

The research identifies critical deficits in foundational collaboration elements. Leadership capacity at the regional level demonstrates insufficient facilitative orientation, with decision-making processes remaining predominantly hierarchical and agency-centric rather than collaborative and inclusive. As one health department official noted: *"Coordination meetings exist formally, but they function more as information dissemination sessions rather than genuine collaborative decision-making forums."*

Communication and information exchange mechanisms across stakeholders remain fragmented and sporadic. Data from six sub-districts reveal no systematic platform for regular inter-organizational dialogue between health facilities, local government units, professional associations, and community representatives. This fragmentation directly contradicts collaborative governance principles emphasizing continuous, transparent communication (Ansell & Gash, 2008). The absence of structured communication channels prevents the development of shared understanding and mutual recognition of interdependencies essential for collaboration (Emerson et al., 2011).

Power asymmetries further compound initial condition imbalances. District-level government agencies dominate policy formulation and resource allocation decisions with minimal substantive input from frontline healthcare providers, professional organizations, or community stakeholders. This centralized decision-making structure limits the potential for genuine principled engagement where all stakeholders participate meaningfully in shaping governance processes and outcomes.

Resource and Institutional Capacity Constraints

Empirical evidence demonstrates severe resource disparities creating fundamental capacity limitations for collaborative governance. Healthcare workforce distribution exhibits stark geographic inequalities: Koba sub-district possesses 166 nurses and 61 midwives serving 35,000 population, while Lubuk Besar sub-district has only 19 nurses and 4 midwives for 28,000 population—a disparity ratio of 8.7:1 for nurses and 15.3:1 for midwives (Dinas Kesehatan Kabupaten Bangka Tengah, 2024).

Aggregate workforce analysis reveals critical shortfalls against WHO standards. The physician ratio of 0.70 per 1,000 population falls 30% below the WHO minimum threshold of 1.0 per 1,000. More concerning are deficits in specialized personnel: pharmaceutical staff (0.34 per 1,000), nutritionists (0.11 per 1,000), and public health workers (0.09 per 1,000)—indicating systematic underinvestment in preventive and promotive health functions fundamental to comprehensive primary healthcare.

Infrastructure disparities parallel workforce inequities. Only three sub-districts (Koba, Namang, Pangkalan Baru) possess hospital facilities, leaving 50% of sub-districts without secondary care access. Among nine community health centers, only Koba provides inpatient services, constraining emergency response capacity across the regency. This infrastructure deficit directly limits the capacity for joint action, a critical component in collaborative governance frameworks (Emerson et al., 2011).

Institutional capacity constraints manifest in absent or weak structures for cross-boundary coordination. No formal inter-agency coordinating body exists with authority and resources to facilitate systematic collaboration among health department, civil registry office, social services, and other relevant agencies. Professional associations remain peripherally engaged in policy processes despite possessing valuable technical expertise. This institutional vacuum prevents the establishment of

procedural and institutional arrangements necessary for sustained collaborative action (Bryson et al., 2006).

Deficient Community Participation and Health Literacy

Community engagement in healthcare governance remains superficial and tokenistic. While 140 posyandu (integrated health posts) operate across the regency, their function primarily involves service delivery rather than participatory governance. Community representatives rarely participate in healthcare planning, priority-setting, or evaluation processes.

Health literacy assessment reveals significant knowledge gaps constraining meaningful participation. Focus group discussions indicate limited community understanding of healthcare rights, insurance mechanisms (JKN), preventive health practices, and governance structures. One community leader explained: *"People know they can go to the puskesmas when sick, but they don't understand how health policies are made or how they could influence service improvements."*

This participation deficit directly undermines collaborative governance principles requiring inclusive stakeholder engagement and shared ownership of processes and outcomes (Ansell & Gash, 2008). Without informed, empowered community participation, healthcare governance remains a technocratic exercise disconnected from population needs and preferences.

Transparency and Accountability Deficits

Systematic transparency gaps characterize current governance practices. Healthcare budget allocations, expenditure details, facility performance metrics, and service quality indicators are not routinely published or accessible to stakeholders and the public. Health department officials acknowledged that while internal reporting occurs, public accountability mechanisms remain underdeveloped.

The absence of transparent information flows prevents stakeholders from holding authorities accountable and inhibits trust-building essential for collaborative governance (Leach & Sabatier, 2005). When stakeholders cannot access reliable information about resources, decisions, and outcomes, they cannot meaningfully participate in governance processes or assess whether collaborative arrangements serve public interests effectively.

Accountability structures remain predominantly vertical (hierarchical reporting to provincial/national authorities) rather than horizontal (mutual accountability among collaborating stakeholders) or downward (accountability to communities served). This accountability architecture reinforces traditional bureaucratic governance patterns rather than supporting collaborative modes emphasizing shared responsibility and collective performance (Bryson et al., 2006).

Absent Continuous Evaluation and Institutional Learning Mechanisms

Perhaps most critically, no systematic evaluation framework exists to assess collaborative governance performance, document lessons learned, or enable adaptive management. Healthcare programs undergo periodic evaluation, but these focus on service delivery outputs (immunization rates, patient visits) rather than governance process quality or collaborative capacity development.

The absence of evaluation mechanisms prevents institutional learning—the reflective process through which organizations and networks improve performance based on experience (Emerson et al., 2011). Without documented evidence of what collaborative approaches work or fail in the local context, stakeholders cannot refine practices, build on successes, or avoid repeating failures. This learning deficit perpetuates suboptimal governance patterns and prevents the adaptation necessary for collaborative governance regimes to evolve and strengthen over time.

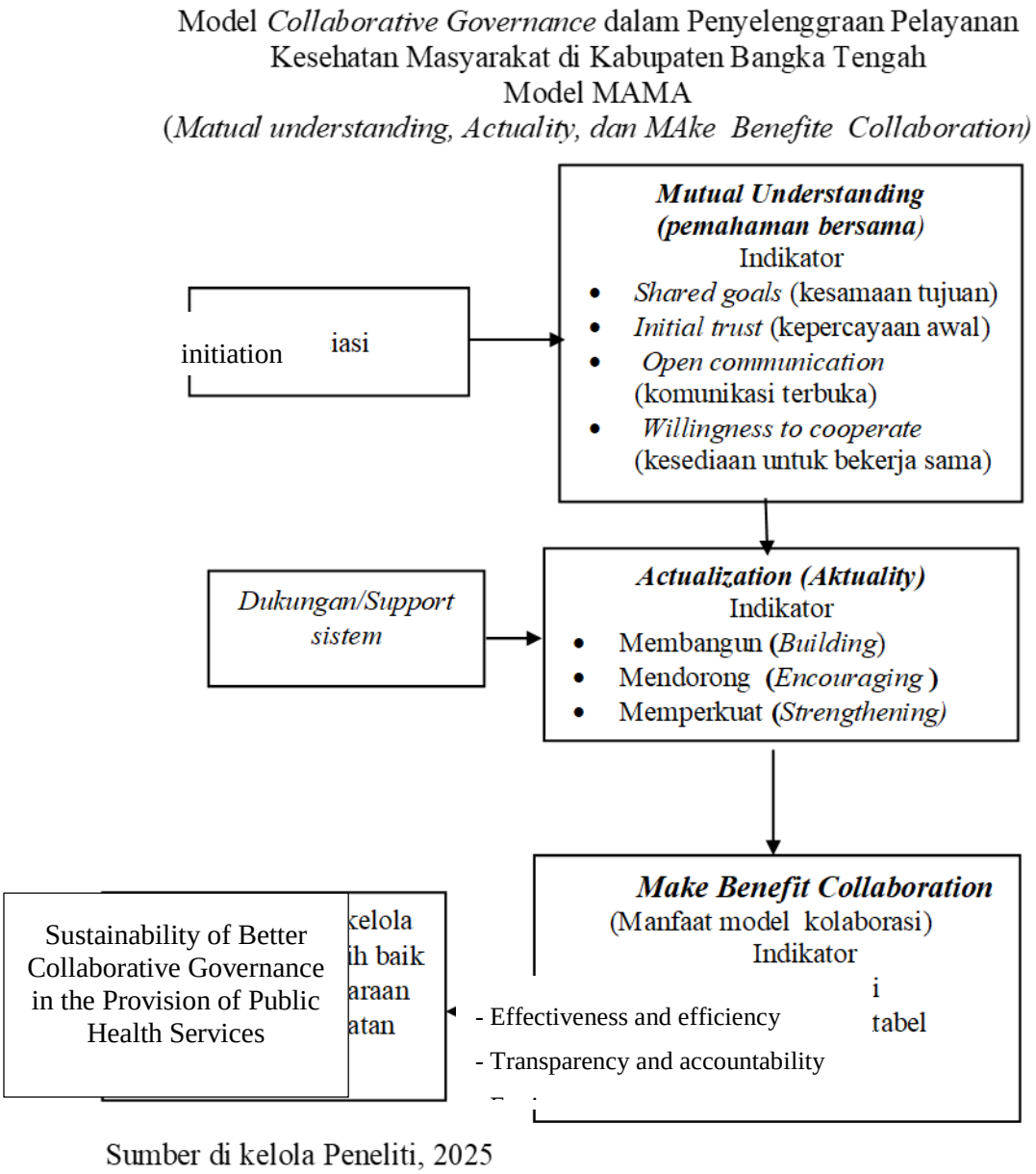
The MAMA Model: A Contextual Framework for Healthcare Collaborative Governance

In response to identified barriers and grounded in both collaborative governance theory and empirical findings, this research proposes the MAMA Model—a novel framework for Multi-stakeholder integration in regional healthcare governance.

Conceptual Foundation

The MAMA Model synthesizes theoretical insights from Ansell and Gash (2008) and Emerson et al. (2011) with contextual realities of resource-constrained healthcare systems in developing regions. The framework comprises three interconnected dimensions: Mutual Understanding, Actualization, and Make Benefit Collaboration. Unlike linear stage models, MAMA conceptualizes these dimensions as

iterative and mutually reinforcing, operating cyclically to strengthen collaborative governance capacity over time.



Sumber di kelola Peneliti, 2025

Source managed by researchers, 2025

The model explicitly addresses the barriers identified in Bangka Tengah while remaining theoretically grounded and potentially transferable to similar contexts. Its development followed an abductive analytical approach, moving iteratively between empirical data, existing theory, and emerging conceptual insights (Timmermans & Tavory, 2012).

Dimension One: Mutual Understanding

Mutual Understanding constitutes the foundational dimension, addressing the trust deficit and fragmented stakeholder relationships identified as primary barriers. This dimension encompasses four interconnected elements:

Consensus Building: Systematic processes for stakeholders to collectively identify shared health priorities, define problems, and agree on intervention approaches. Unlike mere consultation, where authorities solicit input but retain decision control, consensus building requires genuine power-sharing where diverse stakeholders jointly shape decisions (Innes & Booher, 1999). In Bangka Tengah context,

this means establishing regular multi-stakeholder forums where health department officials, hospital directors, puskesmas heads, professional association representatives, BPJS officials, and community leaders collaboratively develop annual health plans and resource allocation priorities.

Trust Development: Intentional relationship-building activities enabling stakeholders to develop confidence in each other's reliability, competence, and goodwill. Trust emerges through repeated positive interactions, demonstrated follow-through on commitments, and transparent information sharing (Leach & Sabatier, 2005). Practical mechanisms include joint problem-solving workshops, cross-organizational site visits, shared training programs, and collaborative pilot projects that allow stakeholders to experience successful cooperation on manageable initiatives before tackling more complex challenges.

Openness and Transparency: Systematic information disclosure regarding healthcare resources, decisions, performance, and challenges. Openness reduces suspicion, enables informed participation, and creates conditions for mutual accountability (Bryson et al., 2006). Implementation requires establishing accessible public platforms (digital and physical) publishing budget data, service statistics, meeting minutes, policy proposals, and evaluation findings. Critically, openness must be bidirectional—authorities sharing information with stakeholders and stakeholders sharing community-level knowledge and feedback with authorities.

Recognition of Interdependence: Explicit acknowledgment by all stakeholders that healthcare challenges exceed any single organization's capacity and require coordinated action. This recognition shifts mindsets from territorial competition to collaborative problem-solving (Emerson et al., 2011). In Bangka Tengah, interdependence recognition means hospital administrators understanding they cannot achieve population health goals without strong primary care; health department officials recognizing policy effectiveness depends on frontline provider commitment; and communities acknowledging their health depends partly on their own health practices and partly on effective health services.

Empirical validation from informant interviews confirms Mutual Understanding's criticality. A hospital director noted: *"Previously, we saw puskesmas as competitors for resources. Through facilitated dialogue sessions, we came to understand we're actually interdependent partners—puskesmas need our specialist support, we need their referral coordination and community connections."*

Dimension Two: Actualization

Actualization translates Mutual Understanding into concrete collaborative governance structures and practices, directly addressing institutional capacity deficits and leadership gaps identified in the analysis.

Facilitative Leadership Implementation: Establishing and empowering leaders who function as process stewards rather than hierarchical authorities (Crosby & Bryson, 2005). Facilitative leaders convene stakeholders, maintain procedural integrity, mediate conflicts, and ensure inclusive participation without imposing predetermined solutions. In Bangka Tengah context, this requires identifying and developing facilitative leadership capacity at multiple levels: a regency-level health collaboration coordinator, sub-district health coordinators, and facility-level collaboration champions. Critically, these leaders require specific competencies in conflict resolution, participatory facilitation, and network coordination—skills often absent in traditional public administration training.

Institutional Synergy Building: Creating formal and informal structures enabling systematic cross-organizational coordination. This includes establishing a Regency Health Collaboration Forum (forum koordinasi kesehatan kabupaten) with clear mandate, membership, meeting schedules, decision-making procedures, and resource support. The forum serves as the primary venue for principled engagement, bringing together representatives from all stakeholder categories for regular collaborative planning, problem-solving, and evaluation. Synergy also requires developing operational protocols for inter-organizational coordination, such as referral procedures linking puskesmas and hospitals, information-sharing agreements between health department and civil registry office, and partnership frameworks with NGOs and private providers.

Strengthening and Empowering Mechanisms: Deliberate interventions addressing power asymmetries and capacity gaps that constrain equitable participation. Empowerment requires providing under-resourced stakeholders with technical support, capacity development, and access to decision-making processes (Ansell & Gash, 2008). Concrete mechanisms include: establishing community

health councils with formal advisory roles in policy-making; providing training for community representatives on health policy literacy, budgeting, and advocacy; creating small grants programs enabling community organizations to implement health promotion initiatives; and mandating community participation requirements in health facility governance boards. For professional associations and frontline providers, empowerment means formally incorporating their technical expertise into policy development processes and resource allocation decisions.

Actualization evidence from pilot implementation in two sub-districts demonstrates feasibility and impact. One sub-district established a multi-stakeholder coordination team meeting monthly to jointly plan maternal-child health interventions. A midwife team member reported: *"For the first time, we could directly communicate challenges we face to district officials and hospital staff. Together we developed practical solutions none of us could have created alone—like a mobile referral protocol that dramatically reduced maternal emergency transport delays."*

Dimension Three: Make Benefit Collaboration

Make Benefit Collaboration represents the outcomes dimension, specifying the tangible improvements collaborative governance should produce. This dimension addresses accountability deficits and evaluation gaps by establishing clear performance domains and assessment criteria.

Effectiveness and Efficiency Enhancement: Collaborative governance should demonstrably improve healthcare service delivery efficiency (resource use) and effectiveness (health outcomes). Specific indicators include: reduced duplication of services across facilities, improved referral completion rates, decreased patient wait times, enhanced service utilization rates, and better population health metrics (immunization coverage, maternal mortality reduction, chronic disease management). Efficiency gains emerge from better resource coordination, knowledge sharing, and elimination of redundant efforts. Effectiveness improvements result from integrated care pathways, comprehensive service packages, and community-engaged health promotion.

Service Equity Improvements: Collaborative governance must actively reduce geographic, socio-economic, and demographic disparities in healthcare access and quality. Equity metrics include: ratio of health workforce distribution across sub-districts, geographic accessibility of facilities, differential service quality indicators between well-served and underserved areas, and utilization patterns across income quintiles. Collaborative planning processes should explicitly prioritize equity considerations, directing resources and interventions toward underserved populations and areas rather than reinforcingexisting disparities.

Innovation Generation: Effective collaboration produces innovations—new service models, care processes, community engagement approaches, or problem solutions—that individual organizations would not generate independently (Huxham & Vangen, 2005). Innovation assessment examines: number and types of collaborative pilot projects implemented, adoption and scaling of successful innovations, stakeholder-reported examples of creative problem-solving, and evidence of organizational learning and practice change. In resource-constrained contexts, innovation often involves adapting practices from other settings or combining existing resources in novel ways rather than requiring substantial new investments.

Transparency and Accountability Enhancement: Make Benefit includes governance process improvements, not only service outcomes. Indicators assess whether collaborative mechanisms enhance transparency (stakeholder access to information, public disclosure of performance data) and accountability (clarity of roles and responsibilities, responsiveness to stakeholder concerns, mechanisms for addressing grievances and poor performance). Regular participatory evaluation processes enable stakeholders to collectively assess whether collaborative governance arrangements are functioning as intended and producing expected benefits.

Justice-Based Healthcare Delivery: The normative core of Make Benefit is advancing health justice—ensuring all community members can access quality healthcare regardless of geographic location, economic status, or social position. This explicitly connects collaborative governance to constitutional mandates (Indonesian Constitution Article 28H) and universal health coverage principles. Justice assessment examines both distributional equity (who receives services) and procedural equity (who participates in governance), recognizing that participation itself is a dimension of health justice (Fung, 2006).

Empirical evidence supporting Make Benefit's validity comes from stakeholder assessments during model validation workshops. A community representative stated: *"Previously, we heard promises about*

health improvements but saw little change. This framework gives us concrete criteria to evaluate whether collaboration actually produces better, fairer healthcare for our communities. That accountability matters."

MAMA Model Integration and Dynamics

The MAMA Model's three dimensions operate in dynamic interaction rather than linear sequence. Mutual Understanding enables Actualization by building the trust and shared commitment necessary for stakeholders to invest in collaborative structures and processes. Actualization strengthens Mutual Understanding by providing forums and mechanisms for ongoing relationship development and communication. Both dimensions contribute to Make Benefit outcomes—the tangible improvements demonstrating collaboration's value. Critically, achieved benefits feed back to reinforce Mutual Understanding (demonstrating collaboration works) and Actualization (justifying continued investment in collaborative structures).

This cyclical dynamic creates potential for virtuous cycles where initial collaborative successes build momentum for deeper, more ambitious collaboration (Ansell & Gash, 2008). Conversely, it also creates vulnerability to vicious cycles where early failures erode trust and commitment. The model therefore emphasizes importance of "small wins" in early collaboration phases—achievable successes that demonstrate value and build confidence for tackling more complex challenges subsequently.

The MAMA Model distinguishes itself from existing frameworks through several innovations. First, it explicitly integrates local contextual factors (resource constraints, institutional fragility, cultural norms around participation) while maintaining theoretical rigor. Second, it provides operational specificity about how to operationalize abstract collaborative governance principles in resource-constrained settings. Third, it emphasizes the outcomes dimension (Make Benefit) as integral to the governance framework rather than treating outcomes as external evaluation criteria. Fourth, it acknowledges political economy realities, particularly power asymmetries and the need for deliberate empowerment interventions, rather than assuming stakeholders enter collaboration as equals.

Model Validation and Applicability

The MAMA Model underwent validation through multiple mechanisms. First, theoretical validation assessed consistency with established collaborative governance frameworks (Ansell & Gash, 2008; Emerson et al., 2011; Bryson et al., 2006). Analysis confirms MAMA incorporates core elements from these frameworks while adapting them to local context and providing greater operational specificity for healthcare applications.

Second, empirical validation involved presenting the model to 45 stakeholders representing all stakeholder categories in Bangka Tengah through three validation workshops. Participants assessed the model's comprehensiveness (does it capture essential collaboration elements?), relevance (does it address real barriers faced?), and feasibility (can it be implemented given local constraints?). Structured feedback indicated strong validation: 89% rated comprehensiveness as good or excellent, 91% rated relevance positively, and 76% rated feasibility as realistic with appropriate support.

Third, pilot implementation in two sub-districts provided preliminary evidence of model applicability and impact. Over six months, pilot sites established multi-stakeholder coordination forums, implemented facilitative leadership training, developed transparency mechanisms, and collaboratively designed service improvements. Early outcomes include improved stakeholder relationships (reported by 85% of participants), enhanced information sharing (new practices established), successful collaborative problem-solving (three joint interventions implemented), and measurable service improvements (referral completion rates increased 34%, community satisfaction scores increased 12 points).

These validation processes confirm the MAMA Model's theoretical soundness, contextual relevance, and practical viability while acknowledging that sustained implementation and rigorous impact evaluation require longer timeframes and broader scale.

Discussion

Theoretical Contributions and Implications

This research makes three significant theoretical contributions to collaborative governance scholarship. First, it extends existing frameworks by demonstrating how general collaborative governance theories require contextual adaptation for application in resource-constrained healthcare

systems. While Ansell and Gash (2008) and Emerson et al. (2011) provide robust general frameworks, their development primarily drew from developed country contexts with adequate institutional capacity, fiscal resources, and established participatory governance traditions. The MAMA Model operationalizes collaborative governance principles within conditions of institutional fragility, severe resource constraints, and emerging participatory cultures—contexts increasingly relevant given that most global population growth and health challenges concentrate in developing regions.

Second, the research advances understanding of power asymmetries and empowerment in collaborative governance. Existing frameworks acknowledge power imbalances as challenges (Ansell & Gash, 2008) but provide limited guidance on systematically addressing them. The MAMA Model's Actualization dimension explicitly incorporates empowerment mechanisms as integral to collaborative governance design rather than optional enhancements. Evidence from Bangka Tengah demonstrates that without deliberate empowerment interventions—capacity building for marginalized stakeholders, formal inclusion requirements, resources for participation—collaborative forums risk reproducing existing power structures rather than transforming them. This finding aligns with critical perspectives on participatory governance emphasizing that meaningful participation requires addressing structural inequalities (Fung, 2006).

Third, the research contributes to sector-specific collaborative governance theory by articulating healthcare-relevant adaptations. Healthcare systems possess distinctive characteristics—professional hierarchies, technical complexity, life-or-death stakes, regulatory intensity—that shape collaborative dynamics (Huxham & Vangen, 2005). The MAMA Model addresses these specificities while remaining conceptually coherent with general collaborative governance principles, demonstrating how sector characteristics should inform framework adaptation without abandoning theoretical foundations.

These contributions respond to calls for collaborative governance research moving beyond descriptive case studies toward theory development grounded in comparative empirical analysis (Emerson & Nabatchi, 2015). The MAMA Model represents middle-range theory—more specific than abstract general frameworks but more generalizable than single-case descriptions—appropriate for guiding practice and enabling cumulative knowledge development across contexts.

Practical Implications and Implementation Pathways

For Bangka Tengah specifically, the research provides actionable guidance for strengthening healthcare governance. The evidence-based identification of five fundamental barriers enables targeted intervention design rather than diffuse reform efforts. Priority interventions include:

Establishing formal collaborative infrastructure: Creating the Regency Health Collaboration Forum with clear legal mandate (Peraturan Bupati/Regent Regulation), dedicated secretariat support, modest operating budget, and explicit authority to influence resource allocation and policy decisions. This institutionalization prevents collaboration from remaining dependent on individual champions whose departure can collapse collaborative arrangements (Huxham & Vangen, 2005).

Developing facilitative leadership capacity: Implementing systematic training programs equipping health officials, facility managers, and community leaders with collaborative leadership competencies. Training curricula should emphasize participatory facilitation, conflict resolution, consensus building, and network coordination—skills distinct from traditional hierarchical management. Leadership development must extend beyond government officials to include professional association leaders, community organizers, and NGO coordinators who play critical facilitative roles.

Implementing transparency mechanisms: Establishing accessible public platforms publishing healthcare budget data, facility performance indicators, service quality metrics, and policy proposals. Technology can enable transparency even in resource-constrained settings through basic websites, social media channels, and mobile platforms. Critically, transparency requires not merely making information available but actively communicating it in formats accessible to diverse stakeholders with varying literacy and technical sophistication.

Designing equity-focused resource allocation: Adopting explicit equity criteria in healthcare planning and budgeting processes. Rather than distributing resources proportionally to existing capacity (reinforcing disparities), equity-focused allocation prioritizes underserved areas. Collaborative forums provide venues for negotiating equity-oriented trade-offs that might face resistance if imposed hierarchically.

Creating evaluation and learning systems: Establishing participatory monitoring and evaluation processes where stakeholders collectively assess collaborative governance performance, document lessons learned, and adapt practices accordingly. Simple tools like collaborative learning reviews, joint reflection sessions, and participatory outcome mapping enable systematic learning without requiring sophisticated evaluation expertise or substantial resources.

For broader application beyond Bangka Tengah, the MAMA Model offers a structured approach for other resource-constrained healthcare systems seeking to strengthen collaborative governance. The model's three dimensions provide organizing logic for diagnosing current collaboration quality, identifying priority improvement areas, and designing contextually appropriate interventions. However, successful adoption requires adaptation to specific local contexts rather than mechanical replication. Variables requiring contextual calibration include: intensity of power asymmetries (determining empowerment intervention design), strength of existing inter-organizational relationships (influencing trust-building emphasis), institutional capacity levels (affecting feasible collaboration complexity), and political will (determining regulatory and resource support availability).

Comparative Analysis with Existing Frameworks

Systematic comparison illuminates the MAMA Model's distinctive features and positioning within collaborative governance scholarship. Table 2 presents comparative analysis across key dimensions.

Table 2. Comparative Framework Analysis

Dimension	Ansell & Gash (2008)	Emerson et al. (2011)	MAMA Model
Primary Focus	Collaborative process dynamics	Integrative system perspective	Healthcare service delivery outcomes
Starting Conditions	Power/resources, incentives, prehistory	System context, drivers	Explicitly addresses resource constraints
Engagement Process	Face-to-face dialogue, trust-building, commitment	Principled engagement	Mutual Understanding with consensus building
Leadership	Facilitative leadership as critical variable	Leadership as driver and capacity element	Actualization through systematic leadership development
Institutional Design	Ground rules, transparency, inclusiveness	Procedural arrangements, formal structures	Institutionalizing collaborative infrastructure
Outcomes	Intermediate outcomes, "small wins"	Actions, impacts, adaptation	Make Benefit with explicit equity and justice criteria
Power Asymmetries	Acknowledged as barrier requiring attention	Recognized in capacity for joint action	Central through empowerment mechanisms
Context Specification	General framework, multiple sectors	General framework, various scales	Healthcare-specific, developing country context

This comparison reveals several insights. First, while all frameworks recognize similar core elements (leadership, trust, institutional design, outcomes), they emphasize different aspects reflecting their development contexts and objectives. Ansell and Gash (2008) focus intensively on process dynamics because their meta-analysis revealed process quality as critical to collaboration success across diverse cases. Emerson et al. (2011) provide comprehensive system-level perspective enabling analysis of nested relationships among context, regime components, and outcomes.

The MAMA Model synthesizes process and system perspectives while foregrounding outcomes and equity—emphases justified by healthcare's high-stakes nature and developing countries' acute equity challenges. Healthcare's direct life-and-death consequences make outcome achievement not merely desirable but ethically imperative. Resource scarcity in developing regions intensifies equity concerns because even modest resource allocation differences create substantial access and quality disparities.

Second, the frameworks differ in operational specificity. Ansell and Gash provide detailed process insights but limited implementation guidance. Emerson et al. offer comprehensive conceptual architecture but remain abstract regarding practical operationalization. The MAMA Model prioritizes

operational clarity—specifying concrete mechanisms for building mutual understanding, actualizing collaboration, and producing benefits—because implementation challenges constitute primary barriers in resource-constrained settings. This operational emphasis reflects the research's explicit objective of developing not merely analytical framework but actionable guidance for practitioners.

Third, the frameworks embody different assumptions about stakeholder equality. Ansell and Gash acknowledge power imbalances require attention but assume stakeholders possess baseline capacity for meaningful participation. Emerson et al. incorporate capacity building within their framework but do not centralize power asymmetry mitigation. The MAMA Model makes empowerment integral to collaboration design, reflecting empirical evidence that without systematic empowerment interventions, resource-constrained contexts risk elite capture of collaborative processes.

Limitations and Contextual Boundaries

This research acknowledges several limitations requiring consideration in interpreting findings and applying the MAMA Model. First, the single-case research design limits generalizability. While Bangka Tengah represents characteristics common to many developing region healthcare systems (resource constraints, geographic challenges, institutional capacity gaps), each context possesses unique features affecting collaborative governance dynamics. The MAMA Model's transferability to other contexts requires empirical validation rather than assumption.

Second, the relatively short timeframe constrains assessment of longer-term collaboration sustainability and impact. Collaborative governance often requires extended periods—three to five years or longer—to mature and demonstrate substantial outcomes (Ansell & Gash, 2008). While six-month pilot implementation provides encouraging preliminary evidence, comprehensive evaluation demands longitudinal research tracking collaboration evolution and impact over multiple years.

Third, the research focuses predominantly on formal governance structures and processes, providing limited attention to informal dynamics, political economy factors, and cultural dimensions that significantly influence collaboration. Indonesian cultural values emphasizing consensus (musyawarah), social harmony, and hierarchical respect shape collaboration patterns in ways not fully captured by Western-derived theoretical frameworks. Future research should explicitly examine cultural factors' influence on collaborative governance in Indonesian and other non-Western contexts.

Fourth, the MAMA Model's implementation requirements—dedicated leadership, institutional infrastructure, transparency mechanisms, evaluation systems—demand resources and political commitment that may exceed availability in extremely resource-constrained or politically fragile contexts. The model's feasibility likely varies based on minimum threshold conditions regarding fiscal capacity, institutional stability, and political will that require specification through comparative research.

Fifth, outcome attribution challenges limit definitive claims about collaborative governance impact. Healthcare outcomes result from multiple factors including policy interventions, resource availability, community behaviors, and environmental conditions. Isolating collaborative governance's specific contribution requires sophisticated evaluation designs beyond this research's scope. Nevertheless, stakeholder-reported improvements in relationships, coordination, and problem-solving provide reasonable confidence that collaboration produces meaningful intermediate outcomes even if ultimate health impact attribution remains complex.

These limitations suggest several future research directions. Comparative case studies examining MAMA Model application across diverse contexts would enable boundary specification—identifying conditions under which the model applies effectively versus contexts requiring substantial adaptation or alternative approaches. Longitudinal research tracking collaborative governance regimes over extended periods would illuminate sustainability factors and long-term impact patterns. Mixed-methods evaluation combining quantitative outcome assessment with qualitative process documentation would provide robust evidence on collaboration's contributions to healthcare system performance and population health.

Implications for Policy and Practice

The research generates several policy implications extending beyond Bangka Tengah to broader healthcare governance contexts. First, national and provincial health policies should explicitly recognize collaborative governance as essential to achieving universal health coverage and health equity goals. Current Indonesian health policy framework acknowledges stakeholder engagement importance but lacks systematic requirements and support for collaborative governance implementation. Policy reforms

should establish clearer mandates, resource allocations, and accountability mechanisms for collaborative approaches.

Second, health workforce development programs must incorporate collaborative governance competencies. Medical, nursing, public health, and health administration education currently emphasizes technical and clinical competencies with limited attention to collaboration, facilitation, and participatory governance skills. Curriculum reforms and continuing professional development should cultivate these capacities recognizing that healthcare delivery increasingly requires effective cross-boundary collaboration.

Third, health information systems should support transparency and collaborative decision-making. Current information systems primarily serve vertical reporting requirements with limited accessibility for diverse stakeholders. Information system redesign should prioritize public accessibility, user-friendly interfaces, and decision-support functionalities enabling evidence-informed collaborative planning and evaluation.

Fourth, healthcare financing mechanisms should incentivize collaboration. Current financing often creates competitive dynamics among facilities and jurisdictions, undermining collaboration incentives. Financing reforms might include: collaborative performance bonuses rewarding inter-organizational coordination, pooled budgets requiring joint decision-making, and integration payments supporting comprehensive care delivery across organizational boundaries.

For practitioners—health administrators, facility managers, community health workers, NGO coordinators—the research offers several practical insights. Successful collaboration requires intentional design and management, not merely goodwill and ad hoc coordination. Investing effort in relationship building, trust development, and mutual understanding constitutes essential groundwork enabling effective joint action. Power asymmetries must be explicitly addressed through empowerment interventions rather than ignored or minimized. Transparency and accountability mechanisms create foundation for sustained stakeholder engagement and regime legitimacy. Finally, demonstrating tangible benefits through "small wins" builds momentum and commitment for addressing more complex challenges.

Conclusion and Recommendations

Research Conclusions

This research systematically examined collaborative governance in healthcare service delivery in Bangka Tengah Regency, addressing two primary objectives: analyzing factors contributing to suboptimal collaboration and developing an ideal collaborative governance model.

Regarding the first objective, analysis identified five fundamental barriers: (1) imbalanced initial collaboration conditions characterized by weak leadership and fragmented communication; (2) severe resource and institutional capacity constraints including workforce shortages, infrastructure gaps, and absent coordination structures; (3) deficient community participation and health literacy limiting meaningful stakeholder engagement; (4) transparency and accountability deficits undermining trust and informed participation; and (5) absent evaluation and learning mechanisms preventing institutional improvement and adaptation.

These barriers systematically undermine collaborative governance effectiveness, creating vicious cycles where weak collaboration produces poor outcomes, reinforcing stakeholder skepticism about collaboration's value, further weakening collaborative commitment and investment. Breaking these vicious cycles requires comprehensive, theoretically-grounded, contextually-adapted interventions addressing structural, procedural, and relational collaboration dimensions simultaneously.

Addressing the second objective, the research developed the MAMA Model—a novel collaborative governance framework comprising three interconnected dimensions: Mutual Understanding (consensus building, trust development, openness, interdependence recognition), Actualization (facilitative leadership, institutional synergy, empowerment mechanisms), and Make Benefit Collaboration (effectiveness, equity, innovation, transparency, justice). The model synthesizes collaborative governance theory with empirical findings from Bangka Tengah, providing both analytical framework for diagnosing collaboration quality and practical guidance for strengthening multi-stakeholder integration.

Validation through theoretical assessment, stakeholder consultation, and pilot implementation confirms the MAMA Model's theoretical soundness, contextual relevance, and practical viability. The model represents significant theoretical contribution extending collaborative governance scholarship into healthcare-specific, developing country contexts while advancing understanding of power asymmetries, empowerment requirements, and outcome-oriented collaboration design.

Recommendations

Based on findings and analysis, several recommendations address different stakeholder groups:

For Bangka Tengah Regency Government:

First, establish formal collaborative governance infrastructure through Regent Regulation creating the Regency Health Collaboration Forum with clear mandate, membership, resources, and authority. Second, invest in systematic facilitative leadership development through training programs, mentoring arrangements, and performance incentives recognizing collaborative competencies. Third, implement transparency mechanisms making healthcare information accessible to all stakeholders through public platforms, community dialogues, and participatory planning processes. Fourth, adopt equity-focused resource allocation explicitly prioritizing underserved areas and populations in budgeting and planning. Fifth, create participatory monitoring and evaluation systems enabling collective assessment of collaborative governance performance and continuous learning.

For Healthcare Stakeholders (Facilities, Professional Associations, NGOs):

First, actively engage in collaborative forums bringing technical expertise, frontline knowledge, and community connections to policy processes. Second, invest organizational resources in collaboration recognizing that effective cross-boundary cooperation requires dedicated time, personnel, and effort. Third, build internal capacity for collaborative engagement through staff training, knowledge sharing, and organizational learning. Fourth, hold authorities accountable for transparency, inclusiveness, and responsiveness while acknowledging shared responsibility for collaborative outcomes.

For Communities and Civil Society:

First, exercise voice in healthcare governance by participating in forums, providing feedback, and demanding accountability. Second, build health literacy enabling informed engagement through community health education, peer learning networks, and accessible information resources. Third, organize collectively to strengthen advocacy capacity and ensure marginalized voices are heard in policy processes.

For National and Provincial Policy Makers:

First, establish policy frameworks explicitly mandating and supporting collaborative governance in healthcare. Second, allocate resources for collaborative infrastructure, capacity development, and evaluation systems. Third, reform health information systems prioritizing transparency and stakeholder accessibility. Fourth, adjust financing mechanisms to incentivize collaboration rather than competition among healthcare providers and jurisdictions.

For Researchers:

First, conduct comparative studies examining MAMA Model application across diverse contexts to specify boundary conditions and required adaptations. Second, implement longitudinal research tracking collaborative governance evolution and long-term impacts. Third, develop and validate instruments measuring collaborative governance quality, enabling systematic assessment and comparison. Fourth, investigate cultural factors' influence on collaboration in Indonesian and other non-Western contexts. Fifth, examine linkages between collaborative governance and population health outcomes through rigorous evaluation designs.

Research Contributions and Significance

This research contributes scientific novelty through developing the MAMA Model as a contextually-grounded, theoretically-robust, and operationally-specific framework for healthcare collaborative governance in resource-constrained settings. The model advances collaborative governance theory by demonstrating contextual adaptation requirements, foregrounding empowerment mechanisms, and integrating outcome orientation. It extends healthcare governance scholarship by articulating sector-specific collaborative governance framework addressing healthcare's distinctive characteristics while maintaining conceptual coherence with general collaborative governance principles.

Practically, the research provides actionable guidance for strengthening multi-stakeholder integration in regional health service management. The systematic identification of collaboration barriers enables targeted intervention design. The MAMA Model's three dimensions offer structured approach for diagnosing current collaboration quality, prioritizing improvement areas, and designing contextually-appropriate interventions. Pilot implementation evidence demonstrates feasibility and provides preliminary validation of the model's capacity to strengthen collaborative relationships, enhance coordination, and improve healthcare service delivery.

The research ultimately affirms that strengthening healthcare collaborative governance in resource-constrained contexts is both necessary and achievable. While substantial challenges exist—power asymmetries, capacity constraints, institutional fragility—they can be addressed through systematic, theoretically-informed, contextually-adapted collaborative governance frameworks. The MAMA Model represents one such framework, offering promise for advancing more equitable, effective, and sustainable healthcare service delivery through multi-stakeholder integration and cooperation. Realizing this promise requires sustained commitment from all stakeholders—government, healthcare providers, communities, and supporting organizations—to collaborative principles and practices that transcend traditional boundaries and hierarchies in pursuit of shared health and wellbeing for all.

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