

## **Covid-19 Surveillance at Cempaka Public Health Center**

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### **ABSTRACT**

At the end of 2019, a pneumonia outbreak was found with no known exact cause. This outbreak was first detected in the city of Wuhan in Hubei Province of China. On January 7, 2020, researchers succeeded in identifying the cause of pneumonia, namely a type of novel coronavirus. The purpose of this study was to determine the incidence of Covid-19 cases by region, sex and age. The method used in this study is a descriptive method through a quantitative approach with secondary data types, namely data recapitulation that is available at the Cempaka Besar Health Center in 2021. The Cempaka Health Center work area has 4 sub-districts, namely Kelayan Luar, Mawar, Kertak Baru Ulu, and Kertak Baru Ilir. The number of Covid-19 incidents in the Cempaka Health Center work area reached 395 cases in 2021. Mawar Village reached 217, Outer Services 26 cases, Kertak Baru Ulu 54 cases, and Kertak Baru Ilir 97. In the Cempaka Health Center work area, namely 183 men and 395 women who were exposed to Covid-19 cases. The most cases of Covid were aged 26-50 years and totaled 165 cases while the lowest cases of Covid were aged 1-11 years amounted to 13 cases. cases for a total of 395 cases. data for overall cases 1-11 years 13 cases, 11-25 years 91 cases, 26-50 years 165 cases, 50-64 years 81 cases, 65> years 45 cases. The highest incidence of Covid 19 in the Mawar Village area is female, and in the 26-50 year age group.

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### **INTRODUCTION**

At the end of 2019, an outbreak of pneumonia was discovered with no known exact cause. This outbreak was first detected in the city of Wuhan in China's Hubei Province. On January 7, 2020, the researchers succeeded in identifying the cause of pneumonia, namely the type of novel coronavirus [1]. Then, on February 11, 2020 the World Health Organization announced the official name for the pneumonia outbreak, namely Covid-19 (Corona Virus Disease 2019) and the name of the virus is SARS-CoV-respiratory 2 (Severe acute syndrome coronavirus 2). The spread of Covid-19 is very fast and has even reached an international scale so that it is called the Covid-19 pandemic. The number of patients who have confirmed positive for Covid-19 has increased and spread across 38 provinces in Indonesia [2]. Symptoms of Covid-19 are characterized by fever, dry cough, shortness of breath, diarrhea and pain in the throat [3]. So that the government and the public are increasingly pressured to immediately take action to detect early infection and prevent the spread of COVID-19 [4]. The Covid-19 outbreak is not only troubling the community, but health services are the spearhead of handling this Covid-19.

### **LITERATURE REVIEW**

Based on Covid-19 data as of November 24, 2021, the total confirmed cases of Covid-19 were 258,164,426 cases with 5,166,192 deaths (CFR 2.0%) in 204 infected countries and 151 community transmission countries. In Indonesia, 4,254,443 people have been confirmed positive for Covid-19 and 4,102,700 patients have recovered from the disease. Factors that affect a person exposed to Covid-19, namely accidentally inhaling droplets that come out when a Covid-19 sufferer coughs or sneezes, holds his mouth or nose without washing his hands first after touching an object affected by a Covid-19 patient's spit, and close contact with Covid-19 sufferers [5].

The efforts made by the government in dealing with the Covid-19 pandemic outbreak based on Presidential Decree Number 7 of 2020 concerning the Formation of the Task Force for the Acceleration of Handling Covid-19 have been amended by Presidential Decree Number 9 of 2020 to expand the scope of duties and membership of the Task Force Covid-19 which involve the ministries/agencies involved in

handling Covid-19 [6]. The Government of Indonesia has called for Large-Scale Social Restrictions (PSBB), as an effort to break the chain of spread of the Covid 19 virus. PSBB is a restriction on certain activities for residents in an area suspected of being infected with Covid 19. PSBB regulates holidays for schools, workplaces, religious activities, activities at public places or facilities, social and cultural activities, transportation media and other activity restrictions [7]

## **MATERIALS AND METHODS**

### **Materials**

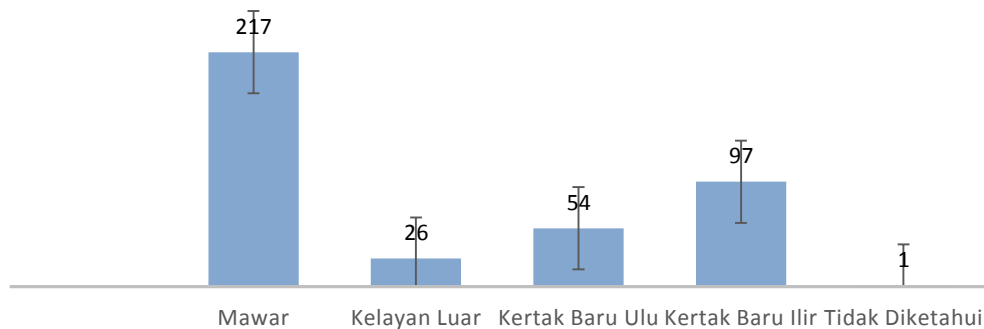
This study aims to determine the incidence of Covid-19 based on region, sex, and age in the working area of the Cempaka Health Center.

### **Methods**

The method used in this research is a descriptive method through a quantitative approach with secondary data types, namely the recapitulation of data that is already available at the Cempaka Besar Health Center in 2021.

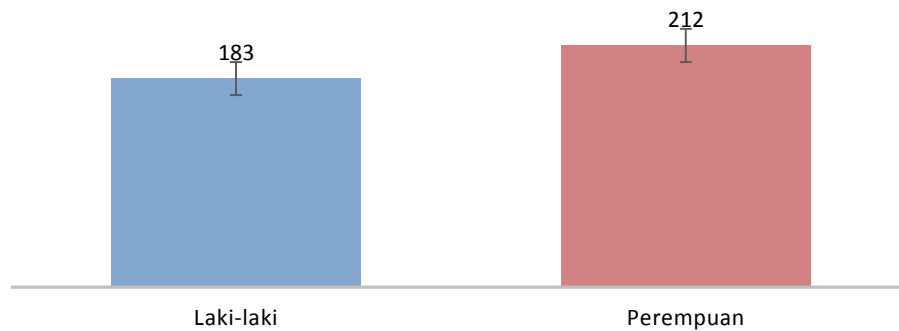
## **RESULTS AND DISCUSSION**

Based on the results of secondary data studies at the Cempaka Besar Health Center in 2021, the percentage of Covid-19 in the working area of the puskesmas was obtained based on various factors. Data on Covid-19 cases by region, and the trend of cases in one year are as follows.



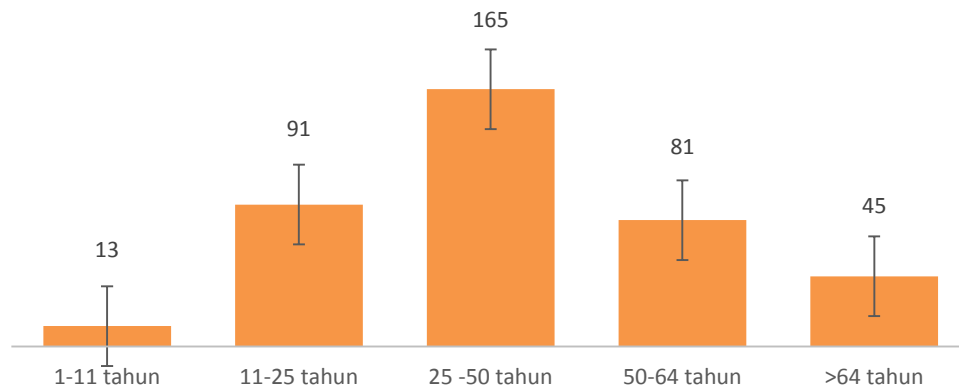
**Figure 1:** Number of Covid-19 Incidents by Region

Based on the graph of the 2021 COVID-19 cases at the Cempaka Health Center the total number of cases from the four sub-district areas totaled 395 people from January to September. Most cases of COVID-19 are in the Mawar sub-district area with a total of 217 people. Meanwhile, the lowest number of cases was 26 people in the Kelayan Luar area. This is because Banjarmasin is a large city with a population of around 700,000 people and a population density of more than 7,000 people per square kilometer. Banjarmasin is also very strategically positioned as a regional economic and trading center for the South Kalimantan region. The combination of population, population density and high connectivity is what makes Banjarmasin the epicenter of the spread of Covid-19 in South Kalimantan [8].



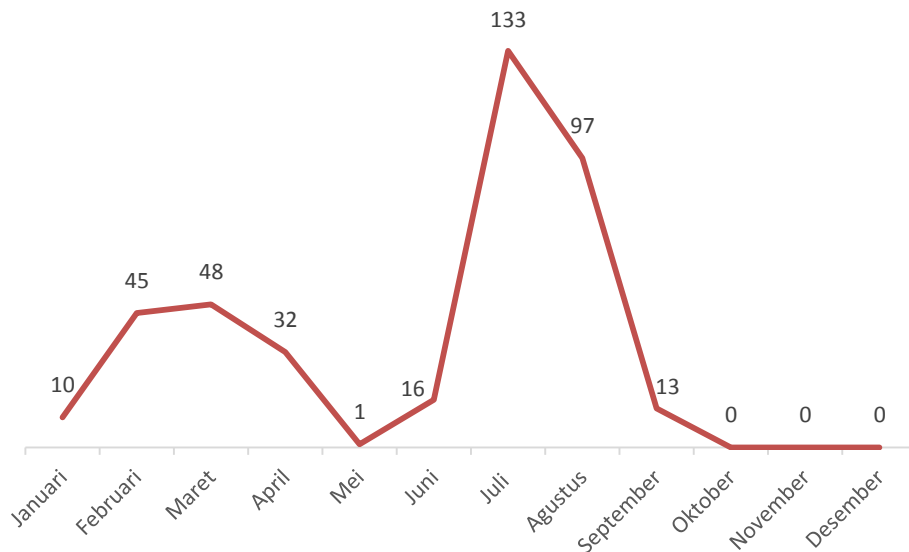
**Figure 2:** Number of Covid-19 Incidents by Sex

The results of the data show that the number of COVID-19 cases in 2021 in the working area of the Cempaka Health Center is 183 men and 395 women. The number of exposed women is more than 50% of the number of men, meaning that women are more susceptible to being infected with the Covid-19 virus because men are known to have higher expression of ACE2, this is related to sexual hormones which cause men to be more at risk of being infected with SARS- CoV-2, but this is not in accordance with the data presented because there could be an imbalance between the number of male and female samples [9].



**Figure 3:** Number of Covid-19 Incidents by Age

The highest number of Covid cases were aged 26-50 years and totaled 165 cases while the lowest Covid cases were aged 1-11 years amounted to 13 cases. Data for overall cases 1-11 years 13 cases, 11-25 years 91 cases, 26-50 years 165 cases, 50-64 years 81 cases, 65+ years 45 cases. So the cases for the whole numbered 395 cases. The productive age is the most at risk age, due to high mobility and social activity. Even though it is risky, this can be prevented by continuing to carry out health protocols (wearing masks, washing hands, doing physical and social distancing and avoiding crowds) [10]



**Figure 4:** Number of Covid-19 cases in 2021

The number of COVID-19 cases at the Cempaka Health Center in Banjarmasin from January to December has fluctuated. The highest case was in July with a total of 133 people and the lowest case was in May with 1 person. In October-December there were no COVID-19 cases. The interval for the highest increase in cases was between June and July with an increase of 117 cases, while the interval for the highest decrease was between August and September with a decrease of 84 people. Based on these data, there was a spike in cases in July due to the delta variant, which spread so massively [11].

## CONCLUSION

The working area of the Cempaka Public Health Center has 4 sub-districts, namely Kelayan Luar, Mawar, Kertak Baru Ulu, and Kertak Baru Ilir. Based on data on Covid-19 cases at the Cempaka Besar Health Center, there were 395 cases in 2021. Mawar Subdistrict was the highest sub-district exposed to the COVID-19 virus in 2021 with a total of 217 cases. The most affected age group is the productive age group of 25-50 year. In the working area of the Cempaka Health Center, women are the most patients affected by COVID-19 in 2021. It can be concluded that the 5M health protocol, maintaining distance, wearing masks, staying away from crowds, reducing mobility and washing hands, must be obeyed so as not to be exposed to the corona virus.

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