

HIGH-RISK PREGNANCY AND OBSTETRIC COMPLICATION DURING THE COVID-19 PANDEMIC IN SEMARANG, CENTRAL JAVA

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ABSTRACT

Background: Many pregnant women in Indonesia, particularly in remote areas, do not regularly visit health clinics and so complications are not detected and dealt with early enough. The maternal mortality rate was still high in Indonesia in 2017 at an estimated 177 deaths per 100,00 live births. The high maternal mortality rate in Indonesia is related to the number of pregnant women who experience high-risk pregnancies. This study aimed to describe the high-risk pregnancy and obstetric complication during the COVID-19 pandemic in Semarang, Central Java.

Subjects and Method: This was a cross-sectional study conducted at Semarang City Health Office, Central Java, from 2019 to September 2021. Data on a sample of pregnant women were taken from Semarang City Health Office for this study. The dependent variables were high-risk pregnancy and obstetric complication. The data were described in percent.

Results: In 2020, the number of pregnant women in Semarang was 25,981. The incidence of high-risk pregnancy was 9,207 ($9,207/25,981 = 35.4\%$) in 2020. The incidence of pregnant women with obstetric complication was 1,741 ($1,741/25,981 = 6.7\%$) in 2020.

Conclusion: The incidences of high-risk pregnancy and obstetric complication are still high in Semarang, Central Java in 2020.

Keywords: high risk pregnancy, obstetric complication, COVID-19, pregnant women

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BACKGROUND

Pregnant women are a group that needs attention in the health sector. Health services for pregnant women are also called Antenatal health services, including services for visiting pregnant women according to standards, namely visits for pregnant women at least four times (Semarang City Health Office, 2018).

The Maternal Mortality Rate (MMR) indicator describes the quality of mothers in Indonesia. Cases of

maternal mortality are still found today, for this reason it is necessary to reduce maternal mortality, by increasing the capacity of health workers and increasing service coverage to areas that are difficult to reach (Ministry of Health of the Republic of Indonesia, 2015).

Proper care of pregnant women will also affect the health of the mother and the development of the fetus in her womb, because during pregnancy it is an important time to improve healthy

behavior and improve skills in parenting. If pregnant women do not get proper care, it will have an impact on the health of the mother and baby (Poote & McKenzie-McHarg, 2019).

The number of maternal deaths compiled from the recording of family health programs at the Ministry of Health in 2020 shows 4,627 deaths in Indonesia. This number shows an increase compared to 2019 of 4,221 deaths. Based on the causes, the majority of maternal deaths in 2020 were caused by bleeding as many as 1,330 cases, hypertension in pregnancy as many as 1,110 cases, and disorders of the circulatory system as many as 230 cases (Health & Indonesia, 2021).

Death cases in Semarang City decreased in 2019 by 18 deaths or around 75.8 per 100,000 live births, when compared to 2018 as many as 19 deaths. The cause of maternal death is disease by 33.33%, other causes are due to bleeding by 22% and sepsis by 22%. The largest percentage of maternal deaths caused by diseases including asthma, breast cancer, pericardial effusion, tuberculosis, cardiogenic shock, hyperemesis gravidarum and multiorgan failure. Conditions before pregnancy that the mother had suffered were a factor that increased the risk of complications during pregnancy (Semarang City Health Office, 2020).

Cases of maternal mortality due to high-risk pregnancies in the city of Semarang, can be caused by several factors such as the knowledge of pregnant women, the culture that exists in the community and the ineffectiveness

of government programs. The description of high risk pregnant women in Rowosari village, Semarang City found high risk pregnant women of 65.45%. In terms of knowledge, there is less knowledge of 60%, sufficient knowledge of 34.55% and good knowledge of 5.45%. In terms of culture, it was found that 95.54% adhered to a negative culture. In terms of government programs, 64.55% of the programs did not run (Utama, 2015).

Pregnant women and babies are included in the high risk group during the occurrence of the Covid-19 pandemic or the Coronavirus-19 disease. Research suggests that pregnant women with COVID-19 in the third trimester are more likely to need intensive care, although this may reflect a lower threshold for intervention in pregnant women than for more serious illnesses. Compared with pregnant women without COVID-19, pregnant women with COVID-19 symptoms requiring hospital admission have worse maternal outcomes, including death, although the absolute risk remains very low (Elsaddig & Khalil, 2021).

Knowledge and understanding of pregnant women about Covid-19 is very important in order to properly deal with the pandemic and minimize anxiety coming to health services. Efforts to check pregnancy from every pregnant woman can be achieved if the individual has the motivation to achieve the desired pregnancy target. The results showed that the majority of respondents had good knowledge of COVID-19 by 76%, experienced moderate levels of anxiety by 69%, and had motivation to monitor pregnancy

by 93%. It can be said that pregnant women in Indonesia have good knowledge about COVID-19, their knowledge can reduce anxiety levels and remain motivated to come to health workers to monitor pregnancy (Hamil et al., 2021).

The purpose of this study was to analyze the health status of pregnant women who have high risk and obstetric complications in Semarang City during the Covid-19 pandemic from 2019 – 2021.

SUBJECTS AND METHOD

1. Study Design

This research is a descriptive quantitative research, using a research design that is survey study. The stages of Survey study are: a) Researchers determine research objectives based on problems found in the field; b) Researchers collected data and information from the MCH Program manager at the Semarang City Health Office, using interviews and observation methods; c) Processing of data on the health status of pregnant women from 2019 to September 2021, from editing to data presentation; d) Analysis of the results of descriptive statistical data processing using the Ms. Excel. The research location is the Semarang City Health Office. While the research time is from July 2021 to September 2021.

2. Population and Sample

The population used is data on the health status of pregnant women from 37 health centers in the city of Semarang. The sample used is part of the population with a purposive sampling technique, namely the data taken including inclusion criteria, namely

the health status of pregnant women at the initial occurrence and during the Covid-19 pandemic from 2019 to September 2021.

3. Operational Definition

The Maternal and Child Health Program is a service effort to improve the health of pregnant women giving birth, postpartum and breastfeeding and infants to children, which is carried out by the Semarang City Health Office supported by health centers in its working area. The MCH program data was measured by interviewing the MCH Program Manager at the Semarang City Health Office.

Pregnant women are the target of this study whose data was taken from the Semarang City Health Center, with inclusion criteria including data on pregnant women from the beginning of the Covid-19 pandemic until the occurrence of the Covid-19 pandemic.

Health status of pregnant women is a medical history during pregnancy that can be a problem from pregnancy, namely high risk and obstetric abnormalities. Data on the health status of pregnant women were taken from 37 health centers in the Semarang City area, with inclusion criteria including data on pregnant women from the beginning of the Covid-19 pandemic until the Covid-19 pandemic.

4. Variable

The research variables include the MCH program, pregnant women and the health status of pregnant women.

5. Instrument

Based on the method of collecting data by interview and observation, the instruments used are: a) Interview Guidelines, which are in the form of direct questions addressed to Key

Informants, namely the MCH Program Manager to explore in-depth information about Services in the MCH Program. b) Observation guidelines in the form of observation tables for data collected in this study.

6. Data Analysis

Based on the results of data processing, a descriptive analysis was carried out, namely describing the number of pregnant women, the number of high-risk pregnant women, and the number of pregnant women with obstetric disorders, using trend analysis or the trend of changes every year.

7. Research Ethics

This research has been approved by the Dian Nuswantoro University Research Ethics Commission, with the number: 133/EA/KEPK-Fkes UDINUS/X/2021.

Table 1. Data on the Health Status of Pregnant Women in Semarang City in 2019 – 2021 Based on Reports from 37 Health Centers

Year	Number of Pregnant women		Number of high-risk pregnant women		Number of pregnant women with obstetric disorders	
	n	%	n	%	n	%
2019	23,885	35.67	9,977	38.95	1,366	34.29
2020	25,981	38.80	9,207	35.95	1,741	43.70
2021	17,091	25.53	6,430	25.10	877	22.01
Total	66,957	100	25,614	100	3,984	100

Source: Secondary Data, Semarang City Health Office, 2021

Table 1 shows the number of pregnant women and their health status from 2019 to 2021 which were collected based on reports from 37 puskesmas in the Semarang City area. The highest number of pregnant women obtained in 2020 was 25981 mothers (38.80%). The number of pregnant women with the highest high risk in 2020 is 9207 mothers (35.95%). Meanwhile, the number of pregnant

RESULTS

Based on an interview with the MCH Program Manager at the Semarang City Health Office, it was found that the MCH Program has been implemented in 37 puskesmas in its working area. The MCH program includes efforts to reduce MMR, by reporting from the implementation in each health centers. The number of health centers in the city of Semarang is 37 health centers.

The report sent by the health centers uses an information system in the form of online SIP, email, GF, bit.ly. The reporting period is daily, weekly and monthly. Reports on the health status of pregnant women from 2019 to 2021 reported from health centers in the Semarang City area can be seen in the following table:

women with the most obstetric disorders in 2020 was 1741 mothers (43.70%).

The results of collecting data on the health status of pregnant women during the Covid-19 pandemic which were taken for approximately 3 years from 2019 to September 2021 which shows the trend of each case as shown in the following figure:

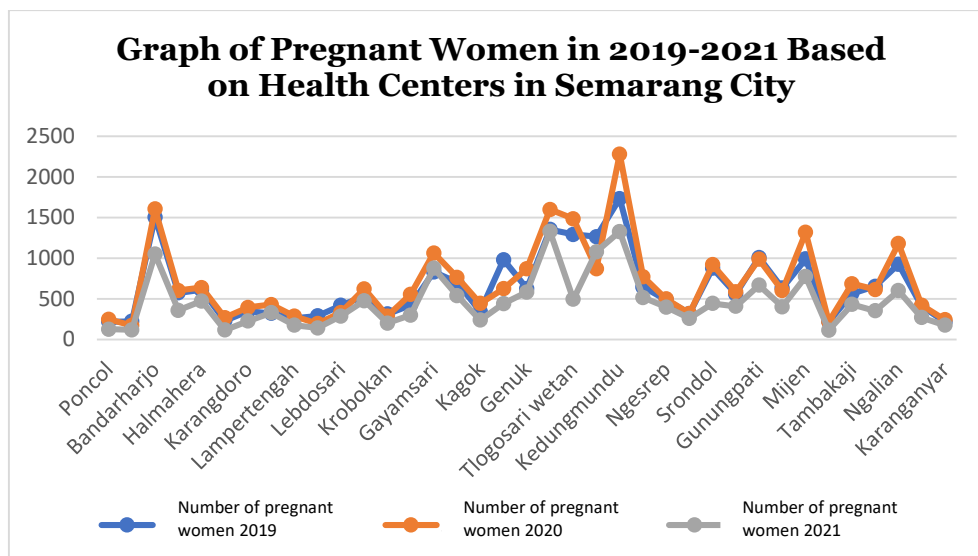


Figure 1. Number of Pregnant Women in 2019 – 2021

Figure 1 shows the tendency of the number of pregnant women in 37 health centers in Semarang City to

fluctuate with the highest number of pregnant women in 2020.

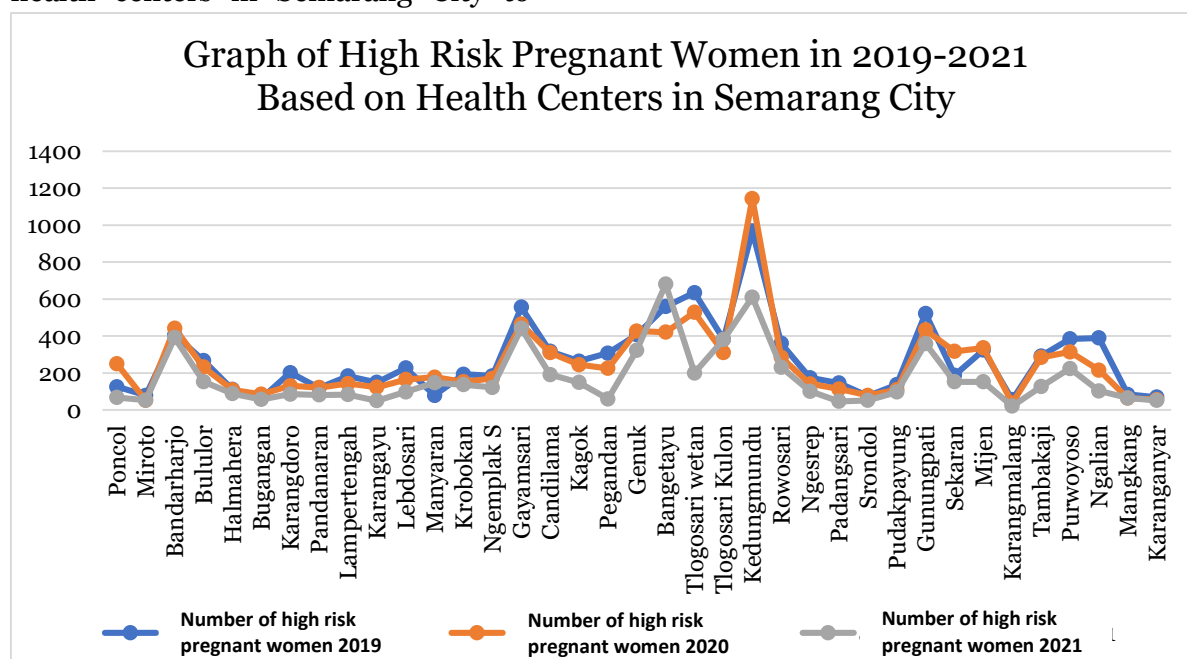


Figure 2. Pregnant Women with High Risk in 2019-2021

Figure 2 shows the tendency of the number of pregnant women with high risk in 37 health centers in Semarang

City to fluctuate with the highest number of pregnant women in 2020.

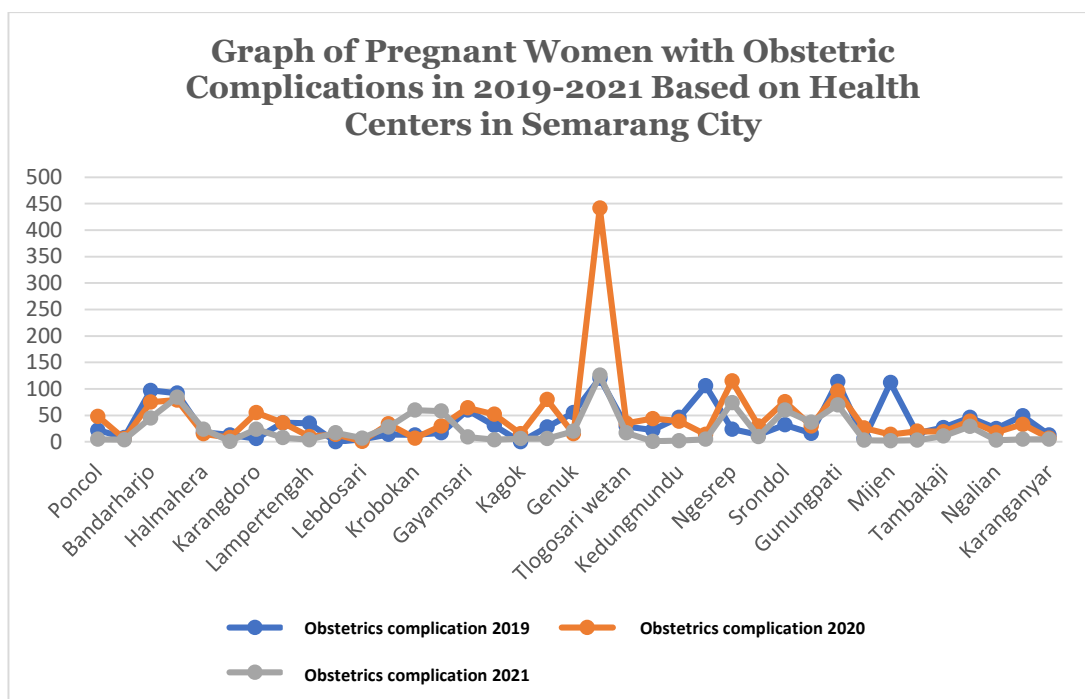


Figure 3. Graph of Pregnant Women with High Risk in 2019-2021

Figure 3 shows the tendency of the number of pregnant women with obstetric complications in 37 health centers in Semarang City to fluctuate with the highest number of pregnant women in 2020.

DISCUSSION

The health status of pregnant women is very important because care during pregnancy will affect the health of the mother during her pregnancy. Based on the results of the study, health cases were still found during pregnancy, namely pregnant women with high risk during the Covid-19 pandemic. The description of the level of knowledge of pregnant women about the high risk of pregnancy over the age of 35 years at the Efarina Berastagi Hospital, Karo Regency in 2016 can be concluded that age does not always affect the knowledge of pregnant women about the high risk of pregnancy over the age of 35 years. While

education does not always affect the knowledge of pregnant women about the high risk of pregnancy over the age of 35 years. The more sources of information that can be obtained, the more knowledge and experience a person will gain (Friani, 2016).

Pregnant women and newly pregnant women are at a higher risk of severe illness due to COVID-19 compared to non-pregnant women. In addition, pregnant women with COVID-19 are at increased risk of pre-term delivery and may have an increased risk of other adverse pregnancy outcomes (Centers for Disease Control and Prevention, 2021).

The highest number of cases of pregnant women with high risk was obtained in 2020 where the year the Covid-19 pandemic occurred the most throughout the world, including Indonesia. The Covid-19 pandemic situation resulted in restrictions on almost all routine services including maternal

and neonatal health services, based on research showing that there is a significant relationship between knowledge and prevention of COVID-19 in pregnant women. Although the attitude results do not show a significant relationship with COVID-19 prevention behavior, it is recommended for pregnant women to maintain a positive attitude towards COVID-19 prevention in daily life during the pandemic, in order to avoid transmission of COVID-19 (Dewi et al., 2020).

Pregnancy complications are obstetric emergencies that can cause death for both mother and baby. The causes of pregnancy complications include the mother's lack of knowledge about early detection of her pregnancy, the age of the mother is less than 20 years and more than 35 years and the child is more than three (Komariah & Nugroho, 2020). The biggest causes of maternal death due to COVID-19 are barriers to accessing health services, differences in pandemic prevention measures in various countries and the high prevalence of risk factors related to COVID-19 disease that can exacerbate maternal conditions (Takemoto et al., 2020). So that the need for attention from the government and the participation of the community to reduce the risk factors that cause maternal death, namely improving maternal health services.

AUTHOR CONTRIBUTION

All authors in this article were directly involved during the research process.

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CONFLICT OF INTEREST

There are no conflicts that affect this research.

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