

## The Factors Influencing Four Visited Antenatal Care in Primary Health Centre in Sanggeng Manokari District, West Papua Province

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### ABSTRACT

**Background:** Maternal mortality rates are still high in pregnancy or labor caused by low pregnancy visits including K4 pregnancy trips in preparing labor due to various factors, education, work, knowledge, attitude, husband support, affordability of health facilities and family income.

**Objective:** To find out the factors that influence K4 in Sanggeng Health primary Center, Manokwari Regency.

**Research Method:** Analytical with cross sectional study design. The population was all pregnant women in July - September 2018 in the Sanggeng Health Primary Center as many as 606 pregnant women with a total sample of 86 people using purposive sampling. Data obtained using questionnaires and analysis using chi square and logistic binary regression.

**Results:** Factors that influence pregnancy K4 in Sanggeng Community Health primary Center, Manokwari Regency are education variables ( $p$ -value = 0,000; RP = 3,528 95% CI = 1,665-7,479), knowledge ( $p$ -value = 0,010; RP = 1,946; CI 95% = 1,188-3,186) attitude ( $p$ -value = 0,000; RP = 3,450; CI 95% = 1,938-6,142), husband support ( $p$ -value = 0,007; RP = 2,087; 95% CI = 1,206-3,611), affordability of health facilities ( $p$ -value = 0,001; RP = 2,402; 95% CI = 1,386-4,164) and family income ( $p$ -value = 0,029; RP = 1,773; 95% CI = 1,082-2,903). Factors that did not influence pregnancy K4 in Sanggeng Community Health primary Center, Manokwari Regency were age ( $p$ -value = 0,438; RP = 0,616 CI 95% 0,233-1,633) and Occupation ( $p$ -value = 0,536; RP = 1,231; CI 95% = 0,749-2,022). Educations, affordability of health facilities, attitudes and husbands support are the dominant factors for K4 pregnancy visits.

**Keywords:** Visited 4, Antenatal care, Pregnant Mother

### 1. INTRODUCTION

Antenatal Care (ANC) is a pregnancy examination to optimize the physical mental health of pregnant women so that they are able to face childbirth, during puerperium, preparation for giving breast milk and the return of reproductive health naturally in order to reduce maternal mortality. Antenatal care services can detect complications in pregnancy and childbirth (Candra, 2013). Data from the Ministry of Health based on the results of the National Basic Health Research (Riskesdas, 2010) coverage of K1 in 2010 was 95.26% and K4 coverage was 85.56%. The amount is still less than the national target, namely 100% K1 and 95% K4 coverage. Whereas in the National Basic Health Research (Riskesdas, 2013) data, 95.4% of pregnancy examinations (K1) and pregnancy frequency of at least 4 times during pregnancy were 83.5%. The ideal K1 coverage nationally is 81.6% with the lowest coverage in Papua (56.3%) and the highest in Bali (90.3%). National K4 coverage is 70.4%. The difference between ideal K1 coverage and K4 nationally shows that 12% of mothers who receive ideal K1 do not continue ANC according to the minimum standard (K4).

Report of the West Papua Provincial Health Office (2016), in 2014 K1 coverage was 58.1% and K4 was 33.6%, while in 2015 K1 coverage was 56% and K4 was 24%. While the 2015 Manokwari District Health Office Data K1 coverage is 111%

and K4 is 49.4%. In 2016 K1 coverage was 118.3% and K4 was 45.3% and in 2017 K1 coverage was 91% and K4 was 45%. This shows that the target of ANC coverage in 2017 experienced a decline in K1 and K4 which was not reached according to the 95% standard (Manokwari District Health Office, 2017). Based on Local Area Monitoring (PWS) data in Sanggeng Community Health Center, Manokwari Regency in 2015 K1 coverage was 94.3% and K4 was 69.8%, in 2016 K1 coverage was 23.7% and K4 was 14.9%, in 2017 coverage K1 is 77% and K4 is 24%. Local Area Monitoring Data (PWS) declined in all three puskesmas, especially K4, and was the lowest of 23 Puskesmas in Manokwari District. So that is the reason for researchers to conduct research at the Sanggeng Health Center.

The results of Erlina's study (2013) revealed that the factors influencing the low regularity of pregnant women during pregnancy visits were mothers' attitudes, while the results of research by Dewi & Musfiyah (2013) said that the factors influencing the low visit of antenatal care the attitude of pregnant women is lacking about the benefits of making ANC visits. In addition, Vitriyani's research (2013) revealed that age, education, work and husband's support and family income greatly affected the mother during her pregnancy visit.

Increasing antenatal health services is affected by the use of antenatal services. With no use of antenatal care facilities can be caused by many factors such as inability in terms of costs and location of services that are too far away (Prawirohardjo, 2012). In accordance with the above problems, the researcher was interested in conducting a study entitled "Factors that influence K4 visits at Sanggeng Health Center, Manokwari Regency, West Papua Province".

## **2. MATERIALS AND METHODS**

### **2.1. Types and Design of Research**

This research is a quantitative descriptive study with a cross sectional study design.

The cross sectional study is an epidemiological study design that studies variables including risk factors and variables - variables which include effects observed at the same time (Notoatmodjo, 2012).

### **2.2. Time and Location of Research**

The study was conducted at the Sanggeng Health Center in Manokwari Regency. The reasons for choosing this Puskesmas as a place of research are:

1. Low coverage and K4 from year to year are getting lower.
2. No research has been conducted on K4 coverage in Sanggeng Health Center, and Manokwari District.

## **3. RESULTS**

### **3.1. Effect of Age on K4 pregnancy visits**

**Table 1. Effect of Age on K4 Pregnancy Visits at Sanggeng Health Center, Manokwari Regency in 2018**

Age	K4 visit				Total			
	Irregular		Regular					
	n	%	n	%				
< 20 and >35 year	3	30	7	70	10	100		
20-35 year	37	48,7	39	51,3	76	100		
Total	40	46,5	46	53,5	100	100		

*p – value = 0,438; RP= 0,616 CI 95% 0,233-1,633*

Table 1 shows that of 70 respondents aged <20 years and >35 years, there were 3 people (30%) who did not regularly visit K4 lower than mothers aged 20-35 years as many as 37 people (48.7%). The results of the chi square test obtained a value of  $p = 0.438 > 0.05$  which means the age of the mother did not influence the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show Rp. 0.616 95% CI 0.233-1.633, meaning age is not a risk factor for K4 visits.

### **3.2. Effects of Education on K4 pregnancy visits**

**Table 2. Effect of Education on K4 Pregnancy Visits in Sanggeng Health Center, Manokwari Regency in 2018**

Education level	K4 visit				Total			
	Irregular		Regular					
	n	%	n	%				
Low	34	64,2	19	35,8	53	100		
High	6	18,2	27	81,8	33	100		
Total	40	46,5	46	53,5	100	100		

*p-value = 0,000; RP= 3,528 CI 95% = 1,665-7,479*

Table 2 shows that of the 20 respondents who were low educated, there were 34 people (64.2%) who were not regularly conducting higher K4 visits than those who were not educated as many as 6 people (18.2%). The results of the chi square test obtained a value of  $p = 0,000 <\alpha = 0.05$  which means that education influences the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show  $Rp = 3,528$  CI 95% = 1,665-7,479, meaning that the education of low respondents has the opportunity to irregularly conduct K4 visits by 3,528 times higher than the respondents of higher education.

### 3.3. Effect of Work on K4 pregnancy visits

**Table 3. Effects of Work on K4 Pregnancy Visits at Sanggeng Health Center, Manokwari Regency in 2018**

Occupation	K4 visit				Total			
	Irregular		Regular					
	N	%	n	%				
Work	27	50	27	50	54	100		
Not work	13	40,6	19	59,4	32	100		
Total	40	46,5	46	53,5	100	100		

$p\text{-value} = 0,536$ ; RP= 1,231; CI 95% = 0,749-2,022

Table 3 shows that respondents who worked, there were 27 people (50%) who did not regularly make K4 visits and 13 pregnant women (40.6%) who did not work regularly made K4 visits. The results of the chi square test obtained a value of  $p = 0,650 > \alpha = 0.05$  which means that the work did not affect the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show RP = 1,231; 95% CI = 0,749-2,022, meaning that respondents who did not work risked being irregular in conducting K4 visits but because the lower value did not reach 1, it was not meaningful.

### 3.4. Effect of Knowledge on K4 pregnancy visits

**Table 4. Effect of Knowledge on K4 Pregnancy Visits at Sanggeng Health Center, Manokwari Regency in 2018**

Knowledge	K4 visit				Total			
	Irregular		Regular					
	n	%	n	%				
Less	26	61,9	16	38,1	42	100		
Good	14	31,8	30	68,2	44	100		
Total	40	46,5	46	53,5	100	100		

$p\text{-value} = 0,010$ ; RP= 1,946; CI 95% = 1,188-3,186

Table 4 shows that less knowledgeable mothers, there were 26 people (61.9%) who did not regularly conduct higher K4 visits than well-informed mothers who regularly conducted K4 visits of 14 people (31.8%). The results of the chi square test obtained a value of  $p = 0,010 < \alpha = 0.05$ , which means that knowledge affects the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show RP = 1,946; 95% CI = 1,188-3,186, meaning that respondents with irregularly poor knowledge of K4 visits were 1,946 times higher than respondents with good knowledge.

### 3.5. Effects of Attitudes on K4 pregnancy visits

**Table 5. Effect of Attitudes towards K4 Pregnancy Visits at Sanggeng Health Center, Manokwari Regency in 2018**

Attitudes	K4 visit				Total			
	Irregular		Regular					
	n	%	n	%				
Less	30	75	10	25	40	100		
Good	10	21,7	36	78,3	46	100		
Total	40	46,5	46	53,5	100	100		

$p\text{-value} = 0,000$ ; RP= 3,450; CI 95% = 1,938-6,142

Table 5 shows that respondents with less attitudes, there are 30 people (75%) who do not regularly conduct higher K4 visits than those who behave as well as 10 people (21.7%) who do not regularly make K4 visits. The results of the chi square test obtained a value of  $p = 0,000 < \alpha = 0.05$  which means that the attitude influences the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show RP = 3,450; 95% CI = 1,938-6,142, meaning that respondents with a less likely chance to do K4 visits were 3,450 times greater than respondents with a good attitude.

### 3.6 Effect of Husband's Support on K4 pregnancy visits

**Table 6. Effect of Husband's Support on K4 Pregnancy Visits at Sanggeng Health Center, Manokwari Regency in 2018**

Husband support	K4 visit				Total			
	Irregular		Regular					
	n	%	n	%				
Less	29	60,4	19	39,6	48	100		
Good	11	28,9	27	71,1	38	100		
Total	40	46,5	46	53,5	100	100		

$p\text{-value} = 0,007$ ; RP= 2,087; CI 95% = 1,206-3,611

Table 6 shows that from respondents who lack husband support, there are 29 people (60.4%) who do not regularly make K4 visits higher than husband's support which as many as 11 people (28.9%) who do not regularly make K4 visits. The results of the chi square test obtained a value of  $p = 0.003 <\alpha = 0.05$ , which means that husband's support affected the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show  $Rp = 2,087$ ; 95% CI = 1,206-3,611, meaning that respondents who did not get husband's support had the opportunity to do K4 visits irregularly by 2,087 times greater than respondents who had good husband support.

### **3.7 Effect of Affordability of Health Facilities on K4 pregnancy visits**

**Table 7. Effect of affordability of health facilities on K4 pregnancy visits at Sanggeng Health Center, Manokwari Regency in 2018**

Affordability of health facilities	K4 visit			Total	
	Irregular		Regular	n	%
	n	%			
Difficult	29	64.4	16	35.6	45
Easy	11	26.3	30	73.2	41
Total	40	46.5	46	53.5	100

$p\text{-value} = 0.001$ ; RP= 2,402; CI 95% = 1,386-4,164

Table 7 shows that respondents with affordability of health facilities were difficult, there were 29 people (64.4%) who were not regularly conducting K4 visits higher than the affordability of easy health facilities as many as 11 people (26.3%) who did not regularly visit K4. The results of the chi square test obtained a value of  $p = 0.001 <\alpha = 0.05$  which means that the affordability of health facilities affected the K4 pregnancy visit at the Sanggeng Health Center in Manokwari Regency. The prevalence ratio (RP) test results show  $Rp = 2,402$ ; 95% CI = 1,386-4,164, meaning that respondents with affordability of health facilities that are difficult to irregularly conduct K4 visits are 2,402 times greater than respondents who are easy to reach health facilities.

## **4. DISCUSSION**

### **4.1. Effect of Age on K4 pregnancy visits**

The results of the study obtained the age of pregnant women in the safe category in pregnancy or age 20-35 years (88.4%) compared to mothers aged unsafe pregnancies <20 years or >35 years of age (11.6%). Pregnant women aged 20-35 years had a higher percentage of antenatal visits, namely (48.7%) compared to pregnant women <20 or >35 years of age who were only (30%) in conducting antenatal visits.

This result is in line with the concept according to Rohmah (2010), namely the readiness of pregnant women to participate in meaningful antenatal care with changes that occur due to the process of growth and development (increasing age) and interaction with background experiences. A certain age range is good for carrying out parenting roles and following antenatal care, if too young or too old may not be able to carry out this role optimally. This is a match between the theory and the results of the analysis, namely the number of age groups of pregnant women between 20-35 years who make full use of antenatal visits compared to the age group of <20 or >35 years pregnant.

This result is not in line with the aspect of antenatal service needs where the fulfilment should be prioritized for the age group <20 or > 35 years, given the higher vulnerability of pregnancy and the potential for pregnancy complications compared to the age group 20-35 years. At the age of under 20 years, the uterus and pelvis often do not grow to reach an adult size. As a result, pregnant women at that age may experience long labor / traffic jams, or other disorders because of the unpreparedness of the mother to accept her duties and responsibilities as a parent. Meanwhile, at the age of 35 years, maternal health has declined. As a result, pregnant women at that age are more likely to have children with disabilities, prolonged labor and bleeding (Ministry of Health Republic of Indonesia, 2012).

The statistical test results obtained p value = 0.438, it can be concluded that there is no significant distribution between age and K4 visit in pregnant women. This can be explained, that the age factor of the mother does not have much influence on her habits in checking her pregnancy, meaning that both mothers who are at risk and those who are not at risk have the same opportunity to have their pregnancy checked.

The results of this study are the same as those of Fariji (2012) who showed that there was no distribution between ages with antenatal visits. The same results were also obtained from the Pringgawati (2011) study which showed no distribution between ages with antenatal visits. However, the results of this study are different from the Ningsih (2008) study which showed a significant distribution between ages with complete antenatal visits, namely for mothers aged 20

#### **4.2 Effects of Education on K4 pregnancy visits**

Education means education that is given by someone to other people in order to understand something. It cannot be denied that the higher a person's education, the easier it is for them to receive information and in the end the more knowledge they have. Conversely, if someone has a low level of education, it will hinder the development of the attitude of the person towards the acceptance of information and newly introduced values (Mubarak, 2011). The results of this study note that maternal education is an influential variable with pregnancy check-up K4 ( $p = 0,000$ ), where respondents who do not regularly make K4 visits to respondents with low education (64.2%) are higher than higher education (18.2 %). The prevalence ratio (RP) test results that low respondent education has an opportunity to do K4 visits irregularly are 3,425 times greater than higher education respondents.

This can be explained, the role of education on K4 pregnancy visits is very large in terms of reproductive health, highly educated mothers tend to have a better

mindset for health improvement while low-educated mothers have less knowledge about their health and are more resigned, giving up on circumstances without any encouragement to improve their destiny. In addition, mothers who are highly educated will always determine their decisions more rationally in this case the pregnancy examination behavior. The same results are explained by Langefielt in Walgito (2014), the higher the level of education, the more people's perspective on all people's lives. The more mature a person is, his attitude towards something he considers useful will be more rational.

The results of the Pangemanan study (2013) show that there is a relationship between education and the utilization of K4 services ( $p = 0,000$ ; RP = 0.038) where the higher the mother's education the more capable of making decisions and maintaining health and using health facilities around them. Further confirmed by Puspita's research (2014) found that education is related to knowledge about antenatal care, namely the higher the education, there is a tendency for more frequent opportunities for a complete ANC examination.

#### **4.3 Effects of Work on K4 pregnancy visits**

The results showed that most pregnant women worked (62.8%). The results of bivariate analysis of respondents who did not regularly visit K4 on respondents who worked (48.1%) were higher than respondents who did not work (40.6%). Statically, there was no significant effect on K4 pregnancy visits ( $p = 0.536$ ), but respondents who did not work irregularly had K4 visits at 1,231 times greater than respondents who worked. The results of the study are in accordance with Nurlaelah's research (2013), that the employment status of mothers will greatly affect the utilization of health facilities and facilities. This is explained, because working mothers will be preoccupied with their daily activities to work and be interrupted by their work to make a

pregnancy visit. Physical conditions, especially pregnancy and the health of the fetus will always be detected if there are abnormalities or complications of pregnancy.

This result is in line with the concept according to Romauli (2011), namely someone's work will describe the activities and levels of economic well-being obtained. Working mothers have a better level of knowledge than mothers who do not work, because working mothers will have more opportunities to interact with others, so they have more opportunities to get information about the state of their pregnancy.

#### **4.4 Effects of Knowledge on K4 pregnancy visits**

Knowledge has a role as an initial motivation for someone to behave. However, changes in knowledge cannot always cause behavioral changes. Green (2005) in Notoatmodjo (2011), states that knowledge is one of the predisposing factors towards the formation of a person's behavior. The results of the study prove that there is a significant relationship between knowledge with pregnancy examination K4 ( $p = 0.010$ ), where respondents who do not regularly make K4 visits to respondents with less knowledge (61.9%) higher than respondents who have good knowledge (31.8%). The racoprevalence test results, that respondents with less knowledge are not likely to do K4 visits at 1.946 times greater than respondents with good knowledge.

Knowledge is an important domain for the formation of one's actions. According to the experience and results of Rogers' research in Notoatmodjo (2011), that behavior based on knowledge will be long lasting rather than behavior that is not based on knowledge. In addition, knowledge is also the initial stage in adopting new behavior before the formation of attitudes towards the new object it faces. According to Prayoto (2014), knowledge or cognitive is a very important domain for the formation of one's actions. According to Maryam (2014) one's knowledge is gained from the experience of various information

conveyed by teachers, parents, friends, mass media, electronic media, user manuals and health workers. In addition, there are other factors, namely: experience, influence of parents, friends, mass media and health workers.

#### **4.5 Effect of Attitudes on K4 pregnancy visits**

Attitude is a person's feelings, thoughts, and tendencies that are more or less permanent regarding certain aspects of the environment. Attitude is an evaluative bias towards a stimulus or object that has an impact on how someone is dealing with the object (Mubarak, 2011). The results of the study were obtained from 86 respondents as much as 46.5% of respondents were less and good attitudes as much as 53.5%. This shows the same attitude proportions by pregnant women. Respondents who did not regularly make K4 visits to respondents with less attitudes (75%) were higher than respondents who had a good attitude (21.7%).

The bivariate test results obtained there was an effect of attitudes toward K4 pregnancy visits ( $p = 0.000$ ), i.e. mothers who had less attitudes of 3,450 times did not make regular visits K4. The results of this study are in line with the research of Candra (2013) in which shows that there is a relationship between maternal attitudes and the regularity of antenatal visits. The attitude of the mother is a view or response that is good or lacking or unclear to the benefits of antenatal care and to her own pregnancy. According to the theory of Ajzen (1991) in Azwar (2013) attitudes are good or less trust to display a certain behavior. These beliefs or beliefs are called behavioral beliefs. An individual will intend to display a certain behavior when he judges it well. An individual will intend to display a certain behavior if he perceives that other important people think that he should do it. For example, the participation of pregnant women in antenatal examinations is influenced by a good attitude towards it. Furthermore, this good character will affect the intention to participate in activities

related to antenatal examinations.

#### **4.6 Effect of Husband Support on K4 pregnancy visits**

Husband's support is encouragement / motivation given by the husband to his pregnant wife in this case the support can be in the form of verbal and non-verbal, advice, tangible assistance in the form of behavior or presence that can provide emotional benefits and influence the behavior of his wife this is support for ANC visits (Mulyanti, 2012). Green and Kreuter (2005), states that family support is one of the reinforcing elements for the occurrence of one's behavior. The results of this study prove that there is a significant influence between husband's support for K4 prenatal care ( $p = 0.007$ ). Respondents who did not regularly conduct K4 visits to respondents with less husband support (60.4%) were higher than respondents who received good support by their husbands (28.9%). The prevalence ratio test results obtained that respondents who did not get husbands' support had the opportunity to do K4 visits irregularly by 2,087 times greater than respondents who had good husband support.

This result is in line with Pramitasari's (2012) study, stating that mothers who received family support in this case husbands had the opportunity to conduct K4 antenatal visits by (60.4%) compared to mothers who did not receive support (26.3%) and there is a relationship between family and husband support in encouraging mothers to use ANC services. The results of Mulyanti's (2012) study, that ANC visits were lacking due to lack of husband's support to pregnant women including emotional husband support such as husbands not participating in midwives / doctors' rooms and husbands not encouraging when pregnant women received advice from midwives / doctor. In terms of support awards, husbands do not give praise to pregnant women if they are diligent in checking their pregnancies. In terms of instrumental support, the husband does not provide material support (money) and in terms of information support: the

husband does not tell that the health condition of the fetus can be identified by checking the pregnancy and the husband does not want to know the benefits of pregnancy examinations for the health of pregnant women and fetuses by seeking information. This lack of support occurs because the family socio-economic level is minimal.

Husband support plays an important role in the behavior of mothers to carry out antenatal care. This is due to concerns from the family about the pregnancy period which is the gate to face labor, the better the pregnancy examination, the family will be more calm to face childbirth. Because it can know the condition of her pregnancy and the health of her mother and baby.

#### **4.7 Effect of Affordability of Health Facilities on K4 pregnancy visits**

Affordability or access is a health service that must be achieved by the community, not hindered by geographical, social, economic, organizational and language conditions (Pohan, 2012). Affordability or access to pregnant women in obtaining antenatal services in this study includes geographical access Geographical access is measured by distance, travel time, travel costs, types of transportation to obtain health services and economic access Economic access is related to the ability to pay health care costs.

The results of the study found that respondents (64.4%) found it difficult to reach health facilities. This affordability can also be influenced by the availability of the economy in providing transportation. In addition, the geographical condition of the work area in Sanggeng Community Health Center, Manokwari Regency, which is still lacking in public transportation, so that it takes a long time to reach health service facilities plus the high cost of transportation costs. For pregnant women, long time and distance are very risky, as well as the lack of transportation costs, making it difficult for pregnant women to make regular visits.

## 5. CONCLUSIONS

From the results of research data analysis conducted, conclusions were finally drawn as follows:

1. Age does not affect the K4 pregnancy visit in Sanggeng Health Center, Manokwari Regency ( $p$ -value = 0.438; RP = 0.616 95% CI 0.233-1.633).
2. Education has an effect on K4 pregnancy visits at Sanggeng Community Health Center, Manokwari Regency ( $p$ -value = 0,000; RP = 3,528 95% CI = 1,665-7,479).
3. Work does not affect the K4 pregnancy visit at Sanggeng Community Health Center, Manokwari Regency ( $p$ -value = 0.536; RP = 1,231; 95% CI = 0.749-2,022), but is a factor in the absence of K4 visits.
4. Knowledge affects the K4 pregnancy visit at Sanggeng Health Center, Manokwari Regency ( $p$ -value = 0.010; RP = 1.946; 95% CI = 1.188-3.186).
5. The attitude influences the K4 pregnancy visit in Sanggeng Health Center, Manokwari Regency ( $p$ -value = 0,000; RP = 3,450; 95% CI = 1,938-6,142).
6. Husband's support influences the K4 pregnancy visit at Sanggeng Health Center, Manokwari Regency ( $p$ -value = 0.007; RP = 2.087; 95% CI = 1.206-3.611).
7. Affordability of health facilities has an effect on K4 pregnancy visits in Sanggeng Health Center, Manokwari Regency ( $p$ -value = 0.001; RP = 2.402; 95% CI = 1.386-4.164).

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