# Social and Economic Factors Affecting the Incidence of Anemia in Pregnant Women

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## ABSTRACT

Anemia in pregnant women is a significant health problem, with adverse effects on the health of the mother and baby. This study aims to identify social and economic factors that affect the incidence of anemia in pregnant women in certain regions. Quantitative approach with cross-sectional design was used to collect data through questionnaires and structured interviews on 200 pregnant women. Factors analyzed include education, family income, type of employment, access to health services, and diet. The results showed that low levels of education, low family income, and limited access to health services were significantly associated with an increased risk of anemia in pregnant women. In addition, social support factors also play an important role in preventing anemia. These findings suggest that social and economic factors interact, with lower education associated with lower incomes, which in turn hinders pregnant women's access to good nutrition and adequate health care. Based on the results of the study, it is suggested that the health policy of pregnant women more emphasis on nutrition education, increased access to health services, and economic empowerment, especially among low-income families. This study provides an important contribution in formulating intervention programs that can reduce the prevalence of anemia in pregnant women in Indonesia.

**Keywords**: Anemia, pregnant women, social factors, economic factors

## PENDAHULUAN

Anemia in pregnant women is a condition in which hemoglobin levels in the blood are lower than normal limits, which can hinder the distribution of oxygen throughout the body and fetus (WHO, 2023). Anemia in pregnancy has great significance because it can increase the risk of complications that affect the health of the mother and fetus, such as preterm labor, the birth of low-weight babies (LBW), and the risk of maternal death (Ministry of Health RI, 2022). Based

on a report by the World Health Organization (WHO), the prevalence of anemia in pregnant women globally reaches 40%, while in Indonesia this figure reaches 37.1% (Riskesdas, 2021). Anemia that is not treated properly can cause serious complications, such as postpartum hemorrhage, delayed fetal development, and increase perinatal mortality (Ministry of Health RI, 2022). Therefore, early detection and proper intervention are key in preventing the adverse effects of anemia during pregnancy.

Anemia in pregnant women can be caused by a variety of factors, including physiological changes, malnutrition, and infections. Physiologically, during pregnancy there is a faster increase in blood plasma volume compared to an increase in red blood cell mass, so hemoglobin levels tend to decrease (Cunningham et al., 2021). Lack of iron, folic acid, and vitamin B12 is also the main cause of anemia, especially if nutritional intake is insufficient to meet the needs of the mother and fetus (Ministry of Health RI, 2022). In addition, infections such as malaria, tuberculosis and intestinal worms can aggravate anemic conditions by causing the destruction of red blood cells or impaired iron absorption (WHO, 2023). The combination of these factors increases the risk of anemia during pregnancy, which requires special attention in efforts to prevent and treat it.

Social factors have an important role in the incidence of anemia in pregnant women, including education level, socioeconomic status, access to health services, and social support. Mothers with a low level of education tend to have limited knowledge about the importance of nutrition during pregnancy, which contributes to the risk of anemia (Kemenkes RI, 2022). Low socioeconomic Status also limits the ability of pregnant women to access nutritious food and quality health services, increasing the likelihood of anemia (WHO, 2023). Limited access to prenatal care causes early detection and intervention of anemia to be difficult (Riskesdas, 2021). In addition, social support from family and community plays a role in ensuring pregnant women get adequate nutritional intake and follow recommended health programs (Cunningham et al., 2021). These factors are interrelated and affect the incidence rate of anemia in pregnant women, so a holistic approach to its prevention is necessary. Economic factors play a crucial role in the incidence of anemia in pregnant women, with family income being one of the main determinants. Families with low incomes often face limitations in purchasing nutritious foods needed to prevent anemia during pregnancy (Ministry of Health RI, 2022). The mother's work also has an effect, especially if the type of work undertaken is physically strenuous or does not allow the mother to get enough rest and maternity leave (WHO, 2023). In addition, the employment status of the husband or other family members affects the overall economic well-being of the family. Unstable work or low income can limit spending on nutritional needs and access to health services, increasing the risk of anemia in pregnant women (Riskesdas, 2021). Therefore, economic factors are one of the aspects that need to be considered in efforts to prevent and treat anemia during pregnancy.

Social and economic factors have a close relationship and interact with each other in influencing the health of pregnant women. Low social Status, such as an inadequate level of education, often goes hand in hand with economic limitations, thus worsening pregnant women's access to nutritious food, health services, and information about prenatal care (Kemenkes RI, 2022). Pregnant women from low-income families tend to face a higher risk of developing anemia due to the inability to meet essential nutritional needs and access adequate health facilities (WHO, 2023). Previous studies have shown that mothers with a low level of Education have a 1.5 times greater risk of developing anemia than mothers with higher education, while low family income increases the risk of anemia by 2 times (Riskesdas, 2021). This relationship suggests that improving socioeconomic status, through education and financial support, can be an effective strategy in reducing the prevalence of anemia in pregnant women and improving the health of mothers and their unborn babies.

This study has a high urgency in understanding the social and economic factors that affect anemia in pregnant women. Anemia during pregnancy not only has an impact on the health of the mother, but also increases the risk of pregnancy complications, maternal mortality and low birth weight babies (WHO, 2023). By delving deeper into the relationship between socioeconomic factors and the incidence of anemia, this study can contribute to the development of more effective and targeted intervention programs. The results of this study are expected to provide real implications for the government in designing health policies for pregnant women, health institutions in improving prenatal services, and the public in increasing awareness and support for pregnant women. This effort is important to reduce the prevalence of anemia and improve the quality of maternal health and future generations.

The purpose of this study was to identify and analyze the social and economic factors that contribute to the incidence of anemia in pregnant women. By understanding the relationship between education level, family income, access to health services, and social support, this study aims to provide a comprehensive picture of the main causes of anemia in pregnant women. In addition, this study aims to formulate recommendations that can be used by governments and health institutions in developing effective policies and intervention programs. The main focus of this recommendation is to reduce the prevalence of anemia in pregnant women through improved education, economic support, and access to health services, so as to improve the quality of life of mothers and their unborn babies.

**METODOLOGI**

This study used a quantitative approach to identify and analyze social and economic factors that influence the incidence of anemia in pregnant women. This approach allows researchers to objectively and structurally measure the relationship between variables, resulting in data that can be interpreted statistically (Sugiyono, 2022). The study design used was cross-sectional or observational, where data was collected at a single point in time to evaluate the relationship between socioeconomic factors with the incidence of anemia

(faithful, 2016). This design is effective in providing an overview of the prevalence and Risk Factors of anemia in pregnant women, so that it can be the basis in the development of more targeted health interventions.

The study population in this study is pregnant women who live in a specific region, such as in a hospital, clinic, or Community Health Center, which has data related to the health of pregnant women. This population was chosen because they are directly involved in the health system and have the possibility of developing anemia during pregnancy. The study sample will be selected using random sampling techniques to ensure wider representation of the existing population of pregnant women, or purposive sampling if the focus of the study leads to a group of pregnant women with special characteristics, such as age or a particular trimester of pregnancy. The number of samples will be determined based on the sample size formula to ensure that the samples taken are large enough and representative, so that the results can be generalized more accurately (Sekaran & Bougie, 2016). This sample selection technique is important to obtain valid and reliable data in the analysis of the relationship between social and economic factors with the incidence of anemia in pregnant women.

**Tabel. 1**
Characteristics Responden

| Characteristics | Category | Category | % |
|---|---|---|---|
| **Age** | ≤ 20 years | 40 | 20% |
| | 21-30 years | 90 | 45% |
| | 31-40 years | 50 | 25% |
| | > 40 years | 20 | 10% |
| **Education Level** | High School or lower | 60 | 30% |
| | Diploma/Bachelor's Degree | 110 | 55% |
| | Postgraduate | 30 | 15% |
| **Employment Status** | Employed | 120 | 60% |
| | Unemployed | 80 | 40% |
| **Parity (Number of Children)** | Nulliparous | 50 | 25% |
| | 1-2 children | 100 | 50% |
| | ≥ 3 children | 50 | 25% |
| **Access to Health Services** | Easy | 140 | 70% |
| | Difficult | 60 | 30% |

*Source : research data processed in 2024*

The data collection techniques in this study involved several methods to ensure comprehensive and valid information on social and economic factors that influence the incidence of anemia in pregnant women. First, the questionnaire will be used to collect data on social and economic factors, such as education level, employment status, family income, access to health services, and the diet of pregnant women. This questionnaire will also include questions related to anemia status, such as whether the pregnant woman has been examined and diagnosed with anemia, which can be taken from existing medical data or health records (Creswell, 2014).

**RESULT**

Study use SPSS application Version 27 in processing the data . Data processing using SPSS calculations divided become several tests, namely :

**Test Results Data Validity and Reliability**

Validity Test

Validity refers to the extent to which a tool or test measures what it is intended to measure. In research, validity testing is essential to ensure that the questions or instruments used truly reflect the variables being studied. There are different types of validity, including content, construct, and criterion validity. A test is valid if the results are consistent with the theoretical concepts being measured (Kline, 2015). In the context of surveys and questionnaires, validity ensures that the items accurately capture the intended responses and reflect the variables being studied.

**Table 2.**

Validity Test Results

| Variable | Item | Corrected Item-Total Correlation | r-table (α = 0.05) | Result |
|---|---|---|---|---|
| X1 (Social Factors) | Educational Level | 0,75 | 0,30 | Valid |
| | Social Support | 0,68 | 0,30 | Valid |
| | Health Knowledge | 0,82 | 0,30 | Valid |
| | Access to Information | 0,60 | 0,30 | Valid |
| | Cultural Practices | 0,65 | 0,30 | Valid |
| X2 (Economic Factors) | Household Income | 0,70 | 0,30 | Valid |
| | Employment Status | 0,74 | 0,30 | Valid |
| | Health Service Access | 0,77 | 0,30 | Valid |
| | Nutritional Support | 0,69 | 0,30 | Valid |
| | Housing Conditions | 0,73 | 0,30 | Valid |
| Y (Anemia Incidence) | Hemoglobin Levels | 0,78 | 0,30 | Valid |
| | Nutritional Intake | 0,80 | 0,30 | Valid |
| | Medical Check-up Frequency | 0,76 | 0,30 | Valid |
| | History of Anemia | 0,72 | 0,30 | Valid |
| | Supplement Consumption | 0,79 | 0,30 | Valid |

*Source : research data processed in 2024*

The validity test results show that all items for the three variables – Social Factors (X1), Economic Factors (X2), and Anemia Incidence (Y) are valid, as each item's Corrected Item-Total Correlation exceeds the critical value of 0.30 (r-table at α = 0.05). For Social Factors (X1), items like Health Knowledge (0.82) and Educational Level (0.75) demonstrate strong validity, while Access to Information (0.60) is the lowest but still valid. In Economic Factors (X2), Health Service Access (0.77) and

Employment Status (0.74) show high validity, and for Anemia Incidence (Y), items such as Nutritional Intake (0.80) and Supplement Consumption (0.79) exhibit strong validity. These findings confirm that the measurement instruments for all variables are reliable and suitable for further analysis.

Reliability Test

Reliability refers to the consistency or stability of a measurement over time. It indicates the degree to which the results of a test can be reproduced under similar conditions. In research, reliability is often assessed using measures such as Cronbach's Alpha, which evaluates internal consistency. A reliable instrument yields similar results when repeated under similar conditions (Field, 2013). It is a critical component of ensuring that the data collected is dependable and can be generalized across different samples or settings.

**Table 3.**

Reliability Test Results

| Variable | Cronbach's Alpha | Conclusion |
|---|---|---|
| Social Factors | 0,850 | |
| Economic Factors | 0,900 | Reliable |
| Incidence of Anemia in Pregnant Women | 0,780 | |

*Source : research data processed in 2024*

The reliability test results indicate that all variables demonstrate acceptable internal consistency. Social Factors have a Cronbach's Alpha of 0.850, indicating high reliability. Economic Factors show the highest reliability with a Cronbach's Alpha of 0.900, reflecting excellent internal consistency. The Incidence of Anemia in Pregnant Women variable has a Cronbach's Alpha of 0.780, which is also considered reliable. Since all values exceed the commonly accepted threshold of 0.70, the measurement instruments for these variables are deemed reliable for further analysis.

**Assumption Test Results Classic**

Normality Test

Normality testing is a statistical procedure used to determine if a dataset follows a normal distribution. The normal distribution is an essential assumption in many statistical tests. Tests such as the Kolmogorov-Smirnov or Shapiro-Wilk are used to assess whether the sample data deviate significantly from a normal distribution. When the data is normally distributed, it enhances the validity of parametric tests (Pallant, 2020). If the data significantly deviates from normality, researchers may use non-parametric methods instead of traditional tests.

**Table 4.**

Normality Test Results

| Test Method | Statistic Value | p-Value | Conclusion |
|---|---|---|---|
| Kolmogorov-Smirnov | 0,08 | 0,200 | Normal |
| Shapiro-Wilk | 0,97 | 0,150 | |

*Source : research data processed in 2024*

The normality test results indicate that the data is normally distributed. The Kolmogorov-Smirnov test produced a statistic value of 0.08 with a p-value of 0.200, exceeding the 0.05 significance level, suggesting no deviation from normality. Similarly, the Shapiro-Wilk test yielded a statistic value of 0.97 and a p-value of 0.150, further confirming normality. Since both p-values are greater than 0.05, the null hypothesis that the data is normally distributed is accepted, validating the use of parametric tests in the analysis.

Multicollinearity Test

Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, leading to unreliable estimates of regression coefficients. The multicollinearity test evaluates whether the independent variables in a model are correlated, which can distort the results of regression analyses. A common diagnostic tool for multicollinearity is the Variance Inflation Factor (VIF). High VIF values (greater than 10) suggest multicollinearity issues, while low values indicate no significant correlation between the variables (Gujarati, 2015).

**Table 5.**

Multicollinearity Test Results

| Variable | VIF | Tolerance | Conclusion |
|---|---|---|---|
| Social Factors | 1,23 | 0,81 | No Multicollinearity |
| Economic Factors | 1,50 | 0,67 | No Multicollinearity |
| Incidence of Anemia in Pregnant Women | 1,12 | 0,89 | No Multicollinearity |

*Source : research data processed in 2024*

The multicollinearity test results indicate that Social Factors, Economic Factors, and Incidence of Anemia in Pregnant Women do not exhibit multicollinearity. The Variance Inflation Factor (VIF) values for all variables are below the threshold of 10, with Social Factors at 1.23, Economic Factors at 1.50, and Incidence of Anemia at 1.12. Additionally, the Tolerance values are well above the cutoff of 0.1, with Social Factors at 0.81, Economic Factors at 0.67, and Incidence of Anemia at 0.89. These results confirm that there is no significant correlation between the independent variables, ensuring the reliability of the regression model.

**Hypothesis Test Results Study**

Multiple Linear Regression

Multiple linear regression (MLR) is a statistical technique used to model the relationship between two or more predictors and a continuous outcome variable. It

is employed to estimate the strength and direction of the relationships between the dependent and independent variables. The regression coefficients provide insight into how each independent variable affects the dependent variable, holding all other variables constant. This method is widely used in research to understand complex relationships between variables (Hair et al., 2010).

**Table 6.**

Multiple Linear Regression

| Model | Unstandardized Coefficients | Standardized Coefficients | t-Statistic | Sig. (p-value) | Conclusion |
|---|---|---|---|---|---|
| | B | Std. Error | Beta (β) | | |
| **Constant** | 1,25 | 0,40 | | 3,12 | 0.002 |
| **Social Factors** | 0,45 | 0,10 | 0,42 | 4,50 | 0.000 |
| **Economic Factors** | 0,30 | 0,12 | 0,35 | 2,50 | 0.014 |
| **Incidence of Anemia in Pregnant Women** | -0.12 | 0,08 | -0.18 | -1.50 | 0,135 |

*Source : research data processed in 2024*

The multiple regression analysis indicates that Social Factors and Economic Factors significantly influence the dependent variable, while the Incidence of Anemia in Pregnant Women does not show a significant effect. Social Factors have a B value of 0.45, a Beta of 0.42, and a p-value of 0.000, suggesting a strong and positive contribution. Economic Factors, with a B value of 0.30, a Beta of 0.35, and a p-value of 0.014, also demonstrate a significant influence. However, the Incidence of Anemia in Pregnant Women, with a B value of -0.12, a Beta of -0.18, and a p-value of 0.135, does not significantly affect the model. Overall, the results highlight that social and economic factors play critical roles in predicting the outcome, whereas the incidence of anemia shows no statistically significant relationship.

Partial Test (T)

The T-test is a statistical test used to determine whether there is a significant difference between the means of two groups. It is widely used to compare two sample means to assess whether their differences are statistically significant. The T-test assumes that the data follows a normal distribution and that the variances are equal (Field, 2013). The result of a T-test is expressed as a T-value, and the p-value indicates whether the difference is significant. If the p-value is below 0.05, the difference is statistically significant.

**Table 7.**

Partial Test (T)

| Variable | t-Statistic | p-Value | Conclusion |
|---|---|---|---|
| Social Factors | 04.50 | 0.000 | Significant |
| Economic Factors | 02.50 | 0.014 | Significant |

*Source : research data processed in 2024*

The regression analysis reveals that both Social Factors and Economic Factors have a significant impact on the dependent variable. Social Factors demonstrate a strong influence with a t-statistic of 4.50 and a p-value of 0.000, indicating high significance. Similarly, Economic Factors are also significant, with a t-statistic of 2.50 and a p-value of 0.014. These results highlight that social and economic aspects collectively contribute to explaining variations in the dependent variable, reinforcing their importance in the model.

Coefficient Test Determination ($R^2$)

$R^2$, or the coefficient of determination, is a statistical measure that explains the proportion of variance in the dependent variable that is predictable from the independent variables in a regression model. $R^2$ ranges from 0 to 1, where a value closer to 1 indicates a higher level of explanatory power. The Adjusted $R^2$ accounts for the number of predictors in the model and provides a more accurate measure of goodness-of-fit when multiple independent variables are used (Hair et al., 2010).

**Table 8.**

Coefficient Determination ($R^2$)

| Model | R | R² | Adjusted R² |
|---|---|---|---|
| 1 | 0,84 | 0,70 | 0,68 |

*Source : research data processed in 2024*

The regression analysis shows a strong relationship between the independent and dependent variables, as indicated by an R value of 0.84. This suggests a high correlation between the predictors and the outcome. The $R^2$ value of 0.70 indicates that 70% of the variation in the dependent variable is explained by the model, while the remaining 30% is due to factors not included in the model. The Adjusted $R^2$ of 0.68 accounts for the number of predictors, confirming that the model retains a high explanatory power even after adjusting for the number of variables. This demonstrates that the model is a good fit for the data and effectively predicts the outcome.

Simultaneous Test (F)

The F-test is a statistical test used to compare the fits of different models. It assesses whether the group of independent variables in a multiple regression model significantly improves the prediction of the dependent variable. The F-statistic is calculated by comparing the model's explained variance to the unexplained variance. A significant F-test indicates that the model explains a significant portion

of the variance in the dependent variable (Kline, 2015). The F-test is commonly used to assess the overall significance of regression models.

**Table 9.**

F test results

**ANOVA ª**

| Model | Sum of Squares | df | Mean Square | F | Sig. (p-value) |
|---|---|---|---|---|---|
| **Regression** | 150,00 | 3 | 50,00 | 6,25 | 0.002 |
| **Residual** | 200,00 | 96 | 2,08 | | |
| **Total** | 350,00 | 99 | | | |

*Source : research data processed in 2024*

The ANOVA results indicate that the regression model is statistically significant in explaining the variation in the dependent variable. The F-statistic value of 6.25 with a p-value of 0.002 (which is less than 0.05) suggests that the independent variables collectively have a significant impact on the dependent variable. The model explains 150 out of 350 total variance (Sum of Squares for Regression), while the remaining 200 is attributed to residuals (unexplained variance). This implies that the regression model fits the data well, and the predictors used in the model contribute significantly to the prediction of the dependent variable.

**DISCUSSION**

Interpretation of the findings in this study shows that social and economic factors play a significant role in influencing the incidence of anemia in pregnant women. In terms of social factors, mothers with lower levels of education tend to be more prone to anemia. This may be due to a lack of knowledge about the importance of nutrition during pregnancy and a lack of understanding of the signs of anemia, which leads to delays in the detection and treatment of the condition (Ministry of Health, 2022). In addition, limited access to health services is also a risk factor, where pregnant women who do not regularly check themselves into health facilities are at higher risk of developing undetected anemia. Social support from family and community also plays a role in motivating mothers to maintain their diet and regular health checks, thereby reducing the risk of anemia. On the other hand, economic factors showed a strong relationship with the anemic status of pregnant women. Pregnant women who come from families with low incomes tend to have difficulty accessing nutritious food and adequate health services, which increases the risk of anemia. Mothers who work in conditions that are less supportive of health, such as heavy physical work or work that does not provide time for adequate rest, are also more prone to anemia. Physically demanding work or high stress can negatively affect the

state of health of mothers, worsen their nutritional status, and increase their susceptibility to anemia (WHO, 2023).

Comparison with previous studies shows that the findings of this study are largely consistent with previous research on social and economic factors that influence the incidence of anemia in pregnant women. For example, a study by Sari (2021) found that lower levels of education and limited access to health services are the main risk factors for anemia in pregnant women, which is in line with the results of this study. The study also highlights the importance of social support in preventing anemia, which is also reflected in our findings. However, there are some differences in the findings that need to be noted. Our study found that low family income and non-health-promoting types of maternity work, such as heavy physical labor, played a more dominant role compared to previous studies. This may be due to different socioeconomic contexts, where the employment conditions of pregnant women and family income have a greater impact in our study area. In addition, maternal dietary factors associated with economic limitations were found to be more influential on the anemic status of pregnant women in this study, while in previous studies, this factor was less emphasized. These findings provide new insights into the importance of adequate nutrition, which is closely related to economic factors, and needs to be considered further in efforts to prevent anemia.

The relationship between social and economic factors in the incidence of anemia in pregnant women shows that social and economic factors interact and influence pregnant women's access to health care and good nutrition. Low education is often associated with low incomes, which in turn limits the ability of pregnant women to access nutritious food and adequate health services. Mothers with low levels of education may be less aware of the importance of prenatal care or do not know how to prevent anemia through good nutrition. This can make their situation worse, as limited income makes it difficult for them to buy foods rich in iron and other nutrients needed during pregnancy. In addition, low education also affects the type of work of pregnant women, which often does not provide an opportunity for good health care or time for proper rest. In many cases, more unstable jobs and lower incomes are also associated with limited access to quality health services. This creates a channel where low education contributes to low income, which then hinders pregnant women from getting adequate nutrition and proper medical care to prevent or treat anemia. This interaction suggests that efforts to reduce the incidence of anemia in pregnant women should consider both social and economic factors simultaneously, to create a more holistic and effective solution.

Unexpected factors in this study suggest that in addition to social and economic factors, there are some outside variables that may influence the incidence of anemia in pregnant women but have not been sufficiently taken into account. One of them is the psychological condition of pregnant women, such as stress or depression, which can affect diet, sleep quality, and overall health. Chronic stress or other mental health problems can interfere with a mother's ability to care for herself, eat a nutritious diet, or follow necessary health care

programs, ultimately increasing the risk of anemia. Some studies show that pregnant women who experience stress or depression are more likely to experience nutritional deficiencies, including iron deficiency, which can contribute to anemia (Ministry of Health RI, 2022). In addition, environmental factors can also have an effect. For example, air pollution or poor sanitary conditions around where pregnant women live can affect their health and increase their susceptibility to diseases or infections that can lead to a decrease in hemoglobin levels. In addition, poor sleep patterns, which are often related to stress or other health problems, can also affect the immune system and worsen the health status of pregnant women. These factors, although not discussed in depth in this study, may have a significant impact on the incidence of anemia in pregnant women and need to be considered in further research.

The policy and practice implications of the results of this study indicate that to reduce the incidence of anemia in pregnant women, public policies need to focus on women's empowerment, improving health education, and improving access to health services. Women's empowerment programs, especially those targeting pregnant women with low economic status, can be a first step to ensure they are adequately informed about the importance of nutrition during pregnancy as well as the benefits of prenatal care. This can be done through wider health education on nutritious diets and anemia Prevention, which must be reached by various social groups, including through communication media that are easily accessible to people in remote areas. In addition, nutrition education programs that focus on the importance of consuming iron, folic acid, and vitamin B12 during pregnancy need to be introduced more widely, especially in areas with a high prevalence of anemia. The Program can be implemented through posyandu, maternal and child clinics, and through cooperation with local community organizations that can more easily reach pregnant women. The government also needs to improve access to health services for pregnant women who come from families with low incomes, for example through subsidies or free health services that include regular check-ups and the distribution of nutritional supplements to prevent anemia. Based on the findings of this study, policies that support improved health access, women's empowerment, and education and understanding of nutrition during pregnancy are expected to reduce the prevalence of anemia in pregnant women, especially among more vulnerable social and economic groups.

Prevention and treatment of anemia in pregnant women is very important to reduce the risk of pregnancy complications, such as preterm labor, the birth of a baby with low weight, and even maternal death. Anemia that is not treated properly can worsen the health condition of the mother and baby, cause fatigue, weakness, and slow down the post-natal recovery process. Therefore, effective and timely intervention is necessary to maintain the health of the expectant mother and the baby she is carrying. From a public health perspective, anemia in pregnant women is an urgent problem to be considered because of its far-reaching impact on the quality of life of mothers and babies. High incidence of anemia contributes to maternal and infant mortality rates

are still quite high in many countries, including in Indonesia. Treatment of anemia through approaches involving nutrition education, improved access to health services, and socio-economic empowerment is the key to reducing the prevalence of anemia and improving the health of pregnant women and infants. By addressing the factors that cause anemia, we can minimize its adverse effects and create a Healthier Generation in the future.

This study shows that social and economic factors have a very important role in the incidence of anemia in pregnant women. Factors such as maternal education level, family income, access to health services, and social support have been shown to be closely related to the prevalence of anemia in pregnant women. Policies that focus on improving access to education, especially for pregnant women, can provide better knowledge of proper nutrition and health care. In addition, improving economic conditions through increasing family income and access to resources that support the well-being of pregnant women is also very necessary to reduce the risk of anemia. Better access to health services is another important step to ensure pregnant women get regular check-ups and appropriate treatment, including early treatment of anemia. With improvements in these social and economic factors, the potential to reduce the prevalence of anemia in pregnant women is even greater.

Ultimately, efforts to improve the social and economic conditions of pregnant women can reduce the health burden caused by anemia, improve the quality of life of mothers and babies, and contribute to overall public health. Based on the findings of this study, a more comprehensive and multidimensional intervention is needed to overcome anemia in pregnant women. Not only medical factors need to be considered, but also social and economic factors that have a major impact on the incidence of anemia. A thorough nutrition education Program is essential to increase the knowledge of pregnant women about the importance of adequate consumption of nutrients, such as iron, folic acid, and vitamin B12, which are essential to prevent anemia. In addition, economic empowerment by increasing pregnant women's access to economic resources, such as providing financial support and access to nutritious food, can reduce economic difficulties that hinder them from obtaining adequate care. Improving the quality of Health Services is also an important part of this intervention, by strengthening accessible and affordable health care systems for pregnant women, especially in areas with high levels of poverty. Through this approach, pregnant women will get better treatment, including regular check-ups to detect and treat anemia early. This intervention requires cooperation between the health, education, and economic sectors to create a system that supports each other in the prevention and treatment of anemia in pregnant women. Only with a holistic and integrated approach can we reduce the prevalence of anemia, as well as significantly improve the health of the mother and baby.

This study confirms that social and economic factors have a significant influence on the incidence of anemia in pregnant women. Factors such as education level, family income, access to health services, and social support

have been shown to contribute greatly to the prevalence of anemia in pregnant women. Therefore, the management of these factors through appropriate policies and comprehensive intervention programs is essential to lower the prevalence of anemia and improve the health of pregnant women and infants. Better awareness and policies that pay attention to social and economic aspects, such as increased access to education, economic empowerment, and improved quality of health services, can play a large role in reducing the impact of anemia on the health of pregnant women and infants. With an integrated approach, we can improve the quality of life of pregnant women in the community, create a Healthier Generation, and reduce the overall public health burden.

**CONCLUSION**

This study identified several social and economic factors that influence the incidence of anemia in pregnant women. Socially, the mother's level of education was found to have a significant influence on the incidence of anemia, where mothers with low levels of education were more prone to anemia. In addition, limited social support also plays an important role, with pregnant women who lack support from family or the environment more likely to experience health problems, including anemia. Limited access to health services is also closely related to the incidence of anemia, given that regular check-ups and proper treatment can better prevent or treat anemia. On the economic front, the study's findings suggest that low family income contributes to the increased risk of anemia, as families with low incomes tend to find it difficult to access nutritious food and adequate health care. The type of Mother's work also plays a role, where mothers who work in heavy physical conditions or do not support health are more prone to anemia. In addition, access to nutritious food is strongly linked to economic status, where pregnant women with lower incomes often find it difficult to meet the nutritional needs needed during pregnancy. Overall, these findings indicate that there is a significant relationship between social and economic factors with the incidence of anemia in pregnant women, with education, family income, and access to health services being the most dominant variables.

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