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LOCAL GOVERNMENT CRISIS MANAGEMENT IN RESPONSE TO COVID-19: THE CASE STUDY OF SOUTH SULAWESI, INDONESIA

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Abstract. *Crisis management is one of the government's primary responsibilities, and it therefore needs to be properly administered. The purpose of this research is to analyze the ability of local government to handle crisis management during the COVID-19 pandemic in South Sulawesi, Indonesia. This study also determines the numerous risks that interfered with crisis management in response to handling COVID-19. The coordination of provincial government was carried out with various stakeholders – local government, the army, the police, and universities – to properly manage the crisis. These results show that the strongest aspects of local government regulation in response to the COVID-19 pandemic were control and surveillance, while the weakest element was auditing.*

Keywords*: crisis management, local government, public policy, COVID-19.*

Reikšminiai žodžiai: *krizių valdymas, vietos valdžia, viešoji politika, COVID-19.*

Introduction

The tremendous risk posed by COVID-19 alongside its rapid transmission led to the implementation of more strategic steps by the government of Indonesia in controlling and monitoring public health (Harapan et al. 2020). According to Wajdi et al. (2020), the role of the government is to protect, guarantee, and provide the right solution in handling public health issues associated with the spread of the virus. Wajdi further stated that the government also needs to collaborate and work with non-government stakeholders in increasing the readiness of facilities and also the availability of health services (Wajdi et al. 2020). Djalante, Nurhidayah, et al. (2020) stated that the government needs to provide strategic policies to respond to the spread of COVID-19 through regulations and by strengthening government institutions.

Countries affected by the pandemic, such as India and Kenya, implemented strict measures to prevent further transmission and increases in the number of new cases by closing public facilities, advising workers to work from home, stopping the operations of public transportation, and enacting various other lock-down policies (Patrikar et al. 2020). Aluga (2020) observed that Kenya collaborated with hospitals to limit visits to infected patients by family members and friends. Djalante, Lassa, et al. (2020) stated that governments need to implement strict measures to prevent the continuous spread of the virus, such as the two- to three-week lockdown policy implemented in India (Lamba 2020), or encourage the use of traditional medicine (Xiao and Torok 2020). They also need to learn from the results of the outbreak of MERS in Saudi Arabia (Algaissi et al. 2020), and the strategies used by Australia in handling diabetes (Andrikopoulos and Johnson 2020).

In the USA, the government accelerated the preparation process at the health system level by regulating public responses. However, the response rate has not been perfect (Loungani et al. 2020), and the continuous increase in the number of cases has had a significant effect on the readiness of health workers (Chen et al. 2020). Therefore, the government needs to respond to the COVID-19 crisis by identifying gaps in the readiness of health workers by analyzing the tragedy that occurred in Italy (Bressan et al. 2020). Galvin, Fernandez-Luque, and Li (2020)all humans on earth need to make difficult strategic decisions on three very different scales, all fueled by Analytical and Artificial Intelligence-based predictive Models (AAIMs stated that the social distancing policy is an uncertain approach used to suppress the spread of the virus. Saudi Arabia imposed a ban on worship and visits to mosques, and, on February 28, they also banned worshippers from travelling to countries affected by SARS-CoV-2 (Algaissi et al. 2020). This decision not only aimed to reduce the risk of spreading the virus, it also sought to prevent its transmission to other countries. Singapore also responded by recording health services in 1,700 hospitals in order to rapidly and effectively respond to positive cases (Monica et al. 2020).

There are no shortcuts in handling the pandemic; therefore, local government must ensure that people adapt to the policies implemented by the central government (Loungani et al. 2020). Wilkinson (2020) stated that the local government also need to issue policies that limit mobility between provinces, seek the services of foreign workers, provide mental health support, and take the right steps to trace infected people accessing therapeutic or medical services (Cheng et al. 2020). South Sulawesi, which is one of the regions in Indonesia most affected by COVID-19, requires local government to enact stricter policy by implementing large-scale social restrictions in Makassar City and the Gowa Regency (Jain et al. 2020). However, adaptive management policies are faced with two uncertain choices – namely local or regional systems (Hong and Lee 2018). Therefore, Fitriatun (2019) proposes a scientific management approach.

The government implemented new and stringent policies within a short period, including social distancing, physical distancing, and the learn, pray, and work from home policy (Putri and Anulus 2020). Zaharah, Kirilova, and Windarti (2020) also stated that the use of personal protective equipment and the regular washing of hands became part of people's lifestyles in a bid to prevent the spread of COVID-19. However, in Indonesia, the government did not implement a lockdown policy like in other countries, instead adopting for a large-scale policy of social restriction (Calvin 2020). Unfortunately, there were conflicts between central and local government associated with the implemented policies, and to prevent this the government needs to improve coordination and release proper guidelines (Djalante, Lassa, et al. 2020). South Sulawesi, one of the areas most affected by the pandemic, has taken significant steps to apply large-scale social restrictions in two cities. The first was implemented in Makassar on April 24, 2020, while the second was implemented in the Gowa Regency on May 4, 2020. Therefore, this study aims to determine the strategies used by the local government in carrying out crisis management in South Sulawesi.

Literature review

Governmental crisis management

Crisis management is a significant responsibility of the government that is difficult to fulfil due to the need for capacity, which exists in a dynamic relationship with legitimacy and trust (Christensen, Lægreid, and Rykkja 2016; Dutta 2020). By nature, a crisis always occurs rapidly and unfolds spontaneously; however, some of the confusion and ambiguity can be mitigated through planning and proper management (Barton 1993). The strategies adopted by the government to address and communicate the attributes of a pandemic affect the general understanding of citizens and officials (Avery, Graham, and Park 2016).

Government crisis management systems are rapidly changing, in accordance with the functionality, weaknesses, and potential of these structures. Therefore, they need to understand both systemic and operational elements as well as the form of crisis facing a country (Christensen 2007; Olsen, 2010). Cheng et al. (2020) stated that the accelerated

need to increase community resilience to disaster and the capacity to respond effectively during a crisis is one of the most challenging issues currently faced by the government.

Furthermore, the capacity to govern is an ambiguous concept that is linked to the state's infrastructural power or government quality. Governance capability is comprised of standard structural and procedural features of the administrative system, as well as the informal components used to define the function of these features in action. There are four types of governance capability. *Coordination capacity* is associated with the bringing together of diverse groups to participate in collective action. *Regulation capacity* involves surveillance, oversight, and auditing. *Analytical ability* is associated with the act of analyzing information, providing advice, and evaluating risk and vulnerability. Meanwhile, *delivery capacity* is in line with managing crises, exercising power, and delivering public services (Christensen, Lægreid, and Rykkja 2016; Lodge and Wegrich 2014).

An adaptive and scientific approach to decision making

There are many analytical approaches at each level of government; irrespective of their numbers, they are inseparable from political affairs (Alcaide-Muñoz et al. 2017). Furthermore, despite the government's authoritative powers, it needs to possess the power to prioritize a systematic approach to ensure that policies run sustainably (Schweber 2014; Andhika 2018). This model is a more specific approach due to the relationship between authority and science (Van Assche et al. 2017).

A scientific management approach is a reasonable process that can predict and anticipate impacts as well as monitor, mitigate (Le Lièvre 2019), and integrate data (Fitriatun 2019). In the health sector, this means a scientific approach used to collect information from several sources within a community (Nicogossian 2010). According to Ruiu (2020), scientific management is an approach that integrates science and the current conditions to enable actors or governments to adopt preventive policies (Kettle et al. 2014) such as lockdown, treatment, tracing, and quarantine (Peng et al. 2020). It is also an approach that puts aside political aspirations while considering national emergencies (Bryce et al. 2020). This approach communicates the risk of a pandemic quickly, but policies informed by science are often slowed by political intervention. Therefore, epidemics need to be handled with a scientific approach capable of determining risks in order to prevent pandemics (Aven and Bouder 2020). They can also be handled using adequate communication management with a scientific method, to avoid potential conflicts and create new precedents.

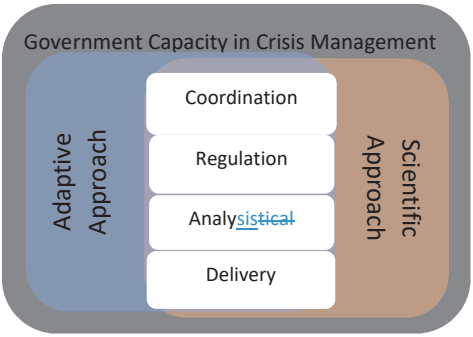

Figure 1. **Conceptual framework**

Research method

This research uses policy content analysis (Crow and Berggren 2014), which aims to analyze issues associated with policy, regulations, relationships, bureaucracy, communication, and the technique used to time policymaking. Many studies have looked at policymaking models using this process, including via the interpretation of a collaborative policy analysis from the perspective of the customer (Lybecker, McBeth, and Stoutenborough 2016). COVID-19 policy is seen from a collective perspective at the macro, meso, and micro levels. Jones and McBeth (2010) also analyzed this approach to view policy in terms of structure; therefore, the analysis in this study aims to explain policy hierarchically.

The secondary data used in this research were sourced from the Task Force for the Acceleration of Handling COVID-19 (COVID-19.go.id), the Indonesian Ministry of Health (kemenken.go.id), and trusted news media. NVivo12 Plus software was used to analyze and describe government policies addressing the COVID-19 pandemic using theories and concepts related to local government crisis management. Furthermore, the data collected were processed using NVivo and matched with predetermined research indicators. The coding process was also adjusted to the preliminary theory, while NVivo crosstabulation was used to classify the data during the retranslation process. In the last stage, NVivo analysis was used to display data in the form of graphs and tables – this process is referred to as five-step analysis (Morse, Woolf, and Silver 2017)

Findings and discussion

The trend in COVID-19 cases in South Sulawesi province

According to the Indonesian Ministry of Health, the COVID-19 pandemic is a non-natural disaster in the form of a virus; therefore, adequate measures need to be taken

to prevent its spread. Masdalina Pane, Isturini, and Wahidin (2018) stated that non-natural disasters have a risky impact, with a higher mortality rate than natural disasters. Therefore, it is the joint responsibility of the government at the central and local levels to protect the public from the threat of disease. Although the health sector already has regulatory standards related to its services, disaster management needs to be strengthened with community participation. Therefore, in handling the COVID-19 pandemic, it is necessary to pay attention to steps in preparing, stipulating, and implementing management policies.

On March 19, 2020, the Governor of South Sulawesi reported two positive cases of the virus, and by August 2020, the province had the 4th highest number of cases in Indonesia. The number of coronavirus cases in South Sulawesi as of September 3, 2020, was 12,244, with 367 deaths and 9,429 recoveries. The province has experienced a relatively widespread outpouring of public concern regarding the virus. Therefore, the government needed to initiate a total lockdown as an effort to break the chain of transmission, decrease the death rate, and fix the declining economy.

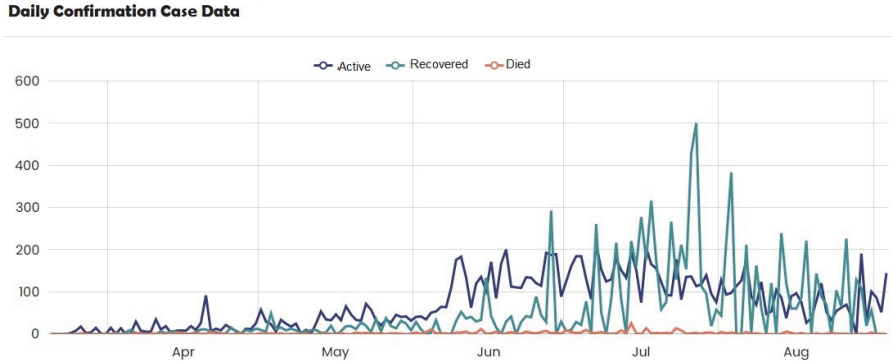

Figure 2. **Daily data on the increase in new cases in South Sulawesi**
Source: National Disaster Management Agency (BNPB)

Figure 2 shows daily data on the number of new cases in South Sulawesi, with a significant increase of 218 positive patients on July 7. Dramatic changes occurred after entering mid-July, with a tremendous increase in the number of recovered patients at the end of July.

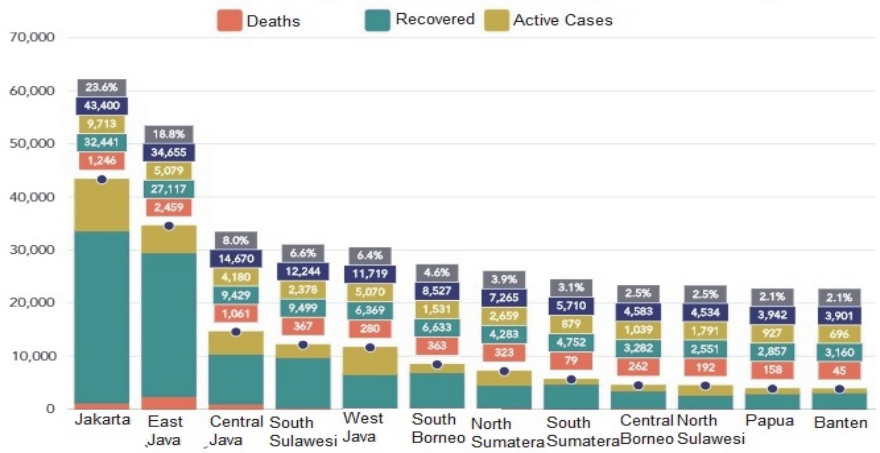

Figure 3. **Comparison of COVID-19 cases in South Sulawesi and other provinces as of September 2020**

Source: National Disaster Management Agency (BNPB)

Figure 2 shows that by early September, the total cumulative number of positive cases in South Sulawesi was 12,244 people, with a large number of recovered patients – 9,499. This great number of cases generated the urgent need for the government to carry out a crisis management procedure in this province.

Local government crisis management in response to COVID-19

Coordination

The coordination of the South Sulawesi Provincial Government is carried out with various stakeholders – namely the local government, the army, the police, and universities.

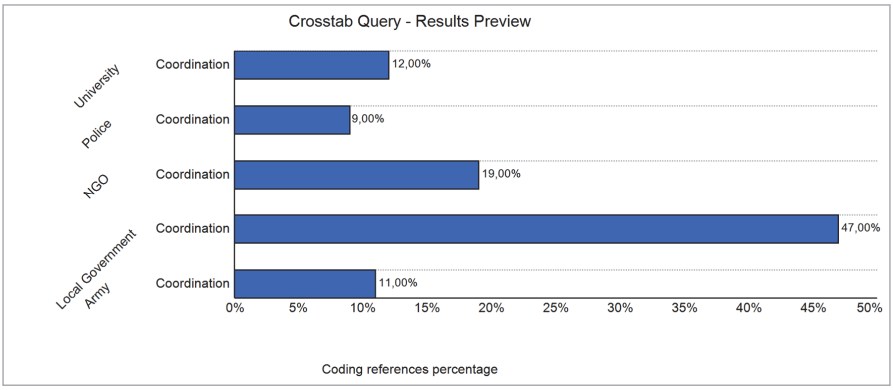

Figure 4. **Analysis of coordination**

Source: Analysis by Nvivo12 Plus

Figure 4 shows that the local government is the dominant actor in coordinating the handling of COVID-19 in South Sulawesi, accounting for 47% of coordination with provincial government, followed by NGOs with 19%. Furthermore, the police and the military are also present in shaping community discipline towards health protocols. The last factor is universities, comprising of the academics that provide human resources in meeting the requirements of medical staff. This coordination capacity falls into three groups: diversity, communication, and collective action. The local government plays an important role in handling COVID-19 in South Sulawesi by implementing and regulating various policies to avoid crisis. It also plays a central role in determining several stakeholders that can help handle COVID-19 in South Sulawesi.

Diversity

This form of coordination occurs when multiple stakeholders collaborate in handling the spread of COVID-19 in South Sulawesi.

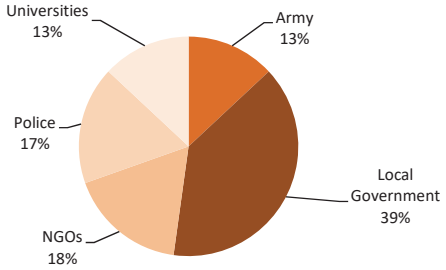

Figure 5. **Diversity in coordination**

Source: Analysis by Nvivo12 Plus

From the metadata that was analyzed through NVivo, it can be seen that in terms of diversity in the coordination process, the most dominant actor was the Local Government, with a percentage of 39%. NGOs followed this with 18% of the diversity due to collaboration with the Kalla Group of companies. The police, the army, and universities were responsible for 17%, 13%, and 13% of diversity in coordination, respectively, with the frequent involvement of the police and the army in providing health protocol advice to the public. Meanwhile, universities provided human resources in terms of expertise in dealing with epidemics. Diversity occurs when the government collaborates with groups to help prevent the continuous spread of COVID-19. Variety can be turned into a strength by collaborating to produce coordination, mutual awareness, and solidarity in the face of a pandemic (Pacces and Weimer 2020).

Communication

The local government communicates to build coordination with various stakeholders that can become partners in preventing the spread of the virus. The government carries out intense communication via virtual channels without meeting physically.

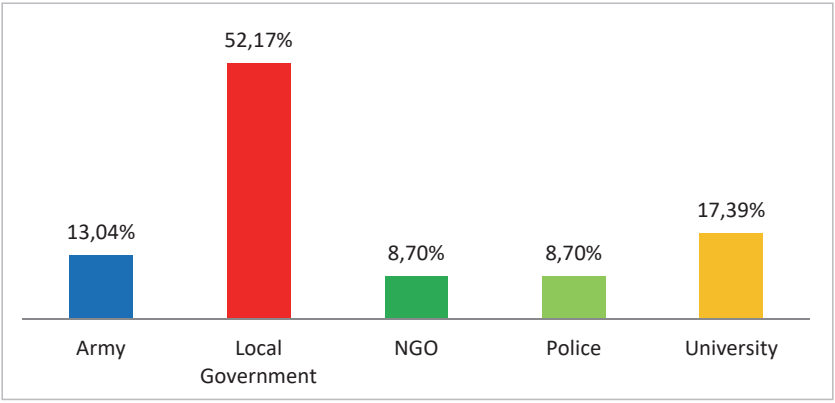

Figure 6. **Communication in coordination**

Source: Analysis by Nvivo12 Plus

The results of the NVivo analysis of communication in coordinating the results of local government communication in handling of COVID-19 via Nvivo show a that local government percentage was responsible for of 52% of this phenomenon, which is high because the governor routinely holds coordination meetings with all reagents, mayors. This also frequently involves, academics, of from various universities, especially those with medical and adequate health facilities such as Hasanuddin University. Therefore, the Universityuniversities has a percentage ofwere involved in 17.39% of coordination-based communication. Communication was also established with the military and police in the dissemination of health protocols, with 137% and 8.7% of total on involvementthe

dissemination of health protocols, respectively. NGOs were also assigned responsible for 8.7% in communicatingof communication because it they are is inseparablecrucial to from the government"s attention relationship with several hotels, which was necessary in to ensuringe they these hotels are were willing to become independent isolation places for sufferers of CovidCOVID-19 in South Sulawesi -South. Effectiveness in disaster management can be achieved by increasing the intensity of communication, eliminating ego-sectoral attitudes, and being supported by a collaborative network for effective risk communication (Liwei, Huijie, and Kilen 2020).

Collective action

Collective action encourages the government through the collaborative efforts of several parties in handling COVID-19. Therefore, the South Sulawesi government has succeeded in collaborating with various stakeholders to carry out collective action in COVID-19 crisis management.

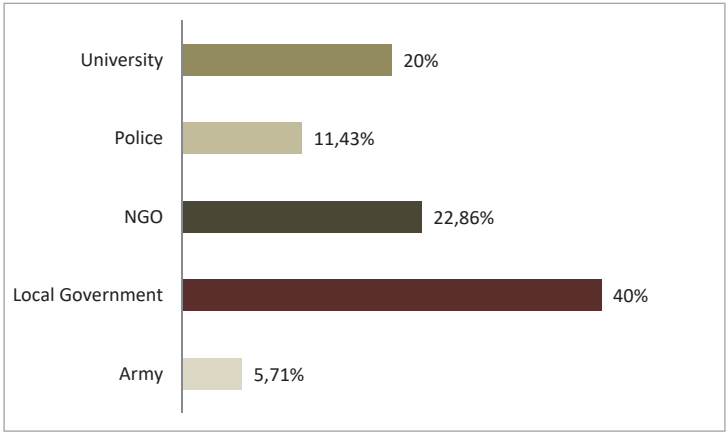

Figure 7. **Collective action in coordination**

Source: Analysis by Nvivo12 Plus

Collective action in crisis management in South Sulawesi was determined from the COVID-19 handling program, which was carried out in collaboration with various groups. The local government was responsible for 40% of collective action by carrying out collaborative actions with all stakeholders in crisis management during the pandemic. The provincial government also collaborated with the Hasanuddin and Muslim Indonesia Universities in providing volunteer assistance; as such, universities contributed to 20% of collective action. The military and the police also played a role in securing the border, preventing the spread of COVID-19 from one area to another. Collective action for epidemic prevention and control cannot solely be controlled by NGOs and the government – rather, it is also influenced by public awareness factors (Yang and Ren 2020).

Regulation

Government regulation in South Sulawesi can be analyzed in terms of auditing, control, and surveillance indicators.

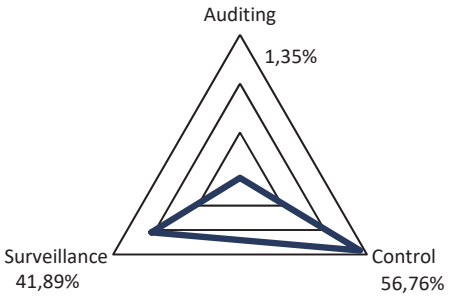

Figure 8. **Analysis of regulation in South Sulawesi**

NVivo analysis of the policy issued by the South Sulawesi government found that the most significant aspect of the regulation was control, with a percentage of 56.79%. This factor led to regulation on the enforcement of the examination of the free COVID-19 certificate at the border of every city in the province in a bid to control the pandemic. According to Lai et al. (2020), the main problems in controlling the spread of the virus are gaps in knowledge and understanding. Therefore, to overcome this, it is necessary to improve the quality of human resources that participate in the treatment of the virus (Simatupang 2017).

Regulation for the control of COVID-19 in the PSBB (large-scale social restrictions) phase started with the establishment of a public health emergency response unit by the government, as well as the Decree issued by the President of the Republic of Indonesia Number 11 of 2020 on social distancing and other policies starting from March 31, 2020. PSBB policies are associated with the restriction of certain activities of residents in a specific area to prevent the spread of the virus. The government implemented these policies to increase the level of public awareness and compliance in maintaining physical distancing. With this PSBB policy, Makassar City and the Gowa Regency proposed large-scale social restrictions which were finally approved by the Provincial Government and the Ministry of Health.

Table 1. **The implementation of PSBB policies in South Sulawesi**

Region	PSBB Period	Description
Makassar City	April 24–May 22, 2020	PSBB-Transition Period
of Gowa Regency	May 4–18, 2020	PSBB-Transition Period

Source: Task Force for the Acceleration of Handling COVID-19, South Sulawesi, 2020

The application of PSBB measures by the government was an effort to control the mobility of the population in the epicenter of the COVID-19 pandemic to prevent the virus from spreading to other areas. This was also a strategic effort used to implement aggressive steps to control the spread of this outbreak through direct human contact (Jiang et al. 2020).

Surveillance in the form of field observation, as stated in the public policy, amounted to 41.89% of COVID-19 regulation. Government regulation in the form of checks on every city border was a form of surveillance used to reduce the number of new cases. Local government policy enforcing the mandatory use of masks was also a form of regulation that had a supervisory approach. COVID-19 handlers focused on the surveillance of locally acquired cases to prevent broad spread. According to Pung et al. (2020), the government needs to carry out active case-finding among close contact cases to prevent continuous spread.

Auditing comprisedobtained the lowest percentage of policy – value of 1.39% –, due to the absence of local government regulations in carrying out accountability reports. Weak auditing decreases the credibility possessed by the government in running a program. The implementation of aAuditing can provide accessible information and communication to the public, especially in handling CovidCOVID-19 (Castka, Searcy, and Fischer 2020). Furthermore, Dowling, Knechel, and Moroney et. al (2018) stated that the audit process, which also aims at applying regulations for handling CovidCOVID-19 in South Sulawesi, needs to provide a more expansive auditing space to ensure there is an adequate balance between sSurveillance, cControl, and aAuditing in government regulations regarding the pandemic.

Delivery capacity

Delivery capacity is associated with crisis management, and this process is also associated with exercising power in public services. The South Sulawesi Government provides health services in handling COVID-19 by supporting various health facilities that are specifically reserved for positive patients.

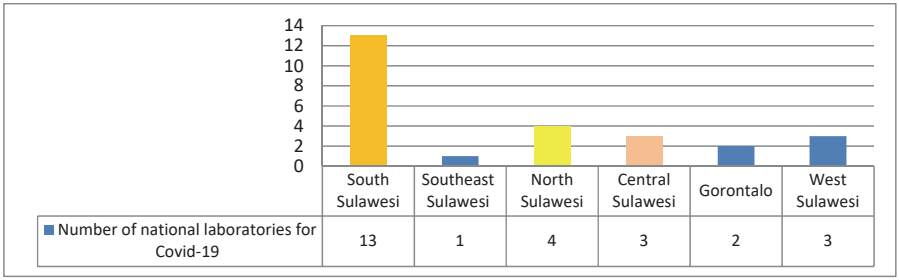

Figure 9. **A comparison between the number of COVID-19 reference laboratories in the province of Sulawesi**

Source: BNPB, 2020

South Sulawesi is the province with the highest number of specific COVID-19 laboratories. The Government of South Sulawesi has successfully built 13 laboratories: Soppeng Regional Health Laboratory, Sinjai Health Laboratory, Lakipadada Hospital, Lagaligo Hospital, Labuang Baji Hospital, Andi Makkasau Hospital, Sawerigading Hospital, Unhas Hospital, Makassar POM Center, Vit Maros Center, Makassar BBLK, Wahidin Hospital, and Makassar BBTKLP. These laboratories serve to hasten the examination of suspected COVID patients through PCR testing, thereby making the process of detecting people infected with COVID-19 faster.

The South Sulawesi government is also concerned with providing intensive care to patients with the use of seven central hotels in Makassar City for patient care. These factors contribute to South Sulawesi's recovery rate of 76.77%, which is higher than the national recovery rate of 71.4%. The government also created a COVID Tourism program, which focused on making the area free from positive COVID-19 patients. The COVID Tourism program has spent a total of approximately $8 billion as of July 2020.

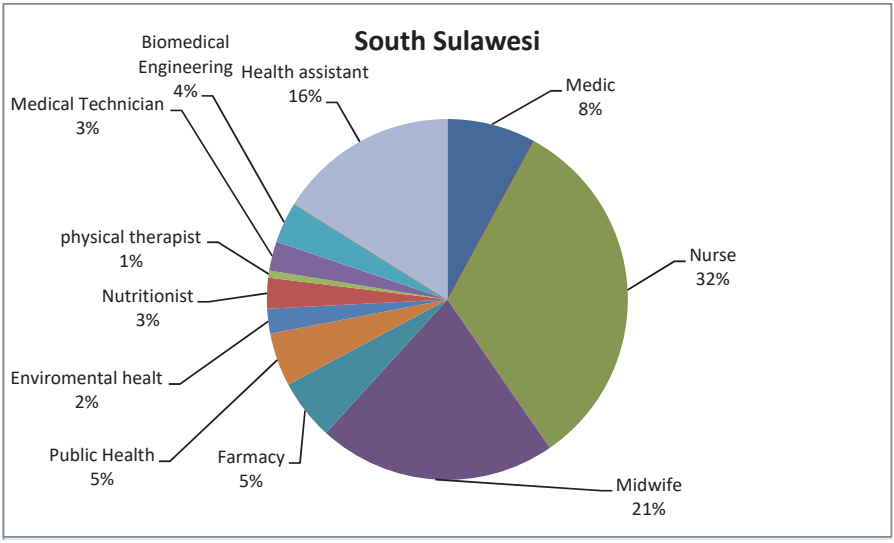

Figure 10. **The distribution of medical personnel in South Sulawesi**

Source: Kemenkes RI, 2020

The availability of medical personnel in South Sulawesi is inadequate, as there are only 43,127 medical personnel that are active in providing public health services to a population of 8,771,970 people. Therefore, the local government need to follow the example of the Australian government and continue recruiting more medical personnel, especially those that are specialized in handling COVID-19. Furthermore, it is necessary to deploy more medical equipment to regional and large cities, as well as to recruit and instruct additional medical personnel to prepare for a spike in cases (Gardiner et al. 2020)

we included patient data from February 2, 2020, to May 6, 2020. To investigate the surge capacity and operational implications for the RFDS in dealing with COVID-19, we built and validated an interactive operations area-level discrete event simulation decision support model underpinned by RFDS air medical activity data from 2015 to 2019 (4 years.

Analytical capacity

Analytical capacity is associated with analyzing information, providing advice, and evaluating risk as well as vulnerability. The local government has adequately responded to the handling of COVID-19 cases in South Sulawesi. However, there are still many risks that have the potential to interfere with the handling process. The challenges that remain to be faced by the local government in South Sulawesi are outlined in Table 2.

Table 2. **Analysis of the management the COVID-19 crisis**

Risk	**Analysis of control**
Non-compliance with health protocols	Warning through regional regulations to carry out health protocols, including wearing masks, maintaining distance, maintaining cleanliness, and the diligent washing of hands
The community does not prohibit handshakes, and corpses are not disposed of according to the COVID-19 protocol	Socialization and education of MUI Fatwa No. 18 regarding the management of bodies exposed to COVID-19
Inadequate medical supplies for medical personnel, including PPE – 153,228 Surgical masks – 281,500 Rapid Testing kits – 45,800	Distributing PPE, preparing hotels for medical personnel that treat patients exposed to COVID-19
Lack of health workers	Need volunteers in handling COVID-19

Source: adapted by researchers

The government need to refer to science and use accurate and proportional data to establish the correct scientific policies associated with the COVID-19 pandemic. However, it is unfortunate that in the process of establishing pandemic policies, the government still relies on miracles rather than scientific calculations. Therefore, the need to uphold solidarity – which ultimately results in collaboration, adaptation, and readiness to face the pandemic – remains (Stephens et al. 2020).

Conclusions

1. The local government of South Sulawesi has carried out various crisis management strategies in dealing with the COVID-19 pandemic. At the initial stage, it coordinated with various stakeholders and then issued regulations to reduce the

rate of COVID-19 cases. At the final stage, the government carried out an analytical process which ended with the delivery of crucial services during the pandemic.
2. The local government has properly responded to the handling of COVID-19 cases in South Sulawesi. However, there are still numerous risks that have the potential to interfere with this process. This leads to the collaborative effort of the provincial government with various stakeholders, such as the local government, the army, the police, and universities.
3. NVivo analysis of the policy issued by the South Sulawesi government found that the most significant element of COVID-19 regulation was control, with a percentage of 56.76%. This was followed by surveillance, which constituted 41.89% of regulation. Auditing comprised the lowest percentage – 1.35% – due to the absence of local government regulations which obligate the completion of accountability reports.
4. The local government need to refer to science and the accurate use of proportional data in establishing pandemic policies based on the interests of a group of people.

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Vietos valdžios krizių valdymas reaguojant į covid-19: pietų Sulavesio Indonezijoje atvejo analizė

Anotacija

Krizių valdymas yra viena iš pagrindinių vyriausybės pareigų, kurią reikia tinkamai atlikti. Šio tyrimo tikslas – išanalizuoti vietos valdžios gebėjimą valdyti COVID-19 krizę pandemijos metu. Šio tyrimo, atlikto Pietų Sulavesyje, Indonezijoje, metu taip pat nustatyta daug rizikų, galinčių neigiamai veikti krizių valdymą reaguojant į COVID-19. Siekiant tinkamai valdyti krizę, vietos valdžios veiksmai buvo derinami su įvairiomis suinteresuotosiomis šalimis, tokiomis kaip armija, policija ir universitetas. Rezultatai atskleidė, kad labiausiai ir mažiausiai valdžia reglamentuoja kontrolę, priežiūrą ir auditą.

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