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# Pregnancy Young Age with Anemia, Chronic Energy Lack, and Body Index in Mataram City

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## Abstract

***Background**: The prevalence of early marriages in West Nusa Tenggara Province in 2010 was 44%, data in West Nusa Tenggara reached 31.32%, ranking 15th out of 34 provinces (BPS, 2017). Based on the results of 2018, basic health research found three dominant factors that became the focus of BMI, SEZ and anaemia. PMT in 2018 is 25.2% of all pregnant women. The proportion of anaemia of pregnant women in Indonesia increased from 2013 by 37.1% to 48.9% in 2018, the age group of pregnant women the majority of anaemia in pregnant women at the age of 15-24 years was 84.6%, the highest proportion of energy chronic deficiency risk in the age group of 15-19 years which is 33.88%, so based on these data the researcher felt the need to do this research. **Objective**: This study aims to determine the effect of adolescent pregnancy with the incidence of anaemia, SEZ, and BMI in the city of Mataram. **Method**: This study used an observational design with a cross-sectional design and a sample size of 69 with pregnant women in the city of Mataram, using consecutive sampling techniques. The statistical test analysis used was bivariate with Chi-Square and multivariate using logistic regression test with a significance level of 5% and 95% confidence interval. **Results**: The study found no significant relationship between adolescent pregnancy with the incidence of CED and BMI, found a substantial correlation between teenage pregnancy with the prevalence of anaemia. Multivariate analysis results found a significant association between adolescent pregnancy and the prevalence of anaemia by controlling parity with a value (OR = 4.27; 95% CI: 1,209-15.13).*

**Keyword:** ***adolescent pregnancy, anaemia, chronic energy deficiency, BMI.***

## Introduction

Pregnancy at a young age is one of the most common health problems in developing countries. The risk of death in early pregnancy is 2-4 times higher than in healthy reproductive age pregnancies. Early marriage is still a global problem that causes the incidence of early pregnancy to occur in developing countries, more than 30% of girls are married before they are 18 years old and about 14% are married before the age of 15, and around 16 million teenage girls give birth every year (WHO, 2015).

The percentage of ever-married women aged <18 years according to above

10% is evenly distributed in all provinces of Indonesia, while the distribution of child marriage rates above 25% is in 23 provinces in Indonesia. This means that 67% of the areas in Indonesia are in emergency of child marriage, in NTB Province in 2010 as many as 44 young marriages reached 31.32%, ranked 15th out of 34 provinces in Indonesia. Some of the reasons that underlie this occurrence include the demand for young marriage and free sexual relations, access to education and work, gender inequality, sexual violence and the influence of the mass media and a free lifestyle. The increasing number of child marriages aged <18 years has the opportunity to increase the prevalence of young pregnant women. Based on Riskesdas data in 2013, in Indonesia there were pregnancies at a very young age, namely less than 15 years by 0.02% and at the age of 15-19 years at 1.97%.

Pregnant at a young age is influenced by many factors, chronic energy deficiency is a factor that can affect the health of pregnant women, The results (Riskesdas, 2018), obtained the proportion of chronic energy deficiency in 2007 to 2018 in pregnant women aged 15-19 years, namely 31% in 2007, 38.5% in 2013, then in 2018 decreased to 33.5%, seen from the prevalence of the proportion of chronic energy at the age of 15-19 years has the highest number of all age groups of pregnant women. Judging from the low BMI factor, the government's efforts to overcome this are by giving PMT to pregnant women, pregnant women who have received PMT assistance in 2018 are 25.2% of all pregnant women and the proportion of pregnant women gets blood-added tablets as an effort by the government to overcome anemia in pregnant women, with a total proportion of 73.2% having received blood-added tablets.

The proportion of anemia in pregnant women in Indonesia increased from 37.1% in 2013 to 48.9% in 2018, the age group of pregnant women with the majority of anemia in pregnant women aged 15-24 years as much as 84.6% is still quite high. The proportion of risk of chronic lack of energy in pregnant women in NTB in 2018, found 3 age groups at risk of chronic lack of energy, namely the age group 15-19 years, namely 33.88%, age 20-24 years as much as 26.86%, age 25-24 years. 29 years 23.59% (Riskesdas, 2018). The government is trying to overcome the occurrence of pregnancy at a young age, one of which is holding programs such as the

youth posyandu at the Tanjung Karang Mataram Health Center, holding youth classes through the PIK-R program. As (Fall et al., 2015) found that children born to young mothers in LMICs were disadvantaged at birth, childhood and school nutrition. Efforts to prevent the birth of young mothers should be strengthened. After adjustment, children of older mothers had an advantage in nutritional status at school.

The prevalence of pregnant women in Mataram City was obtained from 11 health centers, 3 health centers had the highest number of pregnant women, namely Cakranegara Health Center as many as 1,329 pregnant women, Karang Pule Health Center 1,296 pregnant women and Tanjung Karang Health Center as many as 1,249 pregnant women (Mataram, 2018). The problems of young pregnant women can worsen the condition of their pregnancy and are accompanied by many influencing factors, so researchers feel the need to conduct research on young pregnancy with the incidence of Body Mass Index, Chronic Energy Deficiency, Anemia in the Karang Pule Health Center Work Area.

## Method

This study used an observational research type with a cross sectional design. The research sample is pregnant women who live in the working area of Karang Pule, Karang Taliwang, and Pejeruk Health Centers. Sampling technique with consecutive sampling. The statistical test analysis used is the statistical test analysis used is bivariate with Chi Square and multivariate using logistic regression test with a significance level of 5% and 95% confid.

The data collected includes young pregnancies with age distribution < 21 years and 21 years based on (BKKBN, 2017), mother's education, family income according to the Decree of the Governor of West Nusa Tenggara (NTB) number 561-815 of 2018 concerning the Mataram City Minimum Wage in 2019 amounting to Rp2,013,165,- based on the Decree of the Governor of West Nusa Tenggara Number 561 – 850 of 2019. Maternal parity, incidence of anemia, chronic energy deficiency, body mass index of pregnant women.

## Result and Discussion

This research was conducted on 69 respondents in the group of pregnant women.

The results of the study based on the frequency distribution of the research respondents' characteristics are presented in the following table:

**Table 1. Frequency Distribution of Respondents Characteristics**

| Characteristics | F | % |
|---|---|---|
| Pregnant at a young age | | |
| Young age | 13 | 18,8 |
| Mature age | 56 | 81,2 |
| Level of education | | |
| Low | 25 | 36,2 |
| Tall | 44 | 63,8 |
| Work | | |
| Doesn't work | 42 | 60,9 |
| Working | 27 | 39,1 |
| Family income | | |
| Low | 35 | 50,7 |
| Tall | 34 | 49,3 |
| parity | | |
| at risk | 35 | 50,7 |
| No risk | 34 | 49,3 |
| Body mass index | | |
| at risk | 0 | 0 |
| No risk | 69 | 100 |
| Chronic energy deficiency | | |
| at risk | 9 | 13 |
| No risk | 60 | 87 |
| Anemia | | |
| at risk | 19 | 27,5 |
| No risk | 50 | 72,5 |

Based on table 1, it is known that at the age of the majority of respondents in adulthood, namely 56 respondents (81%) and young age as many as 13 respondents (18%), as well as the highest level of education of mothers in higher education, namely 44 respondents (68.8%). mothers with low education 25 respondents (36.2%). The majority of mothers do not work as many as 42 respondents (60.9%) and working mothers as many as 27 respondents (39.1%). Then for parity characteristics, the number of parity is not much different, namely risk parity as many as

Table 2. Frequency Distribution Based on The Incidence of Early Pregnancy

| Variable | Chronic Energy Deficiency | | | | Anemia | | | | BMI | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Risk | | No Risk | | Risk | | No Risk | | No Risk | |
| | f | % | f | % | f | % | F | % | f | % |
| Pregnant at a young age | | | | | | | | | | |
| < 21 tahun | 2 | 2,9 | 11 | 15,9 | 7 | 10,1 | 6 | 8,7 | 13 | 18.8 |
| ≥ 21 tahun | 7 | 10,1 | 49 | 71,0 | 12 | 17,4 | 44 | 63,8 | 56 | 81.2 |
| Level of education | | | | | | | | | | |
| Low | 2 | 2,9 | 23 | 33,3 | 6 | 8,7 | 19 | 27,5 | 25 | 36,2 |
| Tall | 7 | 10,1 | 37 | 53,6 | 13 | 18,8 | 31 | 44,9 | 44 | 63,8 |
| Work | | | | | | | | | | |
| Doesn't work | 6 | 8,7 | 36 | 52,2 | 12 | 17,4 | 30 | 43,5 | 42 | 60,9 |
| Working | 3 | 4,3 | 24 | 34,8 | 7 | 10,1 | 20 | 29,0 | 27 | 39,1 |
| Family income | | | | | | | | | | |
| Low | 6 | 8,7 | 29 | 42 | 11 | 15,9 | 24 | 34,8 | 35 | 50,7 |
| Tall | 3 | 4,3 | 31 | 44,9 | 8 | 11,6 | 26 | 37,7 | 34 | 49,3 |
| Parity | | | | | | | | | | |
| at risk | 5 | 7,2 | 30 | 43,5 | 12 | 17,4 | 23 | 33,3 | 35 | 50,7 |
| No risk | 4 | 44,4 | 30 | 43,5 | 7 | 10,1 | 27 | 39,1 | 34 | 49,3 |

Based on table 4, the highest number of young pregnant at the age of 21 years is 49 respondents (71%) in the non-risk group in cases of chronic energy deficiency, the lowest number in the chronic energy deficiency group is at risk of 2 respondents (2.9%). Then the highest number was found in the non-risk anemia group as many as 44 respondents (63.8%) and the lowest in the same group as many as 6 respondents (8.7%). In the case of body mass index, the overall respondents had a body mass index that was not at risk with the highest number of 56 respondents (81.2%) in the age group during pregnancy 21 years.

The highest level of higher education is 37 respondents (53.6%) in the incidence of chronic energy deficiency is not at risk and the lowest incidence is at low education level in chronic low energy deficiency as many as 2 respondents (2.9%). Then the highest incidence of anemia in the non-risk group was 31 respondents (44.9%) and the lowest incidence of anemia at risk was 6 respondents (8.7%) in the low education group. In the case of body mass index, all respondents have a body mass index that is not at risk as many as 44 respondents (63.8%) in the higher education group.

The occupational status of the most respondents did not work as many as 36 respondents (52.2%) in the chronic energy deficiency group was not at risk, then the work status in the group with the highest incidence of anemia in the incidence of anemia was not at risk as many as 30 respondents (43.5%) with the status of not working and the lowest incidence of anemia was at risk of 7 respondents (10.1%)

in the working mother group. In the case of body mass index, the total respondents have a body mass index that is not at risk as many as 42 respondents (60.9%) in the group of respondents who do not work.

Family income in this study was mostly high income as many as 31 respondents (45%) in the chronic energy deficiency group who were not at risk while high family income as many as 3 respondents (4.3%) in the chronic energy deficiency group at risk, then the majority family income was high in the non-risk anemia group as many as 26 respondents (37.7%) and the lowest in the same income group as many as 8 respondents (11.6%) in the at-risk anemia group. All respondents in this study had a body mass index that was not at risk with the highest incidence of 35 respondents (50.7%) in low family incomes.

In this study, the majority of respondents had the same parity at risk or as not at risk in both groups, namely 30 respondents (43.5%) in the chronic energy deficiency group, not at risk and the lowest occurred in the non-risk parity group, as many as 4 respondents (44.4%) in the energy deficient group. chronic risk. Then parity not at risk had the highest incidence in the non-risk group of anemia, namely 27 respondents (39.1%) and the lowest in parity not at risk as many as 7 respondents (10.1%) in the anemia group at risk. All respondents in this study had a body mass index that was not at risk with the highest incidence of 35 respondents (50.7%) at risk parity.

Based on table 3, there is no significant relationship between variables pregnant at a young age, education level, occupation, family income and parity with the incidence of chronic energy deficiency, this is due to the p value 0.05, which is 0.781

Table 3. Cross tabulation of young pregnant women with the incidence of Chronic Energy Deficiency

| Variable | Chronic Energy Deficiency | | *P* | OR | CI 95% |
|---|---|---|---|---|---|
| | Risk | Not Risk | | | |
| | n | n | | | |
| Pregnant at a young age | | | | | |
| < 21 tahun | 2 | 11 | 0.781 | 1.27 | 0.23-6.98 |
| ≥ 21 tahun | 7 | 49 | | | |
| Level of education | | | | | |
| Low | 2 | 23 | 0.348 | 0.46 | 0.08-2.4 |
| Tall | 7 | 37 | | | |
| Work | | | | | |
| Doesn't work | 6 | 36 | 0,702 | 1.33 | 0.3-5.85 |
| Working | 3 | 24 | | | |
| Family income | | | | | |
| Low | 6 | 29 | 0,305 | 2.13 | 0.48-9.35 |
| Tall | 3 | 31 | | | |
| Parity | | | | | |
| at risk | 5 | 30 | 0.756 | 1.25 | 0.306-5.11 |
| No risk | 4 | 30 | | | |

Table 4. Cross tabulation of young pregnant women with anemia incidence

| Variable | Anemia | | *P* | OR | CI 95% |
|---|---|---|---|---|---|
| | Risk | Not Risk | | | |
| | n | n | | | |
| Pregnant at a young age | | | | | |
| < 21 tahun | 7 | 6 | 0.018 | 4.20 | 1.2-15.13 |
| ≥ 21 tahun | 12 | 44 | | | |
| Level of education | | | | | |
| Low | 6 | 19 | 0.62 | 0.75 | 0.24-2.31 |
| Tall | 13 | 31 | | | |
| Work | | | | | |
| Doesn't work | 12 | 30 | 0,81 | 1.14 | 0.38-3.4 |
| Working | 7 | 20 | | | |
| Family income | | | | | |
| Low | 11 | 24 | 0.463 | 1.49 | 0.513-4.32 |
| Tall | 8 | 26 | | | |
| Parity | | | | | |
| at risk | 12 | 23 | 0.203 | 2.20 | 0.68-5.95 |
| No risk | 7 | 27 | | | |

Table 5. Multivariate analysis between independent variables, dependent variables and external variables with the incidence of anemia.

| Variable | Model 1 OR (95%CI) | Model 2 OR (95%CI) |
|---|---|---|
| Pregnant at a young age | | |
| - at risk | 4.278 (1.209-15.13) | |
| - No risk | | |
| Parity | | |
| - at risk | | 2.01 (068-5.95) |
| - No risk | | |
| N | 69 | 69 |
| $R^2$ | 0.103 | 0.034 |

Based on the results of the above analysis, model 1 was chosen as a good model to explain the relationship between early pregnancy and the incidence of anemia because it has the largest R2 value compared to other models, which is 0.10 which can be concluded that young pregnancy contributes to the incidence of anemia by 10%. Pregnant age at risk of 4.2 times have contributed to the occurrence of anemia with (95% CI: 1.2-15.13).

**Discussion of Chronic Energy Deficiency**

Based on table 3, the highest number of young pregnant at the age of 21 years is 49 respondents (71%) in the non-risk group in cases of chronic energy deficiency, the lowest number in the chronic energy deficiency group is at risk of 2 respondents (2.9%). The results of the analysis showed a non-significant relationship between early pregnancy and the incidence of chronic energy deficiency with a p value of 0.78, but when viewed from the OR value of 1.27, which means that young pregnancies are at risk of 1.2 times for chronic energy deficiency. In line with the research conducted (Dharma, 2019) obtained a p value of 0.928, which means that there is no significant relationship between the age of pregnant women and the incidence of chronic energy deficiency. Pregnancy at the age of less than 20 years is biologically not optimal, emotions tend to be still unstable, mentally immature so that it is easy to experience shocks which result in lack of attention to meeting nutritional needs during pregnancy. Meanwhile, at the age of more

than 35 years, it is associated with decline and endurance as well as various diseases. Various studies have shown that pregnant women aged less than 20 years and more than 35 years tend to give birth to babies with lower weights compared to mothers aged 20-35 years. Mothers who are pregnant at the age of less than 20 years and more than 35 years have a 1.4 to 1.8 times greater risk of giving birth to babies with low birth weight compared to pregnant women at the age of 20-35 years (Nurhadi, 2006)

The highest level of higher education is 37 respondents (53.6%) in the incidence of chronic energy deficiency is not at risk and the lowest incidence is at low education level in chronic low energy deficiency as many as 2 respondents (2.9%). The results of statistical analysis obtained p value of 0.34 which means that there is no significant relationship between maternal education level and the incidence of chronic energy deficiency, and the OR value of 0.46 which means that it is not statistically significant. These results are in line with research conducted (Nining Tyas Triatmaja, 2017) with the results of maternal education there is no relationship with Chronic Energy Deficiency status with a p value of 0.68. Mothers who have education, mothers who have higher education are expected to have high knowledge related to daily food consumption with balanced nutrition so that they can support good nutritional status. In this study, the majority of respondents were highly educated so that they could guarantee the mother's knowledge. Nutrition knowledge is not only obtained through formal education but can be obtained through other media, such as electronic media, counseling, and so on (Widita Kartikasari et al., 2013).

The occupational status of the most respondents did not work as many as 36 respondents (52.2%) in the chronic energy deficiency group that was not at risk, and the lowest was in the working respondent as many as 3 respondents (4.3%) in the chronic energy deficiency group who was at risk. There was no significant relationship between work and the incidence of chronic energy deficiency with a p value of 0.7, and an OR value of 1.3 which means that mothers who do not work have a 1.3 times chance of chronic energy deficiency. In line with previous research, the results of the p value of 0.954, this indicates that there is no influence between workload on the incidence of SEZ. Someone who works can

increase knowledge because of social interaction and social interaction and has extensive experience (Notoatmodjo, 2007) and someone whose life is not busy with work has more opportunities to get information either through health workers or information media (TV, radio, tabloids or magazines). health, leaflets and newspapers) and activities that add experience (Suryatni, 2004) in (Handayani & Budianingrum, 2011).

Family income in this study was mostly high income as many as 31 respondents (45%) in the chronic energy deficiency group who were not at risk while high family income as many as 3 respondents (4.3%) in the chronic energy deficiency group at risk. Obtained p value 0.305, which means that there is no significant relationship between family income and chronic energy deficiency, but family income is at risk of 2.1 times for chronic energy deficiency because the OR value is 2.13. Supported by previous research (Handayani & Budianingrum, 2011) obtained a p value of 0.512 which indicates there is no influence between income on the incidence of SEZ. Consumption of food must be within the reach of the family's finances and contain the necessary nutrients. Estimated food ingredients needed and their prices, if they cannot be purchased with sufficient finances, they can be reduced gradually, namely by reducing the quality of daily food ingredients, replacing staple foods with rice with non-rice, using side dishes that are not too expensive, and choosing vegetables and fruit. which is easy and cheap to obtain, namely by growing your own to save expenses but can still meet daily nutrients without having to buy.

In this study, the majority of respondents had the same parity at risk or as not at risk in both groups, namely 30 respondents (43.5%) in the chronic energy deficiency group, not at risk and the lowest occurred in the non-risk parity group, as many as 4 respondents (44.4%) in the energy deficient group. chronic risk. There is no relationship between parity and the incidence of chronic energy deficiency with a p value of 0.756 and an OR value of 1.25, which means that parity has a 1.2 times chance of chronic energy deficiency. Supported by research conducted (Handayani & Budianingrum, 2011) with the results of the study a p value of 0.820, which means there is no significant relationship between parity and chronic energy deficiency. High-risk parity in pregnancy is grandemultipara, where this affects the

optimization of maternal and fetal health during pregnancy. So it can be concluded that parity of no more than 4 is not at risk of experiencing interference (Manuba, 2010). In line with this study, there was no strong relationship because the number of respondents between parity at risk and not at risk had the same large number in the anemia group as not at risk, namely 30 respondents.

**Anemia Discussion**

Based on table 4, the results of pregnancy at a young age of 21 years were mostly found in the non-risk anemia group as many as 44 respondents (63.8%) and the lowest in the same group as many as 6 respondents (8.7%). Maternal age during pregnancy has a significant relationship with the incidence of anemia with p value = 0.018 and 0R value 4.2, which means that maternal age <21 years has a 4.2 times chance of experiencing anemia. This result is in line with the 2018 Aulia research conducted in the Ampenan Health Center Work Area, the results of statistical analysis stated that there was a statistically significant relationship between maternal age and the incidence of anemia (p value 0.017 < 0.05). In accordance with the theory which states that the younger the age of pregnant women, the more mentally unstable they tend to be, so they are easily shaken and result in a lack of attention to the fulfillment of nutrients associated with decreased body resistance and the emergence of various diseases (Niven, 2012).

The results showed that the highest education was in the non-risk group, namely 31 respondents (44.9%) in the non-risk anemia group and 6 respondents (8.7%) in the low-education group at risk. Based on statistical analysis, there is no significant relationship between the level of education and the incidence of anemia, but if viewed from the level of occurrence, the researcher assumes that education also has an important influence in shaping one's attitudes and behavior in a positive direction, and is closely related to one's knowledge and understanding of something. What is needed in life, this is very important for pregnant women, knowledge is the initial capital for a mother to take good care of her pregnancy, the higher a person's education, the information obtained will be selected and processed according to needs and understanding. On the other hand, the lower

the level of education, the lower the mindset. This is supported by previous research, it was found that the highest number of education at the secondary education level was 39 people (54.4%) and the least respondents were in the higher education level category, namely 10 people (14.7%) (Amini et al., 2018). A person's level of education affects his knowledge and understanding of something and directs it to positive behavior, as well as health behavior, so it can be said that the higher a person's education, the better the level of knowledge about anemia. On the other hand, the lower the level of education, the lower the mindset so that the absorption of information also decreases (Hidayah & Anasari, 2012).

Occupational status in the group with the highest incidence of anemia in the incidence of anemia is not at risk of 30 respondents (43.5%) with non-working status and the lowest incidence of anemia is at risk of 7 respondents (10.1%) in the group of working mothers.

The majority of high family incomes in the anemia group are not at risk as many as 26 respondents (37.7%) and the lowest in the same income group are 8 respondents (11.6%) in the anemia group at risk. The results of the study are in line with previous research, the results of the analysis of the relationship between income and the incidence of anemia in pregnant women at the Karang Anyar Health Center Semarang City indicate that there is no relationship between income and the incidence of anemia in pregnant women with a p value of 0.230 (> 0.05) (Melorys Lestari Purwaningtyas, 2017). In this study, it was possible because the respondent had experienced pregnancy and learned from experience by doing it and was unable to perform ANC, so the symptoms of anemia were most likely not detected. Income affects the choice of food which will be a preventive effort such as consuming nutritious food and consuming iron.

Non-risk parity had the highest incidence in the non-risk anemia group, namely 27 respondents (39.1%) and the lowest in the non-risky parity group as many as 7 respondents (10.1%) in the anemia risk group. Based on statistical results, there was no significant relationship between parity and the incidence of anemia in pregnant women. This result is supported by previous research conducted by Purwaningtyas and Prameswari (2017) which found that there

was no significant relationship between parity and the incidence of anemia in pregnant women. This shows that pregnant women who have never given birth to children at all or are the first pregnancy determine the possibility of anemia. In this study it is possible because most of the respondents have a higher education level, namely 31 respondents (44.9%) so that in this study respondents who have parity at risk have the opportunity to have higher education so that knowledge about the prevention and impact of anemia on pregnant women will be better.

**Body Mass Index Discussion**

The results of the study were pregnant at a young age with the incidence of body mass index obtained. In the incidence of body mass index, the overall respondents had a body mass index that was not at risk with the highest number of 56 respondents (81.2%) in the age group during pregnancy 21 years. Based on the analysis of the occurrence of dominant events at the age of pregnant women who are not at risk, so that the experience and maturity of thinking for fulfilling nutrition during pregnancy is good, productive ages have easy access to find information to anticipate a body mass index that is lacking during pregnancy.

In the case of body mass index, all respondents have a body mass index that is not at risk as many as 44 respondents (63.8%) in the higher education group. In the case of body mass index, the total respondents have a body mass index that is not at risk as many as 42 respondents (60.9%) in the group of respondents who do not work. All respondents in this study had a body mass index that was not at risk with the highest incidence of 35 respondents (50.7%) in low family incomes. All respondents in this study had a body mass index that was not at risk with the highest incidence of 35 respondents (50.7%) at risk parity. On the body mass index variable, further statistical analysis cannot be carried out because all respondents are in the body mass index group that is not at risk, so there is no comparison.

## Conclusion

Based on the results of the study, there was no significant relationship between early pregnancy with Chronic Energy Deficiency and Body Mass Index in Pregnant Women in Mataram City, then a significant relationship was found between early pregnancy and anemia in pregnant women in Mataram City with a p value = 0.018 and a p value = 0.018. 0R 4.2, which means that the age of the mother during pregnancy <21 years has a 4.2 times chance of experiencing anemia. Knowing the relationship of other factors (mother's education, family income, mother's occupation) with the incidence of pregnancy at a young age. model 1 was chosen as a good model to explain the relationship between early pregnancy and the incidence of anemia because it has the largest R2 value compared to other models, which is 0.10 which can be concluded that young pregnancy contributes to the incidence of anemia by 10%. Pregnant age at risk 4.2 times have contributed to the occurrence of anemia with (95% CI: 1.2-15.13)

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