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# Overview of the Incident of Anemia in Adolescent Girls in the Working Area of the Kumbe Health Center in 2023

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In general, research on anemia in adolescent girls in Indonesia has been quite widely conducted, but the incidence of adolescent girls in junior high school, especially in the working area of the Kumbe Health Center, is not yet known. Based on this background and related to the incidence of anemia in adolescent girls is still relatively high, so researchers are interested in knowing the picture of anemia incidence in adolescent girls in the work area of the Kumbe Health Center in 2023. From this description, there is no data that describes the incidence of anemia in adolescent girls in junior high schools in the working area of the Kumbe Health Center. The purpose of this study was to determine the picture of the incidence of anemia of adolescent girls in junior high schools in the working area of the Kumbe Health Center.

# 1. Introduction

A quarter of the world's population is in the adolescent period aged 10-24 years. In Indonesia, the number of adolescents 10-24 years old is around 64 million, or 27.6 percent. Adolescence is the peak stage of life by reaching the point of optimal physical health and forming a health model in adulthood. Adolescent health problems can have a negative impact on adolescence later, such as infections and malnutrition, which can affect the health status of adolescents (Ministry of Health of the Republic of Indonesia, 2018).

Adolescence is a dynamic developmental phase in an individual's life. Adolescence is a transition period from childhood to adulthood characterized by accelerated physical, mental, emotional and social development (Soetjiningsih, 2013). Physical development is characterized by the functioning of reproductive organs such as menstruation at the age of 10-19 years (Ministry of Health of the Republic of Indonesia, 2018)

Nutritional problems that occur in many adolescent girls are iron deficiency or anemia. Anemia is a symptom of red blood cell deficiency due to low hemoglobin levels. Lack of red blood cells will endanger the body, because red blood cells function as a means of transporting nutrients and oxygen needed in physiological and biochemical processes in body tissues. Blood deficiency that occurs in children can interfere with the process of growth and development (Arumsari, 2008).

The high prevalence of iron deficiency anemia is caused by several factors, namely: chronic blood loss, insufficient iron intake, inadequate absorption and increased iron (Arisman, 2010). The impact of anemia on adolescent girls is stunted growth, the body during growth is easily infected, resulting in reduced body fitness, decreased enthusiasm for learning / achievement, when becoming a prospective mother it will be at high risk for pregnancy and childbirth. Anemia in pregnant women will have an impact on bleeding at the time of childbirth so that it can cause maternal death (Arumsari, 2008).

In Indonesia, the prevalence of anemia in adolescent girls is quite high. According to Riskesdas 2013, the prevalence of anemia in Indonesia in adolescents (15 – 24 years) is 18.4%, (Ministry of Health of the Republic of Indonesia, 2018) and according to the Household Health Survey (SKRT) in 2012 adolescent girls aged 10-18 years is 57.1%. Women have a very high risk of anemia, especially in adolescent girls because adolescent girls at that time experience a period of physical growth and hormonal changes that occur in themselves with menstruation (Ministry of Health of the Republic of Indonesia, 2018).

Young women suffer from anemia, this is understandable because adolescence is a period of growth that requires higher nutrients including one of the needs for iron. In addition, adolescent girls menstruate every month so they need iron higher, while the amount of food consumed is less than men, because in adolescent girls there is a desire to maintain appearance and factors want to be slim (Ministry of Health, 2008).

In general, research on anemia in adolescent girls in Indonesia has been quite widely conducted, but the incidence of adolescent girls in junior high school, especially in the working area of the Kumbe Health Center, is not yet known. Based on the background above and related to the incidence of anemia in adolescent girls is still relatively high, so researchers are interested in knowing the picture of anemia incidence in adolescent girls in the work area of the Kumbe Health Center in 2023. From the description above, there is no data that describes the incidence of anemia in adolescent girls in junior high schools in the working area of the Kumbe Health Center. The purpose of this study was to determine the picture of the incidence of anemia of adolescent girls in junior high schools in the working area of the Kumbe Health Center.

## 2. Research Method

This study was conducted using a type of descriptive research with a retrospective approach by looking at the records of anemia screening results in adolescent girls at SMPN 03 Kota Bima and SMPN 15 Kota Bima in the working area of the Kumbe Health Center. This research was conducted at SMPN 03 Bima City and SMPN 15 Bima City which are the working areas of the Kumbe Health Center. This study was conducted in December by looking at data on the results of Anemia Screening that has been carried out in February and July 2023. The population in this study was all adolescent girls who had received anemia screening in February and July 2023. The sample in this study is all data from anemia screening results that have been carried out in February and July 2023.

The type of data used for this study came from secondary data, consisting of the number of adolescent girls screened for anemia that had been conducted in February and July 2023. The data collection method used in this study is the collection of data on the results of anemia screening which has been carried out in February and July 2023. The data obtained is collected, processed, and presented descriptively in the form of tables that will be presented in the form of narratives. Univariate analysis by calculating the frequency distribution and proportions to determine the picture of anemia incidence.

### 3. Result and Discussion

The results of data analysis of anemia incidence in adolescent girls at SMPN 03 Bima City and SMPN 15 Bima City which are the working areas of the Kumbe Health Center can be seen in the following table.

Table 1 Table of frequency distribution of adolescent girls by incidence of anemia

Category	Frequency	Percentage (%)
Usual	48	55
Mild Anemia	25	30
Moderate Anemia	13	15
Anemia Berat	0	0
Sum	86	100

Source: Secondary data, 2023

Based on the table above, it is known that most respondents have normal Hb levels (not anemic) as many as 48 respondents (55%), mild anemia 25 respondents (30%), and moderate anemia 13 respondents (15%).

Anemia is a body condition in which hemoglobin (Hb) levels in the blood are lower than normal (WHO, 2011). Symptoms that are often encountered in people with anemia are 5 L (lethargy, fatigue, weakness, fatigue, neglect), accompanied by headaches and dizziness, firefly eyes, easy sleepiness, quick reach and difficulty concentrating (Ministry of Health of the Republic of Indonesia, 2018).

Adolescence is a period when individuals develop from the first time they show secondary sexual signs until they reach sexual maturity (Sarwono, 2012). Adolescent girls have a higher risk of anemia than adolescent boys, because adolescent girls menstruate every month and in their growth period so they need more iron intake.

Preventive, promotive and diagnostic efforts for anemia are very important because anemia has an impact on reducing endurance, decreased fitness and thinking skills, decreased learning achievement and work productivity / performance (Ministry of Health of the Republic of Indonesia, 2018). From the results of the study, data were obtained that the majority of respondents did not experience anemia, but there were still some students who had mild anemia and even moderate anemia. Imbalance of nutritional intake is one of the factors causing anemia in adolescents. If food intake is lacking, many iron reserves will be

dismantled, this can accelerate the occurrence of anemia (Dian, 2011).

Vianty and Siti's (2021) research also stated the results of the study that the majority of adolescent girls do not have anemia, but as many as 32.27% of adolescents experience anemia from mild to severe categories. Lifestyle in adolescents who tend to consume ready-to-eat foods more often than vegetables can also trigger anemia in adolescents. A diet pattern that is not balanced with nutritional needs will result in the body lacking important nutrients such as iron. Iron intake is very important for adolescent girls in order to achieve optimal health (Dian, 2011).

## 4. Conclusion

Most adolescent girls have normal Hb levels (not anemic) as many as 48 respondents (55%), but there are still respondents who have mild anemia 25 respondents (30%), and moderate anemia 13 respondents (15%).

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