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## **Antenatal Care Utilization Determinants by Pregnant Mother in Wamena Health Center, Jayawijaya Regency 2015**

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### **Abstract**

The title of this research is "Determinants of Utilization of Antenatal Care By Pregnant Women in Health Center Jayawijaya Wamena Year 2015. This study aimed to obtain information about the determinant factor utilization of antenatal care services by pregnant women at health centers Jayawijaya Wamena. And looking at the relationship of education, knowledge, attitudes, affordability and husband support the utilization of antenatal care services. This research method using cross sectional design which will look at the relationship the determinant factor in the utilization of antenatal care by pregnant women (K1 and K4). Samples are pregnant women, there is the region with the city of Wamena Puskesmas third trimester gestational age (> 24 weeks). A large sample of 90 samples in accordance with the size of the sample population (proportional). Ujistik used Chi-Square Test. The results showed that of the five independent variables were examined at the health center Wamena town there is only one variable that knowledge relating to the utilization of antenatal care, dimanailai  $p = 0.001 < 0.05$ . However, the education factor, attitude, affordability and support this husband showed no effect, although not significantly.

**Keywords:** determinant factor; antenatal care.

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## **1. Introduction**

Pregnancy is a natural process that will be experienced by a woman. Long pregnancy until term is 280 to 300 days or 39-40 weeks, so during that time pregnant women require proper supervision [1]. Antenatal care visits are visits of pregnant women to the midwife or doctor as early as possible since she felt herself to be pregnant to get antenatal care services at every antenatal care visit. Ideally, if a pregnant woman wants checkups for the purpose of detecting disorders - disorders that may exist or will soon be known, and immediately get treatment. With antenatal care in women can be detected as early as possible so hopefully she can take care of them during pregnancy and prepare for labor. It is important for pregnant women do antenatal care, because every pregnancy can develop into a problem or complication at any time. That's why pregnant women require monitoring during pregnancy [1]. Pregnancy and delivery care begins with antenatal services, namely physical and mental care during pregnancy preventative and aim to prevent things that are not good for both mother and child. Antenatal care in Indonesia is part of a maternal and child health program which is basically available to all pregnant women with a relatively low cost. However, despite the relatively inexpensive cost of services, not all pregnant women take advantage of the service. According to [2]; which examined the factors that affect the utilization of antenatal care where his research is the knowledge of the factors related to the ANC. Lack of knowledge of pregnant women about the benefits of antenatal care because she did not use the health facilities available. Thus the mother does not know the state of health of the pregnancy is healthy or risky.

Utilization of antenatal care is associated with the behavior. According to Green, human behavior is determined by three factors: factors "predisposing", embodied in knowledge, attitudes, beliefs, values and so on, the factor of "enabling", which is manifested in the physical environment, are available or unavailability of facilities or health facilities. Factor "reinforcing", which manifested itself in the attitude and behavior of health care workers or other personnel, which is a reference group of people's behavior.

According to B. Bloom knowledge or cognitive domain is very important for the formation of action (over behavior). A pregnant woman will not utilize antenatal care when mother not know the benefits of antenatal care for pregnancy. Therefore in this study only focused on determinants utilization of antenatal care by pregnant women. Based Health Research [3] shows the examination during trimester 1, trimester 2nd, 3rd trimester and trimester entirely. Pregnancy tests look for variations between provinces. During the 1st trimester mothers never checks in five province ranged between 25.5% - 50.7%, whereas in the 2nd trimester of at least one pregnancy check. In the 3rd trimester as much as 24.4% -37.5% has checked more than twice as recommended. During pregnancy a minimum number of antenatal care four times, namely at least 1 time in the first trimester, at least 1 time in the second trimester and at least 2 times in the third trimester. It turns out the new 30.9% - 50.7% of pregnant women who check four times or more.

Based on Indonesia Demographic Health Survey, MMR Indonesia is 307 / 100,000 live births in 2002. This figure is still below the national target of per100,000 KH 125 in 2010 and 102 per100.000 KH for the Millennium Development Goals (MDGs). Most maternal deaths in Indonesia are bleeding 42%, eklampsia 13%, 11% of abortion complications, infections 10% and prolonged labor%. These deaths generally can be prevented if the pregnancy complications and other high-risk situation is detected early. How to early detection

can performed at antenatal care is to increase the coverage of antenatal both K1 and K4. Antenatal care is an attempt to maintain the health of the mother during pregnancy as well efforts to reduce morbidity and mortality Based on monitoring reports local region (PWS) KIA Jayawijaya in 2013 based on the report F3, antenatal care coverage in Jayawijaya 2013, coverage 76.7% K1, K4 coverage 20.68%, while in 2014 66.9% of K1 coverage, K4 coverage 21.21%. Coverage of antenatal care in Wamena City Health Center in 2013 K1 (48.4%) and K4 (19.0%) and in the 2014K1 (59.3%) and K4 (38.4%). Based on these data show that yet the realization of the implementation of equitable health efforts in Indonesia, as stated in Law - Health Law 36 of 2009 Article 14 that "The government is responsible to plan, organize, organize, direct and supervise health efforts equitable and affordable by the community".

Based on the above preliminary, the research question is what factors are detrimental to the utilization of antenatal care by pregnant women at health centers Jayawijaya Wamena. The research objectives are: 1. To analyze the relation between education and the utilization of antenatal care by pregnant women at health centers Jayawijaya Wamena. 2. Analyzing Knowledge relationship with the utilization of antenatal care by pregnant women at health centers Jayawijaya Wamena. 3. Analyze the relationship attitude with antenatal care service utilization by pregnant women at health centers Jayawijaya Wamena. 4. Analyze affordability relationship with the utilization of antenatal care services by pregnant women at health centers Jayawijaya Wamena, 5. analyze the relationship between husband support the use of antenatal care by pregnant women in PHC Jayawijaya Wamena.

The benefits of this research are: 1) for Science, results of this study are expected to contribute information and enrich knowledge in the field of health, especially in the utilization of antenatal care integrated and become a reference for further research, 2) To Institution, as an input and donations rationale for the relevant institutions specifically for Jayawijaya District Health Office in order to accelerate reduction in maternal mortality and infant mortality, 3) For the researcher, as the experience and valuable knowledge for writers in increasing and developing scientific insights.

## **2. Materials and Method**

This type of research is observational analytic design "cross-sectional" which looked at the relationship determinants of the utilization of antenatal care by pregnant women (K1 and K4). The research was conducted in the region Puskesmas Jayawijaya Wamena at the time the research was conducted on June 2 until the date of August 1, 2015. The study population was all pregnant women who live in the district of Wamena in 1014 as pregnant women. Pregnant women who study sample there Puskesmas working area of the town of Wamena in the sample determines the amount of sample used for the calculation of sample size estimation of the proportion of survey research on simple random sample according to [2, 3], with a sample size formula as follows:

$n$  = number of samples required.

$N$  = Number of pregnant women who live in the district of Wamena with 1,014 pregnant women.

$Z$  = The standard normal distribution at certain  $\alpha$ .

$\alpha$  = degree of confidence.

P = proportion of the population.

d = degree of accuracy (precision) desired.

In this experiment, 95% confidence level ( $Z_{21-\alpha} / 2 = 1.96$ ) with absolute precision by 10% ( $d = 0.1$ ). Because research has never been done before, then use the value of the proportion of the population by 50% ( $P = 0.5$ ).

$$n = \frac{1,962 \times 0.5 \times 0.5 \times 1.014}{0.12 (1014-1) + 1.962 \times 0.5 \times 0.5}$$

$$n = \frac{3.8416 \times 0.5 \times 0.5 \times 1.014}{10.13 + 0.9604}$$

$$n = \frac{973.8456}{11.0904}$$

88 samples  $\hat{n} = 87.80978$

So the sample size of 88 samples round up to 90 in accordance with the size of the sample population (proportional).

Data was collected through primary data and secondary data, namely:

- a) Primary data is data obtained through interviews with respondents to the questionnaire based on the research that has been prepared.
- b) Secondary data is data obtained from documentation midwife at health centre, village chief's office, profiles and reports PWS-KIA health centers as well as data from the Department of Health Jayawijaya.

**Data Analysis**

- a) Variable Percentage Distribution Analysis (Univariate).

The goal was to determine the distribution of the frequency or magnitude of the proportion of each of the variables studied (analyzed one by one study variables).

- b) cross-tab analysis (Bivariat).

Tabulation cross between exogenous factors as well as the determinants of cross tabulation analysis between exogenous variables with access to antenatal care service utilization, to assess the distribution of exogenous variables according to the determinant factor as well as access to antenatal care services utilization (variable rate

related to the utilization antenatal care). The statistical test used is Chi-Square Test.

c) Multivariate Analysis.

This analysis is done on a path analysis to establish the appropriate channels to be passed by the exogenous variables affect the endogenous variables using multiple linear regression statistical test. While the correlation between exogenous variables used correlation test (this analysis is to assess the dominant variable related). The test used is logistic regression.

**3. Research Result**

Dependent Variables

1. Use of Antenatal Care

Distribution of pregnant women who use antenatal care most is to take advantage if the frequency of service > 4 times and according to the distribution of contact for each semester in pregnancy and do not use if the frequency of checks < 4 times or > 4 times but not in accordance with the distribution of contact in pregnancy can be seen in the table 1 as follows:

**Table 1:** Distribution of Mother according Utilization Pregnancy Antenatal care at the health center Wamena 2015.

1. Antenatal care service Utilization 2.	3. 4. Wamena 5.	
	6. n	7. %
8. Utilization	11. 35	14. 37,1
9. No Utilization	12. 55	15. 62,9
10. Number	13. 90	16. 100

From **Table 1** shows that in PHC Wamena pregnant women who use antenatal care during pregnancy from 90 respondents, who use (37.1%).

2. Cross Tabulation Analysis (Bivariat) Exogenous and endogenous variables. At this stage, cross tabulation analysis between variables, including the exogenous variables including endogenous variables, can be seen in Table 2 as follows:

**Table 2:** Distribution of Education in Antenatal Care Utilization Pregnant Women in Health Center City Wamena 2015

17. 18. 19. Education	20. Antenatal Care Utilization						25. P
	21. Utilization		22. No Utilization		23. Total		
	24.						
	26. n	27. %	28. n	29. %	30. N	31. %	
32. 33. Basic school					53. 54. 2	59. 100, 0	63. 0,745
34. Junior high school	37. 15	41. 55,6	45. 12	49. 44,4	7	60. 100, 0	
35. Senior high school	38. 23	42. 60,5	46. 15	50. 39,5	55. 3	8	
36. University	39. 13	43. 65,0	47. 7	51. 35,0	56. 2	0	
	40. 4	44. 80,0	48. 1	52. 20,0	0	62. 100, 0	
					57. 5	0	
					58.		
64. Total	65. 55	66. 61,1	67. 35	68. 38,9	69. 9	70. 100, 0	

**Table 2** show that PHC Wamena Kota utilizing more antenatal care in pregnant women are college-level education (80.0%) and the lowest at the level of elementary education (55.6%) and no significant relationship in which the value of  $p = 0.745 > 0.05$ .

**Table 3:** Distribution of Knowledge by Use of Antenatal Care Pregnancy in Wamena Kota 2015 Antenatal Care Utilization.

71. Antenatal Care Utilization							
72. Knowledge 73.	74. Utilization			75. No Utilization		76. Total	77. P
	78. n	79. %	80. n	81. %	82. n	83. %	
84. Good	87. 43	90. 74,1	93. 15	96. 25,9	99. 58	102. 100,0	105. 0,001
85. Less	88. 12	91. 37,5	94. 20	97. 62,5	100. 32	103. 100,0	
86. Total	89. 55	92. 61,1	95. 35	98. 38,9	101. 90	104. 100,0	

**Table 3** shows the results of the analysis of pregnant that mother in Wamena town health center that utilize antenatal care services is that a good knowledge (74.1%), and there is a significant relationship where  $p = 0.001 < 0.05$ .

**Table 4:** Distribution of attitudes according to Antenatal Care Maternity Care Utilization in Wamena PHC, 2015

106. Antenatal Care Utilization							
107. Attitude	108. Utilization		109. No Utilization		110. Total		111. P 112.
	113. n	114. %	115. n	116. %	117. n	118. %	
119. Good	122. 5		128. 3		134. 8	137. 10	140. 0,629
120. Less	4	125. 61,4	4	131. 36,6	8	0,0	
121. Total	123. 1	126. 50,0	129. 1	132. 50,0	135. 2	138. 10	
	124. 5	127. 61,1	130. 3	133. 36,9	136. 9	0,0	
	5		5		0	139. 10 0,0	

**Table 4** shows the results of the analysis, Wamena health centre that utilize antenatal care services is a good attitude of pregnant women (61.4%). And there is no significant relationship in which the value of  $p = 0.629 > 0.05$ .

**Table 5:** Distribution Affordability according Utilization Pregnancy Antenatal Care in PHC Wamena Kota2015

141. Antenatal Care Utilization							
142. Reachable	143. Utilization		144. No Utilization		146. Total		147. P 148. 149.
	150. N	151. %	152. n	153. %	154. n	155. %	
156. Easy					171. 7	174. 10	177.
157. Difficult					4	0,0	178.
158. Total	159. 44	162. 80	165. 44	168. 85	172. 1	175. 10	179. 0,6
	160. 11	163. 68,8	166. 5	169. 31,3	6	0,0	83
	161. 55	164. 61,1	167. 35	170. 38,9	173. 9	176. 10	180.
					0	0,0	

Table 5 shows the results of the analysis that pregnant women in Wamena town that most health centers utilize antenatal care services are in a category difficult to reach (68.5%), and no significant relationship wherein  $p = 0.683 > 0.05$ .

**Table 6:** Distribution Support Husband according Utilization Pregnancy Antenatal Care in PHC Wamena 2015

181. Antenatal Care Utilization							
182. Husband support	183. Utilization		184. No Utilization		185. Total		186. P
	187. n	188. %	189. n	190. %	191. n	192. %	
193. Yes					208. 4	211. 10	
194. No					7	0,0	
195. Total	196. 26	199. 55,3	202. 21	205. 44,7	209. 3	212. 10	214. 0,3
	197. 29	200. 67,4	203. 14	206. 32,6	1	0,0	36
	198. 55	201. 61,1	204. 35	207. 38,9	210. 9	213. 10	
					0	0,0	

Table 6 shows the results of the analysis of pregnant women at health centers Urban utilization Wamena antenatal care is the category no husband support (67.4%), and no significant relationship in which the value of  $p = 0.336$ .

**4. Analysis Multivariate.**

The method used is logistic regression enter method that all of the variables included in the model, the results are shown in Table 7 are as follows:

**Table 7:** Variables independently suspected of having links with utilization of Antenatal Care Pregnancy in Wamena City Health Center 2015

215. Variable	216. B	217. S.E.	218. Wald	219. df	220. Sig	221. Exp(B)
222. Education	228. -	235. 0,299	242. 0,827	249. 1	256. 0,363	263. 0,762
223. Knowledge	0,272	236. 0,525	243. 9,482	250. 1	257. 0,002	264. 5,035
224. Attitude	229. 1,616	237. 1,509	244. 0,020	251. 1	258. 0,889	265. 1,235
225. Reachable	230. 0,211	238. 0,666	245. 0,174	252. 1	259. 0,677	266. 1,320
226. Husband support	231. 0,277	239. 0,496	246. 1,920	253. 1	260. 0,166	267. 0,503
227. Const	232. -	240. 2,420	247. 0,485	254. 1	261. 0,486	268. 0,185
	0,688	241.	248.	255.	262.	269.
	233. -					
	1,685					
	234.					

Table 7 shows the results of multivariate analysis of five variables studied and included in the model equations,

there is only one that is significantly associated with the utilization of antenatal care services once other variables are taken into account, namely the knowledge of 0.002.

## **5. Conclusion**

Based on the research that has been done can be summarized as follows: 1. Knowledge was no significant relationship ( $p = 0.001 < 0.05$ ) with the utilization of antenatal care services in health centers Wamena, 2. There is no significant relationship between attitudes to the use of antenatal care PHC care in Wamena town, 3. There is no significant relationship between education and the utilization of antenatal care services in health centers Wamena town, 4. There is no significant relationship between affordability with the utilization of antenatal care services by pregnant women at health centers Jayawijaya Wamena town, 5. There was no significant relationship between husband support the utilization of antenatal care services in health centers Wamena.

Based on the conclusions obtained, the authors provide helpful suggestions are:

1. Improving the quality of Antenatal Care by the government through the Department of Health Jayawijaya, involving cross-program and cross-sectoral and other relevant partners in order to prevent morbidity and mortality in mothers and babies as an effort to accelerate penurukan maternal and child mortality in Jayawijaya.
2. Promote the importance of the role of husband and family support for quality pregnancy and delivery through the medium of KIE.

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