

## ANOMALY OF LOW SPREAD OF COVID-19 IN SLUM SETTLEMENTS OF DEPOK VILLAGE

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**ABSTRACT.** Two residents of Depok City, West Java, were confirmed as the first Covid-19 patients in Indonesia on March 2, 2020. This global pandemic has wreaked havoc on many facets of human life, especially slum environment in Depok City. Slum settlements are associated with dense populations, small streets, and disorganized housing structures, and all of which contribute to the high spread of Covid-19. In Depok Village, which is classified as a slum settlement, the number of Covid-19 case is lower than in Mekarsari Village, which is neither slum nor tend to be luxury. This study uses qualitative methods and research sources are from field observations and comparisons with previous studies which are contradictory. The theory used as a guide for this writing is Ekistics, Doxiadis. According to the findings of this study, the low number of COVID-19 cases in slum settlements can be reduced, one of the factors is the impact of improved environmental infrastructure. The Covid-19 Alert Village performance, the social community and public health also play critical roles in assisting people in their efforts to avoid the spread of Covid-19. The active participation of all members of society is the most important factor in preventing Covid-19 spread and transmission. The findings of this case study are not intended to generalize the phenomena that occur in the community, but this is an effort to evaluate and introspect on programs and policies that will be, are being, and have been performed by the local government in collaboration with the community.

**Keywords:** *Slums Settlement; Covid-19; Depok Village; Environmental Infrastructure; Covid-19 Alert Village*

## ANOMALI RENDAHNYA PENYEBARAN COVID-19 DI PERMUKIMAN KUMUH KELURAHAN DEPOK

**ABSTRAK.** Pada tanggal 2 Maret 2020, dua orang warga Kota Depok, Jawa Barat, terkonfirmasi sebagai pasien pertama Covid-19 di Indonesia. Pandemi global ini telah menyebabkan dampak negatif bagi seluruh sendi kehidupan manusia, termasuk di dalamnya lingkungan kumuh yang ada di Kota Depok. Permukiman kumuh identik dengan jumlah penduduk yang padat, jalan yang sempit, penataan rumah yang semrawut, seringkali menjadi penyebab terjadinya penyebaran Covid-19 yang tinggi. Ada anomali di Kelurahan Depok, yang ditetapkan sebagai permukiman kumuh, namun kasus Covid-19 lebih rendah dibandingkan dengan Kelurahan Mekarsari yang tidak kumuh atau mewah. Penelitian ini menggunakan metode kualitatif, bersumber dari observasi lapangan serta membandingkan dengan kajian sebelumnya yang bertentangan. Teori yang dijadikan pedoman penulisan ini yaitu Ekistics, Doxiadis. Berdasarkan hasil kajian ini, rendahnya kasus Covid-19 di permukiman kumuh dapat berkurang, salah satunya adalah karena pengaruh dari perbaikan infrastruktur lingkungan. Kinerja Kampung Siaga Covid-19 dan komunitas sosial dan kesehatan masyarakat juga sangat berperan membantu warga dalam upaya mencegah terjadinya penyebaran Covid-19. Partisipasi dan peran serta aktif seluruh komponen masyarakat sejatinya menjadi kunci utama dalam upaya mencegah penyebaran dan penularan Covid-19. Hasil penelitian studi kasus ini dimaksudkan bukan untuk menggeneralisir fenomena yang terjadi di tengah masyarakat, akan tetapi merupakan sebuah upaya untuk mengevaluasi dan melakukan introspeksi atas program dan kebijakan yang akan, sedang, dan telah dilakukan oleh pemerintah daerah bersama dengan masyarakat.

**Kata Kunci:** Permukiman kumuh; Covid-19, Kelurahan Depok; Infrastruktur Lingkungan; Kampung Siaga Covid-19

### INTRODUCTION

The first case of Covid-19 in Indonesia was confirmed in Depok City on March 2, 2020 (Theresia, 2021). After the announcement of the first case of corona in Indonesia, President Joko Widodo appealed to the public to maintain hand hygiene, minimize interactions with other people, and increase the body's immunity to prevent infection by the Corona virus (Damaledo, 2021). Various policies and efforts have been conducted by the government since the first incident until now. The control policy issued by the Government related to the Covid-19

pandemic focuses on preventing transmission in the midst of the community. In simple terms, the Government's policy in preventing transmission opportunities is divided into three parts: prevention around the place of residence, prevention in the travel sector, and prevention when doing activities outside home. For this reason, in order to regulate aspects of life and the large number of people, the government requires special policies as guidelines and dynamics of periodic renewal. This can be seen from the efforts to explain and educate on wearing masks, keeping distance and avoiding crowds, and washing hands with soap (3M) as well as the vaccination program

that continues to be promoted (COVID-19 Task Force, 2021).

Based on the data from Covid-19 Task Force of Depok City on December 12, 2021, the population of Depok City affected by this confirmed case pandemic was 105,852 people and 2,170 people died. The highest cases occurred in Sukamaju Village, Cilodong with 4,321 people and the lowest cases occurred in Leuwinanggung Village, Tapos with 458 people (Covid-19 Task Force of Depok City, 2021).

Based on data from the Covid-19 Task Force of Depok City, there are 2 interesting villages for this research. This consideration is based on the similarity of population, area and population density, but they have different levels of Covid-19 transmission. Mekarsari Village is not a slum area and is not included in the Decree of the Mayor of Depok regarding slum villages. Mekarsari Village is dominated by 13 residential hamlets and the remaining 9 village hamlets (RW). The population in Mekarsari Village is 46,949 people, the area is 3.85 km<sup>2</sup> and the population density is 12.195 people/km<sup>2</sup>. Meanwhile, Depok Village population in 2020 is 44,776 people, the area is 3.66 km<sup>2</sup> and the population density is 12,231 people/km<sup>2</sup> (Statistics Agency Indonesia (BPS) of Depok City, 2021). In 2015, Depok Village was designated by the Mayor of Depok as a slum settlement (Figure 1).



**Figure 1.** Slum settlement of Depok Village, Kampung Lio area

The population density levels of the two villages above have the same characteristics but have different numbers of victims or confirmed patients of Covid-19 cases. There are 2,204 patients in Depok Village and 3,424 patients in Mekarsari Village and the difference in the number of patients is 1,220 people or around 35% for confirmed cases of Covid-19.

Historian from the University of Indonesia, Tri Wahyuning M Irsyam, said that Kampung Lio was formerly a place for making pottery, such as tiles and bricks. In the Indonesian Dictionary (KBBI), Lio means a place to burn tiles or bricks. Kampung

Lio, which is now the Depok Village area, is mostly inhabited by Betawi tribe and Sundanese and Javanese as immigrants. Pottery-making activities have been performed since 1900s. The existence of Rawa Besar lake there in the pottery craft as a supply of water required to make the pottery. The type of good soil in the area made Kampung Lio pottery production known to many people even outside Depok. The industrial area is an attraction for immigrants to try their luck there. This pottery-making made local residents who initially worked as farmers to turn their land into pottery raw materials. Limited land and lack of housing, pottery production finally waned in 1960s (Irsyam, 2017).

Since the Orde Baru (Orba) age, National Housing (Perumnas) 1 and 2 have been built in Depok. This area is increasingly inhabited by immigrants, but most migrants with low economic levels choose to live and settle in Kampung Lio area, Depok Village. Located in the lake border, the village is inhabited by people with low economic levels, often experiencing flooding. In addition, fires have occurred in this area due to the dense settlements. The condition of this dense village that tends to be slum grows organically so it lacks a good infrastructure network (Fatin, 2018).

Several past studies have shown that slums in the Global South are the least prepared for the Covid-19 pandemic because basic needs such as water, toilets, sewers, drainage, waste disposal, and safe and adequate housing are lacking or non-existent. In addition, constraints on the need for public space and overcrowding in slum areas make physical distancing and self-quarantine impractical and lead to the rapid spread of the infection (Corburn, et al., 2020). As the case in Brazil, where slum settlements there lack basic access to health such as clean water facilities, residential sanitation facilities make the spread of Covid-19 there increase (Pereira et al., 2020). In the national context, a study conducted by Wahyudin (2021) stated that luxury settlements with good environments have a tendency to have a strong resistance to the spread of Covid-19 when compared to slum settlements. The reason for the limited facilities and infrastructure is important to be reviewed again to strengthen the study and there may also be other factors as the cause. The study conducted by Ghiffari (2020) also shows that the spread of Covid-19 in Jakarta is more influenced by mobility both within and outside the city. Meanwhile, demographic factors have a low influence on the spread of Covid-19 cases. Various studies that have been performed have similarities, such as the lack of infrastructure or access to basic hygiene and

sanitation services in these residential areas, which has led to the increasing spread of Covid-19. This phenomenon does not appear to have occurred on the case in Depok City, to be precise in the Depok Village which is classified as a slum area.

Based on the reasons, this study will discuss several problems: (1) Factors that affect the low transmission of Covid-19 in Depok Village compared to Mekarsari Village which is not a slum village (2) The role of the Depok City Government in reducing the spread of Covid-19 in slum areas.

## METHOD

This study uses a qualitative approach based on data found in the field and explores these findings as a mindset in analyzing and answering research questions (Yunus, 2010). Qualitative method is expected to be able to describe everything related to the condition of the object of research in more detail. This research was conducted in a slum settlement in Depok Village, Depok City.

Creswell (2014) stated that case study research is a qualitative approach that explores real life through detailed and in-depth data collection involving various sources of information, such as interviews, audiovisual materials, and various report documents, of course, to report case descriptions and case themes.

## RESULTS AND DISCUSSION

As stated in Law no. 1 of 2011 concerning Housing and Settlement Areas that settlements that are not suitable for habitation are characterized by building irregularities, high levels of building density, and low quality of buildings and facilities from the requirements. UN Habitat also described that slums are usually occupied by marginal people and unhealthy settlements, so that it is easy for infectious diseases to occur. Generally, slum settlements are formed due to the arrival of urbanites. In accessing public services, they experience problems such as access to health infrastructure, education and others (Saputri, 2016).

A recent study shows that despite the position of settlements in the middle of the city, slums seem to be marginalized and have a risk of transmission of various infectious diseases including Covid-19 (Wahyuni, 2021). Not only in Depok, settlements throughout Indonesia and even in the world also have limitations to access clean water and basic health infrastructure. (Pereira et al., 2020).

The number of Covid-19 cases in the slums of Depok Village is lower than other settlements in

Mekarsari Village. The following is a comparison of preliminary data and information between Depok Village as a slum settlement and Mekarsari Village which is not a slum settlement, sourced from the Office of Occupation and Civil Registry of Depok City (table 1).

**Table 1. Comparison of Profiles between Depok Village and Mekarsari Village**

	Depok Village	Mekarsari Village
Population	44,776	46,949
Area (Km <sup>2</sup> )	3.66	3.85
Population Density (Person/Km <sup>2</sup> )	12,234	12,195
Productive Age	29691	36071
Occupation	Worker/Unemployment	10785
	State Worker	10250
	Businessman	14936
	Student	2046
Education	Health Workers	14609
	No School	16023
	Unfinished Elementary School	8,862
	Elementary School	9,463
	Junior High School	143
	Senior High School	218
	Diploma Degree 1, 2, and 3	9,362
	University Graduate (Under Graduate, Post Graduate, Doctoral Degree)	8,881
Covid-19	Active Case	3,511
	Recovered	3,609
	Passed away	4,278
	Total of Case	4,488

Based on the above, the population of Depok Village and Mekarsari Village is not much different. 44,776 people live in Depok Village and 46,949 people in Mekarsari Village. In terms of population density, Depok Village has a population density of 12,234 people/km<sup>2</sup>, while Mekarsari Village has 12,195 people/km<sup>2</sup>. The similarity of data on population and area results in population densities that are not much different so that they become an important part of the research in this paper.

**Ekistics theory analysis of the Man element: Analysis of education level (Senior High School – University Graduate) and productive age (15 – 60 year old) / (man)**

Settlements consist of the content, namely humans and the container (a physical place where



humans live which includes natural and man-made elements).

In the human element living in Depok Village, the majority of the population is no school, elementary school and senior high school graduates and this is more than university graduates. According to Unicef (2021) that poor families with low education have the potential to spread disease and pose a risk to their health. This happens because they do not understand the importance of health problems which result in neglecting health behavior.

When viewed from the productive age (15-59 year old), Depok Village is only 29,691 people and Mekarsari Village is 36,071 people. Mekarsari Village has more residents who work in all sectors, such as state officials, teaching staff, entrepreneurs, religion and beliefs, students, health workers, retirees, when compared to Depok Village which is dominated by residents who do not work and have various other jobs. This indicates that the level of mobility of people in Depok Village is smaller than that of Mekarsari Village.

Based on the Covid-19 data in the Depok Village, there were 2,204 people affected by Covid-19 or fewer compared to Mekarsari Village, which was 3,424 people. Most of the people affected by Covid-19 are of productive age (Covid-19 Task Force of Depok, 2021). This can be explained that the more productive age, the more people have high mobility. Likewise with the level of education, the higher the level of education, the more potential to have a job, so that the mobility to leave the house will be higher. The majority of residents in Depok City work in Jakarta, as a business center as well as the capital city of the Republic of Indonesia. The large number of people from various countries, including the country of origin of Covid-19, China, has inevitably become part of the center of Covid-19 transmission and this has also developed in office clusters. Data shows, from October 12 to January 8, 2021, that there are 1,080 offices in Jakarta temporarily closed. 1,067 offices were closed due to the Covid-19 case and the company was closed due to violating the Covid-19 protocol (Detikcom, 2021).

## Analysis of the Ekistics Theory of the Elements of Nature, Network and Shells

The environment and humans are always connected and influence each other (Soemarwoto, 2001). Nature will be angry if it is not managed properly by humans. The impact of natural anger can be in the form of physical disasters such as floods, landslides, and others. There is also a direct disaster to humans in the form of disease. Water contaminated by garbage or liquid waste will cause disease. Inadequate environmental facilities and infrastructure lead to an unhealthy environment.

In addition, there are also infectious diseases such as dengue hemorrhagic fever (DHF) that occurs due to stagnant water, cholera, diarrhea and others (Saputri, 2016). Likewise, infectious diseases such as Covid-19 have attacked the health of residents in Depok Village (Table 1)

Based on table 2 above, the average number of infectious diseases in Depok Village has decreased from year to year. For example, in acute respiratory infection (ARI) from 2017, the number of people who have confirmed this disease is 13 people and this is only 6 people who have been confirmed in 2021.

To suppress the spread in the event of an increase in disease cases, the Depok City government carried out various Environmental Infrastructure Development interventions (Nature and Network) in the form of roads (figure 2), drainage and sanitation (table 3).



Figure 2. Road Construction in Depok Village in 2021

Table 2. Infectious Diseases in the Slum Settlements of Depok Village in 2017 - 2021

No	Year	Dengue Hemorrhagic Fever (DHF)	Acute Respiratory Infection (ARI)	Hepatitis type A	Typhoid fever	Cholera	Tetanus
1	2017	62	13	1	63	0	0
2	2018	75	10	4	72	0	0
3	2019	60	9	4	53	0	0
4	2020	55	5	2	35	0	0
5	2021	31	6	1	25	0	0

**Table 3. Example of Infrastructure Development in Depok Village**

No	Infrastructure Program	Budget (in Million Rupiahs)
1	Road construction at RT. 02 RW. 02, Depok Village	90
2	Road construction at RT. 03 RW. 06, Depok Village	240
3	Road construction at RT. 02 RW. 04, Depok Village	60
4	Road construction at RT. 01 RW. 09, Depok Village	48
5	Road construction at RT. 07 RW. 12, Depok Village	120
6	Road construction at RT. 05 RW. 17, Depok Village	150
7	Drainage construction at RT. 05 RW. 17, Depok Village	220
8	Drainage construction at RT. 02 RW. 04, Depok Village	96
9	Drainage construction at RT. 01 RW. 13 and Kembang Lio, Depok Village	192
10	Drainage construction at RT. 03 RW. 20, Depok Village	96

### City without Slums Program (KOTAKU)

The City without Slums program (Kotaku) is one of the strategic efforts of the Directorate General of Human Settlements, Ministry of Public Works and Public Housing to accelerate the handling of slum settlements in urban areas and support the “100-0-100 Movement”, which means 100 percent access to safe drinking water, 0 percent of slums, and 100 percent of access to proper sanitation. The Kotaku program in its implementation uses a collaboration platform between the central government, provincial governments, cities/districts, communities and other stakeholders by positioning the community and district/city governments as the main actors (Ministry of Public Works, 2021).

The slum development program in Depok Village is an infrastructure improvement program in 2016. The total infrastructure improvement activities from 2015 - 2020 are 110 infrastructure development activities in the form of road construction and drainage. The total budget is 280,663,596 Rupiahs.

The central government, provincial governments, and city governments work hand in hand in overcoming the lack of infrastructure in slum settlements. This program is performed almost every year in Depok Village such as the construction of clean water sanitation in hamlet (RW) 19, construction of environmental roads in RW 13, RW 14, RW 19 and RW 20 and includes construction of drainage and construction of connecting roads in RW 17.

### Slums Infrastructure Assistance from West Java Province

The development of slum settlement infrastructure is one of the priorities performed by the West Java Provincial Government as shown in Figure 3 below.



**Figure 3. Construction of Sanitation Facilities and Roads in Depok Village in 2018**

Village sanitation (Sandes) is the manufacture of 48 units of septic tanks that are used to accommodate feces that are placed underground. Residents in slums very rarely have this septic tank.

The Uninhabitable House Program or RTLH is an element (Shells) in the Ekistics theory, Doxiadis (1968). Houses in slums are usually disorganized, poorly constructed, and unsanitary. The materials that make up the house are also improvised so they often leak, no tile floors, only cement or ordinary soil. Sometimes this housing is inhabited by many people in one narrow house. For this reason, local governments have a role to play by making the RTLH program. Every resident who owns an uninhabitable house (figure 4) will receive 25 million rupiahs in assistance. Data on the RTLH program in Depok Village can be seen in table 4.



The West Java Provincial Government also has the same program for uninhabitable houses, namely Unfit for habitation (Rutilahu). The amount of Rutilahu's assistance is 18 million rupiahs. Meanwhile, the Central Government through the Ministry of Public Works and Spatial Planning (PUPR) has the same program, namely Independent Housing Stimulant Assistance Program (BSPS).

Not only physical development, a recent study also shows that the implementation of effective policies will have a significant impact on the effectiveness and quality of critical health services in essential health services in West Java Province (Sarihati, 2021).

**Table 4. Recapitulation of Uninhabitable Houses in Depok Village 2017-2021**

No	Year	Amount
1	2017	6
2	2018	36
3	2019	10
4	2020	23
5	2021	17
TOTAL		92



**Figure 4. Uninhabitable House Program (RTLH) in Depok Village in 2019**

The One Million Houses Program is a work program from the Ministry of PUPR under the Directorate General of Housing. Low-Income Communities (MBR) are a priority in this program.

### **Analysis of the Ekistics Theory of the Social Conditions of People (society)**

Analysis is performed through community empowerment in slum settlements, both through community residents and official government institutions.

### **P2WKSS Program (Program for Increasing the Role of Women towards Healthy and Prosperous Family)**

The P2WKSS integrated program is an effort by the government together with all components of society to overcome poverty through increasing the role of women. Women are the focus of this program

in the context of empowerment. To support the program, infrastructure, skills training, food security with agricultural gardens, posyandu (Integrated Healthcare Center) for mothers and toddlers were built. This activity is continuous every year. The RW areas that are targeted are slum settlements. This program also involves all parties who are members of the pentahelix, namely from the government, community, academics, business and media elements.

In general, the P2WKSS program aims to create and develop a healthy and prosperous family. This program can also improve the position of the role and ability of women's mental and spiritual resilience through cross-sectoral activities in the field of rural community empowerment development. Meanwhile, the specific goal is to improve the quality of women in developing their potential, fostering the growth and development of children and adolescents, and reducing maternal and infant mortality (Banjar City Public Relations, 2021).

In the context of Depok City, the Depok City Government received appreciation from the West Java Provincial Government with its success in becoming the first winner at the Bojongsari P2WKSS locus. The Deputy Mayor of Depok as the supervisor of the P2WKSS locus said that there were at least three advantages of the locus: (1) community empowerment with various trainings provided to encourage people to be better, (2) commitment and policies between the government and the local community made program implementation run well and success, and (3) visualizing the situation in the field by successfully changing a slum environment into a clean and beautiful one with a number of improvements, one of which is decorating the walls of the house with murals that have a moral message (Berita Depok, 2021).

All stakeholders play a role in the success of the program and it is carried out in one RW in less than 1 year. This allocated budget is quite large for infrastructure, social, health, cultural, economic, religious improvements, and others. This program was carried out in the Depok Village in 2019 in the slum settlement of RW 03 (figure 5).



**Figure 5. P2WKSS Activities in Depok Village in 2019**

The Covid-19 pandemic has hit society down to the lowest strata so that it greatly affects the economic resilience of the family. However, a study conducted by Rupita (2020) shows that this pandemic has made people continue to innovate and at the same time become a means of community social resilience in an effort to empower communities through productive small businesses.

### Covid-19 Alert Village Program

The Depok City Government launched the Covid-19 Alert Village (KSC-19) application. This innovation aims to facilitate communication of all parties in the prevention and handling of Covid-19 in Depok City (Covid-19 Task Force of Depok City, 2021).

KSC-19 was formed to suppress the Covid-19 pandemic in areas that have been affected and protect areas that have not been affected (figure 6). Hamlet (RW) became the base of this KSC-19. KSC-19 is tasked with preventing and handling the spread of Covid-19 within the RW area. The scope of tasks is determined and preformed in a participatory and collaborative manner. The head of the RW becomes the leader of KSC-19 at the RW level with his duties in dealing with Covid-19 as follows:

- Educating residents about Covid-19 in the form of preventing transmission through social media and announcements of written circulars from the RW;
- Forming KSC-19 volunteers and communities who will help if there are residents who need help during the Covid-19 pandemic;
- Creating a citizen security system, early detection and early prevention of Covid-19;
- Establishing a KSC-19 information center in order to assist officers in monitoring residents who are self-isolating, including distribution of logistics and assisting in monitoring the health of residents;
- Collecting citizen logistics;
- Reporting and taking action quickly if a suspected case of Covid-19 is found.

The government also provides Emergency Alert Services at the Covid-19 Alert Village. The Covid-19 emergency preparedness reporting system was submitted to 112 and 119, 021-7520130 (Pancoranmas Health Center), Camat (Head of Village) on call (24 hours standby), Lurah (Head of District) on call (24 hours standby). The Depok City Government also provided budget support for the implementation of the Covid-19 Alert Village of 3,000,000 rupiahs from Regional Revenues and Expenditures Budget (APBD) of Depok City.



Figure 6. Covid-19 Alert Village in Depok Village

### Program of Waste Bank and Citizen Community

Waste bank is a model of collective waste management that includes activities of sorting, recycling, and managing waste to obtain economic benefits from waste. Waste management that is applied at the household level as well as the community's environment will reduce the volume of waste that will enter the Final Disposal Site (TPA) in Cipayung (Antara, 2021).

Garbage/ waste is also the cause of several diseases, especially if it occurs in slums. The community that cares about waste in Depok City is named the Waste Bank. The establishment of a waste bank is to help deal with the sorting of plastic waste and processing of organic waste. In Depok Village, with 23 RWs, waste banks in 17 RWs have been formed and 5 RWs have not.

In addition to the Waste Bank Community, Depok Village also has other public communities, such as the Healthy Heart Community, Elderly Working Group Community, RW Forum consisting of Head of Village, Hamlet (RW) leader, Neighborhood (RT) leader, Bimaspol (Community Guidance from the Indonesian National Police), Babinsa (the Military elements in village level), LPM (Community Empowerment Department), PKK (Family Welfare Program), Youth Organizations and religious leaders, as well as community leaders. In addition to maintaining cohesiveness and solidarity with the citizens, this community group is also a defense for religion, social, health, and security.

From this data, it was found that Covid-19 cases in slums were smaller than in other settlements. There are several factors that cause this, such as: government intervention in the development of slum areas (roads, RTLH and sanitation) so that it has an impact on increasing the health status of residents in slum settlements. In addition, there are social communities whose existence requires to be optimized to maintain and care for the environment so that the spread of infectious diseases such as Covid-19 can be minimized.

## CONCLUSION

Slum settlements are not always identical with the high spread of Covid-19 as in previous research, because the case in Depok Village showed that the number of Covid-19 victims or patients was much lower than Mekarsari Village, which was not slum. The spread of Covid-19 in slums is not directly affected by population density. This study reveals factors that influence the spread of Covid-19 such as: productive age, education level and type of work. This happens because of the high intensity of human movement. In the context of slum settlements, there is a tendency that the movement of people out of the house is relatively low. The role of the Government in building environmental infrastructure can help the residential environment become healthier and have resistance to the disease, including from the spread of Covid-19. The performance of the Covid-19 Alert Village, social communities and public health also plays a very important role in helping residents in efforts to prevent the spread of Covid-19. The active participation of all components of society is the main key in efforts to prevent the spread and transmission of Covid-19.

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## REFERENCES

- Antara. (2021). *Wakil Walikota Depok Dorong Warga Aktif Ikut Program Bank Sampah*. Tempo. <https://metro.tempo.co/read/1505266/wakil-wali-kota-depok-dorong-warga-aktif-ikut-program-bank-sampah/full&view=ok>.
- Berita Depok. (2021). *IBH Ungkap Tiga Keunggulan Lokus P2WKSS Hingga Raih Gelar Juara*. <https://berita.depok.go.id/pemerintahan/ibh-ungkap-tiga-keunggulan-lokus-p2wkss-bojongsari-hingga-raih-gelar-juara-9750>.
- Corburn, J., Vlahov, D., Mberu, B., Riley, L., Caiaffa, W. T., Rashid, S. F., Ko, A., Patel, S., Jukur, S., Martínez-Herrera, E., Jayasinghe, S., Agarwal, S., Nguendo-Yongsi, B., Weru, J., Ouma, S., Edmundo, K., Oni, T. & Ayad, H. (2020). Slum Health: Arresting COVID-19 and Improving Well-Being in Urban Informal Settlements. *Journal of Urban Health*, 97(3), 348–357. <https://doi.org/10.1007/s11524-02000438-6>.
- Creswell, J.W. (2014). *Research design pendekatan kualitatif, kuantitatif, dan mixed*. Yogyakarta : Pustaka Pelajar.
- Damaledo, Y.D. (2021). *2 Maret 2020 Kasus Corona Pertama di Indonesia Diumumkan Tahun Lalu*. Tirto.id. <https://tirto.id/2-maret-2020-kasus-corona-pertama-di-indonesia-diumumkan-tahun-lalu-gaKw>.
- Detikcom. (2021). *Klaster COVID Perkantoran Terbesar Ada di Jakarta Selatan*. <https://news.detik.com/berita/d-5548054/klaster-covid-perkantoran-terbesar-ada-di-jakarta-selatan>.
- Doxiadis, C.A. (1968). *Ekistics; An introduction to the science of Human Settlements*. London: Anchor Press.
- Fatin, G.N. (2018). *Perencanaan Kawasan Kampung Lio Kota Depok Sebagai Kampung Hijau*. *Skripsi*. Program Studi Perencanaan Wilayah dan Kota Departemen Arsitektur dan Perencanaan Fakultas Teknik Universitas Gadjah Mada.
- Ghiffari, R.A. (2020). *Pengaruh Kepadatan Penduduk Terhadap Jumlah Kasus Mingguan Covid-19 Di Kabupaten Badung Provinsi Bali*, *Jurnal Geografi, Edukasi dan Lingkungan (JGEL)* Vol. 5, No. 1, Januari 2021:46-51. P-ISSN: 2579–8499; E-ISSN: 2579–8510.
- Irsyam, T.W.M. (2017). *Berkembang Dalam Bayang-Bayang Jakarta: Sejarah Depok 1950-1990an* (Edisi Pertama). Yayasan Pustaka Obor Indonesia.
- Pereira, R.J., Nascimento, G.N.L. d., Gratao, L. H. A. & Pimenta, R.S. (2020). The risk of COVID-19 transmission in favelas and slums in Brazil. *Public Health*, 183, 42–43. <https://doi.org/10.1016/j.puhe.2020.04.042>.
- Rupita, R. (2020). Community Empowerment As A Form Of Community Social Resilience Facing The Impact Of Covid-19. *Sosiohumaniora*, 22(3), 348–355. doi: 10.24198/sosiohumaniora.v22i3.29727.
- Saputri, E.T. (2016). *Kajian Sanitasi Lingkungan dan Riwayat Penyakit Pada Permukiman Kumuh di Kelurahan Bandarharjo Kota Semarang*, Jurusan Kesehatan Masyarakat. Universitas Negeri Semarang.
- Sarihati, T. & Santosa, P. (2021). The Effect Of Policy Implementation Of Basic Health Services During The Covid 19 Pandemic (Study of Implementation of Basic Health Services in



- West Java Province). *Sosiohumaniora*, 23(3), 429–436. doi: 10.24198/sosiohumaniora.v23i3.32832.
- Soemarwoto, O. (2001). *Analisa Mengenal Dampak Lingkungan*, (Yogyakarta: UGM Press), Cet. ke-9, h. 18
- Theresia, R.S. (2021). *Sejarah Hari Ini: 2 Maret 2020, Warga Depok Terkonfirmasi sebagai Pasien Pertama Covid-19*. Kompas. <https://megapolitan.kompas.com/read/2021/03/02/05250091/sejarah-hari-ini-2-maret-2020-warga-depok-terkonfirmasi-sebagai-pasien?page=all>
- Unicef. (2021). *COVID-19, 'krisis global terbesar yang dialami anak dalam 75 tahun sejarah kami' - UNICEF*. <https://www.unicef.org/indonesia/id/press-releases/covid-19-krisis-global-terbesar-yang-dialami-anak-dalam-75-tahun-sejarah-kami-unicef>.
- Wahyudin, M. (2021). *Coronavirus Jakarta: Perbandingan Pemukiman Kumuh dan Pemukiman Mewah*, Jurusan Arsitektur. Jakarta: Universitas Mercu Buana Jakarta. p-ISSN : 2088-8201 e-ISSN : 2598-2982.
- Wahyuni, D.N. (2021). *Pengaruh Kepadatan Penduduk Terhadap Jumlah Kasus Mingguan Covid-19 Di Kabupaten Badung Provinsi Bali*, Jurnal Geografi, Edukasi dan Lingkungan (JGEL) Vol. 5, No. 1, Januari 2021:46-51. P-ISSN: 2579–8499; E-ISSN: 2579–8510.
- Yunus, H.S. (2010). *Metodologi Penelitian Wilayah Kontemporer*. Yogyakarta: Pustaka Pelajar.