

Analysis of Government's Facilities Isolation Effectivity as form of Hospital Without Wall for Transmission Control in Pandemic COVID-19

Rheine Indira Putrie Sesunan¹, Ede Surya Darmawan², Pujiyanto³

^{1,2,3} Department of Health Accounting and Policy, Hospital Administration Study Program, Public Health Faculty, University of Indonesia
e-mail: rheine.indira@gmail.com

Abstrak

Tingginya kasus COVID-19 di Indonesia dipengaruhi oleh kegagalan isolasi mandiri pada masyarakat tanpa gejala, ringan, dan sedang pasca rawat inap. Masalahnya adalah bagaimana mengontrol dan memastikan orang-orang diisolasi sampai waktu yang ditentukan. Untuk mengatasi masalah ini, Pemerintah dan Dinas Kesehatan Provinsi Riau menyediakan 18 tempat isolasi. Penelitian ini bertujuan untuk mengetahui hubungan program isolasi pemerintah di Provinsi Riau pada bulan Juni 2021 (sebelum peraturan jemput dan antar) dan Juli 2021 (setelah peraturan antar jemput) dengan jumlah kasus baru terkonfirmasi. Penelitian ini merupakan penelitian kuantitatif dengan desain cross sectional dan telaah data sekunder. Program isolasi mandiri di fasilitas pemerintah belum menunjukkan hasil yang signifikan dalam mengurangi kasus baru yang dikonfirmasi. Ketaatan dan kesadaran publik adalah masalah kurangnya isolasi di fasilitas pemerintah. Rekomendasi adalah optimalisasi program pendidikan di area publik, meningkatkan kontrol dari petugas kesehatan lokal di layanan kesehatan primer, paket obat dan suplemen pendukung, dan sistem rujukan ke rumah sakit untuk gejala sedang dan berat. Hasil yang diharapkan adalah pengendalian transmisi sistemik COVID-19 oleh Hospital Without Wall.

Kata kunci: *Rumah Sakit Tanpa Tembok, Isolasi Mandiri, Covid-19, Lonjakan Kapasitas, Fasilitas Pemerintah*

Abstract

A high number of COVID-19 in Indonesia is impacted by self-isolation failure among people without, mild, and post-hospitalization moderate symptoms. Problems are how to control and ensure people are isolated until the specified time. To solve this problem, the Government and Public Health Office of Riau Province providing 18 places for isolation. This study aims to find out the correlation of government isolation program in Riau Province in June 2021 (before pick up and deliver regulation) and July 2021 (after pick up and deliver regulation) with number of new confirmed cases. This is a quantitative research with cross-sectional design and secondary data review. The self-isolation program at government facilities has not shown significant results in reducing new confirmed cases. Obedience and public awareness are the problems of less isolation in government facilities. Recommendation is optimizing education program in the public area, increasing the control from local area health workers in primary health care, supporting medicine and supplement packages, and referral system to hospital for moderate and severe symptoms. Result expected a systemic transmission control of COVID-19 by Hospital Without Wall.

Keywords: *Hospital Without Wall, Self-Isolation, Covid-19, Surge Capacity, Government Facilities*

INTRODUCTION

The number of COVID-19 cases on June 2021 in Indonesia became higher; there were 18.872 new cases on 25 June, 21.096 cases on 26 June, 21.342 cases on 27 June, 20.694

cases on 28 June, 20.467 cases on 29 June, and 21.807 cases on 30 June. (COVID.go.id, 2021): The number of cases in Riau, one of Sumatra's Province in Indonesia, increased when on 30 June 2021, there were 70.500 confirmed cases: 2.340 self-isolated, 527 hospitalized, 65.704 cured, and 1.929 dead. New confirmed were 382 cases (CORONA, 2021; Tmcadmin, 2021). The increasing of confirmed cases impacted by the failure of self-isolation of no symptoms, mild, and after hospitalized moderate symptoms. At the beginning of this pandemic, there was a lack of hospital beds and people were needed to self-isolate at home. Confirmed individual that home isolation will transmit the virus to others in their homes shows that home isolation has significant effect to the population. One research told that infected individual accounted for 29% of the total population (Feng and Cheng, 2020). Quarantine is one of most effective tools to control communicable disease outbreaks. Quarantine was implemented successfully as practical measure during the SARS epidemic in 2003 (Wilder-Smith and Freedman, 2020). If infected and uninfected individual are isolated in the same space, transmission could happen quickly. Chinese government found that home isolation was not the best way to do it in Wuhan, so all patients suggested going to the hospital for management (Feng and Cheng, 2020). Another study described household infection sources, showed that secondary attack rate of COVID-19 to members in households was 16,3%, which contributes to adding the number of infected cases.

Probability of transmission in households may be greater than community and population (Li, Zhang and Lu, 2020). Indonesian government establish Public Health Emergency status and choose Scaled Social Restrictions Great as an option for responding to Public Health Emergencies (Nurhalimah, 2021). Number of countries that are considered successful in controlling the spread of COVID-19 at the beginning of the pandemic with strategies and implementation of the policies carried out is Vietnam, Maldives, Mongolia and Sri Lanka (Aulia and Nurwahyuni, 2021). Isolation of confirmed people is effective in avoiding transmission. Compliance with self-isolation and quarantine is high in East Asian countries. New York City is another example reporting high adherence to self-isolation, where the provision of comprehensive 'take care' packages along with the provision of services such as alternative accommodation, food, medication, and social care are provided by the local city government supported by community organizations (Aulia and Nurwahyuni, 2021). Another study uses bracelets that are able to transmit latitude and longitude data to be used as parameters for design and build a locator bracelet for confirmed COVID-19 patients with the Haversine Method as an identification of violations of the independent isolation safe zone using Lora Communications (Long Range) (Nurdin, Bintarawati and Nihayah, 2021).

The aim of this study is to find out the correlation of government isolation program in Riau Province in June 2021 (before pick up and deliver regulation) and July 2021 (after pick up and deliver regulation) with number of new confirmed cases. A literature review study found that promotive action to increase awareness of society is necessary in order to improve their knowledge about self-isolation according to standards operational procedures (Sagala, Maifita and Armaita, 2020). Central Statistics Agency stated that more than half of respondents think that the reason for not complying with health protocols is because there are no sanctions. In addition, female respondents are much more obedient in implementing behavior health protocol than men. Even so, the percentage of respondents who have a high perception of the effectiveness of complying with health protocols for the prevention of COVID-19, 91,8% on the attitude of wearing masks, 90,0% on washing hands with soap for 20 seconds, and 88,6% at keeping distance (Alfianita, 2021).

METHODS

This is a quantitative research with cross-sectional design. Data used is secondary review of COVID-19 new confirmed cases daily from open repository and number of isolated people in government facilities from task force and Public Health Office Riau Province. On July 2021, Riau government declares a regulation to pick up new confirmed cases and delivery to the government's facilities. The research tries to find out the correlation of government isolation

program in Riau Province in June 2021 (before pick up and deliver regulation) and July 2021 (after pick up and deliver regulation) with number of new confirmed cases.

RESULTS AND DISCUSSION

In June 2021, there were 18 places prepared by The Government of Riau Province in Indonesia for isolating new COVID-19 confirmed cases by day initiated by Public Health Office Riau Province based on Governor's Regulation of Large-Scale Restriction Guidelines. Another Major's Regulation about Guidelines for Self-isolation COVID-19 confirmed people without and mild symptoms means mobility of these people to the government's isolation facilities to facilitate supervision during the isolation period. Every new confirmed case must be reported to the government using the Indonesian Ministry of Health application daily. In July 2021, the Head of Public Health Office Riau Province issued a policy that all new COVID-19 confirmed persons have to be picked up by the Public Health Officer dan delivered into the government's facilities. To support this, all of the hospital's ambulances in Riau Province have to stand by to pick up and deliver besides their common task in transporting hospitals' patients. In the government's area, confirmed people are available to get medicine and supplement packages, monitored by the health worker, and supported by a referral system to the hospital when the symptoms begin to moderate or severe.

Number of Government's Isolation Vs New Confirmed Cases

June - July 2021

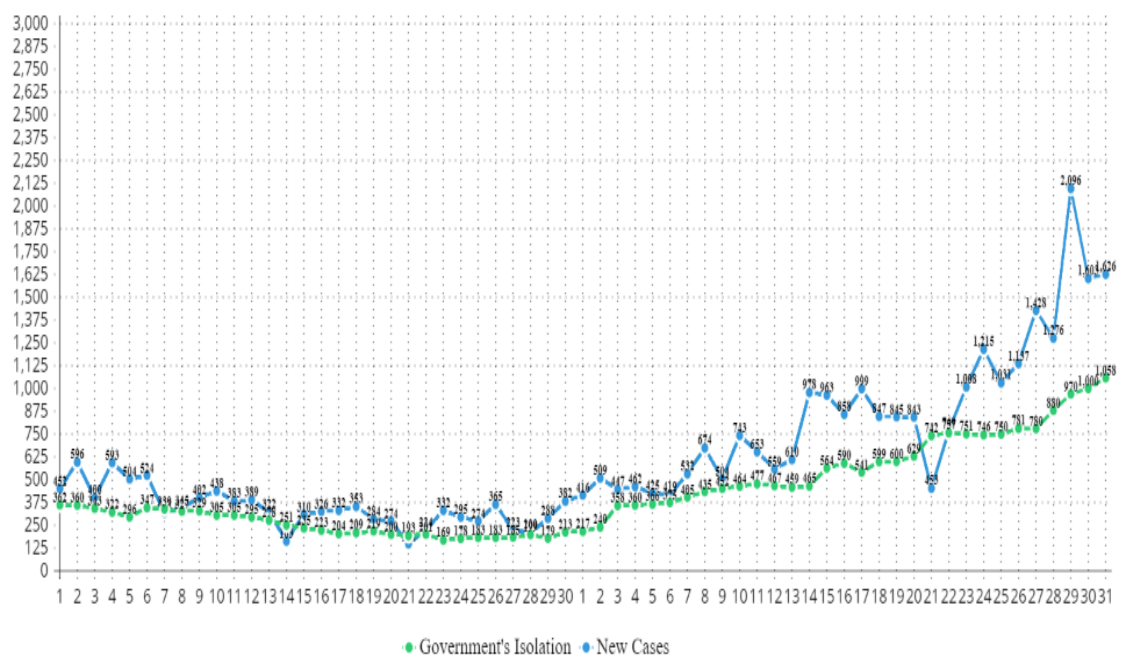


Figure 1. New confirmed cases compared with the number of people isolated in government's facilities (COVID-19 Taskforce Riau Province, June – July 2021)

The statistical test chosen was a non-parametric statistical test of Spearman Two Tail Correlation with data not normally distributed and using two independent unpaired samples. The results of the statistical test show:

Table 1. Statistical Test Correlations

			Jumlah Isoman	Kasus Baru
Spearman's rho	Jumlah Isoman	Correlation Coefficient	1.000	.911**
		Sig. (2-tailed)	.	.000
	N		61	61
	Kasus Baru	Correlation Coefficient	.911**	1.000
		Sig. (2-tailed)	.000	.
		N		61

** . The correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

The results of statistical tests in this study indicate that: the correlation strength level of 0.911 indicates a strong relationship, meaning that the increase in the number of new cases is very strongly associated with the number of self-isolated in government facilities in June and July 2021. Direction of the correlation can be seen in the results of how the number of correlation coefficients and usually the resulting value is in the range -1 to 1. The correlation coefficient value in this study is positive (unidirectional relationship), meaning the number of new cases is proportional to the number of self-isolated in government facilities in June and July 2021. In Spearman's correlation test, the relationship is significant when the significance value (2 tailed) is less than 0.05 or 0.01. The significance in this study is 0.00, meaning that the relationship between the number of new COVID-19 cases and the number of self-isolated in government facilities is significant. Based on the results of statistical tests, the increase in the number of new cases of COVID-19 is in line with the increase in the number of self-isolating people in government facilities. This is contrary to the aim of the COVID-19 isolation program at government facilities to reduce new confirmed cases of COVID-19; thus, the self-isolation program at government facilities has not shown significant results in reducing new confirmed cases of COVID-19 impacted the number of new cases that have been isolated in government facilities is not enough, even though the government has tried hard to pick up patients at home.

The findings of this study are the same as previous studies by Afriyann, et al (2022) who found that the negative stigma towards isoman facilities belonging to local governments, away from family support and attention, decreased to the point of loss of income and comfort which became the reason people were reluctant to be isolated in isolation facilities owned by the local government. There is still a need to improve facilities and infrastructure at isoman facilities owned by local governments, namely: entertainment facilities, internet, sports facilities, waste management, and infectious waste. Self-isolation in isolation facilities owned by local governments has advantages and disadvantages both from the patient side and the local government. The advantages of self-isolation for confirmed COVID-19 patients in isolation facilities owned by local governments are the fulfillment of the needs for food, drink, medicine and vitamins as well as receiving regular health monitoring. The need for data, internet, and entertainment in isolation is not good. This condition worsens the psychological impact experienced by patients due to being away from family support and loss of income (Afriyanni *et al.*, 2022).

Another same findings by Purwanti (2021) states that the relationship between knowledge about self-isolation and the implementation of self-isolation is not significant (P-value 0.326). Good knowledge does not guarantee a person to behave accordingly. Many factors can affect adherence to the self-isolation protocol, for example: age, where young people are more likely to not comply with the protocol, working status or not. As stated by Cevik, Muge. et al. (2021) that individuals who do not follow the protocol are mostly young

people, workers who have dependent children and economically weak communities (Purwanti and Fajarsari, 2021).

CONCLUSION

Corona Virus Diseases 2019 (COVID-19) poses many challenges to its management because it creates various problems. Each country or region has a variety of ways in determining what policies are appropriate to be implemented. In practice, not all methods provide significant results, so it is necessary to evaluate and improve continuously. A method carried out in one area is not always successfully established in another area. Failure to monitor self-isolated patients is one of the reasons for the continued transmission of COVID-19.

The government of Riau Province make hard efforts dynamically reported and evaluated to handle this problem. The self-isolation program at government facilities has not shown significant results in reducing new confirmed cases of COVID-19 because the number of new cases that have been isolated in government facilities is not big enough, even though the government has tried hard to pick up dan deliver patients to the isolation places. Many patients refuse to be picked up and isolated in government facilities. Compliance and public awareness are the roots of the problem of this government facility isolation program. The recommendation is optimizing education program in the public area, increasing the control from local area health workers in primary health care, supporting medicine and supplement packages, and referral system to hospital for moderate and severe symptoms. The result expected is a systemic transmission control of COVID-19 by Hospital Without Wall.

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