

# International Journal of Sciences: Basic and Applied Research (IJSBAR)

Sciences:
Basic and Applied
Research
ISSN 2307-4531
(Print & Online)
Published by:
Liberty.

**ISSN 2307-4531** (Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

# Factors Affecting of Pure K1 – Pregnancy Mother K4 Visits in Kanda Public Health Center, Waibu District, Jayapura Regency

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### **Abstract**

Maternal mortality rate in Indonesia is still high. Efforts handling is performed with the frequency of antenatal care visits four times during pregnancy. But the tendency of mothers in antenatal care regularly and on time is still low. This study aims to investigate the influence of age, education, work, knowledge, attitudes, affordability of health facilities, support her husband and family income of the pure K1 and K4 visit in Kanda Health Centre, Jayapura district. This is an observational study with cross sectional design. Samples taken as many as 131 people as respondents. The data collection questionnaire from the interview. Data were analyzed by chi-square test and prevalence ratio. The results showed that age is not a factor affecting to visit pure K1 and K4 in the Kanda health centre, district of Jayapura (p = 1.000; RP = 0.973; 0.390 to 0.2292). Education (P = 0.000; RP = 0.973; 0.390 to 0.390; knowledge (p = 0.000; RP = 0.393; 0.390; howeledge (p = 0.000); RP = 0.393; howeledge (p = 0.000); RP

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**Keywords:** Pregnancy mother; Pure K1; K4 visits.

### 1. Introduction

Utilization of antenatal care by a pregnant woman can be seen from the coverage of antenatal care, one of which is coverage of antenatal visits are less than the minimum standard. Coverage of antenatal care can be monitored through the coverage of the first visit (K1) and the fourth visit (K4). Coverage K1 is the coverage of pregnant women who receive antenatal care according to the standards the first time during pregnancy and are not dependent gestational age (K1) which is composed of K1 pure (visit first pregnancy with gestational age 0-12 weeks), while K1 contact is the first visit pass 12 weeks of gestation, while the coverage of pregnant women visit K4 is the coverage of pregnant women who have obtained in accordance with the standard antenatal care at least four times in the working area at a certain time. Pregnant women are recommended to conduct surveillance at antenatal least 4 times, one time in the first trimester, one trimester to the second, and twice in the third trimester [1]. Antenatal Care (ANC) is an examination of pregnancy to optimize physical mental health of pregnant women so as to face childbirth, postpartum stage, preparation of breastfeeding and the return of normal reproductive health in order to reduce maternal mortality [2]. Data from the Ministry of Health based on the results of the National Basic Health Research [3] K1 coverage in 2010 was 95.26% and K4 coverage is 85.56%. The amount is still less than the national target, namely coverage of 100% K1 and K4 95%. While on the data of the National Basic Health Research [4] 95.4% of antenatal care (K1) and the frequency of pregnancies at least 4 times during pregnancy was 83.5%. K1 ideal coverage nationwide was 81.6% with the lowest coverage in Papua (56.3%) and highest in Bali (90.3%). K4 national coverage was 70.4%. The difference from the ideal K1 and K4 coverage nationwide showed that there are 12% of mothers who received K1 ideal not continue ANC appropriate minimum standards (K4).

Base on the data [5], that coverage is 83.1% K1 and K4 (65.7%). While the Jayapura District Health Office data K1 coverage of pregnant women in 2012 reached 133.70%, while coverage K4 has not reached 49.14%. In 2013 coverage amounted to 132.1% K1 and K4 amounted to 46.2% and in 2014 reached 139.8% coverage of K1 and K4 reach 52.2%. As for the achievement of the ideal K1 (K1 pure) in 2012 reached 63%, in 2013 reached 61.3% and in 2014 reached 64.7%. This shows the ANC coverage target of pure K1 and K4 has not been achieved according to the standard 95% [5]. Based on data from the Local Regional Monitoring (PWS) in Kanda Health Centre, Jayapura District in 2014, the number of visits of pregnant women K1 were 124 pregnant women (166.2%) of target pregnant women as many as 104 people, where the pure K1 visits by 82 mothers (66, 12%), while as many as 42 contacts K1 mothers (33.88%) and K4 are 55 mothers (44.35%). Whereas in the period from January to June 2015 as many as 138 pregnant women, where the visit is 75% pure K1 and K4 reached 19%. This shows still found the mother of improper conduct visits three semester pregnancy in the first or pure K1 and K4 low visits. Research results by [6] revealed that the factors affecting the low regularity of pregnant women to visit a pregnancy is the attitude of the mother, while the results of the study [7] says that the factors affecting the low visit pregnant women in the conduct of antenatal care (ANC) is the knowledge and the attitude of pregnant women who lack the benefits of ANC visit. In addition [7] revealed that age, education, employment and support of her husband and family income influence mothers in pregnancy visit. The general objective of this study is a factor - a factor that affects pure K1 and K4 visit pregnant women at health centers

Kanda district of Jayapura.

### 2. Materials and Methods

# 2.1 Type and Design Research

This study was an observational study with cross sectional study design. Selection of cases subject groups based on frequency of visits K1 and K4 obtained from the card or book KIA status, while the group. The identified risk factors are age, education, work, knowledge, attitudes, husband support, affordability of health care and family income.

### 2.2 Time and Location

This research was conducted at the health center Kanda Jayapura district. Data collection is done from April - September 2015 by collecting secondary and primary data.

### 2.3 Population and sample

Population and the number of samples in this study were all pregnant women ANC visit as many as 131 pregnant women by way of non-random or non-random sampling in the third trimester pregnant women.

### 2.4 Method of collecting data

Methods of data collection is done by collecting secondary data obtained through the relevant agencies namely Jayapura District Health Office, the medical records of the health center Kanda Jayapura regency, then made the recording of the appropriate variables needed. Bivariate data analysis using cross sectional calculations were done using cross-tabulation between variables with the value of prevalence ratio (RP), to predict the relationship of the facts investigated to visit pure K1 and K4.

### 3. Results

Based on the results of the study showed that by the age of most respondents in the age group 20-35 years (81.7%) and slightly in respondents with age <20 years and> 35 years (18.3%). Most education based on respondents with higher education (77.9%) and slightly in respondents with lower education (22.1%). While based jobs, majority respondents work (66.4%) and a few that do not work (33.6%). Knowledge respondents from 131 respondents, most with less knowledge as much as 80 respondents (61.1%) and slightly with less knowledge as much as 51 respondents (38.9%). The attitude of most respondents with a negative attitude as much as 80 respondents (61.1%) and a little knowledge of positive attitude as much as 51 respondents (38.9%). Most husbands support the husband's support is less by 84 respondents (64.1%) and slight with good husband support as many as 47 respondents (35.9%). The perceived affordability of health facilities is difficult as many as 75 respondents (57.3%) and respondents who feel easy of 56 respondents (42.7%). Income families with the highest family income of less than a total of 77 respondents (58.8%) and respondents

with a family income quite as much as 54 respondents (41.2%). Visits pure K1 and K4 of the 131 respondents with an irregular visits as many as 67 respondents (51.1%) and regular 64 (48.9%).

Results of analysis of maternal age effect on pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 1.000; RP = 0.973). Education effect on visit pure K1 and K4 in the Kanda health centre district of Jayapura (p = 0.000). The result of the prevalence ratio (PR) shows RP = 1.963 (1.481 to 2.601), meaning lower education respondents do not regularly visit a pure K1 and K4 amounting to 1.963 times greater than the respondents of higher education. Effect on the employment of pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.010). The result of the prevalence ratio (PR) shows RP = 11.753 (1.123 to 2.737), meaning that respondents who do not work do not regularly visit K1 and K4 amounted to 11.753 times larger than the respondents worked. Knowledge affect the pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.000). The result of the prevalence ratio (PR) shows RP = 5.464 (2.715 to 11.000), meaning that respondents with less knowledge of irregular visits K1 and K4 amounting to 5.464 times greater than the respondent with good knowledge.

Attitudes affect the pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.000). The result of the prevalence ratio (PR) shows RP = 53.245 (1.886 to 5.584), meaning that respondents with a negative attitude irregular visits K1 and K4 amounted to 53.245 times larger than the respondents with a positive attitude. Husband support affect the pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.044). The result of the prevalence ratio (PR) shows RP = 1.523 (1.016 to 2.285), meaning that respondents were less obtain support irregular visits K1 and K4 amounting to 1,523 times greater than the respondents either support her husband. Affordability of health facilities affect the pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.000). The result of the prevalence ratio (PR) shows RP = 3.102 (1.887 to 5.097), meaning that respondents with the affordability of health facilities difficult irregular visits K1 and K4 amounting to 3.102 times greater than the respondents are easily within reach health facilities. Family income affect the pure K1 and K4 visit in Kanda Health Centre, district of Jayapura (p = 0.004). The result of the prevalence ratio (PR) shows RP = 31.772 (1.186 to 2.647), meaning that respondents with a family income of less irregular visits K1 and K4 amounted to 31.772 times greater than enough family income respondents.

## 4. Discussion

The results showed that among the eight indicators, that age is not a factor affecting to visit pure K1 and K4 in Kanda Health Centre, Jayapura district. While education, employment, knowledge, attitudes, husband support, affordability of health care and family income affect the pure K1 and K4 visit in Kanda Health Centre, Jayapura district. Results of bivariate analysis showed that pregnant women aged 20-35 years had a higher percentage in doing that antenatal visits (51.4%) compared with pregnant women aged <20 or> 35 years only (50%) in antenatal visits, However, these results are not in line with aspects of antenatal service which needs should take precedence fulfillment in the age group <20 or> 35 years, given the level of vulnerability of pregnancy and potential pregnancy complications is higher than the age group 20-35 years. At the age under 20 years, the uterus and pelvis often not grow to adult size. As a result, pregnant women at that age may experience prolonged labor / jam, or other disruptions due to unpreparedness of mothers receive their duties and

responsibilities as a parent. Meanwhile, at the age of 35 years, the mother's health has been declining. As a result, pregnant women at that age have a greater likelihood of having a disabled child, prolonged labor and hemorrhage [8].

Results of this research together with research [9] which showed that there was no distribution between age and antenatal visits. Similar results were obtained also from research which showed no distribution between age and antenatal visits. However, these results differ from studies [10], which showed a significant distribution among age with complete antenatal visits, namely mothers aged 20-35 years had 1.56 times the chance to utilize antenatal care, much greater than or equal by 4 times compared to mothers aged less than 20 years and more than 35 years. Thus, the age cannot be used as a predictor for the behavior of mothers in pregnancy checks, meaning that both the mother lived at risk or not at risk have the same opportunities in prenatal care status incomplete (not according to standards). This may be due to the knowledge of pregnant women about the dangers of pregnancy is still low, but it is geographically Kanda Health Centre consists of the urban periphery area and where to transport accessibility still quite difficult to reach.

Education means education provided one person to another in order to understand something. It is inevitable that the higher one's education, the more easily will they receive information, and ultimately knowledge he has will more and more. Conversely, if a person has a low level of education, it will hinder the development of the person's attitude toward receiving information and new values introduced [11]. Results of these studies it is known that maternal education is a variable that affects the pregnancy tests pure K1 and K4. This can be explained, the role of education to visit pregnancy K1 pure and K4 are very large in terms of reproductive health, maternal-educated tend to have a better idea for improving health while mothers with low education have less knowledge about their health and are more submissive, succumbed to a state with no impetus to improve its lot. In addition, highly educated mother would always determine a more rational decision in this case examination of the behavior of her pregnancy. The importance of education for women who will become mothers, can influence the attitudes and knowledge to health care, the need to visit antenatal care and post-natal as well as awareness of the health of children and families. Education is one of the reasons not directly affecting pregnancy tests. So also in the literature [12], that the goal of education is not only the transfer of knowledge and skills, but also character development such as the development of thinking, sensitivity, awareness, ethical values and others. The higher education will be increasingly easier to accept and develop knowledge and technology. Education is very influential on the way of thinking, acting and decision making someone in the use of health services. Efforts in improving education can be in line with the promotion - health promotion, especially with regard to pregnant women that can be performed by health workers who assisted by a cadre or local community leaders, in order to improve the knowledge of pregnant women in the use of antenatal care in the delivery of health workers who will carry out education to pregnant women should be tailored to the level of maternal education, other than that the language used by health workers should be simple and understandable by pregnant women, so that communication in providing antenatal education is not impeded.

Pregnant women who do not work have a higher percentage in the regular visits of pure K1 and K4 which (59.8%) compared with pregnant women who do not work (34.1%) in antenatal visits. These results are in line with the concept according to [13], that person's job will describe the activities and the level of economic well-

being obtained. Working mothers have this level of knowledge is better than mothers who do not work, because working mothers will have more opportunities to interact with others, so it has a lot of opportunities as well to get information about the state of her pregnancy. Thus it can be explained that, both mothers who do not work have the opportunity status 1,753 times greater than those who work for an antenatal check regarding to timely (pure K1 and K4) or maternal employment status factors affect the status of his ANC. According to the research results of the study [13], found that the employment status of the mother would very much affect the use of facilities and health facilities. This is explained, because of the status of working mothers will be plenty busy with daily activities for work and in between - between job can make a visit pregnancy. Thus the physical condition, especially pregnancy and fetus health will always be detected if any abnormality or pregnancy complications. The condition results of this study can be explained that, the existence of health facilities such as health centers and their networks Posyandu and midwife in the village where the maximum used by pregnant women to pregnancy examination. Therefore unwillingness pregnant women to use, the possibility of the perception of them linked to the ability economically. In fact, the government has been clear for financing health, especially prenatal care for those who cannot have been made free.

On the other hand, the presence of TBAs is still a habit of pregnant women in the area to use it, in addition to close to where they live is also economically affordable. Another factor is the ignorance of pregnant women against pregnancy during this assumes that pregnancy is a normal process of human life and lived naturally. The socialization efforts against pregnant women in the group that does not work can be carried out more active, not only in the group of mothers who do not work have been done but also to the health promotion group of pregnant women who visit antenatal work to complete and regularly, in order to be monitored the possibility that will occur in pregnancy. Knowledge has a role as the primary motivation for a person to behave. However, change is not always knowledge can cause behavioral changes. [14], mentions knowledge is one of the factors predisposing to the formation of a person's behavior.

The research proves there is a significant relationship between knowledge with prenatal care pure K1 and K4. Knowledge is the domain that is important for the formation of one's actions. According to experiences and research results in [15], that behavior based on knowledge will be lasting (long lasting) than behavior that is not based on knowledge. In addition, the knowledge is also an early stage in the adoption of new behavior prior to the formation of a new attitude towards the object faces. It is caused by the mother with good knowledge, the level of understanding about the importance of prenatal care that had been obtained through health counseling or information from the mass media is still in the stages of adoption, where new mothers aware of the meaning of the stimulus in the form of intentions without being followed by a change in attitude and behavior. Based on behavioral theory, informed one of them can guarantee a person to behave in accordance with the knowledge gained. According to [15], prior to adopting the new behavior, a process that began with the sequences such as Awareness, Interest, Evaluation, Trial, Adoption. The socialization efforts against pregnant women on existing knowledge about the group can be carried out even harder through Posyandu to be monitored possibilities that will occur in pregnancy.

Research results obtained from 131 respondents, most of the negative attitude of the respondents (61.1%) of the ANC. This indicates that respondents' attitudes about the ANC still responded negatively, especially on a visit

pure K1 and K4 in the regularity of visits pregnancy. The attitude of the mother is the view or the response is positive or negative and it is not clear on the benefits of antenatal care and to the pregnancy itself. According to the theory of attitude is positive or negative beliefs to display a certain behavior. Beliefs or beliefs is called behavioral beliefs. An individual will intend to show a certain behavior in a positive way when he votes. An individual will intend to show a specific behavior if he perceives that the other person is important to think that he should do it. For example, the participation of pregnant women in antenatal care is influenced by a positive attitude towards it. Furthermore, the positive atmosphere will affect the intention to participate in activities related to the antenatal checks. The results are consistent with research [2] in showing that there is a relationship between the attitude of mothers with antenatal visit regularity.

Attitude positive mothers of course based on the knowledge that good anyway, so it fosters understanding can breed and foster a positive attitude in implementing the ANC Visits. Efforts socialization about the benefits of ANC need more informed so with the knowledge that the better by pregnant women can foster a positive attitude that is increasingly high, so the awareness of mothers in ANC visit especially pure K1 and K4 can be done on a regular basis. Husband support is encouragement / motivation given by the husband to his pregnant wife in this case such support could be in the form of verbal and non-verbal, advice, assistance tangible form of behavior or attendance that can provide emotional benefits and influence the behavior of his wife, who in it is the support for the ANC visit [16]. Green and Kreuter (2005), states that family support is one element of the amplifier for the person's behavior. Results of this study demonstrate a significant difference between the husband's support for pregnancy tests K1 pure and K4, it can be concluded that the mother support her husband both had chances 1,523 times more likely to visit K1 pure and K4 according to standards compared Mothers with less support husband.

Research results [16,17], that the ANC is less due to lack of husband support to pregnant women including in terms of emotional support her husband as the husband did not participate into the room midwife / doctor and the husband is not encouraging when pregnant women receive advice from the midwife / doctor. In terms of support awards, the husband does not give praise to pregnant women if diligent checkups. In terms of instrumental support, the husband does not provide material support (money) and in terms of support information: husband did not tell that the health condition of the fetus can be detected by antenatal and her husband do not want to know the benefits of antenatal care for the health of pregnant women and fetuses with searching for information. This happens due to lack of support socio-economic level of poor families. Thus it can be explained that, husband support plays an important role in the behavior of the mother to check her pregnancy. It is therefore a concern of the families of the pregnancy which is a gateway to face childbirth, the better examination of her pregnancy then the family will be more calm to face delivery. Because it can determine the condition of pregnancy and the health of mother and baby.

Affordability or access to health services that are to be achieved by the people, not hindered by geographical location, social, economic, organizational, and language. Affordability or mother pregnant access in antenatal care in this study include geographic access geographic access is measured by distance, travel time, travel expenses, any kind of transportation to get health care and economic access economic access relates to the ability to pay health care costs. Research results showed that the respondents (57.3%) find it difficult to reach

health facilities. This affordability can also be affected by the availability of transport in prepare economy. Beside the geographical situation of Kanda Health Centre, which is a rural area and still lack public transportation, so it takes a long time to reach health care facilities. For pregnant women and time long enough distances are very risky, making it difficult for pregnant women to visit regularly. Distance is important to reach health centers. According to Green, the availability and affordability of health resources is one of the factors that contribute to healthy behaviors. Results of this study explains that there is no significant relationship between travel time to prenatal care pure K1 K4. Conditions proved that distance and time is not a predictor of accessibility to health services, meaning that both the mother who has the perception of a long travel time or close or relatively quickly reach a service has the same chances for pregnancy status examination is incomplete (not according to standards). According to the research results of the study the availability of transport significantly influence the ANC.

Thus, it can be explained that in Kanda Health Centre, although located far from infrastructure and health facilities will be but when viewed in terms of transport is sufficient to reach health centers, where the existence of two wheels (ojeg) have spread, but public transport is still rare and the cost is quite expensive motorcycle taxi costs are particularly burdensome mother pregnant women with family incomes less. The result showed that of 131 pregnant women as much as 58.8% of respondents with a family income of less. biviariat analytical results obtained by the significant influence between income families to visit pure K1 and K4, the mother of family income is less by 1,772 times did not visit pure K1 and K4 regularly. Results of the study on the relationship of the family income with the utilization of health services concluded that there was a significant relationship between economic status with the frequency of utilization of antenatal care, mothers who are not poor have a chance of 2.06 times to utilize antenatal care as much more or the same by 4 times compared with mothers including poor families. There is a tendency of a positive relationship between the scope examination of pregnant women with a family economic circumstances in this case family expenditure per capita, the higher the audit scope pregnancy. This research is also consistent with the results of research ound that high-income pregnant women tend to be 3 times larger than the K4 antenatal visits low-income, meaningful distribution between the economic status of families with the frequency of antenatal visits.

### 5. Conclusion

Pregnant women with educational level of the family and the level of expenditure per capita. So also with the results obtained in 2007 of region health research the higher education of head of the family or the higher the level of expenditure per capita, the higher the prenatal care coverage. Interventions can be performed on people with low economic status by providing the knowledge, information and education on the importance of utilizing antenatal care to pregnant women. By conducting health posts that provide antenatal care affordable in all regions, especially in areas far from the access to health services.

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