



# LEVEL OF DISCIPLINE ADHERING TO HEALTH PROTOCOLS AND VACCINATION WILLINGNESS AS PART OF COVID 19 CONTROL EFFORTS IN INDONESIA

By

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## ABSTRACT

*The COVID-19 pandemic, which has been set since March 2020 until now, has impacted various aspects of human life. Restricting community activities is the primary key to breaking the chain of transmission of Covid 19. Changes in human behavior patterns have also changed following current conditions towards adapting to new habits. This study aims to describe the level of community discipline in implementing health protocols and the public's willingness to vaccinate. The sampling method was taken randomly using a form opened within two weeks with the number of respondents filling out 241 respondents. The conclusion in this study was that the level of discipline of the respondents in applying the use of masks, washing hands using soap and air showed promising results and supported the discipline of implementing health protocols. The point that still needs attention is that measures to maintain distance, avoid use and reduce activities are still in the category that is lacking in implementation. While public perception of vaccines and availability for vaccines is also good, there are still a small number of people who doubt the vaccines and the methods used.*

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## 1. INTRODUCTION

The status of the global pandemic due to Covid 19 announced by the World Health Organization (WHO) on March 11, 2020, is still valid, even though the condition is increasing in the broader area and the number of confirmed cases is positive (Dzulfaroh, 2021). Determination of the status of a pandemic has nothing to do with the severity of the disease, the number of victims, or infections but on the geographical spread. With this status determination, each region then follows suit by setting policies to protect its citizens from the transmission of Covid 19, among others, by implementing macro-scale social restrictions, micro-scale social restrictions, and lockdowns. The impact of the COVID-19 pandemic is felt by the health sector and the economy, trade, tourism, education, and so on. There is not a single sector that is not affected by this pandemic; some countries have even reported a recession due to the impact of Covid 19 (Dzulfaroh, 2021)

The number of confirmed positive cases in Indonesia on June 20, 2021, was 1,989,909 cases, the cure rate reached 1,792,528 patients, and the death toll was 54,662 people (Covid-19 Management Committee and National Economic Recovery, 2021b). While globally reported by WHO from 223 countries as many as 177,108,695 positive confirmed cases and 3,840,223 died. Meanwhile, it was reported that 22,455,167 people had received the first stage of vaccination; the second stage of vaccine recipients also increased to 12,096,066 people. The daily increase in vaccine recipients is 455,911 people, while the vaccination target is 40,349,049 people. The distribution of Covid 19

cases is in 34 provinces and 510 regencies/cities in Indonesia (Covid-19 Management Committee and National Economic Recovery, 2021a)

Restricting community activities is the primary key to suppress the transmission of Covid 19 more broadly (Wang, 2021). In addition to the negative impacts that have emerged, there are also several other positive impacts that we can take as a benefit from the Covid 19 pandemic. One of them is the drastically increased use of online media. Bringing those who are far away cannot be reached in just an instant when conditions are normal, then in a pandemic, everything is possible. For example, holding a meeting or conference that involves many personnel from various regions in the world can be held simultaneously and space using the Zoom Meeting application, Skype, Google Meet, and so on. As if the limitations of space and time are meaningless

Community social activities and activities have changed drastically, and there is no choice but to adapt to these conditions. Work, study, worship, and other activities are carried out from home. Social media is also increasing its use to serve public needs in entertainment and meeting daily needs through online store applications during this pandemic and emergency. Social and conventional media use during a pandemic is influenced by social interaction, emotional management, attitudes towards media, and the ability to use media (Wang, 2021). Someone who can manage social interactions, attitudes, emotions, and the ability to use media, both social and conventional, will be more responsible for using these media; this happens on the contrary attitude. Age and gender also influence information access behavior, where the older a person is, the more trusted source of information is television, and women are more likely to access information via the internet than men (Skarpa&Garoufallou, 2021).

The shift in the current pattern of human life caused by the pandemic was never imagined before. The aspect of behavior change is the dominant factor that is also influenced by the impact of the Covid-19 pandemic, among the effects of behavioral changes that can be seen a change in eating patterns, eating behavior, stress, and a person's level of physical activity (Rawat et al., 2021). In addition to this impact, the public is also worried about the phenomenon of fake news or hoaxes circulating in the media, especially on social media (Skarpa&Garoufallou, 2021).

The Indonesian Government, through the Covid 19 task force, has made various efforts to prevent and control the spread of Covid 19 in the environment. Efforts have been made, among others, by maintaining personal and home hygiene, increasing self-immunity and controlling comorbidities, and improving mental and psychosocial health, limiting physical interaction and social restrictions, applying to cough and sneezing etiquette, and doing isolation to the Large-Scale Social Restrictions (PSBB). ). These efforts are part of the implementation of health protocols in adapting new habits for the community (Ministry of Health, 2020)

Psychological factors play an essential role in a person's attitude to wearing a mask. There is a fear of the impact of corona transmission, a sense of empathy, professionalism, trust, and positive perception so that an individual uses a mask (Mallinas et al., 2021). The results of the policy implemented by the Government in Canada resulted in a weekly decrease in new cases of Covid 19 by 22%, and adherence to wearing masks increased by about 27% (Karaivanov et al., 2021)

This study aims to describe the level of community discipline in implementing health protocols in the community and the public's willingness to vaccinate.

## 2. METHODS

This study uses a random sampling method or random. The research method used is a survey with a cross-sectional study approach. Respondents filled out the form provided via the link [http://bit.ly/Penelitian\\_Disiplin\\_Prokes\\_2021](http://bit.ly/Penelitian_Disiplin_Prokes_2021) within two weeks. The number of respondents who entered and filled out the form correctly and in accordance with 241 respondents.

## 3. RESULTS AND DISCUSSION

### 3.1 Results

The results of data collection that have been carried out are then analyzed descriptively and statistically. The number of respondents was 241 people from 22 provinces in Indonesia. As many as 68% of respondents are female, while the remaining 32% are male. The average age of the respondents was 36.8 years, with the highest age of respondents being 61 years and the lowest being 17 years. Characteristics of research respondents based on the level of education completed, as many as 35.7% are high school/junior high school/vocational high school graduates, and 30.7% are D4/S1 graduates. Based on the type of work of the respondents, as many as 63.4% are not as ASN/TNI/Polri but are civil society.



Among the 241 respondents, 30.3% were health workers, and 69.7% were non-health workers. To break the chain of transmission of Covid 19, the Government has intensified the socialization of the 5M movement, namely: Wearing masks, Washing hands with soap and running water, Maintaining a minimum distance of 1.5 m, Avoiding crowds, and Reducing mobility. In this study, an assessment of the application of the health protocol was also carried out (Health, 2020). The results of data collection are as follows:

Table 1. Relationship of Respondents Status with the Use of Masks

Respondent	Using Mask		Total
	Sometimes	Always	
Health workers	2	71	3
Non-Health workers	5	163	68
Total	7	234	41

Based on the data shown in Table 1, it is known that 97.09% of respondents have used masks in their daily activities, both in the group of health workers and non-health workers. The chi-square test results show a sig value of 0.920; this means that there is no relationship between a person's work status and the habit of using masks. With this condition, it can also be interpreted that public awareness of the importance of using masks has become a habit and a need to be carried out every day. In the monitoring report on compliance with the national health protocol, it is known that as many as 42.70% of districts/cities in Indonesia have a compliance rate of wearing masks > 90% (Covid-19 Task Force, 2021)

Table 2. The relationship between the use of masks and the type of masks used

Use of Mask	Type of Mask Used		Total
	Disposable	Washable	
Sometimes	4	3	7
Always	166	68	234
Total	170	71	241

Respondents who use masks every day choose the type of disposable masks to use, as many as 70.94% of respondents. The results of the chi-square statistical test show a sig value of 0.430; this means that there is no relationship between the use of masks and the type of masks used every day by respondents.

Table 3. The relationship between the use of masks and the habit of changing masks every day

Use of mask	Change the mask every 3-4 hours		Total
	of use		
	Sometimes	Always	
Sometimes	4	3	7
Always	56	178	234
Total	60	181	241

Respondents who have used masks, as many as 76.06%, have taken action to permanently replace the masks used every 3-4 hours to prevent a decrease in the ability of masks to prevent transmission of Covid 19. The results of the chi-square statistical test show a sig value of 0.003, and this is means that there is a relationship between the use of masks and the frequency of changing masks used every day

Table 4. Relationship of Respondents' Status with Habit of Washing Hands with Soap

Respondent	Washing Hands with Soap		Total
	Sometimes	Always	
Healthworkers	5	68	73
Non-Healthworkers	32	136	168
Total	37	204	241

The data in Table 4 shows the relationship between health workers and non-health workers with the habit of washing their hands using soap and running water. At this point, it is known that 6.8% of respondents from health workers still have not made a habit of washing their hands with soap and running water with the appropriate time and

procedure. The chi-square test results show a sig value of 0.050; this means that there is a relationship between a person's work status and the habit of washing hands with soap and running water appropriately and correctly.

Table 5. Relationship of Respondents Status with Habits of Keeping a Distance in Activities

Respondent	Maintain a minimum distance of 1,5 m		Total
	Sometimes	Always	
Healthworkers	35	38	73
Non-Healthworkers	97	71	168
Total	132	109	241

In terms of keeping a distance when doing activities between health workers and non-health workers, the habits are not much different. The results of statistical tests with chi-square also showed sig results of 0.160; this means that there is no relationship between the work status of health workers and non-health workers with the habit of keeping a distance in doing activities. This condition needs further scrutiny because a safe distance to avoid transmission of Covid 19 is at least 1.5-2m; if it is less than that distance, it is feared that transmission can occur quickly. As many as 42.98% of districts/cities are reported to have a level of compliance in maintaining a distance of more than 90% (Covid-19 Task Force, 2021)

Table 6. Relationship of Respondents Status with Gathering Habits of more than 3 people

Respondent	Gather more than 3 people			Total
	Often	Sometimes	Never	
Healthworkers	14	53	6	73
Non-Healthworkers	38	101	29	168
Total	52	154	35	241

Other measures to prevent the spread and transmission of COVID-19 are to reduce gatherings or gatherings with more than three people for a long time and in a limited area. As many as 63.09% of respondents still cannot avoid gathering together and avoiding crowds in their activities. Nationally, it was reported that 11.99% of the people could not keep their distance and avoid crowds (Covid-19 Task Force, 2021)

Table 7. Relationship of Respondent Status with Mobility

Respondent	Traveling out of town/region			Total
	Often	Sometimes	Never	
Healthworkers	4	21	48	73
Non-Healthworkers	5	41	122	168
Total	9	62	170	241

As many as 29.46% of respondents still carry out mobility to go out of town or outside the region, even as much as 3.73% travel at frequent frequencies. Respondents cannot avoid this because of the need as a worker who requires them to travel as a "penglajon" or commuter mobility.

Table 8. Frequency Distribution of Research Respondents Based on the Use of Public Vehicles

Using Public Transportation	Frequency	Percentage
Yes	26	10,8
Not	215	89,2
Total	241	100

In carrying out their mobility, if they have to go out of town or the area, as many as 89.2 % of respondents do not use public transportation, but as many as 10.8% of respondents still use public transportation to deliver to their destination location.

Table 9 Distribution of Research Respondents Frequency Based on Vaccination Status

Vaccination Status	Frequency	Percentage
Already	59	24,5




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Not yet	182	75,5
Total	241	100

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Table 9 shows that 75.5% of research respondents have not received the Covid 19 vaccine that the Government has provided. The negative attitude of the community towards vaccines is one of the main obstacles to immediately completing a vaccine for the entire community. This condition is then followed by a question to find out how the respondents' perceptions related to the ability and workings of the vaccine and the respondents' willingness to be vaccinated. The results are shown in Table 10.

Table 10. The Relationship between Vaccine Benefits and Willingness to Be Vaccinated

Vaccines can prevent Covid 19	Willingness to be vaccinated			Total
	Yes	Reject	Not ready yet	
Yes	139	7	0	146
Not	68	20	1	89
Maybe	3	1	2	6
Total	210	28	3	241

Based on data shown in Table 10, it is known that as many as 60.58% of respondents believe that vaccines can prevent Covid 19, but as many as 4% still refuse to be vaccinated. This becomes a contradiction when respondents believe in its benefits but are reluctant to use it. In the results of follow-up questions when asked the reasons for not being vaccinated, among others: afraid of the after-effects of the vaccine because of seeing the news in the media, not knowing the composition of the vaccine dose used, fear of still being exposed to Covid 19 because of seeing friends' experiences, having comorbid diseases and still doubting how it works. The vaccine in the human body. The results of statistical tests using chi-square showed a sig value of 0.000; this means that there is a relationship between respondents' confidence in the benefits of vaccines and respondents' willingness to be vaccinated.

### 3.2 Analysis

The various ethnic groups, cultures, and religions in Indonesia make each unique; this is influenced by the characteristics (Putri, 2021). According to experts, approximately 300 ethnic groups are estimated to exist in Indonesia, including Marotai, Javanese, Betawi, Asmat, Balinese, and so on. This ethnic diversity influences various cultural diversity, regional languages, traditional clothes, traditional ceremonies, and so on (Putri, 2021). Good communication and tolerance between ethnic groups, religions, and cultures will strengthen national unity. Technological advances, especially in the field of communication, have both positive and negative effects. Computing propaganda is one of the threats to divide harmony among communities through the rise of social media users (CNN Indonesia, 2021)

The information available in today's contemporary digital world is overwhelming and beyond the average person's ability to process all available and received information (Skarpa&Garoufallou, 2021). Individual behavior in managing the information received is also very diverse; some individuals immediately accept the information as a trusted news source and then disseminate it without confirming its truth. However, there are also individuals who, in receiving information, always pay attention to the source of the information and the truth of the contents of the information, if it is believed to be accurate, then disseminate the information or carry out instructions according to the instructions for the information obtained. Reference media that are widely accessed by the public to get news information about the development of Covid 19, among others: electronic press releases on television and news websites. At the same time, the official source of information trusted by the public is if it is released by the Ministry of Health and official government agencies. The role of friends and family in providing information about Covid 19 is considered an additional source of information (Skarpa&Garoufallou, 2021).

The use of e-media platforms is considered necessary to convey messages about health information that are important to be known by the public broadly and responsibly. Changes in human behavior due to the impact of the pandemic occur in psychosocial aspects of the occurrence of mental stress, which is currently expected in individuals (Rawat et al., 2021). Weight gain in individuals due to decreased physical activity, disturbances in the quantity and quality of sleep also increases mental stress on a person, resulting in stress. Fatigue due to this pandemic is more common in the younger age group (MacIntyre et al., 2021)

In the conditions faced together today, the community is in a difficult choice to choose; this is because, to meet the needs of their life, the community must still carry out other social life activities. The risk that follows the

movement of people and community gathering activities is the potential for transmission of Covid 19, which is quite large. Mitigation of the Covid-19 pandemic's impact is needed to continue to protect the community, and the wheels of the economy can continue to run. The community is required to adjust to the order and adapt to new habits so that they can live productively and avoid Covid 19. Discipline in implementing protocols is the primary key in suppressing the transmission of Covid 19 in the community (Ministry of Health, 2020). The level of community discipline to implement health protocols such as keeping a distance experienced a substantial decline starting in early November 2020, namely on November 1, the compliance rate was 81.87%, decreased on November 8 to 80.62%, and continued to decline on November 15 November 80.15% so that on November 22 the level of discipline about keeping a distance dropped to the range of 53.57% (Noah, 2020). According to the Central Statistics Agency, the high number of Covid-19 cases is strongly influenced by the increased mobility of people's movements. According to data that BPS has processed, it is stated that there has been a change in the increase in community mobility from February 2021 to March 2021, such as retail trading places from -22.2% to -17%, places to shop for daily necessities from -5.3% to 1.8% and transit points from -28.3% to -25.5% (Center for the Study of Domestic Trade, 2021)

Using masks, the habit of washing hands with soap and running water, maintaining a minimum distance of 1.5-2m, avoiding crowds, and reducing mobility are health protocols that each individual must apply in a disciplined and appropriate manner (Ministry of Health, 2020). At first, wearing a mask was not a culture or habit, but people's behavior has changed with the current Covid-19 pandemic. Using a mask properly, covering the nose and mouth adequately has protected both parties from exposure to the coronavirus. He further explained, if a person carrying the virus and without symptoms does not use a mask, the possibility of transmission can reach 100%, but if both parties use masks and maintain a minimum distance of 1.5 m, the risk of transmitting the virus is only 1.5% (Bureau of Communication and Community Service, 2020). Furthermore, it was also conveyed that the transmission rate could occur at 70% if a patient who does not use a mask meets a healthy person but uses a mask, while transmission will occur at 5% if a patient who uses a mask meets a healthy person who does not use a mask (Bureau of Communication and Services). Society, 2020)

Strict rules for wearing masks on long-haul flights prove that passengers who can transmit the virus cannot infect other passengers. This condition is also confirmed by several other studies which state that the strict use of masks helps prevent the spread of the virus in the broader community. Several countries such as Germany, the United States, and Canada have also shown that groups that wear masks appropriately can reduce new infections and reduce mortality (Pratiwi, 2020). In addition to wearing masks, actions such as washing hands with soap and running water and maintaining distance can also prevent the spread of the coronavirus (MacIntyre et al., 2021). The Canadian Government's policy of requiring the use of masks in public places and rooms was able to reduce the weekly number of new cases of Covid 19 by 22%, thereby automatically reducing the total number of recorded cases (Karaivanov et al., 2021).

Cloth masks cannot protect the entry of particles. The ability of cloth masks to protect is only in the range of 3%, while 97% of particles can enter the cloth mask (Ika, 2020). Cloth masks do not have protection like surgical masks, consisting of three layers: the outer layer is waterproof to protect droplets, the middle layer is to filter germs, and the inner layer is to absorb fluids that come out of the wearer's mouth. Furthermore, it was stated that N95 masks do have the best level of effectiveness in preventing transmission because they have a denser density than surgical masks and cloth masks. This type of mask has good protection for droplets and aerosols. These masks are widely used by health workers who have direct contact with patients. According to research results, surgical masks can reduce the transmission of Covid 19 by 75% (Anggraeni, 2020). Meanwhile, FFP3 or N 99 masks can reduce the risk of contamination by 94-99%, and FFP2 or N 95 masks can filter aerosols by 95% (Wilson et al., 2020)

The application of physical distance (physical distancing) has a strong influence on the transmission of Covid 19 (Guo et al., 2021). During the early days of the pandemic, there was a significant interaction between ambient temperature and the application of physical distancing. It has been reported in several studies that an increase in temperature alone is not enough to contain the transmission of Covid 19; interventions on physical distancing should always be carried out in warm areas and warm seasons in order to achieve effective Covid 19 control (Guo et al., 2021). People who have restricted physical distance and reduced mobility have benefited from the protection from Covid 19 transmission. Based on the experience gained, they then wrote hopes that other people who are still ignorant of the rules for maintaining physical distance practice these measures (Bicalho et al., 2021).

The long duration of the pandemic and still occurring today has caused fatigue, uncertainty, and increased concern about the end of the pandemic (MacIntyre et al., 2021). The effects of fatigue, boredom and the tendency to ignore health protocols with the discovery of a vaccine have become a new challenge that is also worrying about preventing the decline in the number of viruses spreading more broadly. Correct use of masks can reduce the



transmission of COVID-19, but transmission continues to occur in places where masks are generally not worn (Martín-Sánchez et al., 2021). Ordinary people do not use masks correctly and properly or remove masks in crowd locations or public places with less than a 60% compliance rate. These public locations include tourist attractions, restaurants/shops/shops, houses, public roads, and public sports venues (Covid-19 Task Force, 2021). There has been a systematic evaluation of the effectiveness of wearing masks to protect public health from Covid 19 infection. The results show that there is a relationship between wearing masks and reducing the risk of Covid 19 infection (Li et al., 2020)

A person's reluctance to get vaccinated has at least four types of negative traits as a reason, namely: distrust of the benefits of vaccines, concerns about unexpected effects after the vaccine, concerns about commercialization with the use of the vaccine, and the assumption that natural immunity will emerge by itself. Paul et al., 2021). The results of a survey on receipt of the Covid 19 vaccine in Indonesia in 2021 stated that 30% of respondents did not believe in the safety of the vaccine, 22% stated that the vaccine was not effective, 12% of respondents expressed fear of the side effects of vaccination and as many as 8% of respondents still doubted the halalness of the vaccine. (Ministry of Health of the Republic of Indonesia et al., 2020). Meanwhile, most people in America also intend to be vaccinated, but they underestimate the risk of contracting Covid 19. Negative anxiety affects a person's intention to vaccinate, while the perceived benefits are positively related to one's intention to vaccinate (Chu & Liu, 2021) (Troiano & Nardi, 2021). A mediation method is needed to suppress fear and worry and foster a sense of security against vaccination

The media and the Government's role in disseminating the positive value of vaccines as an effort to prevent Covid 19 and the formation of community immunity need to be continuously intensified (Troiano & Nardi, 2021). Media can increase public knowledge if used responsibly and adequately (Prasetyawati et al., 2021). Computational propaganda uses algorithms, automation, and big data to influence public life. The work system used is to lead public opinion into a topic or issue that wants to be echoed so that there is doubt from the public then it will divide the harmony in the community, which will result in the retreat of someone's critical reasoning (CNN Indonesia, 2021). The Government needs to deal with it seriously if the public believes more in irresponsible information; this will impact the success of a program that has been launched. In fighting the spread of disease, it is one's responsibility (Liu, 2021). The interpretation of a negative attitude towards vaccines is a public health problem; mistrust of vaccines and concerns about future side effects of vaccines are obstacles to achieving community immunity through Covid 19 vaccination (Paul et al., 2021).

## **CONCLUSION**

Government policies are needed to support community discipline in implementing health protocols in daily life. The obligation to wear masks wherever they are can be a powerful tool to slow the spread of Covid 19. It is essential to foster confidence in vaccine safety and fight excessive fear from individuals about vaccine interventions being carried out. Given the duration of the pandemic, which has been more than one year, it is necessary to anticipate fatigue and boredom in the community to ignore health protocols.

This study concludes that the level of discipline of respondents in applying masks, washing hands using soap, and running water show promising results and supports the discipline of implementing health protocols. The point that still needs attention is that measures to maintain distance, avoid crowds and reduce mobility are still in the category that is lacking in implementation. While public perceptions of vaccines and willingness to be vaccinated are also good, there are still a small number of people who doubt the vaccines and the methods used.

The next suggestion is to carry out continuous socialization of the importance of implementing health protocols to break the transmission of Covid 19. In the case of vaccines, a correct and responsible method of delivering information is needed to all levels of society to reduce hoaxes about vaccines, suppress fear and anxiety so that foster a sense of security and comfort towards vaccination.

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