JURNAL TRANSFORMATIVE

Vol. 7 No. 2 Tahun 2021

DOI: 10.21776/ub transformative 2021.007.02.4



Evaluation of the Covid 19 Vaccine Policy for the Elderly Community in Pekanbaru City

Isril*1, Zulfa Harirah MS2, dan Annas Rizaldi3

¹²³ Universitas Riau, Indonesia

Abstract. The number of Covid-19 cases in Indonesia is still high. One of the efforts made by the government is vaccination. As one of the cities with high enough Covid-19 cases, Pekanbaru City has also implemented a vaccination policy. One of the priority targets for vaccination in Pekanbaru City is the Elderly Community. However, the reality is that many older people still have not received the vaccination according to the target set. This study aims to determine the factors that influence the implementation of vaccination for the elderly and to see further how the relationship between the Central Government and Local Government in the implementation of vaccination policy. This study uses a qualitative method by collecting data from informants and various documents. The data obtained were then analyzed using a predetermined theory. The results of this study, the number of elderly who received the vaccine decreased in stage II. Factors that become obstacles in the implementation of vaccination for the elderly such as body conditions are not recommended and the lack of public confidence in the quality of vaccines. Public distrust will affect the success of a policy. Thus, clear information is needed regarding the safety of vaccination for the elderly.

Keywords: Covid-19; Evaluation; policy; Vaccination

Kata Kunci: Covid-19; Evaluasi; Kebijakan; Vaksinasi

Abstrak. Jumlah kasus Covid-19 di Indonesia masih tinggi. Salah satu upaya yang dilakukan pemerintah adalah vaksinasi. Sebagai salah satu kota dengan kasus Covid-19 yang cukup tinggi, Kota Pekanbaru juga telah menerapkan kebijakan vaksinasi. Salah satu sasaran prioritas vaksinasi di Kota Pekanbaru adalah Komunitas Lansia. Namun kenyataannya masih banyak lansia yang belum mendapatkan vaksinasi sesuai target yang ditetapkan. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi pelaksanaan vaksinasi pada lansia dan untuk melihat lebih jauh bagaimana hubungan antara Pemerintah Pusat dan Pemerintah Daerah dalam pelaksanaan kebijakan vaksinasi. Penelitian ini menggunakan metode kualitatif dengan mengumpulkan data dari informan dan berbagai dokumen. Data yang diperoleh kemudian dianalisis dengan menggunakan teori yang telah ditentukan. Hasil penelitian ini, jumlah lansia yang menerima vaksin mengalami penurunan pada stadium II. Faktor yang menjadi kendala dalam pelaksanaan vaksinasi bagi lansia seperti kondisi tubuh yang tidak dianjurkan dan kurangnya kepercayaan masyarakat terhadap kualitas vaksin. Ketidakpercayaan masyarakat akan mempengaruhi keberhasilan suatu kebijakan. Oleh karena itu, diperlukan informasi yang jelas mengenai keamanan vaksinasi bagi lansia

> Received: 30/06/2021 Revised: 18/08/2021 Accepted: 08/09/2021

INTRODUCTION

his paper is intended to see further how to vaccinate the elderly in Pekanbaru City. The elderly, as the most vulnerable to the transmission of COVID-19, is undoubtedly a priority for vaccines. However, the implementation of vaccine policies for the elderly cannot easily be realized. The number of elderly people who get vaccines in Pekanbaru City is far from the target that has been set. This paper describes the factors causing the lack of older adults who get vaccine services in the framework of a policy evaluation.

We know that in 2020 the whole world was shocked by the 2019-nCoV Virus Pandemic or commonly called the Corona Virus. The Corona virus causes a disease called Covid-19 (Li et al., 2020). This virus was initially detected in Wuhan City, Hubei Province, China, at the end of 2019, then the virus spread widely in various world countries, including Indonesia. Precisely on December 31, 2019, in the city of Wuhan, 27 cases of pneumonia were reported with unknown etiology. However, a new type of virus was found, which is still in the same family as SARS-CoV and MERS-CoV, and this virus was named Novel Coronavirus (nCoV). So that Based on this fact, WHO officially calls the disease triggered by 2019-nCoV Corona Virus Disease 2019 (COVID-19) (Landi et al., 2020). At first, this outbreak was thought to only attack the city of Wuhan, but instead, this outbreak will become a global threat to the world (Makmun & Hazhiyah, 2020).

In Indonesia, the first case of Covid-19 was detected in March where President Jokowi announced that two Indonesian citizens were positive for the coronavirus because they had contacted a foreigner at an event held in Jakarta (Harirah Zulfa; Annas Rizaldi, 2020). Not long after the news was delivered, the number of cases of Indonesian citizens infected with the Covid-19 virus continued to increase, and the death rate from Covid-19 continued to increase (Susilawati et al., 2020). The increasing number of cases and death rates has forced the government to take various measures to deal with the Covid-19 virus infection, from central to regional governments. However, all of these measures have not been effective, and the number of Covid-19 cases in Indonesia remains high, and the death rate continues to increase because there are no coercive techniques and sanctions for violators (Merta

& Suderana, 2020). This makes the government have to think of other strategies to overcome these problems. When it was reported that the WHO had found a Covid-19 virus vaccine, the government took another strategy and started vaccinating all Indonesian citizens, especially those who had never been tested positive for Covid-19 (Olivia et al., 2020).

The Indonesian central government has drawn up a roadmap for Covid-19 vaccination in Indonesia. Health Minister Budi Gunadi Sadikin said that the vaccination plan in Indonesia would be carried out in four periods. The first period of vaccination is given to health workers, the second period of vaccination is given to public services and the elderly, the third period is given to people who are considered vulnerable, and the last period is given to other communities according to the availability of vaccines (Rahman, 2021). In the second period, the elderly are prioritized for early vaccination. According to WHO, the elderly are over 55 years of age. Elderly people are susceptible to being infected with the Covid-19 virus because the immune system, namely the immune system to fight viruses or germs that cause disease in the elderly, has decreased due to the aging process and causes the immune system to decrease to prevent infection with the Covid-19 virus in the elderly (Cao, 2020). In addition, the elderly also often have congenital diseases whose conditions can become more severe if infected with the Covid-19 virus. Therefore, the Covid-19 virus infection has a hazardous and life-threatening impact on the elderly community.

Pekanbaru has the highest number of COVID-19 cases in Riau Province, which amounted to 47266 cases with a death toll of 1064 people. This condition is hazardous, so it needs fast handling by the Government (Tito handoko et al., 2021). The following is the number of COVID-19 cases in Riau Province:

Table 1. Number of Covid 19 Cases in Riau Province 2021

DISTRICT/CITY	POSITIVE CASES	RECOVERED	NUMBER OF
		PATIENT	DEATHS
Pekanbaru	47266	42926	1064
Kampar	7729	6583	313
Pelalawan	3121	2630	162
Inhu	5698	4985	159

Isril, Zulfa Harirah MS, dan Annas Rizaldi

DISTRICT/CITY	POSITIVE CASES	RECOVERED PATIENT	NUMBER OF DEATHS
Inhil	4732	3872	148
Dumai	9646	8752	206
Kep. Meranti	1781	1569	55
Bengkalis	7913	6791	288
Siak	8596	7262	247
Kuantan Singingi	5184	4552	138
Rokan Hilir	4759	3985	179
Rokan Hulu	4924	4094	268

Sources: https://corona.riau.go.id/

Following the central government's policy, the Pekanbaru City government has also implemented the COVID-19 vaccine policy. With the vaccination roadmap set by the central government, the Pekanbaru city government will implement the policy following these guidelines (Mayarni, 2020). The elderly community is also a top priority in the second period of vaccination in Pekanbaru. This can be seen in the Pekanbaru Health Office collaborating with various community organizations to record and register the elderly for vaccination (Pekanbaru.go.id, 2021). Thus, it can be seen how effective the Pekanbaru city government's policies have followed the guidelines from the central government, especially in the elderly community of Pekanbaru City.

The handling of Covid-19 is a concurrent matter, where the Central Government and Regional Governments have the authority and responsibility in dealing with Covid-19 (Chadijah, 2020). Thus, the Central Government and Regional Governments work together to break the Covid-19 chain, and so does the Vaccination process, which is one of the attitudes taken by the Central Government to break the Covid-19 chain. In this case, the local government is involved in implementing the vaccination, with the hope that the implementation of vaccination is carried out comprehensively and continuously between the Central Government and Regional Governments, both at the Vaccination Planning, Implementation, and Evaluation stages. For the relationship between the Central Government and the Regional Government in Vaccination, namely the Central Government is the party responsible for distributing the Covid-19 Vaccine, supporting equipment and logistics needed during the Vaccination process to the Province. The Provincial Government is also responsible for it to be distributed to the Regency area /city. Moreover, similarly, the Regency/City Government is responsible for distributing it to the Puskesmas or a place that has been determined to be the place for the implementation of vaccination at the time of data collection (Presidential Regulation, 2021). All relations between the Central Government and Regional Governments regarding Vaccination have been regulated in the regulations of the implementation of vaccination, such as:

- 1. Presidential Regulation Number 14 of 2021 concerning Amendments to Presidential Regulation Number 99 of 2020 concerning Vaccine Procurement and Vaccination Implementation in the Context of Combating the 2019 Corona Virus Disease Pandemic (Covid-19)
- 2. Regulation of the Minister of Health Number 79 of 2020 concerning Amendments to the Minister of Health Number 28 of 2020 concerning the implementation of vaccine procurement in the context of dealing with the 2019 Corona Virus Disease (Covid-19) Pandemic.
- 3. Regulation of the Minister of Health Number 84 of 2020 concerning the Implementation of Vaccination in the context of the Corona Virus Disease 2019 (Covid-19) Pandemic

The author uses the theory of Policy Evaluation type according to Lester and Steward (2000) to describe the problems mentioned above. Lester and Steward divided four types of policy evaluation, namely Process Evaluation, Impact Evaluation, Policy Evaluation, and Meta Evaluation. Process Evaluation is a type of policy evaluation related to the policy implementation process. Impact Evaluation is a type of policy evaluation related to the results or even related to policy implementation, while Policy Evaluation is a type of policy evaluation that aims to assess whether a policy is following the objectives. Meta Evaluation is a type of policy

evaluation that aims to determine similarities by looking at the various implementations of existing policies.

Evaluating policies is not only to find faults but to determine how relevant and fulfilling the objectives are, developing efficiency, effectiveness, impact, and sustainability of a policy or program (Maulana et al., 2013). In conducting policy evaluations, it is necessary to pay attention to aspects related to policy evaluation, namely Policy Performance and Policy Management (Sarjdo & Darmajanti, 2016). Policy performance is seen in terms of its effectiveness, accountability, and how the impact is generated. Policy management is seen in terms of planning, implementation, monitoring when the policy is implemented.

According to Lester and Stewart: "In evaluating a policy, there are two tasks. Namely, the first task is to describe the impacts that will occur to produce the consequences of the policy. The second task is to determine or assess the success or failure based on applicable provisions. The functions of evaluating policies are: 1) Policy evaluations serve to present valid information, 2) provide input on explanations and criticisms of the values that are the initial basis for implementing policies, and 3) provide additional information to test other policies either through problem formulation or recommendations (Ishak, Difa, 2020).

METHODS

The research method used is a descriptive qualitative approach through literature study by utilizing online journals and media and collecting data directly from informants following the discussion of this article and are reliable. This research is qualitative research that prioritizes inductive logic where categorization is born from the researcher's encounter with informants in the field or the data found. According to Gubrium and Hostlein (1992), the qualitative method assesses the qualities of daily life covering a wide range, namely from life's actions and narratives to its sign, circumstances, and sense of reality (Silalahi, 2006).

Through qualitative methods, data can be obtained by in-depth interviews with informants to obtain the desired data. Interviews were conducted with informants who were considered to be the most knowledgeable about the research problem. At the same time, the documentation is done by searching the documents using two types of data, namely primary and secondary. Primary data is data obtained directly from informants using interviews, while secondary data is obtained from authorized institutions or agencies (Imam Gunawan, 2013). This research was conducted in Pekanbaru City. The data obtained from interviews with informants and related document reviews were then analyzed based on the theory used to obtain answers to research questions. The data analysis method is done by data reduction, data organization, and data analysis.

RESULTS AND DISCUSSION

Vaccination is one of the actions taken by the Indonesian government to break the Covid-19 chain. This vaccine will be given free of charge to the public. With the regulation or vaccination policy, it is hoped that the pattern of human behavior can be following what has been determined in the policy so that the policy's objectives can be achieved. In this vaccination, not a few parties are involved (Thanh Le et al., 2020). Vaccination policy involves many parties, both involved in vaccine procurement, vaccine implementation, and even evaluation. Vaccination is an action carried out by the Central Government with the assistance of the Ministry of Health, which carries out the preparation of Covid-19 vaccine operational services, budgeting assignments, and vaccine procurement, where the Ministry of Health in the procurement process collaborates with International Institutions so that the Vaccine procurement process can be immediately distributed with the assistance of the Minister Foreign Affairs and Minister of Finance.

Not only that the Minister of Home Affairs and the Minister of SOEs are also involved in this vaccination process, but there are also still many institutions involved in this process, such as the Goods/Services Procurement Policy Institute, Head of the Food and Drug Supervisory Agency and others according to their respective authorities and duties. While the involvement of local governments in the process of implementing vaccines in their respective regions is in the form of providing places for vaccination, providing health workers, warehouses for storing vaccines, security, socialization to the community, and being involved in funding the procurement of

vaccines (Regulation of the Minister of Health), 2020). Vaccine Funding comes from the State Revenue and Expenditure Budget (APBN), Regional Revenue and Expenditure Budget (APBD), and other legal and not bound sources. Meanwhile, the costs for post-vaccination monitoring and control will be charged to the state budget. Thus, local governments must provide funds through their respective regional budgets to implement Covid-19 vaccination (Regulation of the Minister of Health of the Republic of Indonesia, 2020).

Evaluation of Vaccination Policy in Pekanbaru

The Pekanbaru city government prioritizes the elderly to be vaccinated early, but in implementing the policy, this cannot be realized due to the many factors that make it challenging to give vaccinations to the elderly. As a result, many non-elderly people are vaccinated early. Therefore, it is necessary to evaluate the existing vaccine policy in Pekanbaru City. With the hope that this evaluation can explain, obtain and provide helpful information for assessing alternative decisions (Harun & Ananda, 2021). Based on data on the Covid-19 Vaccine Vaccination Coverage for Health Workers (Phase I) of Riau Province as of May 9, 2021, which was sourced from the Information System Dashboard of the Indonesian Ministry of Health's One Data Data, stating that the city of Pekanbaru has data:

Table 2. Number of health workers in Pekanbaru City who have been vaccinated (20 August 2021)

Vaccine Session	Vaccinated	Vaccination Targets
Vaksinasi Cov-1	36.453	
Vaksinasi Cov-2	34.000	32.923

Source: https://corona.riau.go.id/

From the table above, it can be concluded that as of 20 August 2021, the implementation of the first and second sessions of vaccination for health workers has been carried out and has reached the targeted number. In the second phase of Vaccination in Pekanbaru City, the target for public services and the elderly are to be vaccinated early. Based on Pekanbaru City Covid-19 Vaccination Coverage data as of 20 August 2021, sourced from the Information System Dashboard of the Indonesian Ministry of Health. Stating that the city of Pekanbaru has data:

Table 3. Number of older people in Pekanbaru City who have been vaccinated (20 August 2021)

Vaccine Session	Vaccinated	Vaccination Targets
Vaksinasi Cov-1	48.596	
Vaksinasi Cov-2	35.853	322.466

Sumber: https://corona.riau.go.id/

Table 4. Number of Pekanbaru City Public Officers who have been vaccinated (20 August 2021)

Vaccine Session	Vaccinated	Vaccination Targets
Vaksinasi Cov-1	541.957	
Vaksinasi Cov-2	387.631	349.418

Sumber: https://corona.riau.go.id/

The data above shows that only the elderly group did not reach the target for the covid 19 vaccines. Even if we look at the numbers, the number of elderly people who have been vaccinated is very far from the target set. The author interviewed an employee of the Riau Provincial Health Office regarding the number of older people far from the target. The employee revealed that the causes of the small number of older adults who had carried out vaccinations were:

- 1. The data obtained comes from BPS (Central Statistics Agency) and is not due to changes in population data such as domicile changes and some who have died.
- 2. There are obstacles in carrying out vaccinations such as health problems, congenital diseases, unfavorable body conditions, etc., which cause physical difficulties for certain people to receive vaccinations because it will be physically risky if they are forced to receive vaccinations.

3. Some people still do not believe in the implementation of vaccination, so there is no willingness to participate in vaccination, or it can be said that some still refuse to vaccinate.

So far, the vaccination policy has not run optimally in Pekanbaru City; this is supported by the statement above. Moreover, there are several evaluations related to implementing this vaccination in Pekanbaru City for the Elderly, where the government prioritizes early-stage vaccinations for the elderly community. This can be attributed to the theory according to James P. Lester, and Joseph Steward, Jr. (2000), classify the evaluation of policy implementation into:

1. Process Evaluation

It is an evaluation relating to the implementation process. Based on the process that occurred, vaccination, in general, went well, but there were still a few obstacles in the implementation process, namely an unhealthy body condition that hampered the vaccination process so that in the previous table, there were still delayed vaccinations. Moreover, those who successfully participate in vaccination generally experience side effects in sore arms; fatigue; and a temporary increase in appetite. According to vaccination officials, this is a sign that the substances in the vaccine have worked in the body, and of course, these side effects are not dangerous.

In implementing vaccination for the elderly, similar problems were also found to hinder the implementation process, both the lack of health of the elderly and the side effects felt after vaccination. In addition, elderly patients have genetic disease factors that make the vaccination process more difficult because elderly patients who have congenital diseases are not advised to carry out vaccinations that can worsen the condition of these congenital diseases so that the vaccination rate for the elderly can be said to be still far from the targeted number.

However, another fact that was also found was the elderly's doubts about getting vaccinated. Many fears arise among the elderly to get vaccines. This also affects the number of older adults who are vaccinated. Even though the elderly need to be protected as a vulnerable group, so they are not easily exposed to COVID-19. Hoaxes that have emerged regarding the covid 19 vaccines are that the vaccine

contains dangerous ingredients, causing paralysis and even death (Rahayu, 2021). Of course, the news circulating affects the psyche of the elderly towards the Covid-19 vaccine policy.

2. Impact evaluation

It is an evaluation concerning the results and effect of policy implementation. Based on the vaccination policy implemented by the government, free vaccination has quite an impact on increasing people's immunity. However, vaccination does not guarantee 100% freedom from Covid-19 if it is contaminated due to many factors such as body conditions and congenital diseases that the body may have. So even though vaccination has been carried out, they still have to maintain health protocols. Even though older adults have been vaccinated, they still have to take care of themselves. Therefore, they do not get infected because the elderly have many factors that can worsen the body's health condition if infected with Covid-19, the impact of which is hazardous and can cause death. Vaccinations are given to the elderly to increase the body's immune system to reduce the impact of death in the elderly due to the Covid-19 virus. Nevertheless, unfortunately, not many older people are vaccinating, so it does not significantly reduce the elderly mortality rate in Pekanbaru City caused by Covid-19. The Mayor of Pekanbaru, namely Mr. Dr. H. Firdaus, S.T, M.T explained that the death of the elderly due to exposure to the coronavirus was the reason the city government prioritized the elderly to receive the vaccine. The following is an excerpt from the interview: "From our data, the mortality rate for elderly citizens due to exposure to Covid-19 is quite high. Therefore, they must be prioritized for vaccine injections".

3. Policy Evaluation

That is whether the results achieved reflect the desired goals. This vaccination only provides antibodies for the body against the Covid-19 virus. Moreover, keep in mind that the presence of antibodies does not guarantee immunity to the virus. However, implementing vaccination aims to reduce the number of people infected with Covid-19 and prevent the spread of Covid-19 virus infection. That is why if the

community has been vaccinated, the body will be strengthened with vaccine antibodies and an excellent immune system, the chances of being infected with the virus will be smaller. Likewise, with the elderly, additional antibodies from vaccination strengthen the immune system and reduce the covid virus's harmful effects on elderly patients and can make the elderly death rate due to the covid virus in Pekanbaru not large. The Pekanbaru city government prioritizes the elderly to be vaccinated early, but in the process of implementing this policy, this cannot be realized due to the many factors that make it difficult to vaccinate the elderly. As a result, a small number of elderly people can be vaccinated early, and many nonelderly people are even vaccinated early. This makes the policy issued by the Pekanbaru city government not run optimally in the section that prioritizes the elderly being vaccinated early.

4. Meta-Evaluation Evaluasi

It is regarding the evaluation of various existing policies, implementations to find certain similarities. Based on the vaccination policy and the new normal policy, they have the same goal: to reduce the number of infected people and reduce the spread of COVID-19 infection in Pekanbaru. The new normal policy implements a clean and healthy life by implementing health protocols in daily life such as washing hands and wearing masks to reduce the possibility of being infected with the covid virus. Likewise, with the vaccination policy increasing the community's antibodies, the community is not easily infected and sick due to the Covid-19 virus. Therefore, the two policies are interconnected and related to the same goal. In implementing the new normal policy, it was found that there was a lack of public participation in carrying out health protocols in daily life due to the lack of public awareness and lack of knowledge in implementing the health protocol. Likewise, in the vaccination policy, it was found that many people in the city of Pekanbaru did not want to be vaccinated. There were still many people who were afraid to be vaccinated due to a large amount of misinformation that was spread in the community and the lack of public knowledge about vaccination itself. For this reason, it is necessary to continue socialization and collaboration between the Government and Health Services to

provide information and learning in order to increase public awareness of the importance of health protocols and carry out vaccinations.

CONCLUSION

Based on the research above, the authors conclude that overcoming the Covid-19 case is a concurrent government affair where the central and regional governments have the authority to deal with Covid-19. Therefore, it requires maximum cooperation between the Central Government and Local Government. Vaccination of the elderly is still experiencing many problems. In addition to the health factors of the elderly that cause the vaccination process to be delayed, the elderly's distrust of vaccines also results in a mindset that vaccination will harm their health. It must be admitted that the results of the evaluation of the impact of the vaccine on the level of Covid-19 cases in Pekanbaru cannot be guaranteed to provide maximum results. Vaccination aims to increase the immunity of the community. Even though the vaccine has been injected, the community is not guaranteed to be 100% free from Covid-19.

REFERENCES

- Cao, X. (2020). COVID-19: immunopathology and its implications for therapy. Nature Reviews Immunology, 20(5), 269–270. https://doi.org/10.1038/s41577-020-0308-3
- Chadijah, S. (2020). Harmonisasi Kewenangan Penanganan Pandemi Covid-19 Antara Pemerintah Pusat Dan Daerah. Jurnal Kertha Semaya, 8(6), 858–866.
- Harirah Zulfa; Annas Rizaldi. (2020). Merespon Nalar Kebijakan Negara Dalam Menangani Pandemi Covid 19 Di Indonesia. Jurnal Ekonomi Dan Kebijakan Publik Indonesia, 7(1), 36–53. https://doi.org/10.24815/ekapi.v7i1.17370
- Harun, A., & Ananda, D. P. (2021). Analysis of Public Opinion Sentiment About Covid-19 Vaccination in Indonesia Using Naïve Bayes and Decission Tree Analisa Sentimen Opini Publik Tentang Vaksinasi Covid-19 di Indonesia Menggunakan Naïve Bayes dan Decission Tree. 1(April), 58–63.

Imam Gunawan. (2013). Metode Penelitian. Jakarta: Bumi Aksara

Ishak, Difa, C. (2020). Evaluasi Kebijakan Sistem Zonasi Dalam Seleksi Penerimaan

- Peserta Didik Baru (PPDB) Tingkat Sekolah Menengah Atas di Kota Pekanbaru. Nakhoda: Jurnal Ilmu Pemerintahan, 18(2), 92. https://doi.org/10.35967/jipn.v18i2.7829
- Landi, F., Gremese, E., Bernabei, R., Fantoni, M., Gasbarrini, A., Settanni, C. R., Benvenuto, F., Bramato, G., Carfi, A., Ciciarello, F., Lo Monaco, M. R., Martone, A. M., Marzetti, E., Napolitano, C., Pagano, F., Rocchi, S., Rota, E., Salerno, A., Tosato, M., ... Popolla, V. (2020). Post-COVID-19 global health strategies: the need for an interdisciplinary approach. Aging Clinical and Experimental Research, 32(8), 1613–1620. https://doi.org/10.1007/s40520-020-01616-x
- Li, T., Lu, H., & Zhang, W. (2020). Clinical observation and management of COVID-19 patients. Emerging Microbes and Infections, 9(1), 687-690. https://doi.org/10.1080/22221751.2020.1741327
- Makmun, A., & Hazhiyah, S. F. (2020). Tinjauan Terkait Pengembangan Vaksin Covid 19. Molucca Medica, 13, 52–59. https://doi.org/10.30598/molmed.2020.v13.i2.52
- Maulana, S., Supriyono, B., & Hermawan, H. (2013). Evaluasi Penyediaan Layanan Kesehatan di Daerah Pemekaran dengan Metode CIPP (Studi pada Pemerintah Daerah Kabupaten Tana Tidung). WACANA, Jurnal Sosial Dan Humaniora, 16(4), 186-196.
- Mayarni, M. (2020). Kapabilitas Dynamic Governance Pemerintah Kota Pekanbaru Dalam Pemberlakuan New Normal Di Masa Pandemi Covid19. Jurnal Agregasi: Aksi Reformasi Government Dalam Demokrasi, 8(2), 145-167. https://doi.org/10.34010/agregasi.v8i2.3894
- Merta, I. N., & Suderana, I. W. (2020). COVID-19 pandemic handling community social and cultural sector stimulus efforts. International Journal of Social Sciences and Humanities, 4(3), 1–12. https://doi.org/10.29332/ijssh.v4n3.434
- Olivia, S., Gibson, J., & Nasrudin, R. (2020). Indonesia in the Time of Covid-19. Bulletin of Indonesian Economic Studies, 56(2), 143-174. https://doi.org/10.1080/00074918.2020.1798581
- Rahayu, R. N. (2021). Vaksin covid 19 di indonesia: analisis berita hoax. 2(07), 39-49.
- Rahman, Y. A. (2021). Vaksinasi Massal Covid-19 sebagai Sebuah Upaya Masyarakat dalam Melaksanakan Kepatuhan Hukum (Obedience Law). Khazanah Hukum,

- 3(2), 80–86. https://doi.org/10.15575/kh.v3i2.11520
- Silalahi, U. (2006). Metode Penelitian. Jurnal Kebijakan Dan Pengembangan Pendidikan, 216.
- Susilawati, S., Falefi, R., & Purwoko, A. (2020). Impact of COVID-19's Pandemic on the Economy of Indonesia. Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 3(2), 1147-1156. https://doi.org/10.33258/birci.v3i2.954
- Thanh Le, T., Andreadakis, Z., Kumar, A., Gómez Román, R., Tollefsen, S., Saville, M., & Mayhew, S. (2020). The COVID-19 vaccine development landscape. Nature Reviews. Drug Discovery, 19(5), 305-306. https://doi.org/10.1038/d41573-020-00073-5
- Tito handoko, Tua RFS, H., Harirah MS, Z., & Tampubolon, D. (2021). Urgensi Kebijakan Pembatasan Sosial Berskala Mikro (PSBM) Pasca Pembatasan Sosial Berskala Besar (PSBB) Dalam Penanganan Covid 19 Di Kota Pekanbaru Tahun 2020. **KEMUDI:** Jurnal Ilmu Pemerintahan, 6(01), 1-16. https://doi.org/10.31629/kemudi.v6i01.3174