

**ANALYSIS OF LAWN QUALITY AND STATUS OF DIARRHEA
DISEASE IN PANTON MAKMUR VILLAGE, KRUENG SABEE
DISTRICT, ACEH JAYA DISTRICT YEAR 2023**

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Abstract

Diarrhea remains a significant health issue in developing countries, including Indonesia. In August 2023, data from the Ministry of Health reported an incidence of 189,215 diarrhea cases across Indonesia. In Aceh Jaya Regency, 151 cases were identified, with the Calang Community Health Center recording 151 cases and Panton Makmur Village reporting 15 cases. This research aimed to assess latrine availability, latrine quality, and the incidence of diarrhea in Panton Makmur Village. The study employed an analytical descriptive observational approach using secondary data. The research subjects were mothers, with a population of 286 households, and a sample of 15 individuals was drawn from the secondary data. The findings indicate a relationship between latrine ownership and the incidence of diarrhea, as well as a relationship between latrine quality and the incidence of diarrhea.

Keywords: *Latrine Quality, Diarrhea, Public Health*

1. INTRODUCTION

WHO reports that about 1,400 children under the age of five die every day, and an estimated 525,000 children under the age of five die every year (Trisiyani et al., 2021). Based on Riskesdas data in 2018, the average prevalence of diarrhea in children under 5 years of age in Indonesia reached around 11.0% (Ministry of Health, 2018). Intestinal infectious diseases (diarrhea) are diseases that have been suffered by many Indonesians for a long time. Currently, diarrhea is still a major problem in developing countries, such as Indonesia. At the global level, there are nearly 1.7 billion incidents of diarrhea in children (WHO, 2017).

Patients with diarrhea disease in Kreung Sabee District, Aceh Jaya Regency in 2023 found 151 cases of diarrhea (62.91% of the estimated number of diarrhea cases) with a morbidity rate of 13.55 per 1000 population. Based on data from the Puskesmas, the incidence of diarrhea in 2023, namely in January to November, there were 151 cases of diarrhea and Panton Makmur Village had 15 cases. The most common cause of diarrhea in toddlers is rotavirus infection. Low awareness of hygiene and the application of environmental sanitation were also found to be risk factors for diarrhea outbreaks (Rehana et al., 2021).

Diarrheal disease remains a significant public health challenge and is a leading cause of child morbidity and mortality globally. Despite being largely preventable through measures such as ensuring safe drinking water, adequate sanitation, and proper hygiene, the issue persists. Currently, approximately 780 million people worldwide lack

access to improved drinking water sources, and around 2.5 billion people do not have access to improved sanitation facilities (Kateule et al., 2020). The prevalence of diarrheal disease outbreaks is particularly high in developing countries, where sanitation conditions are often substandard.

To combat diarrheal disease, especially among children under five years old, various preventive strategies can be employed. One effective approach is the implementation of the Clean and Healthy Living Behavior (PHBS) program at the household level. This program promotes several critical practices, including exclusive breastfeeding, appropriate complementary feeding, the use of sufficient clean water, regular hand washing, the use of hygienic latrines, proper disposal of infant feces, immunization, and maintaining good environmental health. Evidence suggests that enhancing community knowledge about health hygiene and proper hand washing can significantly reduce diarrhea morbidity by up to 45% (Astuti, 2019).

In Pantan Makmur Village, however, only 30% of the population has access to proper sanitation facilities. Health workers have been active in addressing diarrheal diseases through various initiatives, including promoting proper hygiene practices among food vendors and conducting socialization sessions about the PHBS program. Despite these efforts, the relationship between latrine ownership and the incidence of diarrhea in Pantan Makmur Village remains an area of interest. This study aims to explore this relationship to better understand how latrine ownership may influence the occurrence of diarrheal disease in the community.

2. RESEARCH METHODS

The type of research used in this study was descriptive analytic, namely to determine the condition of latrine ownership with the incidence of diarrhea in Pantan Makmur Village. The sample in this study were houses in Pantan Makmur Village, Krueng Sabee District, Aceh Jaya Regency, totaling 286 houses. And obtained a sample of 15 house samples, with the sampling technique used in this study is Secondary Data obtained from the health center. The independent variable in this study is the incidence of diarrhea. While the dependent variables are latrine ownership, family latrine quality, both measured using questionnaires and observation sheets. Data analysis using statistical program software includes: Univariate analysis is an analysis used to describe or explain the variables studied which aims to obtain the frequency and percentage of the variables that have been studied.

3. RESULTS AND DISCUSSION

3.1. Sample

This study involves 15 samples that have been calculated to be used as respondents in this study.

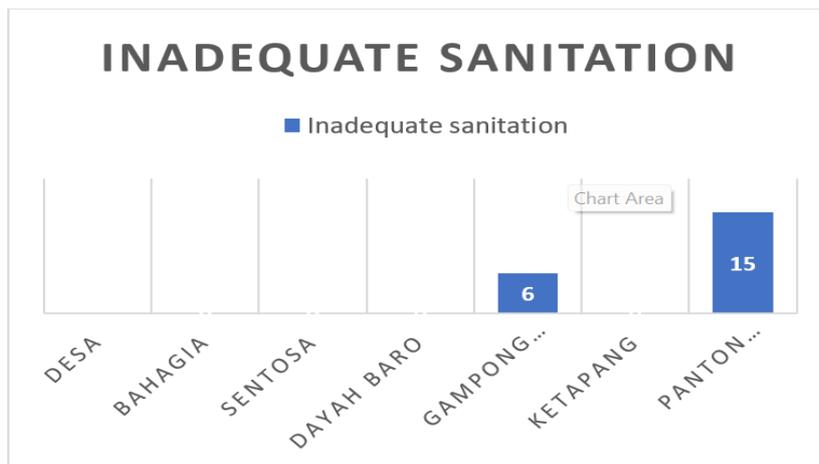


Figure 1. Inadequate sanitation

The reason for respondents who have inadequate latrines is due to economic factors that do not support. Germs that cause diarrhea can usually be spread through oral fecal, namely through food and drinks contaminated with feces or direct contact with the patient's feces. From the statistical results show, that on average respondents who have inadequate latrines experience more risk of diarrhea. Using inadequate latrines is more susceptible to a disease, one of which is diarrhea. The use of improper latrines has a greater risk of transmitting germs that cause diarrhea than proper latrines, because the use of improper latrines causes an increasing number of germs that cause disease, if the disposal of feces is not sanitary, it will be able to shorten the chain of transmission in diseases, one of which is diarrhea.

Germs released by humans will stick around objects in the latrine room, one example of which is a dipper. A dipper that has been contaminated by bacterial germs will have a risk of transmitting it to other people who also use the dipper. According to Pradyumna et al (2015), several countries have proven that efforts to use healthy latrines have an impact in reducing the risk of diarrheal disease.

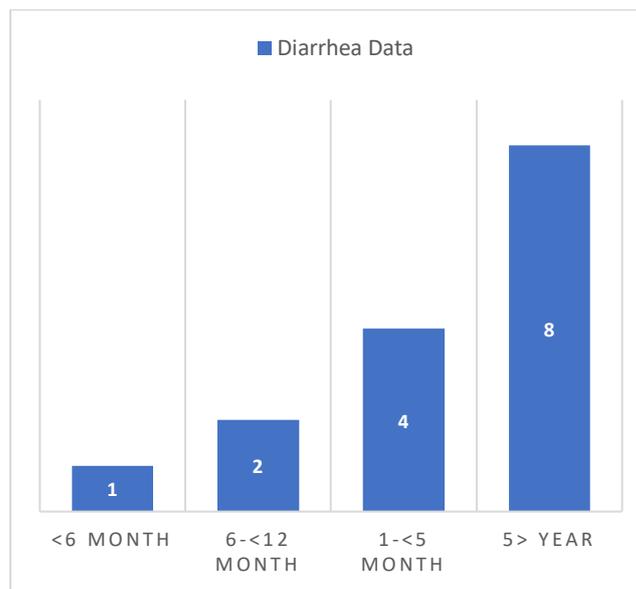


Figure 2. Diarrhea data in Pantan Makmur Village

The results of interviews with respondents found that some mothers who have inadequate latrines and have small children or toddlers, they dispose of their children's feces not in the toilet but directly into the trash or even the house yard. There are still many respondents who think that the feces of children or toddlers are not dangerous. In fact, according to the Ministry of Health (2016), toddler feces are also dangerous because they contain a large number of viruses or bacteria. Toddler feces can also transmit diseases to the toddler himself or to other people who are contaminated with toddler feces.

According to Sutanto et al (2017), a healthy latrine must be covered and have a proper roof so that it can be protected from rain and heat. Latrines must also be equipped with sufficient ventilation or lighting for air exchange, and latrine hygiene must be equipped with the availability of clean water and soap to clean themselves.

4. CONCLUSION

In this study, which involved 15 respondents, the incidence of diarrhea was found to be 10%. Analysis of the data revealed a significant relationship between latrine ownership, the quality of latrines, and the incidence of diarrhea in Pantan Makmur Village. Specifically, the presence and quality of latrines among respondents were identified as risk factors for the occurrence of diarrhea.

The findings suggest that inadequate latrine facilities or poor-quality latrines may contribute to higher rates of diarrhea in the community. Therefore, it is recommended that the government enhance its environmental health programs to improve public health outcomes. This could involve allocating funds to support initiatives such as the "one house, one toilet" program, ensuring that each household has access to proper sanitation facilities.

Additionally, the Sangkrah Health Center should continue to actively engage in providing counseling and socialization efforts targeted at mothers. This outreach should focus on promoting healthy living behaviors and practices within families to further reduce the incidence of diarrhea and improve overall community health.

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