

## Conference Paper

# Gastrical Disease Description Using Surveillance Data in The North Buton Regency, Indonesia

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### Abstract.

Gastritis is a public health problems with a fairly high prevalence. It affects up to 50% of adults in western countries. Gastritis in Indonesia is quite high with a prevalence of 274,396 cases from 238,452,952 inhabitants or 40.8%. This study used various data from the Indonesian Government Agency. Data on gastritis cases was obtained from the Health Office of North Buton Regency from 2017 to 2019. The data was obtained from the annual health profile published by the Health Office of the North Buton Regency. The conclusion is that most of the patients with gastritis are female with a distribution that tends to decrease in cases every year. The cases of gastritis since 2017 have shown a decrease in the cases of gastritis. This shows that health efforts made by health workers have begun to show results even though the prevalence of gastritis cases is still high. On the other hand, the prevention of gastritis cases is starting to show good results.

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Published: 13 Sepetmber 2022

Publishing services provided by  
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Selection and Peer-review under the responsibility of the ICASI Conference Committee.

## 1. INTRODUCTION

Gastritis is one of the public health problems with a fairly high prevalence. It affects up to 50% of adults in western countries [1]. The World Health Organization (WHO) estimates that in 2005 the death rate due to gastritis in the world was 40,376 cases and increased to 43,817 cases in 2010 and in 2015 continued to increase to 47,269 cases [2].

Gastritis is a number of symptoms such as heartburn, nausea, vomiting, and a feeling of fullness that is felt by a person affected by this disease. Gastritis occurs when the protective mechanisms in the stomach begin to decrease, causing inflammation (inflammation). The appearance of ulcers on the stomach wall is often caused by an increase in gastric acid secretion which will further increase gastric motility and if left further can cause gastric ulcers, severe bleeding, and cancer [3].

## OPEN ACCESS

Based on gastritis in several regions in Indonesia, it is quite high with a prevalence of 274.396 cases from 238.452.952 inhabitants or 40.8%. Based on the health profile in Indonesia in 2015, gastritis is one of the most common internal diseases. The 10 most common diseases in hospitalized patients in Indonesia with a total of 30.154 cases (4.9%) [4].

Some factors may cause gastritis are diet, smoking habits, coffee consumption, stress, and consumption of NSAIDs (Non-Steroid Anti-Inflammatory Drugs). Eating habits such as the frequency of eating, the unhealthy food that is not good are causing the gastritis disease. Irregular eating habit is effect on stomach acid digesting the gastric mucosal layer, causing pain.

Regarding the prevention of repeating gastritis, the main points of preventing include: taking care of the body, digestive tract problems such as burning in the stomach, bloating, and constipation are more common in people who are sick, avoid overweight (obese), increasing exercise, such as aerobic exercise can increase the heart rate which can stimulate special muscle activity so that it encourages the stomach contents to be released more quickly. Another prevent strategy is stress management because stress can increase heart attacks and strokes.

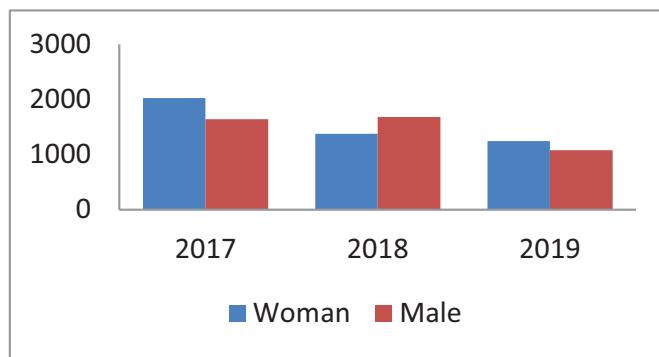
One of the efforts to control and overcome gastritis is to strengthen the Gastritis Surveillance System. Gastritis disease surveillance aims to obtain and provide information to direct the effective and efficient control and prevention of gastritis. This activity aims to determine the distribution of gastritis cases and predict the dominant location so that it can provide recommendations for preventing gastritis in the North Buton Regency.

## 2. METHODOLOGY OF THE STUDY

One of the efforts to control and overcome gastritis is to strengthen the Gastritis Surveillance System. Gastritis disease surveillance aims to obtain and provide information to direct the effective and efficient control and prevention of gastritis. This activity aims to determine the distribution of gastritis cases and predict the dominant location so that it can provide recommendations for preventing gastritis in North Buton Regency.

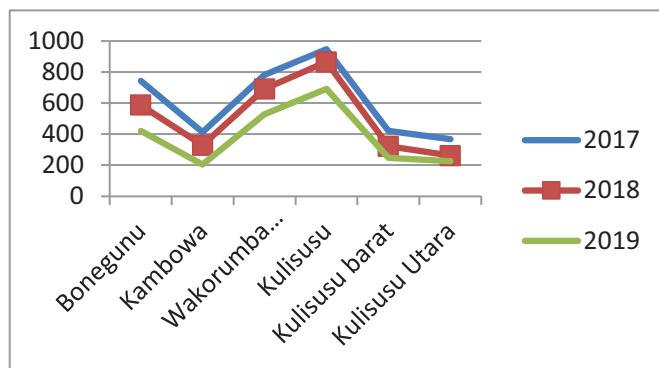
This study used various data from the Indonesian Government Agency. Data of gastritis cases was obtained from the Health Office of North Buton Regency in the year 2017 to 2019. The data was obtained from the annual health profile published by the Health Office of North Buton Regency. Research findings are presented in image format as follow:

### 3. RESULT OF THE STUDY



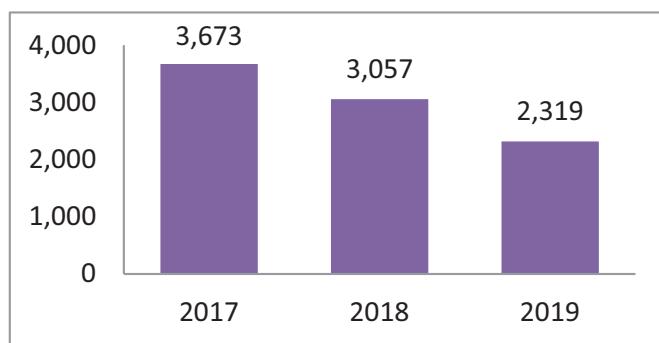
**Figure 1:** Number of Cases by Gender in the North Buton Regency.

The results showed that by gender, from 2017 to 2019 the distribution of patients with gastritis was more happen in women. This means that the gastritis cases in Buton Regency is more common in women (Figure 1).



**Figure 2:** Number of Cases by District in the North Buton Regency.

The results of the study show the distribution of gastritis by sub-district in the North Buton Regency. In the year 2017 to 2019 the incidence of gastritis was the most happen in Kulisusu sub-district (Figure 2).



**Figure 3:** Number of Cases by Year.

Figure 3 shows that in the year 2017 the gastritis cases was 3.673 cases, in 2018 there were 3.057 cases of gastritis, and in 2019 the incidence of gastritis was 2.319 cases.

## 4. DISCUSSION

The ratio of gastritis cases in women was 51.4% while in men it was 48.6%. Several studies which showed that gastritis cases were more common in women were carried out by Surya that the majority of respondents who experienced gastritis were female [1]. Research by Elizabeth found relations between gender and the cases of gastritis ( $p = 0.007$ ). The odds ratio results show that women have a 6,667 chance of developing gastritis than men. In other words, women are more at risk for gastritis [6]. The female suffers more from gastritis in the North Buton Regency because women tend not to pay attention to their diet mostly bad diet.

Gastritis sufferers in the North Buton Regency are dominated by adults and the largest area of sufferers being in Kulisusu sub-district. Adult age is a productive age. Generally, they will have a higher level of productivity and a busy schedule. By increasing activity, irregular eating habits, potential stress, it produces excess stomach acid and affects appetite and has an impact on eating habits. Irregular eating habits and if it happens lasts a long time will increase the production of gastric acid and irritate the gastric mucosal wall so that gastritis occurs.

## 5. CONCLUSION

Most of the gastritis sufferers are female with a distribution but tends to decrease in cases every year. The incidence of gastritis since 2017 has always shown a decrease. It means that health efforts made by health workers have begun to show results even though the prevalence of gastritis cases is still high. But on the other hand, activities to prevent gastritis cases are starting to show good results.

## 6. AUTHOR' CONTRIBUTION

The authors have contributed on this article.

## 7. ACKNOWLEDGMENTS

The author would like to thank all those who have contributed to the implementation of this research, especially the Head of the North Buton Regency Health Office, my lecturer Ramadhan Tosepu, and all Haluoleo University crew

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