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To cite this article: Jamaluddin Ahmad *et al* 2022 *IOP Conf. Ser.: Earth Environ. Sci.* **1105** 012018

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COVID-19 Vaccination Policy: A Study on Street Level Bureaucracy and Local Government

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Abstract. The explain relationship between health workers and local governments, to accelerate vaccination and its consequences for achieving Herd immunity in Indonesia. This article describes how local governments and street-level bureaucracies support the implementation of policies to accelerate COVID-19 vaccination. This research is based on the cluster analysis feature and the word frequency analysis feature on the NVivo-12 software based on reliable online news data. The results show that health workers and local governments place stigma and the front line, equipment support, and protection as dominant factors in implementing vaccination policies. Likewise, the community has a relative advantage after getting coordination, communication, and education about the benefits of vaccination. From an online media perspective, the implication is to offer insight into the unique dynamics between street-level bureaucrats and local government. It also allows us to investigate its contribution to policy outcomes as applied at the street level.

Keywords: Vaccination, Herd immunity, COVID-19, Local governments, Street-level bureaucracy.

1. Introduction

Implementing the COVID-19 vaccination acceleration program is one way for the governments of countries worldwide to overcome an unprecedented global health crisis. The World Health Organization (WHO) has, among other things, established key indicators to measure progress on a COVID-19 vaccine. The vaccination rate indicator is the percentage of vaccination or the proportion of people vaccinated with a certain vaccine dose within a certain period of time and the percentage of vaccination coverage or the proportion vaccinated from the target population [1]. The health service indicator determines the vaccination rate indicator. WHO established seven health care indicators during the COVID-19 pandemic: availability of street-level bureaucracy; service; supporting infrastructure; health protection during service delivery; public satisfaction; stakeholder engagement; and bureaucratic compliance with bureaucratic duties and responsibilities. Therefore, specifically for vaccination services, WHO recommends that vaccination implementers come from various skills such as community nurses/colleagues, community health workers, pharmacist assistants, community mobilizers, supply chain management personnel, and others [1]. This community is called the street-level bureaucracy.

Similarly, implementers of vaccines or vaccinators in Indonesia are general practitioners, specialist doctors, nurses, and midwives who are competent because they have been previously trained [2]. They are called street bureaucrats because they deal directly with the population to provide the necessary vaccination services [3]. They work to provide services to citizens, working directly with service recipients [4]. However, they work full of limitations, usually working in critical situations of lack of resources, high workload, uncertainty, and high ambiguity [5]. So that street bureaucrats need local level policy support to overcome limitations and high workloads. Indonesia has a target of herd immunity for Covid-19 vaccination as many as 208,265,720 inhabitants. There are four groups:



medical personnel, public servants and the elderly, people in areas with high COVID-19 cases, and the general public, needs to be accelerated.

2. Literature Review

Street Level Bureaucrats or frontline workers are involved in policy implementation who interact directly with citizens to provide services [3]. In times of crisis, street-level bureaucrats have crisis implications for implementing public policies as the operational arm of the state, serving at the forefront of crisis management [6]. They carry out work located far from the centre of political power and close to service users and citizens. Because they are policy implementers, are at the forefront of services, and far from the centre of political decision-making, all the consequences of citizen reactions are their responsibility.

The number of demands and expectations from the state and citizens at the street level of bureaucrats and local governments, when faced with limited resources always there, is attached to the street level bureaucracy. Street-level bureaucrats and local government sometimes get stigmatized in services that contribute to poor service; stigma plays an important role in attribution that is looking at certain policy solutions to the epidemic [7]. The conceptualization of stigma describes it as a “highly discredited attribute”. Stigma reflects a tainted actor's highly discredited and pampered identity and signals others to keep their distance [8].

Diffusion of Innovation Theory argues that individual adoption decisions are influenced by several, namely relative advantage, compatibility, complexity, trialability, and observability [9]–[11]. Relative advantage is that people accept innovation because of their relative advantages, compatibility, conformity with existing values, complexity, uncomplicated performance procedures, trialability, trials with experience, and observability, namely that people can monitor their condition innovate [9], [11].

Therefore, local governments and health workers need to pay serious attention when carrying out vaccinations to avoid complicated procedures. Fourth, Trialability is an indirect experience [11], namely when witnessing what happened to the recipient of the first stage of the vaccine. In this case, the community will have two experiences. Direct reporting when President Joko Widodo, celebrities, and public figures are vaccinated is one way to increase trialability. Communication programs need to be continuously rolled out as long as the vaccination program is running.

3. Methods

This article aims to determine how health workers and local governments carry out vaccinations and what factors are the preferences of the community to assist health workers and local governments in accelerating vaccination? To achieve this, we focus on analyzing data obtained through online media coverage of the role of health workers and local governments in vaccination services during the COVID-19 pandemic in Indonesia. Data analysis used the cluster analysis feature and the word frequency analysis feature to obtain correlation data between the concepts that were the focus of the research. Correlation between health workers and local government with services, frontline staff, obligations, stigma, service infrastructure, and health protection and involvement. The correlation data is used to explain the relationship between each indicator that affects the implementation of the vaccination program policy.

Data was collected from the first stage of vaccination, namely January 2021 to April 2021, in trusted online media data. The stages of online media data analysis in this research are as follows [12]. First, the researcher determines the online media that is the object of analysis, where the researcher determines the names of the dominant media reporting on health workers and the role of local governments in providing vaccination services during the COVID-19 pandemic in Indonesia. Second, researchers collect data on online media content that is the object of analysis. The online media data collection of this research was carried out using the NVivo 12 software, which requires researchers to filter, select, and categorize the data obtained through data analysis software. Third, categorization and analysis of data from each online media. The stages of categorization and data analysis resulted in conclusions that answered the research questions. The limitation of this study is the use of research data focused on online media coverage. Further research should use an online media data triangulation analysis approach, interviews, observations, and surveys.

4. Result and Discussion

Based on the NVivo 12 cluster analysis, this study reveals that the street level of the bureaucracy and local government is directly correlated with seven indicators of health service standards for handling COVID-19, namely the front line, stigma, services, tasks, equipment support, protection, and engagement. The direct relationship between the street level of the bureaucracy and the local government with the seven health indicators confirms that the street level of the bureaucracy and local governments that carry out their duties and functions cannot be separated from these seven indicators, which also confirms that the performance of the street level of the bureaucracy in the implementation of vaccination program policies during the COVID-19 pandemic. Determined and influenced by the seven indicators.

The grouping by word similarity in Figure 1 describes the relationship between each case and the indicator, and the relationship with the relationship line can indicate a high or low value. Street-level case bureaucrats have the highest relationship with the value of front-line support (0.75). The front-line scoring explains that the essential function of health workers is to be at the forefront in implementing the COVID-19 vaccination program policy. However, health workers also had a stigma score (0.73), especially doubting the vaccine's safety, unsure of its effectiveness, and fearing the side effects caused by vaccination. The service score (0.69) is in vaccination and health promotion regarding the importance of vaccination. Equipment support scores (0.67), protection (0.49) and engagement (0.34). The government, namely local governments have the highest relationship on equipment support scores (0.70) in the form of certainty of budget support in the Regional Revenue and Expenditure Budget (RREB) document, logistics, transportation, and storage warehouses. The protection score (0.65) is in the form of safety, the frontline score (0.53) is the provision of health workers, and the engagement score (0.53) is socialization to the community and post-vaccination monitoring. The service score (0.48) is in the form of a vaccination service place, and the stigma score (0.46) has a low score compared to other indicators.

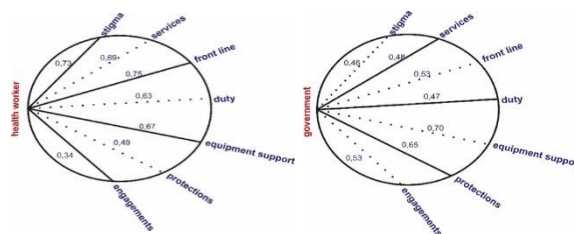


Figure 1. Relation Between Health Worker and Government, Classified Using Pearson Correlation Coefficient

Based on the data above, the handling of COVID-19 vaccination is largely responsible for health workers and local governments. They have high cohesion with indicators of handling COVID-19 in Indonesia (see Pearson's scoring correlation coefficient) in Table 1. Referring to the view that street-level bureaucrats or frontline workers are involved in policy implementation who interact directly with citizens [3]. Similarly, local governments have the authority to allocate budgets in the context of policies related to public services.

This finding confirms that the local government's preference for street bureaucrats is dominant on the front line, stigma, and equipment support. This front-line concept is related to the implications of the crisis on implementation at the street level [6]. The COVID-19 crisis has put local governments facing huge losses in revenue and increased spending. This crisis has harmed health conditions, social life, and economic business conditions [13]. In the context of public policy, street bureaucrats as the front line have long been seen as key figures in the implementation of programs and policies. The front line is not because they work directly to service recipients [4]. Table 1 also places indicator services with a value of 0.69. In contrast to the service concept, the front line often occupies a unique position that includes executive, legislative, and judicial functions. They become implementers, become decision-makers, and become justice enforcers in implementing policies to accelerate the COVID-19 vaccination program.

Table 1. Relation Between seven Indicators with Health Worker and Government

No	Case	Indicators	Person Correlation Coefficient
1	Health Worker	front line	0,750067
		stigma	0,734943
		services	0,696306
		equipment support	0,673799
		duty	0,635786
		protections	0,498319
		engagements	0,341149
2	Local Government	equipment support	0,706531
		protections	0,656388
		engagements	0,537741
		front Line	0,531387
		services	0,487808
		stigma	0,466154
		duty	0,473336

Similarly, the data in Figure 1, local government and street bureaucrats as a stigma. Stigma against health workers and health offices as representatives of local governments in Indonesia. Health workers and health offices as institutions that are very interested in the policy of the COVID-19 vaccination program. Stigma is an accepted social attitude that they get the wrong view of the vaccination program [14]. Health-related stigma is defined as a “negative association” [15]. Accelerated vaccine development has led to hesitancy [14], and fear of unknown infections, public health mistrust, and doubt [18].

Likewise, in the form of funding for the implementation of vaccination, the ministerial regulation is charged to the Regional Revenue and Expenditure Budget. The authority to use regional finance lies with the regional government itself. The implementation of regulations related to funding by local governments is determined by the local government itself [19]. Like the Federal Government assumes responsibilities related to intergovernmental social care policies [3]. In public administration theory, it is called fiscal decentralization, namely the delegation of financial authority and/or responsibility from higher levels of government to lower levels. In particular, fiscal decentralization assumes that local governments have the autonomy to finance their expenditures with little or no central government intervention [20]. Administrative decentralization redistributes authority, responsibility, and financial resources to provide public services. For Indonesia, financial decentralization encourages regional development from the ground up by providing greater flexibility to local governments in determining more aspirational programs for the benefit of the community and regional and regional development goals [21].

Local governments are responsible for distributing vaccines, so that local governments have responsibility for funding related to vaccine distribution. Indonesia's territory is so vast that it consists of several islands separated by oceans, so a special strategy is needed to ensure the safe delivery of vaccines. This condition requires a budget policy from the local government. The policy of allocating a budget and ensuring material conditions are necessary to enable a safe COVID-19 situation [5]. Payment regulation policy [22] to the street level of the vaccination administration bureaucracy [3].

The vaccination policy has been decided through concerning the Acceleration of the Implementation of Covid-19 Vaccination through Vaccination Service Post Activities and Optimizing the Vertical Technical Implementation Unit of the Ministry of Health. First, all parties need to synergize and collaborate to accelerate the national vaccination program so that group immunity can be achieved immediately. Second, the acceleration of Covid-19 vaccination can be carried out through vaccination service post activities and in collaboration with the army, police, community organizations, Technical Implementation Units, hospitals, community health centres, and universities. Health workers and local governments provide services to all targets regardless of domicile or residence on the Identity Card. According to the health minister:

"Regional heads have an important role in the successful implementation of the Covid-19 vaccination, especially through the provision of a budget to support the implementation of the Covid-19 vaccination in their respective regions."

This statement shows that local government and street-level bureaucrats are highly expected in the success and acceleration of vaccination to achieve Herd Immunity in Indonesia. Diffusion theory is relevant to be used as an analytical tool to understand the role of local government and health workers. The attributes of relative advantage, compatibility, complexity, trialability, and observability to understand the process of receiving vaccinations and people wanting to be vaccinated.

Education also provides an understanding to the public about the halal and expiration of vaccines, as shown in Figure 2. Indonesian people adhere to a strong religion, especially Islam so that the halal of vaccines is one of the considerations for determining attitudes. Halal determines the decision to buy goods [23] and consume halal food and drinks [24]. The values adopted by this community are a concern for the compatibility attribute, as compatibility has a positive influence on the rate of adoption [11]. There are also many doubts about the expiration date of the vaccine, but because the COVID-19 vaccine has just been discovered, people ignore this factor.

However, the public is annoyed and irritated by the delay in getting the vaccine. The delay is caused by blood pressure, other diseases, and forgetting to eat breakfast. The delay occurred at the vaccination site after the initial observation stage by the doctor. This delay is in line with the complexity attribute, namely the public's perception of the complexity of the procedure in getting vaccinations. The more complex the adoption rate, the slower [25] achieves Herd Immunity. Delay can have a negative or stigmatizing effect on health workers or vaccinators [15].

President Joko Widodo, celebrities, and public figures are the first targets in the implementation of vaccination. The public has a reference in determining attitudes, as the vaccine consists of the first dose and the second dose. Trialability has a positive effect [10], [11] and reduces the performance of health workers to invite the public.



Figure-2. Public Perception in Determining Vaccine Acceptance

If the five attributes are combined in the form of a word cloud, the results are shown in Figure 2 how to optimize the effect of the five attributes above so that the vaccination rate increases rapidly, the role of information communication and coordination is vital. Coordination of the central government, local governments, and vaccinator officers is essential. Those who determine the attitude of society to accept or reject vaccination, especially provide education. Although many also agree about the use of a militaristic approach, education is a top priority. The army and police helped health workers in every vaccination implementation to prepare places and other supporting facilities. Footnotes should be avoided whenever possible. If required they should be used only for brief notes that do not fit conveniently into the text.

5. Conclusions

By the World Health Organization, which has established seven health service indicators during the COVID-19 pandemic: availability of street-level bureaucracy; good services, facilities, and

supporting infrastructure; health protection during service delivery; public satisfaction; stakeholder engagement, and bureaucratic compliance with bureaucratic duties and responsibilities. The correlation between health workers and local government consists of service criteria, frontline staff, obligations, stigma, service infrastructure, protection, and involvement. Health workers place stigma and the front line, while local governments place on equipment support and protections. Health workers or street-level bureaucracies are responsible for implementing the front line in carrying out vaccinations, even though they also get stigma from the community. Meanwhile, local governments are responsible for supporting equipment such as vaccines, personal protective equipment, and financial incentives. Local governments are also responsible for community protections, especially after vaccination if health symptoms occur.

For this reason, the street-level bureaucracy and local government have an important function in implementing the COVID-19 vaccination policy in Indonesia. They occupy the front line, support equipment, protection and sometimes get stigma from society. The community supports the performance of the street-level bureaucracy and local government in implementing the vaccination acceleration policy due to the perception of relative advantage but still paying attention to compatibility, complexity, trialability, and observability.

6. Acknowledgements

We thank the University of Muhammadiyah Sidenreng Rappang and the University of Muhammadiyah Sinjai who have supported this research process.

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