

## **The Impact of Internal-External Factors in Antenatal Care Service on the Effort of Public Health Center in Agam Regency to Accelerate Minimum Service Standard Achievement**

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### **ABSTRACT**

Reducing maternal mortality is Indonesia's main goal for improving health. By offering high-quality antenatal care services at least four times during pregnancy with the 10T standard, efforts are made to reduce maternal mortality. In the Minister of Health Regulation No. 4/2019 concerning Minimum Service Standards (MSS) in the Health Sector, it is stated that antenatal care services are influenced by two factors: internal and external. Internal factors are factors related to a person's personality and external factors are factors that influence behavior and are influenced by the environment. This research method is quantitative with a sample of 69 pregnant women in the third trimester taken by purposive sampling using questionnaires and univariate, bivariate and multivariate data analysis techniques. According to research findings, knowledge is the most powerful factor influencing various antenatal care services. The author advises local governments to promote understanding and support from husbands for pregnant women, especially through the "Husband Cares for Wife Class".

*Keywords: Antenatal Care Services, Internal-External, Health Center, Accelerate, Standard Achievement.*



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### **INTRODUCTION**

Maternal and perinatal health issues need to be prioritized at the national level because they have a major impact on the quality of the next generation of human resources. Given the high maternal and perinatal mortality rates and the gradual decline in these rates, Maternal and Child Health (MCH) services urgently need to increase their coverage and level of quality (Nguhiu et al., 2017). Pregnant women in Indonesia who are at risk of not having an early pregnancy diagnosis have a high maternal mortality rate. Because of their position at the forefront, midwives are required to be skilled and knowledgeable in providing services that meet established standards. The proactive participation of midwives is expected to reduce maternal and neonatal mortality in Indonesia (Gaspersz et al., 2017).

The Maternal and Child Health Program is one of Indonesia's main initiatives for MCH. The responsibility of this program is to offer health services to pregnant women, new mothers, neonates, and infants. Reducing maternal mortality and morbidity is one of the goals of this program, as evidenced by the Maternal Mortality Rate (MMR) indicator. (Wildman et al., 2004). By examining the coverage of K1 and K4, one can evaluate the implementation of health services for pregnant women. When compared to the number of pregnant women desired in a given work area during the year, K1 coverage measures the

proportion of pregnant women who have received prenatal care for the first time. K4 coverage measures the proportion of pregnant women who have received prenatal care according to the standard at least four times according to an agreed schedule in each trimester compared to the target number of pregnant women in a given work area in a year (Ministry of Health RI, 2016). Some of the determining elements are age, gender, number of family members, education, knowledge, type of work a person does, culture, and attitudes. The enabling factors are categorized into three categories as follows: Apart from cost and access to health services, financial resources, facilities, and infrastructure are all important (Notoatmodjo, 2007).

The percentage of pregnant women receiving antenatal care (K1) services from 2017 to 2018 has fallen, with the ratio dropping from 88.93% in 2017 to 80.25% in 2018 (98%), according to data from the Indonesian Health Profile from 2017 to 2018. In addition, K4 coverage decreased from 2017 to 2018, from 86.57% in 2017 to 81.56% in 2018 (95% target) (Ministry of Health RI, 2017). Of the 33 provinces, West Sumatra Province is ranked 12th. West Sumatra Province K1 reached 90.1% of the national goal in 2017 but only reached 80.7% in 2018. Meanwhile, K4 achievement decreased significantly from 80.7% in 2017 to 76.53% in 2018. Coverage K1 and K4 improved slightly in 2019—K1 by 87.9% and K4 by 78.4%, but they still fell short of their goals. The Agam Regency Health Office meets the performance criteria of "Percentage of Pregnant Women Receiving Antenatal Services" or K1 of 83.8% in 2019, which is a slight improvement compared to 2018's figure of 78.2%, in the last three years, from 2017 to 2019. And in 2017 it was 84.3%. K4 coverage varied from 75.4% in 2017 to 69.2% in 2018 to 71.2% in 2019, for example. Although there is an increase in performance, this achievement has not exceeded the Minimum Service Standard (SPM) target for the K1 target, which is 100%, or the K4 target, which is 100% (West Sumatra Provincial Health Office, 2020).

Every pregnant woman gets standard antenatal care by the Minimum Service Standards Regulation of the Minister of Health No. 4 of 2019. Within a year, all pregnant women are expected in the area to receive health care by the requirements of the local government at the Regency or City level. Antenatal care that is considered standard includes 1) Quantity requirements; and 2) Quality requirements. The decision of pregnant women to perform antenatal care is influenced by various variables. According to research (Sumarni, 2014) there is a relationship between knowledge and attitudes regarding the use of antenatal services care (ANC). According to research, there is a relationship between prenatal care (ANC) visits and the knowledge, attitudes, and support of health workers (Mamalanggo, 2019). (Indrastuti & Mardian, 2019) that the factors of work, knowledge, attitudes, family support, ease of information, and disease complaints have a relationship with the use of antenatal care services. According to Research (Frinaldi & Embi, 2014) on the Effect of Public Service Quality on Citizen Satisfaction, this research is a study in a private hospital conducted in Padang City, West Sumatra Province, the results of this study indicate that there is a significant relationship between service quality and community satisfaction.

## METHODS

There are three types of data analysis: univariate, bivariate, and multivariate a cross-sectional design for this research, and the purposive sampling technique. Pregnant women in the third trimester with gestational ages ranging from 28 mg to postpartum women as research samples.

## RESULTS AND DISCUSSION

### 3.1 Data Analysis Results

#### A. Univariate

Based on Table 1 bottom, it is known that in the knowledge variable, 37 respondents have high knowledge (53.6%), and in the attitude variable, 43 (62.3%). good, there are 62 (89.9%), in the husband supports variable respondents with good husband support 36 (52.2%) and in the ANC service coverage it is found that 38 (55.1%) respondents have good ANC service coverage.

Table 1. Results of univariate variables

Variable	Frequency	Percentage
1. Knowledge		
Low	32	46.4
Tall	37	53.6
2. Attitude		
Negative	26	37.7
Positive	43	62.3
3. Distance		
Not good	7	10.1
Well	62	89.9
4. Husband Support		
Not good	33	47.8
Well	36	52.3
5. ANC Service Coverage		
Not good	31	44.9
Well	38	55.1
<b>TOTAL</b>	<b>69</b>	<b>100</b>

#### B. Bivariate

According to Table 2 bottom, 90.3% of women with less education have lower coverage of prenatal services than mothers with higher education. The results of the chi-square test, which was statistically significant, yielded a p-value of 0.000, indicating a substantial correlation between knowledge and coverage of antenatal care services.

Table 2. Results of bivariate variables

Knowledge	ANC Service Coverage				Total		<i>P-value/OR</i>
	Not good		Well				
	n	%	N	%	N	%	
Low	28	90.3	4	10.5	32	100	0.000/79,333
Tall	3	9.7	34	89.5	37	100	
Amount	31	44.9	38	55.1	69	100	
Attitude	ANC Service Coverage				Total		<i>P-value/OR</i>
	Not good		Well				

Knowledge	ANC Service Coverage				Total		P-value/OR
	Not good		Well		N	%	
	n	%	N	%			
Negative	17	54.8	9	23.7	26	100	0.016/3,913
Positive	14	45.2	29	76.3	43	100	
Amount	31	44.9	38	55.1	69	100	

  

Distance	ANC Service Coverage				Total		P-value/OR
	Not good		Well		N	%	
	n	%	N	%			
Well	7	22.6	0	0	7	100	0.007/0.774
Not good	24	77.4	38	100	62	100	
Amount	31	44.9	38	55.1	69	100	

  

Husband Support	ANC Service Coverage				Total		P-value/OR
	Not good		Well		N	%	
	n	%	N	%			
Not good	22	71.0	11	28.9	33	100	0.001/6,000
Well	9	29.0	27	71.1	36	100	
Amount	31	44.9	38	55.1	69	100	

For mothers who have negative sentiments, the coverage of antenatal care services is less favorable, which is 54.8%. There is a strong correlation between attitudes and the use of antenatal care services, according to the results of statistical analysis using the chi-square test, which got a p-value of 0.016. For mothers with a poor service distance of 22.6%, the coverage of prenatal services is less favorable. The findings of the chi-square test showed a p-value of 0.007, indicating a significant correlation between distance and coverage of antenatal care services. In mothers with low husband support, the coverage of antenatal care services is worse, namely 71.0%. According to statistical analysis using the chi-square test, the correlation between partner support and the use of antenatal care is very large (p-value = 0.001).

### C. Bivariate

Knowledge, which has an OR value of 178.373, is the most powerful factor influencing the coverage of antenatal care services. Mothers with little knowledge were 178 times more likely to have inadequate coverage of antenatal care services. More details can be seen in Table 3 below.

Table 3. Modeling the most important aspects of antenatal care coverage At the Agam Regency Health Center

	B	SE	Wald	df	Sig.	Exp(B)
Knowledge	5.184	1.193	18,868	1	0.000	178.373
Education	1,682	0.936	3.230	1	0.072	5.377
Parity	2,508	1.144	4,807	1	0.028	12,279
Attitude	0.803	1.155	0.484	1	0.487	2.233
Distance	21,662	15191,569	0.000	1	0.999	2557837465.840
Husband Support	1.214	1,227	0.979	1	0.322	3.366
Constant	-13,872	3.772	13,523	1	0.000	.000

## **3.2 Discussion**

### **A. Univariate Discussion**

According to research findings, there are 55.1% of pregnant women receive antenatal care services, 53.6% of pregnant women have a high level of knowledge, 62.3% of pregnant women have a positive outlook, and 53.6% of pregnant women receive good ANC services, 89.9% of pregnant women received good service distance, and 52.2% of pregnant women had good husband support.

The coverage of antenatal care services at the Agam Regency Health Center is quite low, lower at 71.2% of the coverage of antenatal care services issued by the 2019 Health Office profile, which is 78.4% and lower than the results of RISKESDAS 2018 which is 86.0%. Because some pregnant women believe that pregnancy checks are only needed if there are complaints, the lack of antenatal care services is a result of the high and low understanding of mothers and children on maternal and child health, there are even statements from pregnant women that without antenatal care, mothers can still give birth a healthy baby and if the mother's condition is healthy, besides that, the coverage of antenatal care services is also determined by when the pregnant woman's first visit to a health worker is. Access of pregnant women to low-quality information about maternal and child health is very important for understanding various antenatal care services because their knowledge will influence their decision-making.

### **B. Bivariate Discussion**

Based on the results of the study after statistical testing on individual factors of pregnant women that were significantly related to the coverage of antenatal care services were education and parity factors ( $p < 0.05$ ). However, there was no statistically significant relationship between age and the use of antenatal care services ( $p > 0.05$ ). Knowledge, attitude, distance, and husband's support are characteristics that are substantially related to the coverage of antenatal care services ( $p < 0.05$ ). The education of pregnant women significantly affects whether they comply with antenatal care examinations or not, low maternal education causes mothers to be unaware of the importance of antenatal care, and there is a significant correlation between education and several different variables, according to research (Safitri et al., 2016) on the contribution of predisposing factors and supporting factors of antenatal care adherence in pregnant women. According to research (Wuryani, 2019), parity has a complex impact on initiatives to conduct ANC visits. There is a considerable correlation between parity and coverage of antenatal care services. According to research (Mamalango, 2019) on the relationship between knowledge, maternal attitudes, and health professional assistance with antenatal care visits, there is a substantial correlation between knowledge and attitudes and various antenatal care services. ANC appointments and maternal knowledge are related, and it is known that women have high knowledge with regular ANC visits while poor knowledge with less frequent ANC visits. According to research (Indrastuti & Mardian, 2019) on the use of antenatal care services at Public health center, there is a correlation between maternal awareness and the use of prenatal care services. This relationship exists because respondents who know more often use antenatal care services than mothers who have less knowledge. According to research (Tesfaye et al., 2020) about the factors that prevent women in Eastern Ethiopia from using maternal health services, one of the variables These are the mother's unfavorable opinions and misperceptions about society.

This study is also consistent with that of Ulldbjerg et al (2020), who found that the main perceived barriers to using ANC were: poor service quality, including attitudes of health workers, socio-cultural practices and lack of support from husbands, including difficulties in encouraging them to participate in ANC. In addition, the institutional structure and procedures in the health center and transportation were considered to prevent some pregnant women from accessing ANC services. According to Khan (2012) study of the Pakistani maternal community, one of the reasons pregnant women do not go is that it is difficult for them to get the health services they need because the facilities are too far away. The significant relationship between distance, husband's support, and scope of antenatal care services is in line with these findings. Similar research was also carried out by (Tesfaye et al., 2020) about the inhibiting factors for the use of maternal health services in Eastern Ethiopia, one of which is the lack of husband involvement in maternal pregnancy care services. Similar concerns regarding barriers to the use of prenatal care services in Northern Uganda were also highlighted (Ulldbjerg et al., 2020). It is known that one of the barriers to the use of antenatal services is the lack of support for partners to encourage pregnant women to be examined.

According to a study (Frinaldi & Embi, 2014) Study in Private Hospital in Padang, West Sumatra Province) on the Influence of Public Service Quality on Citizen Satisfaction that there is a significant relationship between service quality and community satisfaction. This shows that the quality of service must be improved to obtain an increase in user satisfaction from the community who are the object of the service. So it is suggested to policymakers in hospitals to prioritize the presence of doctors, especially punctuality at the time of appointments listed on the bulletin board and the patient expects the doctor to give sufficient time to explain the patient's diagnosis based on his examination.

Age was not significantly correlated with the availability of prenatal care. According to a study (Indrastuti & Mardian 2019), there is no correlation between age and the use of antenatal care services in the Public health center area because the majority of mothers there are not included in the risk age category at a significant level of 0.956. This study supports a study (Paputungan, 2016) that examined prenatal care visits in Papua province. The findings revealed no relationship between the number of prenatal visits and age. Local governments can use this as a justification to intensify efforts to improve maternal health services, especially for pregnant women, by showing that both internal factors (education, parity, knowledge).

### **C. Multivariate Discussion**

Multivariate modeling, which takes into account confounding variables, performs the multivariate analysis. After the modeling procedure and analysis of changes in OR values, it was found that 6 variables as Knowledge, Education, Parity, Attitude, Distance, and Husband's Support were substantially connected to various antenatal care services. Education, parity, and husband's support are characteristics that must be taken into account in multivariate antenatal care services for pregnant women at Public health center. Based on parity that high parity risk 12.2 times has low coverage of antenatal care. The analysis confirms that pregnant women need to get special attention in terms of care during pregnancy. Knowledge is the main factor influencing the use of prenatal care services, with an OR value of 178,373 indicating that pregnant women with little knowledge have a lower probability of using antenatal care up to 178 times less often than pregnant women with high knowledge. According to research (Mamalanggo, 2019) on the interaction between knowledge, maternal attitudes, and assistance from health workers, this illustrates

the relationship between maternal attitudes and antenatal care visits. Research by Djonis (2014) on how attitudes and knowledge of pregnant women relate to their use of antenatal care is also consistent with the findings of this study, which shows that knowledge of pregnant women has a major impact on the use of these services. There is a correlation between maternal knowledge and antenatal care visits, and it is known that women have strong knowledge when receiving regular antenatal care, whereas poor knowledge when receiving ANC is less frequent. This study provides support for a study (Mamalanggo, 2019) on the relationship between maternal attitudes, knowledge, and professional support for ANC visits. According to research by Indrastuti & Mardian (2019) on the use of antenatal care services at Public health center, there is a correlation between maternal awareness and the use of prenatal care services. This association arises from the fact that mothers who have more knowledge than mothers who have less knowledge are more likely to use antenatal care services. and it is known that women have strong knowledge when receiving regular antenatal care, whereas poor knowledge when receiving ANC is less common. This study provides support for a study (Mamalanggo, 2019) on the relationship between maternal attitudes, knowledge, and professional support for antenatal care visits.

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fact that mothers who have more knowledge than mothers who have less knowledge are more likely to use antenatal care services.

The Health Office must regularly train midwives on strengthening the performance management of ANC services and improving coaching at each Puskesmas to improve the human resources of midwives. When arguing with the sub-district and village heads, as well as posyandu cadres (In Indonesia) in the implementation of the P4K program. As a reference or manual for midwives in providing services for pregnant women, the Head of the Puskesmas must successfully implement operational policies in the form of props or Standard Operating Procedures (SOP) for pregnant women in ANC services. Improve health promotion for all Puskesmas programs to inform the public about the various health services offered there. Through facilitative supervision, midwives should periodically receive instructions and directions. As an innovation in increasing the coverage of antenatal care services, The author suggests the activity of "Cadres of Mother and Child Friends" at every Puskesmas in Agam Regency, abbreviated as "KA ES IKA" where this activity is in the form of assistance carried out by cadres who are not only pregnant women but also assist children. For pre-pregnancy activities, the authors suggest that the "Bride and Groom Class" activity which is abbreviated as "Dating" is carried out, this activity is in the form of providing KIE to the prospective bride and groom, and the implementation is like a class for pregnant women but involves the Office of Religious Affairs (KUA).

## CONCLUSION

Knowledge is the main factor influencing the use of prenatal care services, with an OR value of 178,373 indicating that pregnant women with little knowledge have a lower probability of using antenatal care up to 178 times less often than pregnant women with high knowledge.

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