

Are We Ready for COVID-19 Endemic: An Exploration of Problem Faced by Local Government

Suhartono Winoto*, Mujibur Rahman Khairul Muluk, Lestari Eko Wahyudi, Salsabilla Anastasya

Faculty of Administrative Science, Brawijaya University, Malang, Indonesia

Email address:

ewinwinoto@ub.ac.id (Suhartono Winoto)

*Corresponding author

To cite this article:

Suhartono Winoto, Mujibur Rahman Khairul Muluk, Lestari Eko Wahyudi, Salsabilla Anastasya. Are We Ready for COVID-19 Endemic: An Exploration of Problem Faced by Local Government. *Journal of Public Policy and Administration*. Vol. 7, No. 1, 2022, pp. 10-17. doi: 10.11648/j.jppa.20230701.12

Received: December 13, 2022; **Accepted:** January 4, 2023; **Published:** February 4, 2023

Abstract: Currently, the eased of COVID-19 restriction in several countries initiate a hope to the world about living with COVID-19 in the form of endemic phase. The emergence of endemic in public administration overview is lead to the concept of decentralization. Several studies shown the obstacles arise to the policy response of the last COVID-19 management in most of the local government. Therefore, this study is intended to explore the problem faced by Surabaya City as the preparedness of endemic transition. It is a kind of descriptive research that is conducted through a qualitative approach by using semi-structured interviews. This inquiry has been conducted in Surabaya as the capital city of East Java Province with the highest heterogeny population that seems more complex in facing the problem. The finding of this study confirms the problems arise in the transition from pandemic to endemic COVID-19 in Surabaya City. This problem consists of: (1) no legal regulation appropriate; (2) health infrastructure crisis; (3) economic crisis; (4) loss of social work. Our result is expected to contribute as a reference for scholars and organizations that are trying to prepare deeper efforts in their organizations before endemic discourse is officially implemented.

Keywords: Endemic, COVID-19, Local Government Problem

1. Introduction

After extensive research by WHO and the experts in around of 2 years of COVID-19 Pandemic, then WHO (2022) notes that the world will be living with COVID-19 for the foreseeable future. Several countries such as Europe and elsewhere have again taking strict measures to eased COVID-19 restrictions. Defining when exactly the pandemic will end is not easy. Endemic is falsely interpreted as the end of COVID-19, leading to a false complacency. Endemic "label" means the overall rates of infection are static — neither rising nor falling [21]. In response to these situations, Indonesian country and the government are also starting to shift their attention. Therefore, transition for pandemic-to-endemic of COVID-19 could not simply translated into the end of either public or health service.

We can learn the endemic preparedness by countries such as, Singapore who has declared the strategy towards endemicity since 2021, they adopted a middle course by

implementing individual vaccinations while relaxing selected non-pharmaceutical interventions such as the use of face masks, physical distancing through increased social and economic activities including reopening the international travel [2]. Then, Australia was embarking on reopening education, tourism and trade after reaching high vaccination coverage that claimed the most practical exit strategy [26]. Then New Zealand who continues their elimination strategy by using a fourth level alert system as a lockdown and strengthening NPIs such as home isolation and reaching a high coverage of vaccination [3]. And on the other hand, Hong Kong and Indonesia have a similar strategy that uses strict NPIs without implementing lockdown and considering the high coverage of vaccination as an exit strategy.

The used of high vaccination coverage despite of the elimination strategy has been proven as one of the best opportunities to eradicate several infections since 1900 [17, 20, 23, 25]. In fact, Indonesian coverage on November 2022 recorded the first doses vaccination is 87,46%, then the second doses are amount 73,34%, while the third and fourth

doses ongoing vaccination is between 28-47% [22]. During this period, the number of new weekly cases and death in Indonesia have continued declining trend since its peak in January, 2022, i.e. 3% - 11% as compared to previous week. According to Bugalia et al [7] who developed a COVID-19 model of endemic framework, they conclude that if there is no partial or fully lockdown case, then endemic level should be unbelievably high. These circumstances have led to controversy as to whether it has become endemic. Moreover, it can be assumed that Indonesian with a high vaccination coverage is get closer to shift their attention to endemic.

But not all countries of the world are moving at the same pace, it is depended on where we live, it might be worst or almost over. For instance, living in Western Australia is coronavirus free, friends met at public sphere, people kissed and hugged their relatives, and children went to school without temperature checks or masks. Nevertheless, the readiness towards endemic should be well prepared due to different move to one and other countries. Endemic phase may still and often require a robust policy response [24]. While the interesting thing is the majority of Indonesian policy response due to COVID-19 management showed a top down and mandatory mechanism [37]. Unfortunately, this situation does not provide the city authorities with an opportunity to do so. This lack of opportunity in region to implement bottom-up COVID-19 policy response goes against the essence of decentralization from an administrative perspective. In line with previous research by Aziz [4]; Ismail [18] who confirmed that local governments have not been fully empowered in the mechanism COVID-19 crisis management.

Therefore, as an analytical guide to understand this phenomenon, we combined a text mining of Vosviewer to strengthen the data collected, this Vosviewer is performed to assess the research reputation of a large number of units as a basis selected topic, one of the prior reasons is because the individual experts are not capable of handling so much information in a single evaluation procedure [6]. To a certain degree, Vosviewer is described as a method for seeing how network visualization, overlay visualization, density visualization and exploration from the corpus on documents who has the power to interrelate or represented issues in large numbers [30], and also these tools can systematically estimate the trends of future research hotspots [31].

There are a few published studies about COVID-19 endemic combining bibliometric to explore the activity and trends [5, 10, 13-15, 36]. Most of the previous research was used a medical and mathematical approach, while the emerging of endemic inseparable from the social approach and local government as an actor and policy maker, The qualitative approach allows for an in-depth exploration of respondents and captures what they are less aware of or even unconscious of. Yet, no recent scientific of COVID-19 capturing problem arise due to endemic COVID-19 or the readiness was reported. Given the importance meaning, this paper aims to answer the following question: what are the Local Government problems in facing endemic COVID-19 transition discourse, and what the solutions provided to overcome it. Thus, this study aims to explore the problems arise

of local government response for endemic preparedness and provide a reference for later research on endemic situation.

2. Literature Review

The term of endemic was used first by Swaroop [34] regarding the infectious disease, he stated it's about the duration of time, or number of years to get calculate the endemic index. Yet his study did not put forward any mathematical equation on how clearly describing what the endemic means. Otherwise, Cascon & Shadwick [9] on their study about forecasting COVID-19 endemic disease argued that if the transition growth is a linear growth, that is an indication of becoming an endemic. On the other hand, endemic refers to either continued presence or normal prevalence of an infectious disease in population within a geographic area [19].

This geographical area refers to the population under the capacity of local government. Through public administration approach, this phenomenon of endemic is in line with decentralization. In principle, decentralization is closely related to centralization, but in the implementation, they complement each other as ways of shaping national goals [28]. Therefore, in this case, referring to the operational definitions of endemic and decentralization in public administration overview, it would be more appropriate for local governments implement policy responses to endemic diseases from the bottom-up approach.

Research on the pandemic shifting to endemic was also carried out by Hanifah & Siregar [16], their research shows that there is not yet apparent shifting from the pandemic to endemic, their study is gathered from the learning lesson from several countries with presented pros and cons regarding the issues. Their study showed community's health resilience as world and Indonesian challenge in the further endemic situation. Adepoju [1] examines the preparing for endemic COVID-19 should be integrating the testing and treatment into existing health infrastructure, his study presents a funding gap in preparing this endemic. This study enriches our overview in this paper and has specifically shows a lack of public health laws. His research can be further improved by capturing the policy maker strategies and policy response through multidisciplinary approach.

Phillips [30] examine the endemic of coronavirus that should be less danger overtime. This research highlighted if people are reinfected, this might not be a big deal. Instead of living safely with COVID-19, some of the studies also highlighted the challenges during this transition. Moreover, Burris et al [8] confirmed that the COVID-19 lead to inadequate laws and policies during its implementation, his study found a challenges of the existing legal gaps due to pandemic, in a more detailed look, we can argue does it will happen in endemic phase? What about the legal response toward COVID-19 endemic. In order to get a trajectory of future trend, we also presented a VOSviewer bibliometric overview to strengthen our paper.

Additionally, this circumstance is still lead to the economic and social problem [10]. Studies shows that the economic impact of the COVID-19 pandemic has been linked to the looming global recession due to the non-essential industries

restriction and disruptions to production or supply chains [12]. While the social consequence is tended to the way of people reacted to the crisis (e.g., radical reaction, violence practice, and the worst one is depression), it is all due to the strict restriction of social contact and lockdown period almost 2 years poses by COVID-19 [27, 35]. On the other hand, Ogueji et al [29] also confirm the need for positive coping strategies may serve as a protective factor in order to minimize the pandemic's negative mental and physical health effects. But the studies shown above only capture on the first response problems in a first and second wave of pandemic, there is a risk that all the respondents of those studies came from the similar background. Besides, the studies shown that public health should integrating the testing and treatment into existing health infrastructure in order to prepare the endemic on the local area [1].

3. Methods

This study uses qualitative approach with descriptive research type in order to analyze and to explore the problems arise of local government response for endemic preparedness. This study has been conducted in Surabaya City it is because the vaccination coverage of Surabaya is the highest in East Java Province with the third dose coverage of 43,14% as compared to other cities in the same province. Additionally, Surabaya as the capital city of East Java Province that seems more complex in facing the problem due to the highest heterogeny population. While the primary data in this study were gathered through a set of deep interviews toward some identified key informants in some institutions as follows: Regional Disaster Relief Agency, Health Office, Social Office, City Development Planning Agency. In a more detailed look, the interviews were conducted between August 29th – September 2nd, 2022, within the average of an hour.

Interviewees were informed about the study's purpose and accepted to be recorded for transcript purposes only. They were agreed to be mentioned as interviewees in this paper for the purposes of this study. We have followed international standards and practice in designing and implementing our processing gathered data. An informed consent was requested as a prior interview implementation to record the conversation and to report publicly their posts, it is due to a valid practice in the case of elite interviews [11].

In order to strengthen the collected data, we also added the text mining through VOSviewer 1.6.11 (Leiden University), this tool give us visualization and exploration regarding the interrelated power on the endemic COVID-19 issues to support our finding. We searched through the Crossref of Publish or Perish software, included articles, articles in press, reviews, short surveys, conference, and conference paper or abstract about the endemic COVID-19 in the last two years. To avoid bias caused by frequent database renewal, we completed all the literature retrieval and data downloaded in a single day, November 15, 2022. While the search term was "Endemic COVID-19". A total of 992 articles were recorded and saved in a RIS (Research Information System) format. Then the data that has been determined were analyze through VOSViewer software.

The standardization was performed manually by the author [14, 32]. The interpretation of the generated visualization maps was based on three characterized: size, distance and color [33]. Node indicate a specific element (i.e., keywords) while the node size means the frequency of publication [14]. The larger threshold indicates more times occurrences while the smaller one indicates the less occurrences. The link between nodes indicates that they were connected, while the distance in two terms means affinity and sparsity of the relationship. Thus, it can conclude that the smaller line, the closer relationship is and vice versa. Additionally, each color is representing the clusters.

4. Result and Discussion

4.1. Local Government Problems in Facing Endemic COVID-19 Transition Discourse

Challenge 1- no legal regulation appropriate. The first major challenge of the COVID-19 endemic transition is the ambiguity of regarding the official regulation either from the Central Government or Local Government. In fact, this lack of regulation is an institutional problem for most of our respondents. The regulation currently used is based on the Instruction of the Minister of Home Affairs Number 2 of 2022, which regulates the implementation of community restriction under the first level category of Surabaya City.

".... Thus far there has been no epidemic circular latter from the provincial government, but the initial problem was the first phase management earlier, but over time it could be resolve (Health Office at October 22, 2022)"

Similar tone of information also conveyed:

".... Thus far, if they have not provided endemic statements, well, we have not followed up yet. So, if we should extend the certain restrictions, such as keep wearing mask. Absolutely, we comply with the above policy. This situation also instructs our staff to continue a health protocol in accordance to mayor's circular letter, which is under first level that should be keep using masks that related to the guidelines and other existing policies (City Development Planning Agency at September 02, 2022)"

Moreover, the health office added:

".... We are not creating our own policies so our guidelines are from the Ministry of Health, we refer to the technical guideline and regulation of ministry of home affairs to them, then we immediately implement it (Health Office at October 22, 2022)"

Ways of dealing. The interesting phenomenon during this period is that they already collaborate with the academic sector through optimizing Pentahelix model in order to address the endemic while waited the regulatory updated. In addition, Surabaya City keep strict on the monitoring and supervision regarding those issues.

".... Yes, we are actually collaborating with the whole apparatus, e.g., we participated the sweeping programs (City Development Planning Agency at September 02, 2022)"

Furthermore, they added:

“.... In any problem solved, we always collaborate with the academic sector as usually within 3 months, or the fastest 6 months to a year (City Development Planning Agency at September 02, 2022)”

Challenge 2 – necessary to strengthen the health infrastructure. Health infrastructure play an important role related to either COVID-19 pandemic or endemic. Not only in terms of infrastructure but also ensure the health care workers.

“.... We have started to focus on Puskesmas as a primary health service to a preventive activity. After that we will forward it to our coordination areas to carry out testing and vaccination (Health Office at October 22, 2022)”

“.... Through this endemic period, we need to start a better health care and medical services also to fix them even we recover from pandemic. We will also build a hospital where we only had 2 existing regional hospitals. We hope there could be hospitals in every corner of Surabaya, not just in puskesmas. Although currently puskesmas can be used as inpatient bed, so there will be a large hospital and massive health improvement (City Development Planning Agency at September 02, 2022)”

The information above envisages that Surabaya City Development Planning Agency as a regional apparatus has an important role in managing this transition, however the parties involved are interrelated to one another through various efforts. On this occasion, the current focus is to increase and strengthen health services towards endemic preparedness.

Challenge 3- Economic Crisis. This economic recovery became the main focus of the all respondents after massive vaccination and health improvement programs. A rapid economic recovery actually accelerates the recovery over various sector such as increasing the Surabaya people welfare.

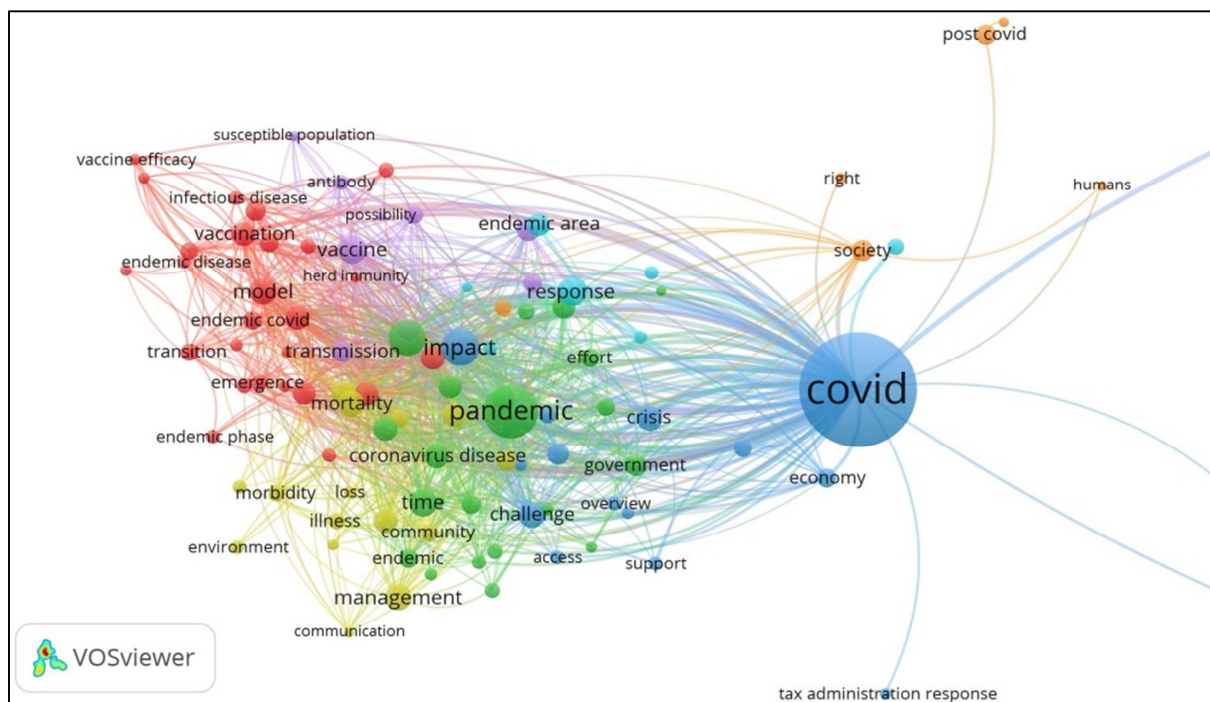
“.... We must quickly intensify this economic recovery in Surabaya, because during pandemic, the economy in Surabaya had minus 4. 8 in 2020. Besides that, after all the residents have been vaccinated, we will focus on economic recovery. Now, the immunity of Surabaya residents is 99% vaccinated, if there is a new variant of the virus, etc. We believe to handle it (City Development Planning Agency at September 02, 2022)”

Challenge 4 – loss of social work. Social office is tasked to assist the mayor in various social activities, one of them is providing capital assistance and training due to the pandemic impact gave a decreasing line of economic growth.

“.... Those people who are not yet working will be searched by those with social problems, all the PMKS and poor people are recorded and collected as priorities and sorted to be help. Meanwhile, those efforts including training and lessen the consumptive behavior by deliver a basic need but this is replaced by give them a better training. (Social Office at August 30, 2022).

4.2. Network Visualization Regarding Endemic COVID-19

The VOSviewer demonstrates there are 103 nodes and 2293 links in a total link strength of 6972 that are interconnected into a single bond network. Based on the 103 keywords that appear more than ten times, they are classified into 9 clusters: cluster 1 (model about endemic transition, in red); cluster 2 (pandemic strategy, in green); cluster 3 (Covid impact, in blue); cluster 4 (management mortality, in yellow); cluster 5 (Vaccine, in purple); cluster 6 (response of the endemic area, in bright blue); cluster 7 (post covid in orange); cluster 8 (social work, in brown); cluster 9 (legal response in pink). The detailed can be seen in the following figure:

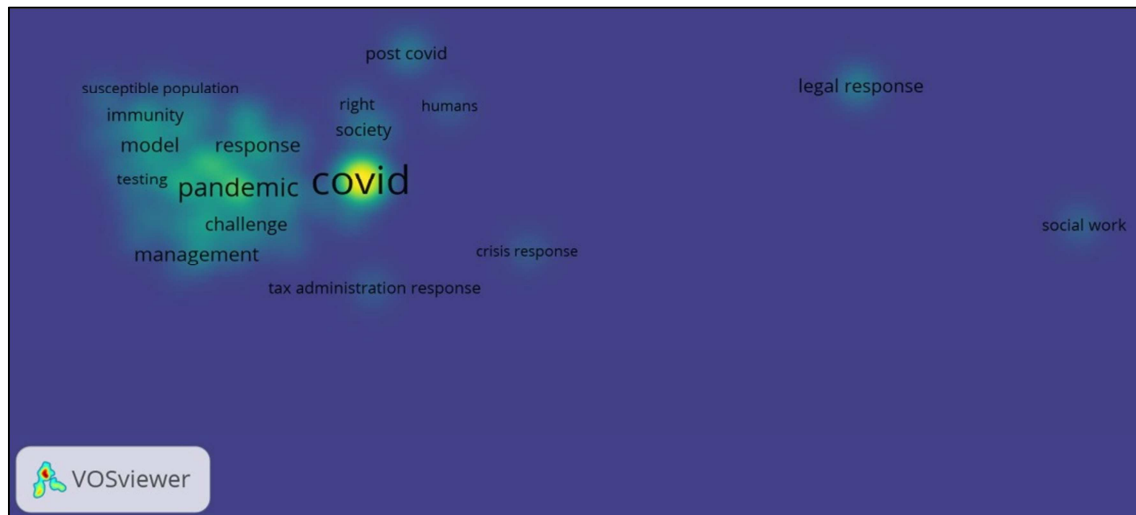


Source: Author/ Research Output (2022)

Figure 1. Network Visualization Map.

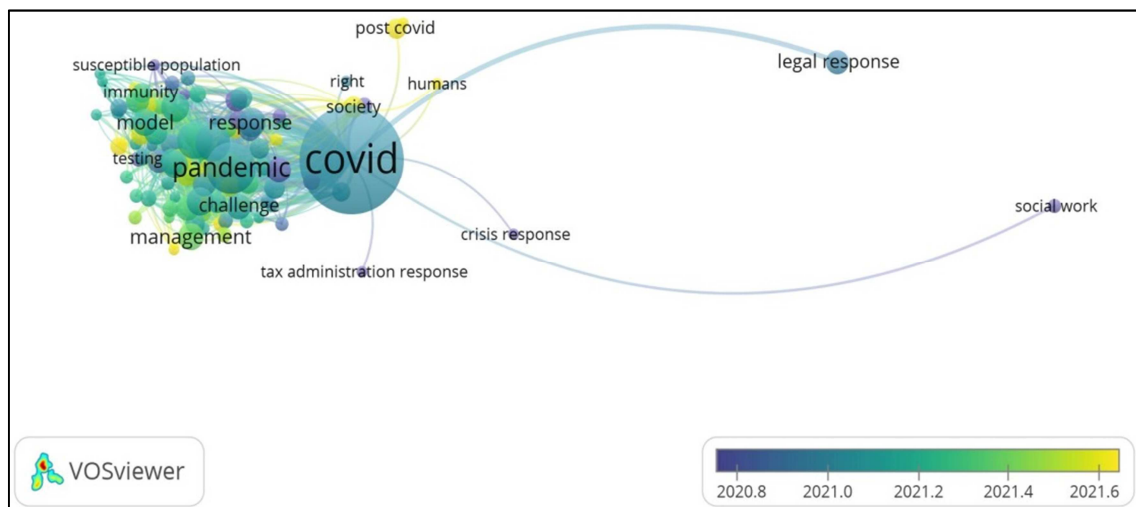
The COVID-19 is the most highlighted discussion among scholars. Yet the endemic phase is rarely discussed but it is firstly discussed about post covid that demanded a right for human and society (i.e., coronavirus free, eased of physical distancing, bring it back of social life, etc.). Legal response, social work, crisis response, model, is necessary to ensure that

this readiness is well prepare to manage the endemic phase. Another concern is that there is still gap of knowledge regarding the endemic itself, because it is unclear which problem faced (i.e., legal response, social work, crisis response) will be required by Surabaya City to deal with the COVID-19 endemic transition.



Source: Author/ Research Output (2022)

Figure 2. Density Visualization Map.



Source: Author/ Research Output (2022)

Figure 3. Overlay Visualization Map.

In order to completing the information, we presented the density and overlay visualization, circles with a large size represent the high frequency appeared. The following keywords frequently appeared based on cluster 1: condition, consequence, death rate, dynamic, emergence, endemic phase, herd immunity, transition, model, vaccine efficacy; cluster 2: coronavirus disease, government, hospitality, health system, pandemic, strategy; cluster 3: challenge, covid, impact, crisis, policy response; cluster 4: community, death, life, management, mortality; cluster 5: evidence, region,

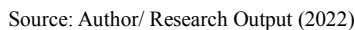
transmission, vaccine; cluster 6: endemic area, response; cluster 7: lockdown, post covid, society; economic, cluster 8: social work; cluster 9: legal response.

The following Figure 2 presented the depth of research regarding COVID-19, it can be seen that the brighteners' color is COVID-19 it means that most of the scholars is discussed about these issues frequently in the last two years. While the legal response, social work, crisis response, as a challenged faced in a post covid or endemic transition is infrequently discussed in previous literature.

transition. Thus, it does not lead into a mandatory mechanism anymore as confirmed by Aziz et al, Ismail and Winoto [4, 18, 37]. If the regulation is going well, it will adequately empower the local governments during crisis management in the principle of decentralization.

On the other hand, economic crisis is also a problem that mentioned 17 times in data visualization, but it's not as frequently as the other word networks. This economic problem is also shown in Fernandes [12] studies related how people react on this crisis. Interestingly, the apparatus of Surabaya City can be classified responsive this is because of how they deal with this economic problem quickly. The economic recovery that carried out by the Surabaya City government is massively based on the community economy or locally known as '*ekonomi kerakyatan*'. This strategy used in order to optimizing and empowering MSMEs through the e-peken applications. This e-peken application is believed to spearhead the economic recovery of those society in Surabaya City.

Furthermore, social work also appears as the last issue in visual data through cluster 8 that can be seen in the Figure 3, which in fact this actually occurs during the endemic transition and pandemic. Similar studier by McBride et al [27]; Van Lancker [35]; and Ogueji et al [29] who confirm the consequences of social problems during pandemic. However, Surabaya government took a quick effort by learning from pandemic situation, they collected the social welfare people and the affected of poor people to be prioritized in social office. Those people were assisted through training and empowerment programs (e.g., labor-intensive catfish; farming house of hydroponics) or the other facilities of work field (e.g., car wash, motorcycle wash, café, salon, etc.).



As presented in a Figure 4 of the colors and fonts in word cloud showed the more frequent words in COVID-19 endemic transition. The larger of the font size is the higher is the frequency. It can be observed that the main focus is response, endemic, disease, weigh, and crisis.

There should be enforcement and confirmation of regional regulations. From this standpoint, we need more adequate policy and regulation regarding this issue, it should be in line with Klobuscisa [24] who confirmed that endemic phase may still and often require a robust policy response. Moreover, this legal regulation become a backbone for the regional apparatus to strengthen the bottom-up policy response for endemic

5. Conclusion

COVID-19 endemic implementation is expected by Indonesian society in all sectors of, although the implementation requires careful bottom-up preparation by local governments. The collaboration between apparatuses in Surabaya has demonstrated the preparedness of the Surabaya

City government in facing endemic discourse, they were aligning the programs to be more adapt to subsequent risks in a future. This study confirms the problems arise in the transition from pandemic to endemic COVID-19. This problem is: (1) no legal regulation appropriate; (2) health infrastructure crisis; (3) economic crisis; (4) loss of social work. However, Surabaya's government and the apparatus are fairly responsive, innovative and supportive in addressing various existing issues. Here we conclude their strategy to overcome the problems from Regional Disaster Relief Agency who strictly supervise the implementation of health protocols in accordance with current regulations. The City Development Planning Agency that coordinates the apparatus under their responsibility to ensure a better planning and budgeting related to COVID-19, then Health Office as the main executor is socializing to prevent a widespread transmission by promoting the vaccination program. Finally, the Social Office that provides financial support and training to those of affected people by COVID-19 infection.

The used of data visualization was limited to amplifying the data from the interview results. Given that the discourse of endemic disease is not fully implemented in Indonesia, the limited literature on endemic preparedness research presents a challenge for the authors. Therefore, future research is needed to elaborates on endemic implementation models both qualitatively and quantitatively that capture the more stakeholders involved in a wider scope.

Acknowledgements

We would like to thank Akil Fitra Sholakudin, Ima Kumalasari, Gita Zulfie Ramadhan who contribute to our manuscript. We also would like to thank the editorial team and reviewer for their comment and suggestions.

References

- [1] Adepoju, P. (2022). Africa Prepares for Endemic COVID-19. *Nature Medicine*.
- [2] Ameratunga, S., George, A. (2021). Navigating from SARS-CoV-2 elimination to endemicity. *TheLancet*. DOI: [https://doi.org/10.1016/S0140-6736\(21\)02186-3](https://doi.org/10.1016/S0140-6736(21)02186-3).
- [3] Ardern, J. (2021). Government set out plan to reconnect New Zealanders to the world. *The Beehive*. <https://www.beehive.govt.nz/release/government-sets-out-plan-reconnect-new-zealanders-world> (accessed Nov 18, 2022).
- [4] Aziz, N. L. L., Zuhro, R. S., Maulana, Y., Rahmiati, D. (2021). Pola Relasi Pusat dan Daerah Era Pandemi COVID-19. *Jurnal Penelitian Politik*. 18 (1).
- [5] Bonilla-Aldana, D. K., Quintero-Rada, K., Montoya-Posada, J. P. (2020). SARS-CoV, MERS-CoV and now the 2019-novel CoV: Have we investigated enough about coronaviruses? – a bibliometric analysis. *Travel Med Infect Dis*, 33 (2020), p. 101566.
- [6] Bornmann L, Leydesdorff L. (2014). Scientometrics in a changing research landscape: bibliometrics has become an integral part of research quality evaluation and has been changing the practice of research. *EMBO Rep*. 15: 1228-1232.
- [7] Bugalia, S., Bajiya, V. P., Tripathi, J. P., Li, M. T., Sun, G. Q. (2020). Mathematical modelling of COVID-19 transmission: the roles of intervention strategies and lockdown. *Mathematical Biosciences and Engineering*. 17 (5), pp. 5961-5986.
- [8] Burris, Scott JD; de Guia, Sarah JD; Gable, Lance JD, MPH; Levin, Donna JD; Parmet, Wendy E. JD; Terry, Nicolas P. LLM. (2021). The Legal Response to COVID-19: Legal Pathways to a More Effective and Equitable Response. *Journal of Public Health Management and Practice*. 27 (1), p S72-S79 doi: 10.1097/PHH.0000000000001277.
- [9] Cascon, A., Shadwick, W. F. (2021). Predicting the course of COVID-19 and other epidemic and endemic disease. *MedRxiv*. doi: <https://doi.org/10.1101/2021.12.26.21268419>
- [10] Dehghanbanadaki H, Seif F, Vahidi Y, Razi F, Hashemi E, Khoshmirsafa M, Aazami H. (2020). Bibliometric analysis of global scientific research on Coronavirus (COVID-19). *Med J Islam Repub Iran*. 34: 51. <https://doi.org/10.34171/mjiri.34.51>
- [11] Ellersgaard, C., Ditlevsen, K., Larsen, A. G. (2021). Say my name? Anonymity or not in elite interviewing. *International Journal of Social Research Methodology*. 25 (19). 1-14. DOI: 10.1080/13645579.2021.1932717.
- [12] Fernandes N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. *IESE Business School Working Paper No. WP-1240-E*.
- [13] Farooq, R. K., Rehman, S. U., Ashiq, M., Siddique, N., Ahmad, S. (2021). Bibliometric analysis of coronavirus disease (COVID-19) literature published in Web of Science 2019–2020. *Journal of Family Community Med*. 28 (1): 1–7. doi: 10.4103/jfcm.JFCM_332_20.
- [14] Gao Y, Ge L, Shi S, Sun Y, Liu M, Wang B, Shang Y, Wu J, Tian J. Global trends and future prospects of e-waste research: a bibliometric analysis. *Environ Sci Pollut Res Int*. 2019; 26: 17809-17820.
- [15] Hamidah, I., Sriyono, Hudha, M. N. (2020). A Bibliometric Analysis Of COVID-19 Research Using Vosviewer. *Indonesian Journal of Science and Technology*; 5 (2): 34-41.
- [16] Hanifah, L., Siregar, K. N. (2022). Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal). 17 (1): 4-10. DOI: 10.21109/kesmas. v17i2.6006.
- [17] Henderson, M, Bragg, A., Fahim, G., Shah, M., Hermes-DeSantis, E. M. (2017). A review of the safety and efficacy of vaccines as prophylaxis for clostridium difficile infections. *Vaccines*, 5 (3): 25.
- [18] Ismail, G. (2020). Implementasi Otonomi Daerah dalam Penanganan COVID-19. *Jurnal Kajian Lemhannas RI*. 8 (3).
- [19] Kalra S, Kumar A, Jarhyan P, Unnikrishnan AG. (2015). Endemic or epidemic? Measuring the endemicity index of diabetes. *Indian Journal of Endocrinology and Metabolism*. 19 (1). 5-7. DOI: 10.4103/2230-8210.144633.
- [20] Kash, N., Lee, M. A., Kolipara, R., Downing, C., Guidry, J., Tying, S. K. (2015). Safety and efficacy data on vaccines and immunization to human papillomavirus. *Journal of clinical medicine*, 4 (4): 614–633.

- [21] Katzuorakis, A. (2022). COVID-19: endemic doesn't mean harmless. *Nature*. 601 (485). Doi: <https://doi.org/10.1038/d41586-022-00155-x>
- [22] Kemkes RI. (2022). Vaksinasi COVID-19 Nasional. <https://vaksin.kemkes.go.id/vaccines> (Accessed: November 18, 2022).
- [23] Klinman, D. M., Takeno, M., Ichino, M., Gu, M., Yamshchikov, G., Mor, G., Conover, J. (1997). Dna vaccines: safety and efficacy issues. In Springer seminars in immunopathology, volume 19, pages 245–256. Springer.
- [24] Klobucista, C. (2022, November 14). When will COVID-19 Become Endemic? Council on Foreign Relations. <https://www.cfr.org/in-brief/when-will-COVID-19-become-endemic>
- [25] Krause, P. R., Gruber, M. F. (2020). Emergency use authorization of covid vaccines—safety and efficacy follow-up considerations. *New England Journal of Medicine*, 383 (19): e107.
- [26] Lim, G., Nguyen, V., Robinson, T., Tsiaplias S., Wang, J. (2021). The Australian economy in 2020-21: The COVID-19 pandemic and prospects for economic recovery. *Aus Econ Rev*. 54.
- [27] McBride O, Murphy J, Shevlin M, Gibson-Miller J, Hartman TK, Hyland P, et al. Monitoring the psychological, social, and economic impact of the COVID-19 pandemic in the population: Context, design and conduct of the longitudinal COVID-19 psychological research consortium (C19PRC) study. *Int J Methods Psychiatr Res*. 2020 Nov 9; 1–16. pmid: 33166018.
- [28] Muluk, M. R. (2009). Peta Konsep Desentralisasi dan Pemerintahan Daerah. ITS Press.
- [29] Ogueji IA, Okoloba MM, Demoko Ceccaldi BMD. (2021). Coping strategies of individuals in the United Kingdom during the COVID-19 pandemic. *Curr Psychol*. Jan 3; 1. pmid: 33424202.
- [30] Phillips, N. (2021). The coronavirus is here to stay — here's what that means. *Nature*, 590 (7846), 382–384. doi: 10.1038/d41586-021-00396-2.
- [31] Qiu Y, Yang W, Wang Q, Yan S, Li B, Zhai X. (2018). Osteoporosis in postmenopausal women in this decade: a bibliometric assessment of current research and future hotspots. *Arch Osteoporos*. 13: 121.
- [32] Romero L, Portillo-Salido E. (2019). Trends in sigma-1 receptor research: a 25-year bibliometric analysis. *Front Pharmacol*. 10: 564.
- [33] Shi S, Gao Y, Liu M, Bu Y, Wu J, Tian J, Zhang J. (2020). Top 100 most-cited articles on exosomes in the field of cancer: a bibliometric analysis and evidence mapping. *Clin Exp Med*. doi: 10.1007/s10238-020-00624-5.
- [34] Swaroop S. (1957). Index of endemicity. *Bull World Health Organ*. 16: 1083-101.
- [35] Van Lancker W, Parolin Z. COVID-19, school closures, and child poverty: a social crisis in the making. *Lancet Public Health*. 2020 Apr 7; 5 (5): e243–4. pmid: 32275858.
- [36] Wang, P., Tian, D. (2021). Bibliometric analysis of global scientific research on COVID-19. *Journal of Biosafety and Biosecurity*. 3 (1), pp 4-9. <https://doi.org/10.1016/j.jobbb.2020.12.002>
- [37] Winoto, S. (2021). Policy Responses on COVID-19 Pandemic. Proceedings of 3 rd Annual International Conference on Public and Business Administration (AICoBPA 2020). Atlantis Press. Doi: <https://doi.org/10.2991/aebmr.k.210928.070>