



## The Analysis of National Health Insurance for Hospital Daily Patient Visits During Covid-19 in Mother-Child Hospital “Putri” Surabaya, Indonesia

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### Abstract

**Introduction:** Covid-19 has made changes to health services in Indonesia. It occurs in the hospital service flow, so patients must adjust to the restrictions that apply in the hospital. National health insurance (JKN) in Indonesia provides public access to health services. The existence of health insurance should be the solution for patients who are willing to take advantage of health services. Meanwhile, in the covid-19 condition, health services are essential, so they have to get a lot of attention. **Objective:** The purpose of this study was to analyze National Health Insurance (JKN) patients before and during covid-19 in Mother-Child Hospital "Putri" Surabaya. **Methods:** This study used descriptive analysis of national health insurance hospital patient visits (both outpatient and inpatient) in Mother-Child "Putri" Hospital Surabaya. The data was taken twice, which is before covid-19, from January 2018 to February 2020, and during Covid-19 from March 2020 to December 2021. Result: The results showed that the trend of JKN patients before and during covid-19 was very different. Before covid-19, there was a tendency to see an increase in JKN patients. During COVID-19, the JKN patient was reduced. **Conclusion:** Covid-19 is one of the factors that affected the reduction of JKN patients in Mother-Child Hospital "Putri" Surabaya. Not only this hospital, but all health-care services.

**Keywords:** *National Health Insurance; Patient Visits; Covid-19*

### Introduction:

Covid-19 was first documented in Wuhan, China at the end of 2019. WHO declared a pandemic covid-19 on January 30, 2020. In Indonesia, the first covid-19 case was found on March 2, 2020 and was followed by the president's declaration of the national pandemic. The government's efforts to reduce cases in various regions have been carried out. Although WHO warned Indonesia to impose a lockdown, they chose to implement large-scale social restrictions in 2020 and impose restrictions on community activities in 2021 (Thorik, 2020). However, because of the increasing number of covid-19 cases, the health services, such as hospitals, clinics, and others, are expected to be able to continue to carry out their functions with preparedness. Visitor restrictions of varying degrees have been implemented during the covid-19 pandemic.

Covid-19 has made changes to health services in Indonesia. It occurs in the hospital service flow, so patients must adjust to the restrictions that apply in the hospital. There is a concern that this disease may burden women with social and economic problems. In addition to direct infections caused by covid-19, the impact of pandemic policies, society, and the global economy can affect maternal

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health. Pregnant women and new mothers are a unique population (Kotlar, 2021). Pregnancy causes a decrease in partial immunity due to physiological changes during pregnancy, resulting in pregnant women being more susceptible to viral infections.

Universal Health Coverage (UHC) is a concept that ensures everyone has access to quality health services. These health services include promotive, preventive, curative, and rehabilitative services with quality that meets standards that do not cause financial loss to users (Ministry of Health, Republic of Indonesia, 2018). The national health insurance in Indonesia is a guarantee in the form of health protection so that participants get the benefits of health care and protection in meeting basic health needs that are given to everyone who has paid health insurance contributions or whose contributions are paid by the central government or local governments (Indonesia, 2018). The Health Social Security Agency, or what we can call *BPJS*, is a legal entity formed to administer the social security programme (UU No. 24 Tahun, 2011). National health insurance in Indonesia provides the public with access to health services. So, the existence of health insurance should be the solution for patients who are willing to take advantage of health services. Meanwhile, for covid-19 conditions, health services are the most important need and get a lot of attention. The average visit to health services has decreased. Italy showed a 73%–88% decrease in emergency medical services for children (Lazzerini *et al.*, 2020). Likewise, in Indonesia, based on a report from the National Social Security Council Monitoring System, health service visits for national health insurance participants to primary health services decreased by 84% between 2019 and 2020. Meanwhile, secondary health services were visited by 71%. The decrease occurred in April 2020, with a total decrease of 88% for primary health services and 61% for secondary health services visits (DJSN, 2020).

Based on the background of the problem, this study aimed to describe the analysis of visits to national health insurance (BPJS) patients before and during the covid-19 pandemic in Mother-child Hospital "Putri" Surabaya, Indonesia.

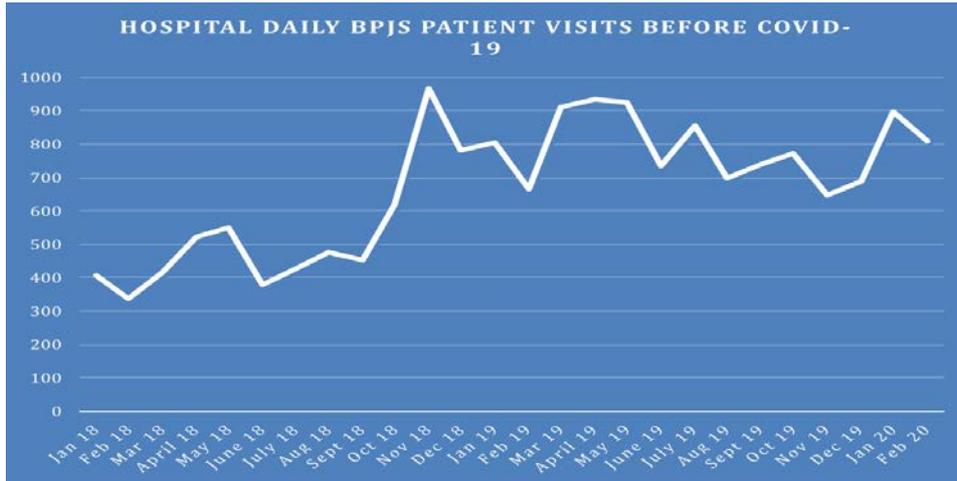
### **Methodology:**

This study used a cross-sectional study. While descriptive analysis was used to analyze the data, the data was taken from the number of BPJS patient visits before covid-19 (data from January 2018–February 2020) and during the covid-19 period (data from March 2020–December 2021). The visit data used in this study focused on the number of both outpatients and inpatients who use BPJS when utilizing health services.

### **Results and Discussion:**

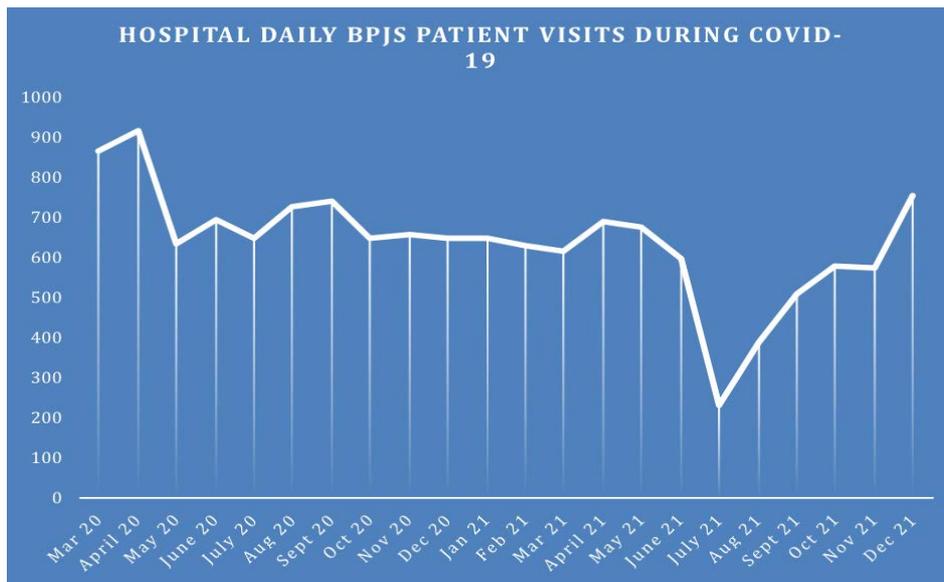
Mother-Child Hospital "Putri" Surabaya is a health service providing services in the fields of obstetrics, gynecology, and children with "*Paripurna*" accreditation. During covid-19, this hospital implemented several new policies for patients, such as applying online bookings for patients who are willing to do the check-up with the doctor, no visiting hours for inpatients, restrictions on introduction for outpatients, and inpatients, drive-thru immunizations for children, etc. This must also be applied to several health services during a pandemic like this.

The result of the analysis can be seen in Figures 1 and 2. Figure 1 shows the trend of BPJS patients before covid-19. Although still fluctuating, the graph depicts an increasing trend in BPJS patients from both outpatient and inpatient settings. The highest increase in patients was experienced from September 2018 to October 2018, which was 37.5%. The average increase in the inpatients before the covid-19 period was 17.4%, while the average decrease in the patients was 15%.



**Figure 1:** The trend of Hospital Daily BPJS Patient Visits Before Covid-19

Figure 2 shows the trend of BPJS patients during covid-19. Just as with the trend before covid-19, the trend in patients during covid-19 was fluctuating but tended to decrease. The extreme decline in patients occurred in July 2021. The average increase in patients during the covid-19 period was 18.1%, and the average decline in patients was 12.1%.



**Figure 2:** The trend of Hospital Daily BPJS Patient Visits During Covid-19

The trend in the number of visits to BPJS patients during covid-19 has not significantly decreased. However, it can be seen in Figure 1 that the upward trend before the covid-19 outbreak was very visible, while during covid-19 the upward trend remained but the increase was not very visible.

This recent study is in line with the research conducted by Yogadhita *et al.* (2021) about the impact of large-scale social restrictions in the community on covid-19 patient visits in hospitals. They showed that the social restriction policies by the Yogyakarta and Jakarta governments had no significant impact on decreasing the number of patient visits at health care facilities in March–July 2020.



Source: <https://www.worldometers.info/coronavirus/country/indonesia/>

**Figure 3:** Total Coronavirus Cases in Indonesia

A study conducted by Mitchell and Fuehrlein (2021) about patient volume and dispositions in the Veteran's Affairs Department at Yale-New Haven Hospital USA showed that there was a decrease in visits in March-August 2020, especially in April 2020. At that time, it coincided with the peak of covid-19 cases in the USA. Hospitalization rates have remained consistent, while referral rates to residential programmes have declined. The decrease was because many veterans were delaying mental health care. Veterans prefer to avoid visiting hospitals and thus experiencing delays in their care. Another factor is that veterans may think wrongly that hospitals are closed or suspended, especially at the start of the pandemic when many medical resources are not available (American College of Emergency Physicians, 2020).

Another factor that causes pregnant women to not want to visit health services is that the covid-19 pandemic has increased anxiety related to pregnancy among many women. Healthcare providers need to offer high and ongoing support to their pregnant patients (Moyer *et al.*, 2020). The covid-19 virus is more prone to occurring in high-risk groups such as pregnant women, the elderly, and children. Some of the impacts of the pandemic on pregnant women are physical and psychological changes that result in changes in a person's behavior (Dashraath *et al.*, 2020). One of the changes shown is self-isolation during the pandemic, which is related to psychological problems in the form of anxiety (Berghella, Lockwood & Barss, 2020).

During this pandemic, social distancing measures have proven effective in reducing disease transmission (Dashraath *et al.*, 2020). For pregnant women, self-restriction is not being exposed much to the outside environment, let alone travelling to pandemic areas. The risk of pregnant women contracting covid-19, one that is encountered during pregnancy check-up visits at health services.

### Conclusion:

Some health services experienced a decrease in patient visits, such as Mother-Child Hospital "Putri" Surabaya. During covid-19, there was a decrease in *BPJS* patient visits, although not too significant. The decrease occurred in inpatient visits where the patients at Mother-child Hospital "Putri" Surabaya were women, pregnant women, and children. This can happen due to several factors, such as the

implementation of social distancing, which causes patients to avoid going to health services. During a pandemic, there can also be psychological reasons for people to leave, such as anxiety.

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#### **Conflict of Interest:**

The authors declare that there are no conflicts of interest.

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