

## Overview of Public Knowledge Towards the Prevention of COVID-19 Transmission at Environment IV of Sidikalang Village 2022

Rusmauli Lumban Gaol, Cindy Rutfani Hutauruk

D3 Nursing, STIKes Santa Elisabeth Medan, Jl. Bunga Terompet No.118 Sempakata, Kec. Medan Selayang, Kota Medan, 20131, Indonesia

---

### ARTICLE INFO

#### Keywords:

COVID-19,  
Prevention of COVID-19 Transmission

---

### ABSTRACT

Coronavirus is part of a large family of viruses that cause diseases that occur in animals or humans. Humans who contract the virus will show signs of respiratory infections ranging from the flu to more serious ones. Prevention of covid-19 transmission can be done starting from washing hands, using masks, social distancing, physical distancing, applying coughing and sneezing etiquette, implementing a clean and healthy lifestyle, changing clothes, managing comorbidities, managing mental health & psychosocial health and implementing adaptation to new habits of carrying out health protocols. The purpose of the study is to find out a picture of public knowledge about preventing the transmission of COVID-19 at Environment IV of Sidikalang Village. This study uses a descriptive design with sampling techniques using purposive sampling of 65 respondents. The results show that the picture of public knowledge about the prevention of COVID-19 transmission at Environment IV of Sidikalang Village was obtained "good" 24 people (36.9%), "enough" 39 people (60.0%) and "less" 2 people (3.1%). It is hoped that the public can further increase awareness in implementing the prevention of COVID-19 transmission recommended by the government in daily life.

---

#### Email :

[rusmauli84@gmail.com](mailto:rusmauli84@gmail.com)  
[cindyrutfanihutauruk4145@gmail.com](mailto:cindyrutfanihutauruk4145@gmail.com)

Copyright © 2022 Jurnal EduHealth All rights reserved is Licensed under a [Creative Commons Attribution- NonCommercial 4.0 International License \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

---

## 1. INTRODUCTION

Corona virus is a virus that is commonly found in our environment. This virus was discovered in the mid-1960s and is known as a virus that causes cough and cold symptoms. This mild type of virus is included in the category of Alpha Coronavirus and Beta Coronavirus. In addition to humans, the Corona virus is also found in animals, such as pigs, camels, and bats, so it is also called a zoonotic virus, namely the transmission of viruses from animals to humans (Pradipta Jaka, 2020).

Coronaviruses are part of a large family of viruses that cause disease in animals or humans. Humans infected with the virus will show signs of respiratory tract infections ranging from flu to more serious ones, such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). Coronavirus itself is a new type that has been discovered by humans since it emerged in Wuhan, China in December 2019 and was named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV2). So this disease is called Coronavirus Disease-2019 (COVID-19). (Nasution, 2021).

As of April 14, 2020, the number of positive cases of COVID-19 worldwide has reached 1,936,700 people. The United States, Spain and Italy are still the 3 countries with the highest number of infection cases in the world. In Spain, the addition of cases in the last day even reached 2,442 patients. These three countries also have the highest number of deaths from COVID-19 (Health, 2020). As of today, the total number of deaths from coronavirus infection at the global level has touched 3,889,723 people. Meanwhile, the total number of recovered COVID-19 patients in the world has reached 459,015 (Nasution, 2021).

*Overview of Public Knowledge Towards the Prevention of COVID-19 Transmission at Environment IV of Sidikalang Village 2022- Rusmauli Lumban Gaol, Cindy Rutfani Hutauruk*

Data from the Task Force Tuesday (19/1/2021), shows that the total number of COVID-19 cases in Indonesia currently reaches 927,380. This number was obtained after the addition of 10,365 cases. Meanwhile, the total recovered cases reached 753,948 after an increase of 8,013 people. Then, the number of deaths due to COVID-19 to date has reached 26,590 people, after an increase of 308 people. The increase in the death rate is the highest since the COVID-19 pandemic first appeared in Indonesia on March 2, 2020. Currently, 510 districts/cities in 34 provinces have been exposed to COVID-19 (Kemenkes RI, 2021 in Rani Kawati Damanik, 2021). As of January 28, 2021, in North Sumatra Province there were 20,591 cases of COVID-19 with 738 deaths (Elfride, 2021).

According to (Nawang Sari, 2021) in a study entitled Relationship of Individual Characteristics with Knowledge about Prevention of Coronavirus Disease 2019 in Communities in South Kalimantan, it was shown that out of 1190 people who were respondents, respondents who had good knowledge about preventing COVID-19, amounted to 69.2%. According to (Haque, 2021) in a study entitled Knowledge, attitude and practices (KAP) towards COVID-19 and assessment of risks of infection by SARS-CoV-2 among the Bangladesh Population, stated that among 2,045 respondents, 87% of respondents had good knowledge.

According to (Nemati, 2020) in a study entitled Assessment of Iranian Nurses Knowledge and Anxiety Toward COVID-19 During the Current Outbreak in Iran, it was found that more than half of nurses (56.5%) had good knowledge about the source, transmission, symptoms, signs, prognosis, treatment, and the COVID-19 death rate. According to (Zhang, 2020) in a study entitled Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China, the results were that of those surveyed, 89% of health workers had sufficient knowledge about COVID-19, more than 85% were afraid of self-infection with the virus, and 89.7% are following correct practices regarding COVID-19.

Common symptoms and signs of Covid-19 infection include symptoms of acute respiratory distress, such as fever, peak temperature  $> 38^{\circ}\text{C}$ , coughing, sneezing and shortness of breath. The average incubation period is 5-6 days and the longest is 14 days. The severity of COVID-19 cases is influenced by endurance, age and pre-existing diseases (comorbidities), such as hypertension, diabetes, asthma, etc. which can cause pneumonia, acute respiratory syndrome, kidney failure and even death. (Laoli, 2021).

Covid-19 disease can be transmitted from human to human through close contact and droplets. People who are most at risk of contracting this disease are people who have a history of close contact with confirmed Covid-19 patients, including media personnel who treat Covid-19 patients. Droplets are small droplets from the mouth and nose when we cough and sneeze. Droplet particles measuring  $> 5 \mu\text{m}$  so that in a short time these particles will fall and do not fly in the air. Food processing is also one way to prevent infection transmission, especially virus transmission from animals to humans (Pradipta Jaka, 2020).

According to (Rachman, 2018) the steps that need to be implemented in preventing COVID-19 are washing hands, using masks, social distancing, physical distancing, covering the mouth when coughing and sneezing, increasing body resistance by implementing a clean and healthy lifestyle (PHBS), managing comorbidities/ to keep comorbidities under control, manage mental and psychosocial health, change clothes after traveling before contact with family members at home, apply new habit adaptations by implementing health protocols in every activity.

## 2. METHOD

This research uses descriptive research method. This research was conducted in Neighborhood IV Sidikalang Village in April 2022 with a population of 205 people aged 17-45 years. The sampling technique used is purposive sampling. The sample of this research is as many as 65 people aged 17-45 years.

The instrument in this study was a questionnaire (15 statements) for the demographic data of the respondents in the form of gender, age, education and occupation. Then use a questionnaire that has been conducted by Laoli (2021). The data analysis technique in this research is univariate analysis (descriptive analysis).

*Overview of Public Knowledge Towards the Prevention of COVID-19 Transmission at Environment IV of Sidikalang Village 2022- Rusmauli Lumban Gaol, Cindy Rutfani Hutauruk*

### 3. RESULTS AND DISCUSSION

**Table 1 Distribution of Frequency and Percentage Based on Characteristics of Demographic Data Age, Occupation, Gender and Education of Environment IV Sidikalang Village 2022**

Characteristics	F	%
<b>Age</b>		
17-25 years old	22	33.8
26-35 years old	34	52.3
36-45 years old	9	13.8
<b>Gender</b>		
Man	28	43.1
Woman	37	56.9
<b>Last education</b>		
SD	0	-
JUNIOR HIGH SCHOOL	1	1.5
SENIOR HIGH SCHOOL	37	56.9
D3	12	18.5
S1	13	20.0
S2	2	3.1
S3	0	-
<b>Work</b>		
civil servant	4	6.2
Private employees	2	3.1
Nurse	6	9.2
Farmer	8	12.3
TNI	2	3.1
Self-employed	16	24.6
Teacher	10	15.4
Student	11	16.9
Police	2	3.1
Doesn't work	4	6.2
<b>Total</b>	<b>65</b>	<b>100.0</b>

Based on table 5.1, the most respondents are aged 26-35 years as many as 34 people (52.3%). Based on gender the most were women as many as 37 people (56.9). The most recent education of respondents is high school as many as 37 people (56.9%) and based on the occupation of respondents the most are entrepreneurs as many as 16 people (24.6%).

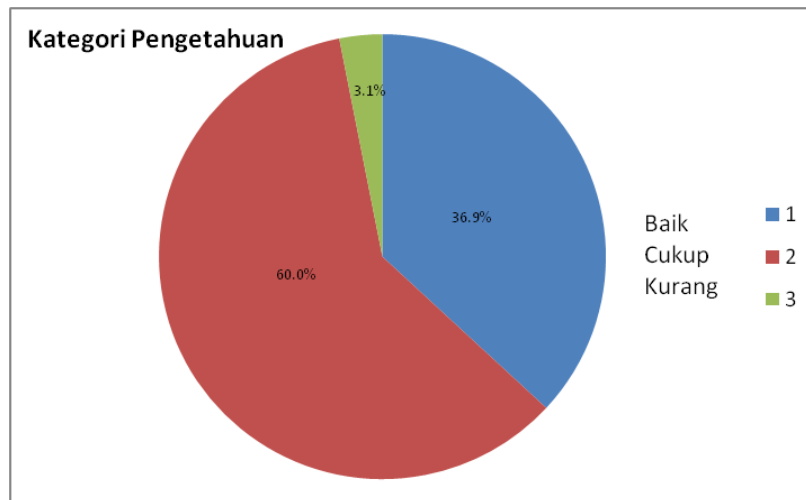
**Table 2 Distribution of Frequency and Percentage of Public Knowledge on Prevention of Covid-19 Transmission in Environment IV Sidikalang Village 2022**

Community Knowledge Category	F	%
Well	24	36.9
Enough	39	60.0
Not enough	2	3.1
<b>Total</b>	<b>65</b>	<b>100.0</b>

Based on table 5.2, it is found that the Frequency of Knowledge of Environmental Community IV Sidikalang Village is sufficient for 39 people (60.0%), good as many as 24 people (36.9%), and less as much as 2 people (3.1%).

#### Discussion

#### Diagram 5.3 Distribution of Frequency and Percentage of Public Knowledge on Prevention of Covid-19 Transmission in Environment IV Sidikalang Village 2022.



Research conducted in Neighborhood IV Sidikalang Village in 2022 regarding the description of public knowledge about Covid-19 prevention in 2022 showed that more were in the sufficient category as many as 39 people (60.0%), in the good category as many as 24 people (36.9%), and the poor category. as many as 2 people (3.1%).

The researcher assumes that the knowledge obtained by the community of Environmental IV Sidikalang Village is in the sufficient category, which is 39 people (60.0%). This is in line with research(Laoli, 2021)46 people (73%) got the most public knowledge results in the sufficient category, which occurred because the community had sufficient knowledge through internet media, while the implementation of education in health education related to preventing the transmission of Covid-19 was less than optimal.

In this study, the majority of people in the moderate category were found to be young and this is in accordance with the population census data of Dairi Regency which shows that there are more young people than other ages. Respondents in this study also found that most people were female. This is not in line with the population census data in the Sidikalang Sub-district which states that the majority of the population is male compared to female. The education level of the respondents in this study is mostly high school. This result is not in line with the population census data of Dairi Regency which shows that the majority of people are with elementary school education level (SD). Most of the occupations owned by respondents in this study are Entrepreneurs.

Based on the results of the study using a questionnaire with 15 statements, it was found that the most people know about cleaning hands regularly by washing hands with soap and running water for 20-40 seconds can kill the covid-19 virus as an effort to prevent the transmission of Covid-19, namely as many as 61 people. .This is because people think that washing hands can remove dirt and germs, and it has become a common activity even before the Covid-19 pandemic.

Researchers also found results that showed people's lack of knowledge in managing comorbid/comorbid diseases to keep them under control. This is because based on the respondents' answers as many as 35 people said they did not understand what and how comorbid/comorbid diseases were.

#### 4. CONCLUSION

Based on the results of the research and discussion, it can be concluded that public knowledge of preventing the transmission of Covid-19 in Environment IV, Sidikalang District, was obtained by 39 people (60.0%), both 24 people (36.9%) and less than 2 people (3.1%). . This is due to the lack of information from health workers about preventing the transmission of Covid-19 and the public who do not understand what and how comorbid/comorbid diseases are to be controlled.

## REFERENCES

- [1] Elfrida, R. (2021). Gambaran Pengetahuan dan Sikap Masyarakat Terhadap Vaksinasi Covid-19 di Kecamatan Siantar Marimbun Kota Pematang Siantar Sumatera Utara.
- [2] Haque, T. (2021). Knowledge, attitude and practices (KAP) towards COVID-19 and assessment of risks of infection (RI) by SARS-CoV-2 among the Bangladeshi population: An online cross sectional survey. *Food Safety and Health* , 1.
- [3] Health, M. o. (2020). *Ministry of Health. Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MenKes/413/2020 concerning Guidelines for the Prevention and Control of Coronavirus Disease 2019 (Covid-19. MenKes/413/2020* , 1-207.
- [4] Laoli, S. O. (2021). Gambaran pengetahuan masyarakat tentang pelaksanaan protokol kesehatan dalam pencegahan penularan covid-19 di desa dima dusun II kecamatan Hiliduhu tahun 2021. 1-23.
- [5] Nasution, N. H. (2021). Gambaran Pengetahuan Masyarakat Tentang Pencegahan Covid-19 Kecamatan Padangsidempuan Batunadua, Kota Padangsidempuan. *Jurnal Biomedika dan Kesehatan* , 47-49.
- [6] Nawangsari, H. (2021). Hubungan Karakteristik Individu Dengan Pengetahuan Tentang Pencegahan Coronavirus Disease 2019 Pada Masyarakat Di Kecamatan Pungging Mojokerto. *Sentani Nursing Journal* .
- [7] Nemati, M. (2020). Assessment of iranian nurses' knowledge and anxiety toward covid-19 during the current outbreak in iran. *Archives of Clinical Infectious Diseases* .
- [8] Pradipta Jaka dan Ahmad Nazaruddin. (2020). *ANTIPANIK! Buku Panduan Virus Corona*. Jakarta: PT Elex Media Komputindo Kelompok Gramedia.
- [9] Rachman, T. (2018). Hubungan pengetahuan dengan perilaku masyarakat dalam pencegahan COVID-19 di desa tetehosi kecamatan mandrehe kabupaten nias barat tahun 2021. *Angewandte Chemie International Edition*, 6(11), 951–952. , 10-27.
- [10] Rani Kawati Damanik, Adventy Riang Bevy Gulo, E.Y. S. (2021). *Upaya Pencegahan Penularan Covid-19 Melalui Sosialisasi Dan Penyemprotan Rumah Ibadah*. 4, 6.
- [11] Zhang, M. (2020). Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. *Journal of Hospital Infection* , 183-187.