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Toddler Acute Respiratory Infection Cases by Gender in the North Buton Regency between 2018-2020

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Abstract.
A respiratory condition in toddlers that often occur is called ARI (Acute Respiratory Infections), which are usually accompanied by coughs, flu and colds. ARI is an acute infection that attacks one or more parts of the respiratory tract from the nose to the alveoli, including the adnexa. This study was conducted with the objective of describing the number of cases of ARI under five years old in the North Buton Regency for the 2018-2020 period based on gender. This is a survey research utilizing the health report data of the North Buton District Health Office for the period 2017-2020. It includes on the incidence of ARI by gender. The research sample is ARI patients who are children under five. The type of research data is numerical. The research data is presented in the form of graphs with narration. In 2018, ARI cases among children less than five years old in the North Buton Regency were the highest at the North Wakorumba Health Center, with as many as 216 cases in mostly males, the lowest at the Labaraga Health Center with 47 cases. In 2019, the highest was at the Kioko Health Center with as many as 262 cases mostly women and the lowest at the Kulisusu Health Center with 37 cases. Then in 2020 the highest was at the Waode Buri Health Center with 704 cases mostly women and the lowest was at the Boneguru Health Center with 10 cases.

Keywords: Acute Respiratory Infections, Toddler, North Buton Regency

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1. INTRODUCTION

Cough, runny nose and fever are the first symptoms of a disease that is classified in the ”Acute Respiratory Infection” which abbreviated as ARI [1–3]. Acute Respiratory Infection (ARI) is a common condition that attacks some people at a certain time and is the main cause of death for infants and toddlers in Indonesia [4, 5]. Toddlers’ immunity is not enough to prevent, therefore an effort is needed to increase immune antibodies by giving immunizations to be able to form a toddler’s immune system or antibodies [6, 7]. The formation of immunity obtained from immunization takes time so that it can function optimally. Complete immunization can help the body to shape optimal antibodies so that they can beat the development of the disease in the body to prevent [6, 8].

World Health Organization estimates that the under-five mortality rate due to ARI in developing countries is 40 per 1000 live births. Indonesia is one of the developing countries with the incidence of ARI which ranks first in the group of infants and toddlers. The incidence of ARI in Indonesia is estimated at 3 to 6 times per year [9].

The 2013 Basic Health Research Report (Riskesdas) states that the prevalence of ARI in Indonesia is around 25%. Based on gender, it is known that there are differences in the number of patients with ARI, which is a higher incidence in boys. Based on nutritional status, it is known that malnutrition is a predisposing factor for the occurrence of ARI in children. Based on birth weight, it is known that birth weight has an important role in mortality due to ARI [10].

The causes of ARI in toddlers are varied. ARI can be caused by agent factors caused such as viruses and bacteria, environmental factors, behavioral factors and individual habits of the child himself. Causes of ARI that originate from individual child factors include; child's age, gender, birth weight, nutritional status, vitamin A and immunization [11].

Based on this phenomenon, this study was conducted to describe the number of cases of ARI under five in the North Buton Regency for the 2018-2020 period based on gender.

2. METODHOLOGY

The type of this research is a survey research by utilizing health report data from the Health Office of the North Buton Regency for the 2018-2020 period involving data on the ARI cases by gender. The research sample was ARI patients in children under five. The type of research data is numerical. The research data is presented in the form of graphs with narration

3. result of the study

The research result is presented using a bar chart with an explanation as follows:

Figure 1 shows that in the 2018 the most cases of ARI among toddlers in North Buton Regency were at the North Wakorumba Health Center as many as 216 cases, the lowest was at the Labaraga Health Center as many as 47 cases. In 2019, the highest was at the Kioko Health Center with 262 cases, the lowest was at the Kulisusu Health Center with

37 cases. In 2020, the highest was at the Waode Buri Health Center with 704 cases, the lowest was at the Boneguru Health Center with 10 cases.

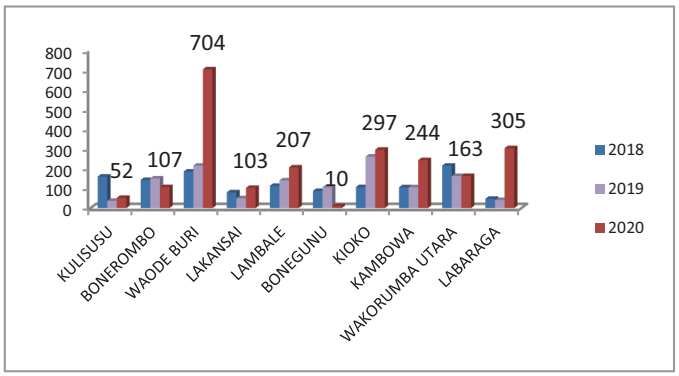

Figure 1: Number of ARI cases less than five in the North Buton Regency for the 2018-2020 periods.

Figure 2 shows that ARI cases in 2018 by gender were the highest at the North Wakorumba Health Center as many as 119 cases, in 2019 the highest at Waode Buri Health Center with 124 cases and 2020 the highest at Waode Buri Health Center with 286 cases. .

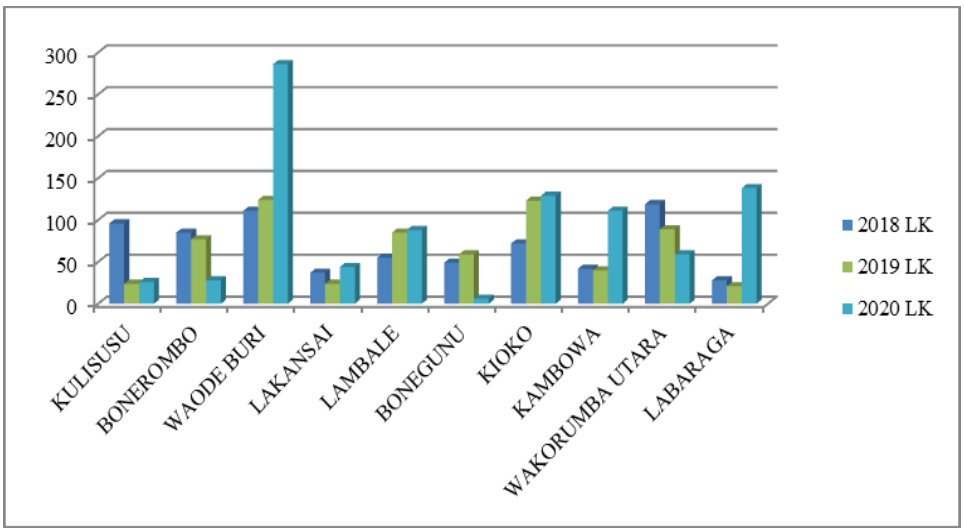

Figure 2: Number of ARI Cases for Toddlers (Male) in North Buton Regency.

Figure 3 shows that ARI cases in 2018 in North Buton Regency based on gender were the highest at the North Wakorumba Health Center as many as 97 cases, in 2019 the highest cases were at the Kioko Health Center with 139 cases and 2020 the highest at the Waode Buri Health Center with 418 cases.

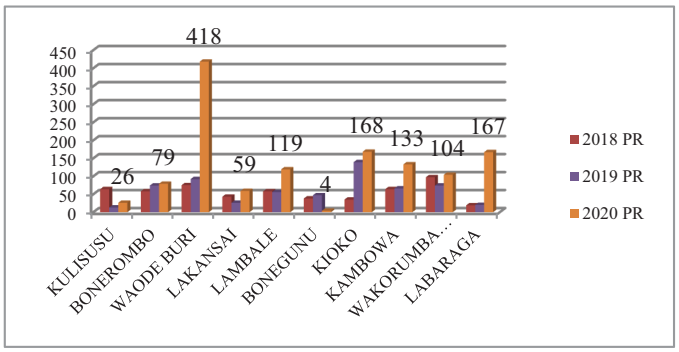

Figure 3: Number of ARI Cases for Toddlers (Female) in the North Buton Regency.

4. DISCUSSION

ARI cases among children less than five in the North Buton Regency in 2018 were the highest in North Wakorumba Health Center as many as 216 cases more for males, the lowest in Labaraga Health Center with 47 cases. In the 2019, the highest was at the Kioko Health Center as many as 262 cases mostly women and the lowest was at the Kulisusu Health Center with 37 cases. In 2020 the highest was at the Waode Buri Health Center with 704 cases and most cases were women and the lowest was at the Boneguru Health Center with 10 cases.

Generally, there is no difference the ARI cases due to viruses or bacteria in men and women. However, some suggest that there is a slight difference, namely a higher cases on boys. In the past decade, the results showed that the proportion of children under five by gender there was a difference between boys and girls, namely 59% in boys and 41% in girls, and the study stated that ARI was more common in boys. – Boys compared to girls [12].

The findings in this study showed that from 2019 to 2020 there were higher cases of ARI in female children under five and different from the results of previous studies. This condition is possible a shift in habits in children. Nowadays, both boys and girls have the same passion in terms of playing. In this era, children play more often indoors with available facilities than playing outside. However, the study did not distinguish between the habits of children in urban and rural environments.

The high number of ARI in male toddlers has previously been reported as explained by Ranny Ranantha [7] showing that 70% of ARIs occur in male toddlers. Toddlers of boys are 1.5 times more likely to suffer from ARI than female toddlers, Firda Fibria has also reported [13] stating that 54.2% of male under-fives suffer from ARI more than girls.

Related with the condition of toddlers based on gender both male and female, it is expected that toddlers with high activities outside the home should always be given food with balanced nutrition and eat regularly to maintain good personal hygiene.

5. CONCLUSION

ARI cases among the children under five in North Buton Regency in 2018 were the highest in North Wakorumba Health Center as many as 216 cases more in males and the lowest in Labaraga Health Center with 47 cases. In 2019, the highest was at the Kioko Health Center as many as 262 cases mostly women and the lowest at the Kulisusu Health Center with 37 cases. Then in 2020 the highest was at the Waode Buri Health Center with 704 cases, the most cases were women, the lowest was at the Boneguru Health Center with 10 cases.

6. AUTHORS' CONTRIBUTION

The authors have contributed to this research.

7. ACKNOWLEDGMENTS

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