Formulating a Health Sustainable Development Policy: How the Actors Handling the COVID-19 in Indonesia

Novia Amirah Azmi \(^{1}\), Annisa Weri framayeni \(^{1}\), Retno Dewi Pramodja Ahsani \(^{2}\), Delila Putri Sadayi \(^{3,4}\), Aqil Teguh Fathani \(^{3}\)

\(^{1}\) Department of Communication Studies, Universitas Perintis Indonesia, Padang, Indonesia
\(^{2}\) Department of Public Administration, Universitas Tidar, Magelang, Indonesia
\(^{3}\) E-Governance and Sustainability Institute, Yogyakarta, Indonesia
\(^{4}\) Department of Government Affairs and Administration, Jusuf Kalla School of Government, Universitas Muhammadiyah Yogyakarta, Yogyakarta, Indonesia

**ABSTRACT**

This article aims to analyze the role of actors in COVID-19 control in Indonesia and identify sustainable development policies in the health sector. The significant impact of COVID-19 occurs in the health sector, so the critical primary role of the government is to formulate policies in the health sector to control COVID-19. This research used a descriptive qualitative method by analyzing the policies made and the role of actors in controlling COVID-19 in the health sector. This study indicates 1) the pattern of health development policies in controlling COVID-19 still needs improvement in effectiveness and efficiency so that policies are right on target. 2) Policies made in controlling COVID-19 in Indonesia are still not optimal, especially in integrating technology and other resources. 3) The government is not ready to control COVID-19; the role of other actors is still low in intensity in controlling COVID-19. Based on the research analysis, it is important to formulate policies to control COVID-19 and identify its role. Thus, this research can provide a reference in formulating sustainable policies in controlling COVID-19 in the health sector.

**INTRODUCTION**

This article aims to identify sustainable development policies in the health sector and the role of actors involved in controlling COVID-19. Sustainable development policies in the health sector are the government’s main focus in controlling COVID-19 (Post et al., 2021). Because the health sector becomes the vanguard in controlling the spread of COVID-19, or coronavirus diseases-19, attacks the human respiratory system, causing severe acute respiratory syndrome (SARS) (Panico et al., 2020; Robilotti et al., 2020; Sjodin et al., 2020). The COVID-19 virus was first discovered in Hubei Province, China, in December 2019 (Post et al., 2021). COVID-19 then spread throughout the world, so the WHO later declared COVID-19 a global pandemic (Cucinotta & Vanelli, 2020; Guo et al., 2020; Zu et al., 2020). Including Indonesia, the spread of COVID-19 is high enough that it has a significant impact on the health sector that has domino implications in all other sectors of life.

Figure 1 shows the rate of confirmed cases of COVID-19, and the death rate due to COVID-19 in Indonesia is increasing from March 2020 to June 2021. Based on Figure 1 data, confirmed cases of COVID-19 in Indonesia had increased sharply from March-June 2021, with an increase of 75,464 cases (WHO, 2021). Meanwhile, the death rate due to COVID-19 also increased from March-June 2021 from 1220 cases to 2396 cases (WHO, 2021). With the high confirmed cases of COVID-19 in Indonesia, it is necessary to formulate sustainable policies in controlling COVID-19.

The virus that causes COVID-19 is not the deadliest, and Ebola kills more than 50% of infected people (Cucinotta & Vanelli, 2020). The coronavirus causes Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) resulting in death in 10% of infections and between 30% and 40% of cases (Zu et al., 2020). COVID-19 is becoming a dangerous virus because it spreads quickly from person to person, like influenza, and infects the upper respiratory system, and no vaccine has yet been found (Rothen & Byrareddy, 2020). This virus is more deadly than that, and COVID-19 can be about ten times more deadly than the seasonal flu, which causes 0.1% of those infected because the COVID-19 virus is found in the upper respiratory tract. Nose infection can spread through coughing. Sneezing, gasping for air, and maybe even speaking loudly (via droplets) (Spinelli & Pellino, 2020). Thus, the COVID-19 virus becomes more dangerous because it infects many people with a high rate of spread.

The intensity of the rapid spread of COVID-19 and the high level of confirmed cases have made the capacity and quality...
of resources in the health sector an obstacle in controlling COVID-19.

COVID-19 has had a significant impact on public health, which has domino implications for various vital sectors of a country, such as the economic, social, government, and other sectors (Nathan & Scobell, 2012; Spinelli & Pellino, 2020). The spread of COVID-19 needed to control, and several countries have implemented Lockdown policies, as has been done by China and countries in Europe (Gupta et al., 2020; Panepeinta et al., 2020). This policy was made on the basis that confirmed cases of COVID-19 with a relatively high rate of spread with no vaccine and drugs that can control COVID-19 have yet been found, as well as the capacity of resources and infrastructure in the health sector that is not balanced with the increasing number of COVID-19 cases (Wirawan & Januraga, 2020). COVID-19 makes the countries of the world decide on significant policies with considerable risks. Because this policy is made, it will indirectly change the whole life of the community (Dewi et al., 2020). All social, business, economic, and other public activities are suspended to minimize the spread of COVID-19. So as an alternative in controlling COVID-19, it must have integrated technology, information, and communication (Purnomo, 2020).

This study analyzes how the Indonesian government formulates sustainable development policies to control COVID-19 in the health sector and how actors are involved in it. Indonesia, as a developing country and divided into autonomous regions, has major challenges in controlling COVID-19 (Latief et al., 2021; Lee et al., 2021; Wirawan & Januraga, 2020). Because each region has different potentials and capabilities in covid-19 control in Indonesia, every policy made by the central government becomes a reference for the local government. Still, it is undeniable that every local government has the privilege of making policies to take care of and regulate their government affairs (Maudina & Purnomo, 2018; Nurmandi & Purnomo, 2011). This privilege is called the policy of regional autonomy (Maudina & Purnomo, 2018). So, it is the obligation of the central government in making policies as a reference for local governments to be able to make targeted policies under the conditions of each region (Nurmandi & Purnomo, 2011). Similarly, Indonesia formulated a policy of development in health in the control of COVID-19 is an essential concern of the government.

In Indonesia, COVID-19 control policies are implemented by the central and local governments. The central government has the authority to make policies as a reference for local governments in formulating policies under the conditions and establishments of each region. Policies that are right on target in controlling COVID-19 are not only the task of the government but also need support from all actors involved in controlling COVID-19 (Booth et al., 2019; Lee et al., 2021; Wirawan & Januraga, 2020). The actors who play an essential role in supporting the implementation of policies made by the government include the citizen, community, and business (Purnomo et al., 2021). Therefore the actors involved are the subjects in the implementation of policies in controlling COVID-19. So this study analyzes the policies made by the government and the role of actors in controlling COVID-19 as seen through the Scopus indexed scientific journal articles. This study uses descriptive qualitative research methods to find out more deeply related to research variables. The data sources of this study used secondary data obtained from national online media news, government websites, and Scopus indexed journal articles. Data analysis is carried out by identifying and classifying policies that are analyzed through Vosviewer Software. Meanwhile, to analyze the role of actors in controlling COVID-19.

**METHOD**

This article identifies and analyzes sustainable development policies in the health sector and the role of actors involved in controlling COVID-19 in Indonesia. This research case study is a policy made by the central government in covid-19 control in Indonesia. This study uses a qualitative research method with a descriptive approach, where the authors analyze in depth by identifying and classifying policies made in controlling COVID-19. In addition, the author also analyzes the role of the actors involved in controlling COVID-19 because the actors involved are the subject of the implementation of the COVID-19 control policy (Amirudin et al., 2021; Wibowo, 2021). So, that actors have a vital role in the implementation of COVID-19 control policies.

This study uses secondary data obtained from national online media news, official government websites, and Scopus indexed international journal articles from 2020-2021. The number of online media news analyzed was 80 national online media news with 2020-2021, taken randomly related to COVID-19 control policies, sustainable development in the health sector, and actors’ roles. As for the government website, the authors took secondary data from the reports of the Ministry of Health and the Ministry of Finance of the Republic of Indonesia for 2020-2021. Data obtained from journal articles indexed by Scopus with the keywords health policy, sustainability, and COVID-19. The results obtained amounted to 71 documents downloaded using the format (.csv) sourced from international journals.

![Figure 2. Number of Documents per year by source Scopus Indexed Scientific Journal Articles for 2020-2021 Source: Scopus, 2021](https://doi.org/10.35308/jpp.v7i2.4077)
of Nvivo 12 plus and Vosviewer software provides an accurate visualization of data analysis to find maximum results (Purnomo et al., 2021). The results obtained in this study are in the form of an analysis of sustainable development policies in the health sector and actors involved in controlling COVID-19.

RESULTS AND DISCUSSION

Coronaviruses Diseases are becoming very dangerous, COVID-19 can be about ten times more deadly than the seasonal flu, which causes 0.1% of those who infect it (Dewi et al., 2020), because the COVID-19 virus is found in the upper respiratory tract, including the nose, so the infection can spread through coughing, sneezing, gasping for air, and possibly even speaking loudly (via droplets) (Spinelli & Pellino, 2020). With the rapid spread of viral infections, many victims are infected with the COVID-19 virus (Guo et al., 2020; Zu et al., 2020). Moreover, readiness in controlling COVID-19, such as inadequate health resources and infrastructure and control policies that are not well-targeted, have caused COVID-19 to become a dangerous and deadly virus. (Panepintoa et al., 2020; Robilotti et al., 2020; Rothan & Byrareddy, 2020). Thus, there is a need for policies to control COVID-19 that are sustainable so that COVID-19 control can be carried out optimally (Satiaspi et al., 2021). Researchers analyzed the Scopus indexed scientific journal articles, and 71 documents analyzed health policy, sustainability, and COVID-19 handling. The journal articles were then analyzed using Vosviewer software, which can be seen in the following image.

![Image](https://example.com/image.png)

**Figure 3.** The results of the analysis of scientific journal articles indexed by Scopus on the keywords health policy, sustainability, and COVID-19 handling. Source: Vosviewer data processing, 2021

Figure 3 shows the results of the analysis of 71 document articles in the Scopus index journal during 2020-2021 related to the keywords health policy, sustainability, and COVID-19 handling. Based on the analysis of the findings, Figure 3 shows that in controlling COVID-19, the most crucial thing is policies in the health sector. Health policies are closely related to controlling COVID-19 because COVID-19 attacks the human immune system, so medical treatment is needed to overcome the virus (Spinelli & Pellino, 2020). Therefore, health resources and infrastructure are the main factors in controlling the spread of COVID-19. Health policy is the most critical policy. Thus COVID-19 can be controlled using policies in the health sector (Dewi et al., 2020; nců et al., 2021). However, the policy cannot stand alone. It needs other policies such as the health system, health services, resources, and the role of actors as the subject of policy implementation (Amirudin et al., 2021; Post et al., 2021; Zobbi et al., 2020). In the analysis shown in Figure 3, the role of digital technology, government, and public policy is closely related to policies in the health sector and COVID-19 control.

Several countries have implemented a lockdown policy, as has been done by China and countries in Europe (Panepintoa et al., 2020; Zu et al., 2020), to control the spread of COVID-19. Countries like China and developed countries such as Europe are also integrating digitalization technology in controlling COVID-19 (Singh et al., 2020; Srinivasa Rao & Vazquez, 2020). As China has done to control COVID-19 by increasing health resources and infrastructure by building a hospital with 1600 beds in Wuhan, China (Zu et al., 2020). In addition, it also integrates technology to quickly track infected people so that they can be immediately treated by medical personnel (Vaishya et al., 2020). This is also done as a well-integrated form of controlling the spread of COVID-19. Not only that, but in COVID-19 control, the actors involved, such as communities and bussiness, synergize well with one another, allowing the government’s policies to be implemented effectively.

Meanwhile, the policies made by the Indonesian government are still substantive and regulatory (Kusuma et al., 2019; Wirawan & Januraga, 2020). Where policies are made in the form of restrictions or prohibitions on individuals or community groups based on applicable regulations or norms (Handayanto & Herlavati, 2020). The normative policies made by the government include: 1) Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions (PSBB); 2) Presidential Decree Number 11 of 2020 concerning Public Health Emergency Status; 3) Presidential Decree Number 12 of 2020 concerning the Determination of Non-Natural Disasters Spreading Corona Virus Disease 2019 (COVID-19) as National Disasters; 4) Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/413/2020 concerning the Determination of Non-Natural Disasters Spreading Corona Virus Disease 2019 (COVID-19) as National Disasters; 5) Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/413/2020 concerning the Determination of Non-Natural Disasters Spreading Corona Virus Disease 2019 (COVID-19). COVID-19 control will not succeed if only with policies at the normative level so that normative policies need to be appropriately implemented by the subject or recipient of the policy. However, substantive and regulatory policies also need procedural policy support (Kartono et al., 2021; Post et al., 2021) it is based on how substantive policies can be implemented. Procedural policies in controlling COVID-19 can be in the form of increased financial budgets, resources, and health infrastructure (Andrajati et al., 2017; Wiseman et al., 2018). Procedural policies in controlling COVID-19 in Indonesia have not been maximally implemented. Based on the regulatory policies made, the government’s initial steps in controlling COVID-19, among others: 1) calls to maintain health and caution concerning COVID-19; 2) Healthy Living Community Movement (GERMAS); 3) implementation of health protocols; 4) Social Distancing; 5) Disinfectant Spraying; 6) Fulfillment of resources, adequacy of equipment, facilities, and health infrastructure (Firmansyah, 2020). Meanwhile, Indonesia’s health-care resources and facilities remain insufficient. Figures 4, 5, and 6 show this in relation to Indonesia’s health resources and infrastructure.
When viewed based on infrastructure and resources in the health sector in Indonesia, figures 4, 5, and 6 show that this number is not proportional to the number of confirmed cases of COVID-19. The readiness of resources and infrastructure in the health sector is still very lacking compared to the number of confirmed cases of COVID-19 shown in Figure 1. The number of Puskesmas, general hospitals, and exceptional hospitals in Indonesia, as shown in Figure 4 and Figure 5, cannot necessarily provide exceptional services for patients with COVID-19. Based on the Ministry of Health data in 2020, the total number of hospitals in Indonesia was 2,946, with 920 COVID-19 referral hospitals (Ministry of Health. Republic of Indonesia., 2021). The bed capacity is 53,360, while the COVID-19 referral hospital provides 36,746 isolation beds for COVID-19 positive patients (Ministry of Health. Republic of Indonesia., 2021). Suppose the number of people exposed is below the number of availability of hospital services. In that case, the hospital can still treat people exposed to the possibility that the person will recover. However, based on Figure 1, the high number of confirmed cases of COVID-19 then becomes an obstacle in controlling COVID-19. This makes COVID-19 even more dangerous due to the lack of support from adequate health resources and infrastructure. So that the Indonesian government needs to formulate policies that are right on target in controlling COVID-19. The Indonesian government formulates sustainable development policies in the health sector, which can be seen in the following framework.

In controlling COVID-19, the Indonesian government formulates sustainable development policies in the health sector, which can be seen based on Figure 7. The government’s readiness for sustainable development in the health sector by doing: 1) Health laboratories for COVID-19 examinations in Indonesia are prepared for 422 laboratories to check the results of COVID-19 tests (Ministry of Health. Republic of Indonesia., 2021); 2) Addition of COVID-19 Referral Hospital, there are 920 hospitals, with a capacity of 36,746 COVID-19 isolation beds (Ministry of Health. Republic of Indonesia., 2021); 3) Implementation of Health Quarantine, efforts to prevent and ward off the exit or entry of diseases and risks that threaten public health that have the potential to cause public health emergencies; 4) Telemedicine services, as health services carried out by health workers using information and communication technology to diagnose, prevent, treat, or evaluate patients’ health conditions, and continuing education of health service providers for the benefit of improving individual or community health (Hidayat, 2020; Wibowo, 2021); 5) Availability of Human Data Sources by adding health workers more than 13,000 health human resources consisting of volunteers, healthy archipelago, and internship program participants have been placed in health facilities to support health services in controlling COVID-19 (Scope et al., 2011); 6) COVID-19 Recording and Reporting System, by integrating information and communication technology to facilitate contact tracing and monitoring; 7) Implementation of health protocols and social distancing as an effort to prevent the transmission of COVID-19. In addition, the Indonesian government also has prepared budget incentives to support the development of resources and infrastructure in the health sector to control COVID-19 (Hidayat, 2020; Wibowo, 2021).
In reality, the coordination and communication between the central government and local governments are still low, thus the policies made are not following what is expected. Policies that are right on target in controlling COVID-19 are not only the task of the government but also need support from all actors involved in controlling COVID-19 (Purnomo et al., 2021). The actors who play an essential role in supporting the implementation of policies made by the government include the citizen, community, and business (Öncü et al., 2021). Because the actors involved as subjects in the implementation of policies in controlling COVID-19 (Purnomo et al., 2021). The results of data analysis of research findings from national online media news are analyzed how actors control COVID-19.

### Table 1. Readiness of Budget Incentives to Support the Development of Resources and Infrastructure in the Health Sector

| Program                                      | Budget                  | Information                                                                 |
|----------------------------------------------|-------------------------|-----------------------------------------------------------------------------|
| Health Care Spending                         | Rp. 65.8 Trillion       | 1. Medical Devices (PPE, Test Kits, Reagents, Ventilators, Hand Sanitizer, etc.) |
|                                              |                         | 2. Health Facilities and Infrastructure, (upgrade of 132 referral hospitals for the treatment of COVID-19 patients, including athletes' guesthouses) |
| Central and Regional Medical Personnel Incentives | Rp. 5.9 Trillion     | 1) Central Medical Personnel amounting to Rp. 13 Trillion and Regional Medical Personnel Rp. 4.6 Trillion. |
|                                              |                         | 2) Incentives for Specialist Doctors (15 million/month), General Practitioners (10 million/month), Nurses (7.5 Million/month), other health workers (5 Million/month). Given for 6 months. |
|                                              |                         | 3) The need for budget for incentives for medical personnel is calculated only for medical personnel in central hospitals, KKP satker, BTKL, and Balithangkes, including those who serve in Wisma Atlet Hospital. |
|                                              |                         | 4) Budget for incentives borne jointly by central and local governments, including the use of Nonphysical Health DAK and Health Operational Costs and APBD |
| Death benefits for health workers            | IDR 300 Million         | RP. 300 million/person                                                                 |
| Budget allocation of COVID-19 patient care costs | Funding is taken from APBN and APBD in 2020 | All COVID-19 patient care costs are borne by the government in accordance with the standard of handling costs that include the cost of examination, treatment, to the repatriation of bodies if a COVID-19 patient dies. |

Source: (Ministry of Finance, 2021)

The Indonesian government has made various efforts to control COVID-19, starting from regulatory policies, budgets, infrastructure readiness, and resources in the health sector in Indonesia. However, these policies are not enough because COVID-19 has impacted the health sector and has domino implications in the economic, social, political, and public service sectors (Spinelli & Pellino, 2020). It is not only policies in the health sector that the government needs to pay attention to, but other affected sectors also need to be considered even though the health sector is the most important and is at the forefront of controlling COVID-19.

Speculative policies taken by the government in controlling COVID-19 by implementing a national health emergency with a policy of massive social restrictions (PSBB) or Lockdown (Herdiana, 2020). Lockdown or regional quarantine is a policy that when a health emergency occurs (Sharma et al., 2021) by limiting economic/trade activities, social and political activities, religious activities, and activities that involve many people in an event and others (Kartono, 2020). The social restriction policy is implemented to break the chain of transmission or the spread of the COVID-19 outbreak (Handayanto & Herlawati, 2020). The Indonesian government also issues health protocols in line with the coronavirus outbreak or COVID-19, which will be implemented throughout Indonesia by the government with centralized guidance by the Ministry of Health of the Republic of Indonesia (Telaumbanua, 2020; Purnomo et al., 2021). However, with the implementation of these policies, many new problems arise, exceptionally social and economic problems. So that the policy taken by the government by implementing Lockdown is not right on target because the policy is speculative or chancy (Dewi et al., 2020; Satispi et al., 2021). In reality, the coordination and communication between the central government and local governments are still low, thus the policies made are not following what is expected.

Policies that are right on target in controlling COVID-19 are not only the task of the government but also need support from all actors involved in controlling COVID-19 (Purnomo et al., 2021). The actors who play an essential role in supporting the implementation of policies made by the government include the citizen, community, and business (Öncü et al., 2021). Because the actors involved as subjects in the implementation of policies in controlling COVID-19 (Purnomo et al., 2021). The results of data analysis of research findings from national online media news are analyzed how actors control COVID-19.
most dominantly affected by COVID-19, so they need an essential role in controlling COVID-19.

The role of government actors based on Figure 8 has the highest value compared to other actors, which is 0.81. This shows how the government is trying hard to make policies, programs, and various other efforts to control the spread of COVID-19 (Purnomo et al., 2021; Satispi et al., 2021). In the second position, the community has the second-highest score with a value of 0.73 after the government in providing its role to control COVID-19. In this case, the community, and organized social group with the same interests, have a significant role and sensitivity to COVID-19 control. It is not uncommon for many communities to move by collecting both moral and material assistance to prevent and control COVID-19.

Meanwhile, the citizen has the lowest role value, which is 0.59, controlling the spread of COVID-19. Figure 8 shows how coordination and synergy between actors in controlling COVID-19 are still low. Especially the role of citizen and the business sector, citizen and business are the actors most affected by the COVID-19 pandemic, especially if the government implements a large-scale lockdown or restriction policy. This then has significant implications for citizen actors as well as businesses. Because in carrying out a large-scale restriction policy or lockdown, there is no support from the government to support its people, while this has been stated in Law No. 6 of 2018 concerning Health Quarantine.

Because policies that are unclear and not firm and speculative from the beginning of the emergence of COVID-19 have created confusion between the roles of the actors involved in it, collaboration or synergy in controlling COVID-19 is shallow. This is what hinders the control of COVID-19 until now; confirmed cases of COVID-19 continue to report an increase every day. In the next policy-making step, good calculations are needed, and concepts and collaboration between the actors involved are needed so that COVID-19 can be controlled.

CONCLUSION

COVID-19 is a dangerous and deadly virus because many victims are infected with the COVID-19 virus with the rapid spread of viral infections. Moreover, controlling COVID-19, such as inadequate health resources and infrastructure and control policies that are not well-targeted, has led to failures in controlling COVID-19. Thus, there is a need for policies to control COVID-19 that are sustainable so that COVID-19 control can be carried out optimally.

Sustainable development policies in the health sector are the government’s main focus in controlling COVID-19. Because the health sector is at the forefront of controlling COVID-19, which is currently happening, policies that are right on target in controlling COVID-19 are not only the task of the government but also need support from all actors involved in controlling COVID-19. The actors who play an essential role in supporting the implementation of policies made by the government include the citizen, community, and business. This is because the actors involved are the subjects in the implementation of policies in controlling COVID-19.

This study indicates, 1) the pattern of health development policies in controlling COVID-19 still needs improvement in effectiveness and efficiency so that policies are right on target. 2) policies made in controlling COVID-19 in Indonesia are still not optimal, especially in integrating technology and other resources. 3) the government is not ready to control COVID-19. The role of other actors is still low in intensity in controlling COVID-19. So that in the next policy-making step, good calculations are needed, and concepts and collaboration between the actors involved are needed so that COVID-19 can be controlled optimally.

REFERENCE

Amirudin, A., Urbafński, M., Saputra, J., Johansyah, M. D., Latip, L., Tarmizi, A., & Afrizal, T. (2021). The impact of the covid-19 self-isolation policy on the occupations of vulnerable groups. International Journal of Environmental Research and Public Health, 18(12), 1–14. https://doi.org/10.3390/ijerph1812452
Andrajati, R., Tilaqza, A., & Supardi, S. (2017). Factors related to rational antibiotic prescriptions in community health centers in Depok City, Indonesia. Journal of Infection and Public Health, 10(1), 41–48. https://doi.org/10.1016/j.jiph.2016.01.012
Azmi, N. A., Fathani, A. T., Saday, D. P., Fitriani, I., & Adiyaksa, M. R. (2021). Social Media Network Analysis (SNA): Identifikasi Komunikasi dan Penyebaran Informasi Melalui Media Sosial Twitter. Jurnal Media Informatika Budidarma, 5(4), 1422–1430. https://doi.org/10.30865/mib.v5i4.3237
Booth, A., Purnagnawan, R. M., & Satriawan, E. (2019). Towards a Healthy Indonesia? Bulletin of Indonesian Economic Studies, 55(2), 133–155. https://doi.org/10.1080/00074918.2019.1639509
Cucinotta, D., & Vanelli, M. (2020). WHO declares COVID-19 a pandemic. Acta Biomedica, 91(1), 157–160. https://doi.org/10.23750/abm.v91i1.9397
Dewi, A., Nurmandi, A., Rochmawati, E., Priyo Purnomo, E., Dimas Rizqi, M., Azzahra, A., Benedictos, S., Suardi, W., & Tri Kusuma Dewi, D. (2020). Global policy responses to the COVID-19 pandemic: proportionate adaptation and policy experimentation: a study of country policy response variation to the COVID-19 pandemic. Health Promotion Perspectives, 2020(4), 359–365. https://doi.org/10.34172/hpp.2020.34
Firmanisyah, I. (2020). Indonesia Sistem Dinamik Covid-19 Di Indonesia.
Guo, L., Ren, L., Yang, S., Xiao, M., Chang, D., Yang, F., Dela Cruz, C. S., Wang, Y., Wu, C., Xiao, Y., Zhang, L., Han, L., Deng, S., Xu, Y., Yang, Q. W., Xu, S. Y., Zhu, H. D., Xu, Y. C., Jin, Q., … Wang, J. (2020). Profiling Early Humoral Response to Diagnose Novel Coronavirus Disease (COVID-19). Clinical Infectious Diseases: An Official Publication of the Infectious Diseases Society of America, 71(15), 775–785. https://doi.org/10.1093/cid/ciaa310
Gupta, R., Ghosh, A., Singh, A. K., & Misra, A. (2020). Clinical considerations for patients with diabetes in times of COVID-19 epidemic. In Diabetes and Metabolic Syndrome: Clinical Research and Reviews (Vol. 14, Issue 3, pp. 211–212). Elsevier Ltd. https://doi.org/10.1016/j.dsx.2020.03.002
Handayanto, R. T., & Herlawati, H. (2020). Efektifitas Pembatasan Sosial Berskala Besar (PSBB) di Kota Bekasi Dalam Mengatasi COVID-19 dengan Model Susceptible-Infected-Recovered (SIR). Jurnal Kajian Ilmiah, 20(2), 119–124. https://doi.org/10.31599/jki.v20i2.119
Herdiana, D. (2020). KONSTRUKSI KONSEP SOCIAL MEDIA Sosial Twitter. Jurnal Media Informatika Budidarma, 5(4), 1422–1430. https://doi.org/10.30865/mib.v5i4.3237

https://doi.org/10.35308/jpp.v7i2.4077

Novia Amirah Azmi, et al 139
DISTANCING DAN LOCKDOWN DALAM PERSPEKTIF KEBIJAKAN PUBLIK THE CONSTRUCTION OF SOCIAL DISTANCING AND LOCKDOWN CONCEPT IN THE PERSPECTIVE OF PUBLIC POLICY. 8(2), 107–122

Hidayat, H. B. (2020). Kebijakan dan Upaya Pemerintah dalam Penanggulangan COVID-19. Kementerian Kesehatan Republik Indonesia, November, 1–31.

Kartono. (2020). Pembatasan Sosial Berkala Besar (PSBB) Dan Pidana Denda Dalam Ranah Pencegahan dan Pemberantasan Pandemi Coronavirus Disease (COVID-19). 7(8), 687–694. https://doi.org/10.15408/jsbs.v7i8.16550

Kartono, A., Wahyudi, S. T., Setiawan, A. A., & Sofian, I. (2021). Predicting of the coronavirus disease 2019 (COVID-19) epidemic using estimation of parameters in the logistic growth model. Infectious Disease Reports, 13(2), 465–485. https://doi.org/10.3390/IDR13020046

Kemenkeu. (2021). Anggaran Pendapatan dan Belanja Negara 2021. Kementerian Keuangan Direktorat Jenderal Anggaran, 1–48. https://www.pajak.go.id/id/artikel/mengenal-insentif-pajak-di-tengah-wabah-covid-19/#text-Pemberian fasilitas ini diberikan melalui, 22 Impor kepada pajak https://www.pajak.go.id/id/artikel/mengenal-insentif-pajak-di-tengah-wabah-covid-19/#text-Pemberian fasilitas ini diberikan melalui, 22 Impor kepada pajak

Kementerian Kesehatan Republik Indonesia. (2021). https://www.kemenskes.go.id/

Kusuma, D., Kusumawardani, N., Ahsan, A., Sebayang, S. K., Amir, V., & Ng, N. (2019). On the verge of a chronic disease epidemic: Comprehensive policies and actions are needed in Indonesia. International Health, 11(6), 422–424. https://doi.org/10.1017/ihi.2025

Latief, M. I., Hasbi, & Amandaria, R. (2021). Collaboration in handling COVID-19 toward people in poverty line: study case in Makassar. Gaceta Sanitaria, 35, S30–S32. https://doi.org/10.1016/j.gaceta.2020.12.009

Lee, J. H., Lee, H., Kim, J. E., Moon, S. J., & Nam, E. W. (2021). Analysis of personal and national factors that influence depression in individuals during the COVID-19 pandemic: a web-based cross-sectional survey. Globalization and Health, 17(1), 1–12. https://doi.org/10.1186/s12992-020-00650-8

Lingkup, C. R., Batasan, D. A. N., Dan, A. P., & Pambangun, M. (2011). Rencana Pengembangan Tenaga Kesehatan Tahun 2011 – 2025. September.

Maudina, N., & Purnomo, E. P. (2018). Kebijakan Penerbitan Terhadap Implementasi Otonomi Daerah Di Provinsi Kalselaman Timur. December, 25.

Nathan, A. J., & Scobell, A. (2012). How China sees America. Foreign Affairs, 91(3). 16s9–16s99. https://doi.org/10.1017/CBO978110741324.004

Nurmandi, A., & Purnomo, E. P. (2011). Making the strategic plan work in local government: A case study of strategic plan implementation in yogyakarta special province (ysp). International Review of Public Administration, 16(2), 143–164. https://doi.org/10.1080/12266443.2011.10805200

Onçü, M. A., Yildirim, S., Bostanci, S., & Erdogan, F. (2021). The effect of COVID-19 pandemic on health management and health services: A case of Turkey. Duzce Medical Journal, 23(Special Issue 1), 61–70. https://doi.org/10.18678/dmfj.860733

Panepinto, J. A., Brandow, A., Mucalo, L., Yusuf, F., Singh, A., Taylor, B., Woods, K., Payne, A. B., Peacock, G., & Schieve, L. A. (2020). Coronavirus Disease among Persons with Sickle Cell Disease, United States, March 20-May 21, 2020. Emerging Infectious Diseases, 26(10). https://doi.org/10.3201/EID2610.202792

Post, L. A., Lin, J. S., Moss, C. B., Murphy, R. L., Ison, M. G., Achenbach, C. J., Resnick, D., Singh, L. N., White, J., Boctor, M. J., Welch, S. B., & Ochmke, J. F. (2021). SARS-CoV-2 wave two surveillance in east Asia and the pacific: Longitudinal trend analysis. Journal of Medical Internet Research, 23(2), 1–15. https://doi.org/10.2196/25434

Prabhakara, G. (2020). Health Statistics (Health Information System). In Short Textbook of Preventive and Social Medicine. https://doi.org/10.5005/jp/books/11257_5

Purnomo, E. P. (2020). The stakeholders’ analysis and development indicator of sustainability on the community project Eko Priyo Purnomo 1.1–19.

Purnomo, E. P., Fathani, A. T., Setiawan, D., Fadhilurrohman, M. L., & Nugroho, D. H. (2021). Penta-Helix Model in Sustaining Indonesia’s Tourism Industry (Vol. 1523). Springer International Publishing. https://doi.org/10.1007/978-3-030-71782-7

Purnomo, E. P., Fadhilurrohman, M. I., Salsahila, L., Fathani, A. T., Sujad, S., & Widowaty, Y. (2021). Analysis of Sustainable Health Development Goals in Improving Public Health (T. Antipova (ed.); Vol. 1332). Springer International Publishing. https://doi.org/10.1007/978-3-030-71782-7

Robioli, E. V., Babady, N. E., Mead, P. A., Rolling, T., Perez-Johnston, R., Bernardes, M., Bogler, Y., Caldararo, M., Figueroa, C. J., Glickman, M. S., Ioanov, A., Kaltzas, A., Lee, Y. J., Lucca, A., Martano, A., Morjaria, S., Nawar, T., Papanicolaou, G. A., Predmore, J., ... Kamboj, M. (2020). Determinants of COVID-19 disease severity in patients with cancer. Nature Medicine, 26(8), 1218–1223. https://doi.org/10.1038/s41591-020-0979-0

Rothan, H. A., & Byrareddy, S. N. (2020). The epidemiology and pathogenesis of coronavirus disease (COVID-19) outbreak. Journal of Autoimmunity, 109(Febuary), 102433. https://doi.org/10.1016/j.jaut.2020.102433

Satsipi, E., Tutu, R. W. D., Aditya, F., Fathani, A. T., & Kaewhanam, P. (2021). Local Government Respond to COVID-19 Pandemics: A Study of South Tangerang City. 8(2), 82–92.

Sharma, M., Teerawattananon, Y., Dalak, S.V., Isaranuwatchari, W., Pearce, F., Pilasant, S., Sabirin, J., Mayxay, M., Guerrero, M., Phuong, N. K., Sastroiswooro, S., & Hooi, T. S. (2021). A landscape analysis of health technology assessment capacity in the Association of South-East Asian Nations region. Health Research Policy and Systems, 19(1), 1–13. https://doi.org/10.1186/s12961-020-00647-0

Singh, R. P., Javaid, M., Haleem, A., & Suman, R. (2020). Internet of things (IoT) applications to fight against COVID-19 pandemic. Diabetes and Metabolic Syndrome Clinical Research and Reviews, 14(4), 521–524. https://doi.org/10.1016/j.dmscr.2020.04.041

Sjödin, H., Wilder-Smith, A., Osman, S., Farooq, Z., & Rocklov, J. (2020). Only strict quarantine measures can curb the coronavirus disease (COVID-19) outbreak in Italy, 2020. Eurosurveillance, 25(3), 1–6. https://doi.org/10.2807/1560-7917.ES.2020.25.13.200280
Spinelli, A., & Pellino, G. (2020). COVID-19 pandemic: perspectives on an unfolding crisis. *British Journal of Surgery, 107*(7), 785–787. https://doi.org/10.1002/bjs.11627

Srinivasa Rao, A. S. R., & Vazquez, J. A. (2020). Identification of COVID-19 can be quicker through artificial intelligence framework using a mobile phone-based survey when cities and towns are under quarantine. *Infection Control and Hospital Epidemiology, 41*(7), 826–830. https://doi.org/10.1017/ice.2020.61

Telaumbanua, D. (2020). Urgensi Pembentukan Aturan Terkait Pencegahan Covid-19 di Indonesia. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama, 12*(01), 59–70. https://doi.org/10.37680/qalamuna.v12i01.290

Vaishya, R., Javaid, M., Khan, I. H., & Haleem, A. (2020). Artificial Intelligence (AI) applications for COVID-19 pandemic. *Diabetes and Metabolic Syndrome: Clinical Research and Reviews, 14*(4), 337–339. https://doi.org/10.1016/j.dsx.2020.04.012

WHO Coronavirus Disease (COVID-19) Dashboard | WHO Coronavirus Disease (COVID-19) Dashboard. (2020, October 10). https://covid19.who.int/table

Wibowo, D. H. (2021). When can physical distancing be relaxed? A health production function approach for COVID-19 control policy. *BMC Public Health, 21*(1), 1–10. https://doi.org/10.1186/s12889-021-11088-x

Wirawan, A., & Januraga, P. P. (2020). Forecasting COVID-19 Transmission and Healthcare Capacity in Bali, Indonesia. *Journal of Preventive Medicine and Public Health, 53*(3), 158–163. https://doi.org/10.3961/JPMPH.20.152

Wiseman, V., Thabrany, H., Asante, A., Haemmerli, M., Kosen, S., Gilson, L., Mills, A., Hayen, A., Tangcharoensathien, V., & Patcharanarumol, W. (2018). An evaluation of health systems equity in Indonesia: Study protocol. *International Journal for Equity in Health, 17*(1), 1–9. https://doi.org/10.1186/s12939-018-0822-0

World Health Organization. (2020). Mempertahankan layanan kesehatan esensial: panduan operasional untuk konteks COVID-19. *Panduan Interim*. https://www.who.int/docs/default-source/searo/indonesia/covid19/maintaining-essential-health-services-ind.pdf?sfvrsn=d8bbc480_2

Zobbi, M. Al, Alsinglawi, B., Mubin, O., & Alnajjar, F. (2020). Measurement method for evaluating the lockdown policies during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health, 17*(15), 1–9. https://doi.org/10.3390/ijerph17155374

Zu, Z. Y., Di Jiang, M., Xu, P. P., Chen, W., Ni, Q. Q., Lu, G. M., & Zhang, L. J. (2020). Coronavirus Disease 2019 (COVID-19): A Perspective from China. *Radiology, 296*(2), E15–E25. https://doi.org/10.1148/radiol.2020200490