

Analysis of Medan City Government Management Policy in Preventing the Spread of the Covid-19 Virus

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Abstract

As the economic hub of North Sumatra, the city of Medan faces significant challenges in managing the health crisis. This study aims to evaluate the effectiveness of the Medan City Government's management policies in handling Covid-19, with a focus on regulatory alignment, implementation capacity, and socio-economic impacts. The study uses a descriptive qualitative method with Edward III's Implementation theory framework. Data collection was conducted through in-depth interviews, field observations, and documentation studies of regional legal products. The results of the study show a top-down and legalistic management pattern. At the formulation stage, Mayor Regulation No. 11 of 2020 has a high level of consistency (fidelity) with national regulations, but there is minimal public participation, making it less adaptive to the local economic context. At the implementation stage, the bureaucratic structure variable became a major strength through effective collaboration with the Indonesian National Armed Forces/Indonesian National Police in accelerating vaccination. However, this effectiveness was hampered by weak public risk communication and unprepared health logistics at the peak of the crisis. Overall, the management policy proved successful in suppressing the pandemic epidemiologically, but it resulted in a trade-off in the form of a significant economic contraction in the MSME sector due to the inaccuracy of the social safety net. The study recommends the need for a more participatory crisis management model and the strengthening of a responsive health logistics system.

Keywords: Public Management, Covid-19, Policy Implementation, Edward III Model, Medan City.

INTRODUCTION

Since January 2020, the coronavirus or Coronavirus Disease-19 (Covid-19) has infected more than 2.2 million people worldwide, with more than 150,000 confirmed deaths due to Covid-19 (Organization, 2020). It is not surprising that many government leaders in various countries are struggling to quickly overcome the Covid-19 outbreak with their respective strategies and policies. Indonesia, the fourth most populous country in the world, has shown a slow response to the pandemic, raising concerns that Indonesia could become a new epicenter after Wuhan (Ayu et al., 2019). Unresponsive management policies in decision-making certainly have the potential to endanger the lives of 240 million Indonesians. This can be seen in the government's initial stance, which focused more on attracting tourists and maintaining economic activity from countries facing the initial wave of Covid-19 spread, resulting in a reactive and poorly measured response to the pandemic in its early stages.

The city of Medan, as the capital of North Sumatra Province, plays a strategic role as the center of the economy, trade, and a major transportation hub in western Indonesia, as well as being one of the cities with the highest population density. These characteristics make Medan highly vulnerable to rapid and massive virus spread, requiring a responsive and appropriate decision-making process from the local government. Data from the North Sumatra Covid-19 Task Force shows that throughout 2020–2021, Medan was among the areas with the highest number of cases in North Sumatra, making the urgency of formulating response policies even

more pressing. In facing this crisis, the Medan City Government, under the mandate of Law No. 6 of 2018 concerning Health Quarantine and various derivative regulations, has formulated and implemented a series of government management policies (Medan Mayor Regulation No. 11 of 2020).

The question is, have the main policies formulated by the Medan City Government regarding the prevention of Covid-19 spread—ranging from the establishment of health protocols to restrictions on community activities—been formulated appropriately and consistently with national regulations? What are the mechanisms for implementing these policies, and what are the supporting and inhibiting factors faced by the government in their implementation in the field? And how effective are the Medan City Government's management policies in reducing the rate of Covid-19 transmission? These questions are important considering that previous studies have focused more on Covid-19 policies at the national level or in large metropolitan cities such as Jakarta and Surabaya (Misnaniarti, 2021; Rahmawati, 2021), while specific studies on the effectiveness of local government policies in the city of Medan are still limited.

Various studies in Indonesia show that the effectiveness of Covid-19 response policies is influenced by factors such as risk communication and enforcement of regulations, as in Jakarta; collaboration between the government and local communities, as in Surabaya; and the use of digital innovations in case tracking and vaccine distribution, as in Bandung and Yogyakarta. At the international level, the success of lockdown, vaccination, and tracing policies is highly dependent on public trust and policy consistency, with more transparent countries tending to have higher public compliance. However, most studies still focus on health aspects and have not reviewed governance in depth, while specific studies on the city of Medan are still limited. This situation has created a research gap regarding how the Medan City Government designs, implements, and evaluates its Covid-19 response policies. This study attempts to fill this gap by analyzing the effectiveness of policy management, regulatory consistency, and bureaucratic coordination in health crisis situations.

RESEARCH METHODS

Research Approach

This study uses a descriptive qualitative approach with an evaluative focus. This approach was chosen to describe in depth how the Medan City Government's policies on Covid-19 prevention are implemented, while also evaluating their effectiveness in the field. The evaluative approach allows researchers to assess whether policies such as PPKM, mobility regulations, health education, and case handling are running according to their objectives and having an impact on controlling the causes of the virus.

Research Location and Object

The research was conducted in the Medan city government, focusing on agencies that play a direct role in handling Covid-19, located at the Medan City Health Office, as the technical implementer of health policies, health protocol supervision, vaccination, and case monitoring. The Medan City Covid-19 Task Force, as the coordinator of handling, mobility control, PPKM policy formulation, and monitoring of public compliance. This includes the Medan City BPBD, which plays a role in coordinating emergencies in handling non-natural disasters such as

pandemics. The research objects include policies, management processes, policy implementation, and public response to Covid-19 prevention policies.

Data Sources

1. Primary data was obtained directly through: In-depth interviews with officials from the Covid-19 task force, the Health Office, and the Medan City BPBD to explore the policy formulation process, operational constraints, case handling strategies, and inter-agency coordination. Public perceptions, including those of traders, workers, and residents affected by PPKM, to assess the effectiveness and level of acceptance of the policy.
2. Secondary data was obtained through official government documents, such as: Mayor Regulations (Perwal) and Circular Letters (SE) related to PPKM, activity restrictions, health protocols, vaccination, and case handling. Covid-19 Task Force reports, including daily case developments, vaccination achievements, community compliance levels, and policy evaluations. Statistical data on the number of cases, recovery rates, number of deaths, and Covid-19 spread trends in Medan City during the research period

Data Collection Techniques

The techniques used to obtain data include: In-depth Interviews Used to explore detailed information related to the decision-making process, implementation of PPKM policies, tracing–testing–treatment (3T) activities, socialization strategies, and coordination with the central government.

Documentation Study

This includes reviewing local regulations, SE, daily and weekly task force reports, official government news, and publications from the Health Office. The documentation provides an overview of formal policies and data on the spread of Covid-19. Limited Observation Observations were made at crowded locations such as markets, city centers, and checkpoints to see public compliance with health protocols and the effectiveness of policy implementation in the field.

Data Analysis Techniques

Data analysis was conducted in several stages

- Data Reduction

Data obtained from interviews, documentation, and observations were selected, simplified, and organized according to the research focus, such as policy effectiveness, agency coordination, and community response. Thematic Categorization.

Data is grouped into themes such as:

- Effectiveness of PPKM implementation
- Task force coordination management
- Public communication strategies
- Availability of health facilities
- Level of public compliance
- Source triangulation

Data validity is strengthened by comparing information from various sources: government officials, official documents, and public perceptions. This aims to ensure that the data is accurate and accountable. If disparities or conflicts are found between official claims (secondary data) and field findings (primary data), researchers use Expert Judgment to identify gaps between policy (policy on paper) and implementation (policy in action), as recommended in qualitative research. This process aims not to find a single truth, but to explore the meaning

and process behind these contradictions, which are sources of data depth (KEYthick description). These data conflicts are then synthesized and criticized in the Discussion as indications of structural weaknesses in Mitigation or Robustness systems.

RESULTS AND DISCUSSION

Policy Formulation (Output) and Rationality Analysis

Regulatory and Legal Consistency

Secondary Data Findings: Analysis of Mayor Regulation (Perwal) No. 11 of 2020 and Mayor's Instructions (Secondary Data) shows that these regulations quickly adopted the national legal framework, particularly the Minister of Home Affairs' Instructions regarding PPKM.

Discussion (Triangulation and Theory): This finding reinforces the aspect of Fidelity in Policy Analysis Theory. This vertical compliance facilitates the legality of government actions, from protocol investigations to budget realization (Refocusing APBD), which is important in Crisis Management (Pane, 2022). Source Triangulation (Interviews with Task Force Officials) confirms that this alignment is a key prerequisite for the smooth distribution of assistance from the central government (vaccines, oxygen).

Rationality and Decision-Making Process

Primary Data Findings: In-depth interviews with Key Informants (Task Force officials) revealed that policy formulation was carried out through very intensive limited coordination meetings, but Public Participation (through Community Leaders or MSME Associations) in the Emergency PPKM policy design phase was minimal.

Discussion (Thematic Categorization): These results are categorized under the themes of Rationality and Involvement. Although the health policy was based on epidemiological data (Rationality), the lack of public input resulted in the Adaptability aspect (within the framework of Disaster Management) being neglected. Limited field observations and interviews with the community/business actors (source triangulation) indicate that the severe economic impact during Emergency PPKM could have been mitigated if the cost-benefit analysis process had involved the affected sectors from the outset (Damanik, 2022).

Policy Implementation (Process): Edward III Analysis

Implementation data was collected through in-depth interviews with technical implementers (Health Office, Satpol PP) and reinforced by a documentation study of daily/weekly task force reports.

1) Edward III as a Crisis Management Diagnostic

The analysis of the implementation of Perwal No. 11 of 2020 uses the Edward III Model as a diagnostic tool to map operational achievements and obstacles, but framed in the perspective of Crisis Management (Responsiveness, Adaptability, Mitigation). Conceptually, the success of government Responsiveness is determined by the synergy of the variables of Communication (clarity of message) and Resources (rapid allocation of funds), while Adaptability is highly dependent on the agility of the Bureaucratic Structure and the consistency of the disposition of implementers in the field. Furthermore, Mitigation is measured through the quality of Resource Preparedness, which must demonstrate structural Robustness (logistical and infrastructure buffer capacity) to absorb extreme shocks. With this framework, each finding analyzed through Edward

III can be critiqued based on its contribution to Regional Resilience (Robustness) in facing the pandemic.

2) Policy Communication: Consistency and Accessibility

Findings: Task Force reports (secondary data) show changes in PPKM levels every two weeks. Interviews with the community (primary data) consistently complain about the speed and inconsistency of information, which makes the rules difficult to comply with. [To focus on the research, primary data citations are not included.

Discussion (Edward III Model): The low effectiveness of this Communication variable is one of the main obstacles. Despite the high frequency of socialization, the clarity and consistency of policy messages are disrupted by the dynamics of rapid change, weakening Risk Management efforts in public communication.

This communication performance is reinforced by findings from previous research in Medan City, which found that the policies implemented by the government were not fully complied with by the community. This was due to a credibility deficit caused by inconsistent statements from public officials and inconsistent policy implementation in the field [3]. Furthermore, even though the Task Force has been implemented, their performance in handling cases is considered not fully effective due to a lack of adequate socialization and education regarding Perwal Number 11 of 2020 [4]. This condition confirms that weaknesses in the Communication variable are multidimensional, including unclear messages (clarity) and low political will in maintaining consistency of attitude (Disposition) among various levels of government actors, which directly undermines Crisis Management efforts (Indasari & Anggriani, 2020).

3) Resources: Availability and Smoothness of Logistics

Findings: Statistical data (Health Office reports) show that the Bed Occupancy Rate (BOR) at the peak of the Delta Wave (July–August 2021) exceeded 85%. Interviews with Pirngadi Regional General Hospital (primary data) confirm that oxygen supply was depleted at times and that health worker incentives were delayed in several periods.

Discussion (Triangulation and Theory): These findings indicate failures in the Resource variable and the Preparedness phase within the Disaster Management framework. Although budget refocusing demonstrates fiscal flexibility, the inability of the health logistics system to cope with sudden surges indicates structural weaknesses in emergency planning (Dewi, 2025). Triangulation between BOR statistical reports and HCW interviews shows that the Medan City health system reached a point of partial collapse during the critical period.

Analysis of primary findings (BOR exceeding 85% and logistical scarcity) shows a significant contradiction with the official claims made by the Medan City Government. In July 2021, the Mayor of Medan stated that the oxygen supply in referral hospitals was still sufficient or safe, with the bed occupancy rate (BOR) in isolation rooms only around 36 percent and in ICUs at 46 percent [5]. This data disparity indicates a gap in the validity of the metrics used. The "safe" claim may only reflect the success of internal logistics management in referral hospitals [5], but fails to include the surge in demand for oxygen cylinders from people undergoing self-isolation [6] in the calculation. Thus, although the city government demonstrated fiscal flexibility (refocusing the regional budget), its resource policy failed in terms of the scope of logistics, which should have covered the entire affected population, not just formal health facilities.

4) Disposition and Bureaucratic Structure: Coordination and Commitment

Findings: Limited observations (checkpoints) showed variations in the level of strictness in enforcing sanctions (masks/crowds) between locations. Interviews with Satpol PP and sub-district officials showed that the coordination flow (bureaucratic structure) through the Task Force was clear, but the commitment to disposition varied, especially after the peak of the crisis. Discussion (Edward III Model): Thematic categorization highlights inconsistencies in law enforcement. A clear Top-Down Model (Bureaucratic Structure) is ineffective if it is followed by varying dispositions among field officers. This reinforces Lipsky's argument (Street-Level Bureaucracy), where discretion given to field officers can result in variations in implementation, which ultimately reduces policy effectiveness. (Murtadha, 2022)

Policy Effectiveness (Outcome): Virus Control and Social Impact

1) Effectiveness of Virus Rate Reduction (3T and Vaccination)

Statistical Findings: After the implementation of Level 4 PPKM and an increase in the achievement of the first dose of vaccination to >80% (Health Office Data), daily cases in Medan dropped dramatically, from hundreds to below 50 within 6 weeks.

Discussion (Policy Effectiveness): Statistical data provides strong evidence of Policy Effectiveness in the context of epidemiological control. This success is the synergistic result of Mobility Restrictions (PPKM) as a short-term intervention and Mass Vaccination as a long-term intervention (Mitigation). The success of the Medan City Vaccination Program, supported by coordination between the City Government, the Indonesian National Armed Forces (TNI), and the Indonesian National Police (Polri), serves as an indicator of best practices in program management supported by adaptively allocated resources.

2) Socio-Economic Impact Analysis

Researcher: How have government regulations related to PPKM affected the business you operate? Informant: Since PPKM was implemented, our income has declined dramatically due to restrictions on operating hours, which have led to a decrease in buyer interest and transaction activity. The government provides assistance, but it is not always timely. In addition, there are also people who are eligible for assistance but have not been registered. We understand this policy, but from an economic perspective, the impact is very severe.

Interview Findings: MSME actors (Primary Data) reported a decline in income of up to 70% during the Emergency PPKM. Social assistance (Bansos) from the city government (Secondary Data) has proven to ease the burden, but the distribution of Bansos is not always timely and evenly distributed across all regions.

Discussion (Policy Impact): These findings verify that the Response policy (PPKM) has significant unintended consequences in the economic sector. Although the city government has implemented mitigation measures through Bansos, implementation constraints and inaccuracies in Bansos targeting (which can be analyzed through Thematic Categorization related to social safety nets) indicate that risk management in the socio-economic sector is not yet working optimally, requiring improvements to the Bansos recipient database.

Analysis of these findings shows a significant policy trade-off between responsiveness (controlling transmission) and socio-economic mitigation. Theoretically, interventions aimed at preserving public health, such as mandatory testing programs or health insurance, do not always have to result in a deeper economic recession. This is based on the argument that such policies can reduce the risk of transmission in the workplace without the need for drastic cuts in working hours, thereby saving lives while protecting the economy. However, the failure of Edward III Resources (accurate data) and Disposition (consistency of distribution) in managing the social

assistance program (Social Mitigation) has made this tradeoff costly. This failure of Social Mitigation shows that the Medan City Crisis Management framework is still fragile, not just adaptive, in facing double shocks.

The problem of social assistance distribution has been validated by findings from legislative and executive institutions. The Medan City Council's recess report confirms complaints from communities in various electoral districts (Dapil) regarding the uneven and inaccurate distribution of social assistance [7, 8]. Formally, this problem has been acknowledged by the Mayor of Medan as an information resource deficit, where the distribution of social assistance has not been on target due to problems with outdated recipient data [8]. This acknowledgment reinforces the argument that even though social safety net policies are in place, implementation constraints are rooted in structural weaknesses in local government data management, which are currently being addressed through the 'Medan Satu Data' program [8]. This systemic failure has resulted in suboptimal economic impact mitigation. (Balya, 2021)

CONCLUSION

Based on the results of the analysis of the Medan City Government's management policy in preventing the spread of the Covid-19 virus using the Policy Analysis Theory and Edward III's Implementation Model in the context of Crisis Management, this study concludes the following:

1. Policy Formulation Conclusion (Output)

Regulatory Consistency: The policies formulated by the Medan City Government (Perwal No. 11 of 2020 and derivative instructions) show high consistency (fidelity) with national regulations (Instruction of the Minister of Home Affairs and Law No. 6/2018). This alignment facilitates logistical support and legal legitimacy, which are fundamental aspects of Crisis Management. (Pane, 2022) **Rationality vs. Participation:** The policy formulation process is highly responsive and rational (based on epidemiological data), meeting the need for speed in emergency situations. However, the top-down dominated process with minimal Public Participation (especially SMEs) results in policies that are less adaptive to the local socio-economic context, leading to unforeseen consequences in the small business sector. (Damanik, 2022)

2. Conclusion on Policy Implementation (Process)

Communication as the Main Obstacle: The Communication variable in Edward III's model is the main obstacle. Despite the high frequency of socialization, the speed and inconsistency of PPKM rule changes, as well as the prevalence of hoaxes, weakened the clarity of the policy message, which ultimately reduced public compliance. (Indasari & Anggriani, 2020), **Weaknesses in Resource Preparedness:** Resource variables (particularly in the health sector) proved vulnerable during the peak of the Delta Wave. Although the Medan City Government demonstrated budget flexibility (refocusing the APBD) and strong horizontal coordination (City Government-TNI-Polri) within the bureaucratic structure, the failure of the logistics system (oxygen and BOR) to cope with the sudden surge revealed structural weaknesses in the preparedness phase of disaster management.

Inconsistency in Implementer Disposition: The implementer disposition variable shows varying levels of commitment. Although health workers have a high level of commitment, the inconsistency in the enforcement of sanctions by Satpol PP officers in the field reinforces the

argument of Street-Level Bureaucracy (Lipsky, 1980). This variation reduces the enforcement of policies and weakens the message of law enforcement.

3. Conclusion on Policy Effectiveness (Outcome)

High Epidemiological Effectiveness: Medan City's management policies have proven effective in reducing the rate of transmission. A significant decline in cases occurred as a result of the synergy between Strict Mobility Restrictions (PPKM Level 4) and Mass Vaccination (Long-Term Intervention). The success of the vaccination program (above 80% for the first dose) is an indicator of the success of program management and cross-sector coordination. (Wati et al., 2022)

Negative Socio-Economic Impact: The Emergency PPKM policy has had a significant negative impact on the MSME sector. Although the Medan City Government has made mitigation efforts through Social Assistance, implementation constraints, including inaccurate data and delays in the distribution of Social Assistance, indicate that Risk Management in the socio-economic sector is not yet optimal. (Balya, 2021)

4. Theoretical Contribution and Mapping of Systemic Weaknesses

This study provides a theoretical contribution by presenting a synthesis of Edward III's framework as an operational diagnostic tool to measure the three main pillars of Crisis Management (Responsiveness, Adaptability, and Mitigation). Through this synthesis, it was found that the weakness in the implementation of Edward III in Medan City was not merely an administrative problem, but rather a systemic failure: (1) Communication Failure (C) caused a deficit in public Responsiveness and undermined the legitimacy of policy Adaptability. (2) Resource Failure (R) in the health and data (social assistance) sectors is a direct manifestation of low structural Robustness and inadequate Mitigation, despite fiscal flexibility (Responsiveness). Thus, the main contribution of this study is to prove that effective Crisis Governance must integrate flexibility (AG) with stability (RG), and the failure of the Field shows that there is a costly trade-off due to weaknesses in Resource Mitigation.

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