

## Management Sustainable Antenatal Care Service in A Post Covid-19 Disruption

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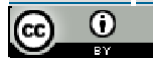
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### ABSTRACT

The Covid-19 pandemic affects maternal health both directly and indirectly and these direct and indirect effects are interrelated. This is indicated by the restrictions that are carried out on almost all routine services, including Antenatal Care services, where pregnant women do not want to go to the puskesmas or other health care facilities. Pregnant women are afraid of contracting the Covid-19 virus and the unpreparedness of health services in terms of personnel and infrastructure, including personal protective equipment, is the reason that pregnant women prefer to postpone pregnancy checks and classes for pregnant women. So that Antenatal Care services can still be carried out in order to fulfill the community's right to basic health, especially for pregnant women after the Covid-19 disruption, the Indonesian government needs to start new habits and provide new guidelines for health services, especially pregnant women so that they can adapt to new habits and keep getting essential services needed. In this article, the discussion will focus on the management of Antenatal Care services in a sustainable manner after the Covid-19 disruption.

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## INTRODUCTION

A pandemic is an outbreak of a disease that spreads simultaneously and occurs over a wide area. This wide area coverage refers to its spread almost throughout the world including Indonesia and affects many people. Pandemics also occur with an increase in disease rates that are unnatural or above normal and occur suddenly in a population in a certain geographic area (Purwanto et al, 2020). One of the current pandemics is the Covid-19 pandemic. Covid-19 is an infectious disease caused by the newly discovered corona virus and is known as acute or severe respiratory syndrome coronavirus 2 (SARS-CoV-2) (Sayekti, 2020). The Covid-19 pandemic is transmitted from human to human through close contact that often occurs, such as someone affected by Covid-19 participating in large-scale gatherings and making direct contact and someone who has close contact with Covid-19 patients, namely doctors and nurses. With the Covid-19 pandemic, large-scale social or distance restrictions are carried out to prevent the spread of the infectious Covid-19 disease by maintaining physical distance from one person to another and avoiding gathering places on a large scale.

Restrictions are indeed the most effective measure in preventing the spread of the Covid-19 virus. However, this restriction will disrupt the general habits of the community at large. This kind of disturbance is commonly known as disruption. Disruption is a disturbance or disorder where the disturbance will have an impact on the values and social order of society and refer to negative things (Fukuyama, 2016). Disruption is not just a change, but a major change that changes the existing social order in society where people have to get used to or adapt to new habits due to this disruption (Christensen, 1997). One of the disruptions that occurred due to the Covid-19 pandemic was the disruption of routine services in the world of health, especially services for pregnant women known as Antenatal Care . Before the Covid-19 disruption occurred, pregnant women could visit the puskesmas or other health facilities directly and without the use of masks to carry out pregnancy checks and support classes for pregnant women to prepare for childbirth. However, the disruption of Covid-19 caused this habit to change from the habit of routine services for pregnant women which are generally carried out to maintain the prevention of the spread of the Covid-19 virus to pregnant women. Therefore, management of Antenatal Care services on an ongoing basis after the Covid-19 disruption needs to be done to avoid the spread of Covid-19 and keep services for pregnant women continuing.

## THEORETICAL REVIEW

Purwanto et al (2020) stated that a pandemic is a disease outbreak that spreads simultaneously everywhere, covering a wide geographical area. A pandemic is an endemic that spreads to almost all countries or continents and usually affects many people. An increase in the number of diseases above normal which usually occurs, this disease also occurs suddenly in the population of a certain geographic area. A pandemic is also a disease that everyone should be aware of because it spreads unnoticed. To anticipate the impact of the pandemic that is around you, what needs to be done is to maintain personal hygiene and

the environment around you. A pandemic that occurs in a certain area will easily spread to several other areas quickly.

Sayekti (2020) stated that Covid-19 is an infectious disease caused by the newly discovered corona virus known as acute or severe respiratory syndrome corona virus 2 (SARS-CoV-2). Coronavirus Disease is a type of disease that has not been previously identified by humans and this virus can be transmitted from human to human through frequent close contact and people who have a high risk of contracting this disease are people who have close contact with Covid-19 patients, namely doctors and nurses. Romeltea (2019) states that disruption means a disturbance or problem that interferes with events, activities, or processes. According to Merriam-Webster, disruption is an act or process that interrupts a break or interruption in the normal course of or continuation of some activity. According to the Big Indonesian Dictionary, disruption is something that is uprooted.

Sary (2017) defines post-harvest as a tendency for things or events that are periodic or momentum that rarely repeats itself, for example post-harvest. In addition, post as a bound element is written in series with the words it follows. Wagiyo and Putrono (2016) define that Antenatal Care is a service provided by nurses to pregnant women, for example by monitoring physical and psychological health including fetal growth and development as well as preparing for labor and birth so that mothers are ready to face new roles as parents. According to the Indonesian Ministry of Health (2005, in Rukiah and Yulianti, 2014) defines that prenatal care or Antenatal Care is a health examination carried out to check the condition of the mother and fetus on a regular basis, followed by efforts to correct the deviations found. In essence, prenatal care is preventive and aims to prevent unwanted things for the mother and fetus (Purwaningsih and Fatmawati, 2010).

According to the Ministry of Health of the Republic of Indonesia (2010), Antenatal Care has general and specific objectives. The general objective is to fulfill the right of every pregnant woman to obtain quality antenatal care services so that she is able to undergo a healthy pregnancy, give birth safely, and give birth to a healthy baby. The specific objective is to provide integrated, comprehensive, and quality antenatal care services as well as to provide health and nutrition counseling for pregnant women such as family planning counseling, breastfeeding, and others. In addition, prenatal care or antenatal care can also be used as an arena for health promotion and education about pregnancy, childbirth, and preparation for parenthood (Simpson and Creehan, 2008 in Novita, 2011). According to Purwaningsih and Fatmawati (2020) explaining that Antenatal Care provides benefits to the mother and fetus including reducing and early enforcing pregnancy complications and reducing antepartum complications, maintaining and improving the physical and spiritual health of pregnant women in the face of childbirth and breastfeeding, carrying out the breastfeeding process. safe delivery, maintain maternal health so as to reduce the incidence of prematurity, stillbirth, and low birth weight.

According to Saifudin (2007, in Yeyeh and Yulianti, 2014) states that Antenatal Care is very much needed to monitor the health condition of the

mother and fetus so that routine pregnancy checks are needed with the following provisions: 1) at least 1 time in the 1st trimester (pregnancy < 14 weeks) ; 2) at least 1 time in the 2nd trimester (14-28 weeks gestation); 3) at least 2 times in the 3rd trimester (> 28 weeks until birth). According to Kasmir (2017), it is stated that service is the act or deed of a person or an organization to provide satisfaction to customers, fellow employees, and also leaders. Service is the ability of employees to carry out their duties, namely providing services and support with full commitment and ability to solve problems when service delivery takes place (Armistead and Clark, 1999). Rusydi (2017) argues that service quality is the company's ability to provide the best quality service compared to its competitors. According to Moenir (2005), service is the process of meeting needs through the activities of others directly. These needs include physical needs, social needs, and psychological needs (Sulastiyono, 2002). Sugiarto (2002) states that service is an action taken to meet the needs of other people (consumers, customers, guests, clients, patients, passengers, etc.) whose level of satisfaction can only be felt by those who serve and those who are served. Optimal service will give satisfaction to others. The benchmark of good service is through meeting the needs and desires of guests. Assessment of service quality is determined by guests as users of these services.

According to Assauri (2004), management is an activity or effort carried out to achieve goals by using or coordinating the activities of other people. According to Subagyo (2001), management is an action to achieve goals which is carried out by coordinating the activities of other people. Management functions or activities include planning, staffing, coordination, direction, and supervision. According to Stoner (1982), management is a process of planning, organizing, directing, and supervising the efforts of organizational members and the use of other organizational resources in order to achieve predetermined organizational goals.

## **METHODOLOGY**

This study uses a phenomenon approach, trying to understand the importance of understanding and applying marketing strategies for household MSME products on social media networks. This approach to phenomena requires the existence of an assumption that is different from the way used to approach people's behavior with the aim of determining facts or causes. Data were collected and recorded in detail on matters relating to the problem under study. Each finding is analyzed with the wisdom of knowledge and experience to interpret it objectively. In this study, the theory is used as a measure of knowledge that is adapted to the facts in the field and the social phenomena to be studied. The theoretical basis is used as a strategy in processing data, by providing a variety of conceptualizations in describing and providing explanations.

## **RESULTS AND DISCUSSIONS**

With the Covid-19 pandemic and after the Covid-19 disruption that occurred in Indonesia. Pregnant women will experience significant physiological and immunological changes to support and protect the developing fetus during

the pregnancy process (Muralidar et al, 2020). These changes can increase the risk of Covid-19 infection for pregnant women and their fetuses (Mugiati, 2021). Meanwhile, the Antenatal Care service check is a routine service that must be obtained by pregnant women to check the condition of their womb. In order to prevent the spread of Covid-19 to pregnant women and to maintain a sustainable Antenatal Care service after the Covid-19 disruption, modifications to the management of Antenatal Care services were carried out based on the Recommendation of the Indonesian Obstetrics and Gynecology Association Center (2020) which was categorized into 2 categories.

#### *Modification of Antenatal Care Post Covid-19 Disruption*

Antenatal care is important because pregnant women who do not receive it will have a higher risk of maternal death, stillbirth, and other pregnancy complications. Antenatal care is routinely useful for detecting complications in pregnancy such as anemia, preeclampsia, gestational diabetes mellitus, asymptomatic urinary tract infections, and stunted fetal growth. Pregnant women are advised to carry out Antenatal Care routinely even though there are some modifications, except for pregnant women who require independent isolation because they are suspected of or have confirmed Covid-19.

Service modifications are needed to help pregnant women carry out social distancing with the aim of reducing transmission between pregnant women, staff, and other visitors. Modification of Antenatal Care services is also intended for pregnant women who are suspected of or have confirmed Covid-19 and are self-isolating, but require hospital services. WHO issued the latest recommendations for low-risk pregnant women with at least 8 antenatal care. Changes in services are needed to reduce the frequency of pregnant women leaving the house to get health services. Things that can be done by pregnant women through consultation and other supporting examinations such as ultrasound and laboratories that are carried out at the same time and place or through virtual consultations. At least 6 direct physical Antenatal Care consultations for low-risk pregnant women are 6 times. However, pregnant women with high risk require direct consultation that needs to be adjusted. If necessary, you can conduct Antenatal Care consultations via telemedicine outside the predetermined schedule.

Antenatal Care examinations during pregnancy are recommended at least 6 times face-to-face without seeing the Covid-19 zone in the area and adding telemedicine examinations as needed. The first Antenatal Care examination in the 1st trimester was carried out by means of screening for risk factors carried out by doctors and implementing health protocols. Then, an appointment is made in advance with anamnesis screening via online telephone to look for risk factors and symptoms of Covid-19. If there are symptoms or risk factors for Covid-19, the pregnant woman will be referred to the hospital for a swab. Dryness examination of pregnancy risk factors will be carried out at a referral hospital. Meanwhile, pregnant women who do not have symptoms of Covid-19 will be screened at the FKTP (*Fasilitas Kesehatan Tingkat Pertama*) by a doctor. If a pregnant woman comes to the midwife for the first time, the midwife will

continue to carry out Antenatal Care as usual and be referred to a doctor for screening.

At the time of tele-registration, the use of masks by pregnant women is very important, especially for pregnant women who will conduct a face-to-face examination. Recent travel history, occupation, contact history, and clinical symptoms that suggest Covid-19 should be asked regularly to all pregnant women who perform Antenatal Care examinations. Pregnant women with close contacts and mild symptoms of Covid-19 infection must postpone Antenatal Care examinations for 14 days if there are no disturbances in their pregnancy. Basic assessments that require in-person appointments such as blood pressure measurements, laboratory tests, and fetal growth assessments are still performed and arranged in conjunction with other maternal examinations to limit repeated visits to the clinic or hospital.

Supplementation of folic acid, calcium, vitamin D and iron is still given according to national recommendations. Other micronutrient supplementation tailored to the needs of each pregnant woman. Giving blood-supplementing tablets for pregnant women with suspected or confirmed Covid-19 status, the doctor who treats the patient's condition must consider it. Pregnant women are advised to count fetal movements independently in the third trimester of pregnancy > 28 weeks using the Cardiff/WHO method (where a minimum of 10 movements in 2 hours and if the first 2 hours of fetal movement has not reached 10 movements, then the next 2 hours monitoring can be recalculated to a maximum do this 6 times in 12 hours). If it has not reached 10 movements for 12 hours, the pregnant woman must immediately come to the health facility to ensure the welfare of the fetus. Detection and support for pregnant women with mental health problems also need to be done. Also discuss birth plans, contraception, and breastfeeding. All staff wear appropriate personal protective equipment and pregnant women and carriers wear masks.

Antenatal Care Examination in the third trimester is carried out to plan the place of delivery. If there are risk factors for delivery, a planned referral to a hospital is carried out in the third trimester. The Covid-19 screening policy for mothers who are about to give birth must adjust to local zoning and policies. In the red-yellow zone, pregnant women without signs and symptoms of Covid-19 at 37 weeks of gestation are screened to determine Covid-19 status with RT-PCR swabs. After the swab is done, pregnant women are advised to self-isolate. If facilities and resources are available for RT-PCR, a rapid test or NLR blood test can be done. Rapid reactive examinations are carried out by RT-PCR examinations at existing facilities before referring to a special Covid-19 referral hospital. The green zone follows the general Covid-19 surveillance, namely screening pregnant women who are in close contact or are symptomatic. The results of the Covid-19 screening are attached to the MCH handbook and communicated to the health facilities where the delivery is planned. Mothers who are confirmed to have Covid-19 will give birth at a referral hospital. Meanwhile, non-Covid-19 pregnant women and no risk factors for childbirth that require a planned referral will be able to be done at the FKTP. Pregnant women who are about to give birth (regardless of their Covid-19 status) are advised to

self-isolate at home for 14 days before the estimated delivery to prepare for delivery. When viewed in the form of a diagram, Antenatal Care for pregnant women with low risk has a flow chart for Antenatal Care services as shown in Figure 1.

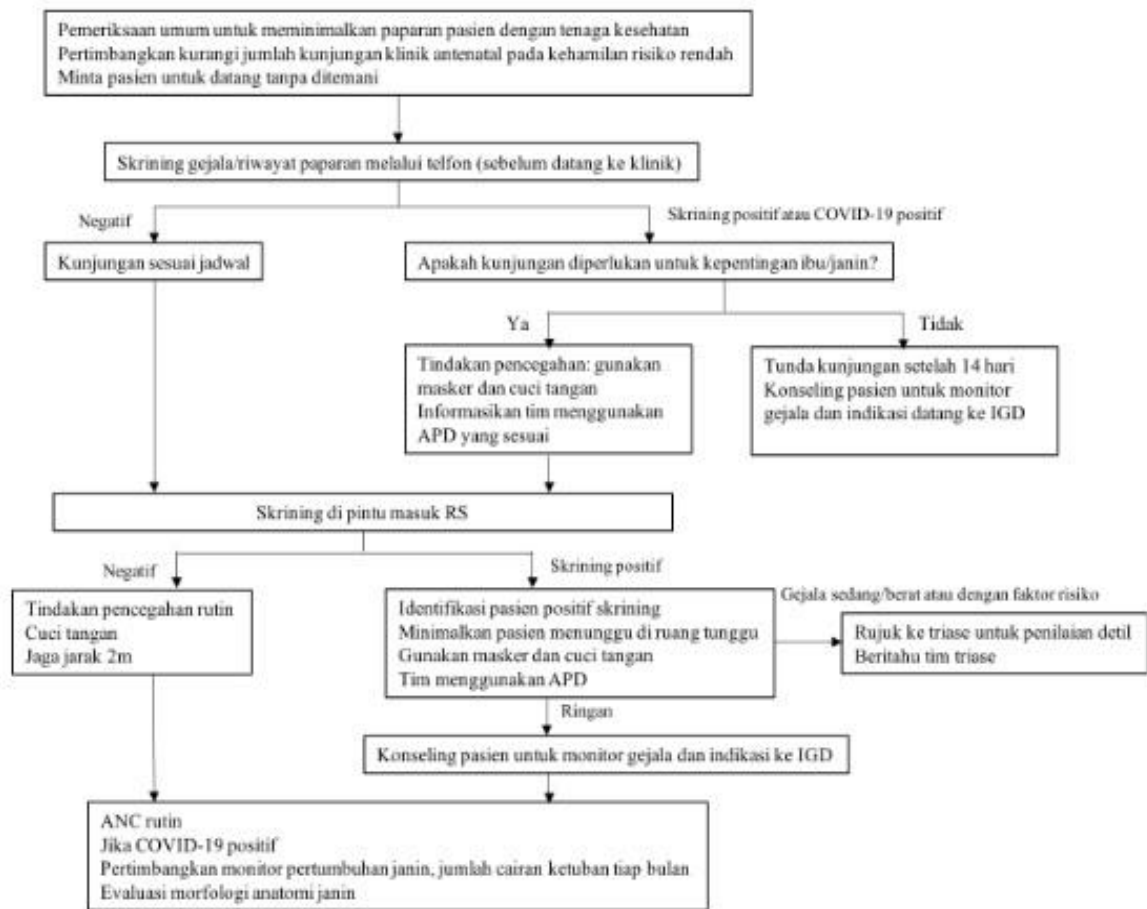


Figure 1. Flowchart of Antenatal Care for Pregnant Women with Low Risk

#### *Antenatal Care for Pregnant Women Who have Recovered from Covid-19*

Pregnant women who have recovered from Covid-19, Antenatal Care will continue. Services missed due to self-isolation or hospitalization can be completed immediately after the isolation period ends. Pregnant women with a history of severe illness need to have an ultrasound examination for 14 days after recovering to see the growth of the fetus, unless there are other indications that require ultrasound before 14 days. According to WHO, the criteria for recovering pregnant women from Covid-19 for patients with symptoms are 10 days after symptom onset and at least 3 days without symptoms.

Based on the recommendations of the Indonesian Obstetrics and Gynecology Association Center (2020), Antenatal Care services have types of Antenatal Care for each trimester which are classified in Table 1.

Table 1. Types of Antenatal Care each Trimester

Gestational Age	Visit Type	Ultrasound	Details
< 12 weeks	Phone or video If necessary face to face can be done (based on risk factors)		<ul style="list-style-type: none"> <li>✓ History to screen for risk factors and complaints related to pregnancy</li> <li>✓ Covid-19 prevention counseling</li> <li>✓ Counseling for danger signs of pregnancy that require a hospital visit</li> </ul>
12 weeks	Face to face	Confirm gestational age and estimated delivery and screening for aneuploidy if indicated	<ul style="list-style-type: none"> <li>✓ Routine laboratory</li> <li>✓ &lt; 12 weeks if you haven't received antenatal care before</li> </ul>
20-24 weeks	Face to face	Fetal anatomy and fetal growth	Give requests for laboratory examinations: DPL, UL, TTGO, to bring the results to the next examination
28 weeks	Face to face	If needed	Evaluation of the results of laboratory tests and fetal growth
32 weeks	Face to face	Fetal growth, amount of amniotic fluid, and location of the placenta	
36 weeks	Face to face		Routine Antenatal Care
37-41 weeks	Face to face		Routine Antenatal Care

## Information:

1. Screening for risk factors including maternal non-communicable diseases such as hypertension, diabetes, autoimmune diseases, cardiovascular disease, as well as infectious diseases and psychological disorders is carried out as early as possible to determine whether pregnant women are at low or high risk.
2. Pregnant women are asked to learn and apply MCH such as recognizing danger signs such as bleeding, vaginal discharge, blurred vision, and dizziness (including signs of Covid-19 by paying attention to fetal movements, maintaining health, and consuming nutritious food and exercising).

3. Pregnant women are asked to measure blood pressure regularly at home if possible. If high blood pressure is found, discuss it with medical personnel by telephone.
4. At the time of counseling, pregnant women are not recommended to travel abroad or red zone areas.

## CONCLUSIONS AND RECOMMENDATIONS

### *Conclusions*

- a. Pregnant women will experience significant physiological and immunological changes to support and protect the developing fetus during the pregnancy process. These changes can increase the risk of Covid-19 infection for pregnant women and their fetuses. So that Antenatal Care services for pregnant women continue to run regularly, modifications to the management of Antenatal Care services are carried out in line with the emergence of new habits after the Covid-19 disruption.
- b. Based on the recommendations of the Indonesian Obstetrics and Gynecology Association Center (2020), Antenatal Care service management is categorized into 2 categories, namely modified Antenatal Care after the Covid-19 disruption and Antenatal Care for pregnant women who have recovered from Covid-19
- c. In conducting Antenatal Care examinations, pregnant women with certain criteria for conditions such as having a history of non-communicable diseases and having high blood pressure should discuss it with the relevant medical personnel. Pregnant women are also not recommended to travel abroad and avoid red zones while carrying out Antenatal Care services.

### *Recommendations*

- a. At the time of admission to the hospital, a complete assessment of pregnant women must be carried out including the severity of Covid-19 symptoms, vital signs of pregnant women such as body temperature, respiration, and oxygen saturation.
- b. If a pregnant woman is confirmed to have Covid-19 with clinical symptoms, she must be treated in an isolation room and the treatment is carried out by the relevant team including internal medicine doctors, obstetricians, anesthesiologists, midwives, neonatologists, and neonatal nurses. Assessment of the condition of pregnant women should be carried out according to national standard practice and minimize the number of staff members entering the room and only one family member who can accompany the patient.
- c. Management of services for pregnant women who have recovered from Covid-19 but have previously been treated with severe or critical conditions, the delivery must be carried out in a hospital.

### **FURTHER STUDY**

A more in-depth and comprehensive review of the guidelines for health services, especially pregnant women, is needed so that they can adapt to new habits and still get the essential services needed. The need for continuous socialization of Antenatal Care service management after the Covid-19 disruption on an ongoing basis.

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