

Research Article

A Description of Clean Water Facilities and Family Latrines in the Sanggona Public Health Center Area, Uluiwoi District, East Kolaka Regency

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Abstract.

Environmental sanitation prioritizes the prevention of environmental factors to avoid negative environmental impacts such as diseases. This study used a descriptive quantitative method to describe access to clean water facilities and family latrines supported by secondary data from the Sanggona Public Health Center, Uluiwoi District, East Kolaka Regency. The results of this study indicated that the types of clean water facilities used in the working area of Sanggona Public Health Center consisted of wells, drilled wells with pumps, and non-processing piping. Of the clean water facilities examined, most of the conditions of clean water facilities (94.7%) had a low level of pollution risk. Some of the conditions of clean water facilities (5.3%) in dug wells were still in the medium category at contamination risk level. The respondents in the family latrine conditions who were in the Sanggona Public Health Center area, had gooseneck latrines, and met the sanitation requirements were 738 houses (97.6%). The family latrines category respondents who still needed to meet the criteria were those with cemplung latrines, namely 18 homes (2.4%). As a suggestion, with the existence of a small number of clean water facilities that still have a moderate risk of contamination, namely dug wells, the community should make repairs and pay attention to dug well facilities that still have a chance of contamination, especially the distance to the disposal site (septic tank), which is close to clean water facilities and do not meet health requirements. Furthermore, socialization/counseling activities are needed to provide knowledge and encourage the community to improve community latrines that do not meet the criteria.

Keywords: Family Latrines, Clean Water Facilities, Sanggona Public Health Center

1. Introduction

Sanitation is one of the important factors affecting the improvement of human health status. The fulfillment of basic sanitation facilities can positively impact its users. However, in Indonesia, the provision of basic sanitation still needs to be fully implemented by the community. Some still need to get the idea of the importance of basic sanitation for their lives. As a result, the morbidity rate is still high due to poor basic sanitation,

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and many people do not have basic sanitation facilities that comply with the terms and criteria set by the government [1].

Environmental sanitation is an environmental condition that positively affects optimum public health status. Environmental sanitation prioritizes the prevention of environmental factors to avoid negative environmental impacts such as disease. However, the provision of sanitation facilities in Indonesia still needs to be fully available and implemented by the community. This can be seen that there are still people who still need sanitation facilities in their homes that comply with the standard requirements implemented by the government [2].

According to H.L. Blum, the factors affecting health status are environmental conditions, behavior, health services, and heredity. This is necessary to achieve the desired degree of health [3].

Nationally, the percentage of households that have access to proper sanitation is 80.29%. [4]. Based on the data from the Central Bureau of Statistics published through the Statistics of People's Welfare in 2021, nationally showed that the main sources of drinking water most households use for drinking were branded bottled water and refilled water (39.27%), drilled wells/pumps (17.61%) and protected wells (15.33%). In urban areas, branded bottled water and refilled water were the main sources of household drinking water most widely used (52.93%). Meanwhile, the main drinking water sources for households most used in rural areas were protected springs and unprotected springs (22.27%) [5]. Nationally, the percentage of households with access to proper drinking water was 90.78%. The province with the highest percentage of households with access to proper drinking water was the Special Capital Region of Jakarta (99.86%). While the province with the lowest percentage was Papua (64.92%). In addition, access to proper drinking water for Southeast Sulawesi was 91.94% [6].

The percentage of families with access to healthy latrines in Indonesia in 2021 was 86.1%. The province with the highest percentage of families with access to healthy latrines is the Special Region of Yogyakarta (100%). The province with the lowest percentage was Banten (3.7%). Meanwhile, Southeast Sulawesi Province had access to healthy jamb sanitation (89.4%) [4].

Unfulfilled environmental sanitation will cause environmental changes to become worse, causing an increase in disease development. In order to prevent an increase in the incidence of disease, it is necessary to provide basic sanitation facilities such as

clean water, use of latrines, wastewater disposal, and garbage disposal, and cultivate clean and healthy behavior in everyday life [2].

An unhealthy home environment is a risk factor for various diseases, especially environmental-based diseases. Diarrheal disease is an environment-based disease that has 3 dominant factors. The main factor is clean water, and another factor is the disposal of feces and waste. If these three factors interact with bad human behavior, they cause diarrheal disease [7].

2. Methods

This study used descriptive quantitative to describe access to clean water facilities and family latrines supported by secondary data from the Sanggona Public Health Center, Uluiwoi District, East Kolaka Regency.

3. Results

3.1. Characteristics of Respondents

TABLE 1: Total Population based on Gender in Uluiwoi District in 2021.

| Village | Gender | | Age Group | | | Total of Families |
|------------------|--------|-------|-----------|-------|-----|-------------------|
| | Men | Women | 0-14 | 15-64 | >65 | |
| Aukora | 116 | 111 | 52 | 165 | 10 | 78 |
| Uete | 343 | 336 | 148 | 498 | 33 | 240 |
| Tondowatu | 398 | 399 | 221 | 542 | 34 | 257 |
| Sanggona | 419 | 406 | 187 | 603 | 35 | 266 |
| Lalombai | 175 | 137 | 80 | 221 | 11 | 105 |
| Undolo | 216 | 213 | 92 | 313 | 24 | 124 |
| Tawanga | 415 | 366 | 195 | 562 | 24 | 246 |
| Amolulu | 172 | 180 | 81 | 249 | 22 | 113 |
| Amokuni | 105 | 91 | 48 | 138 | 10 | 67 |
| Pehanggu | 223 | 196 | 117 | 284 | 18 | 127 |
| Uluiwoi District | 2582 | 2435 | 1221 | 3575 | 221 | 1623 |

Source: Central Bureau of Statistics of East Kolaka Regency, 2022

Based on Table 1, the total population based on Village and Gender in Uluiwoi District is 5017 residents consisting of 2582 men and 2438 women. The population based on village and age group 0-14 in Uluiwoi District is 1221 residents, 3575 residents in the

age group 15-64, and 221 residents in the age group >65 years. The number of families by Village in Uluiwoi District is 1623 families.

3.2. Clean Water Facilities

TABLE 2: Clean Water Facilities based on the Number of Samples in the working area of Sanggona Public Health Center in 2022

| No. | Type of Facilities | Samples | Contamination Risk Level | | |
|-------|--------------------------|---------|--------------------------|---|---|
| | | | R | S | T |
| 1. | Dug Wells | 19 | 18 | 1 | 0 |
| 2. | Drilled Wells with Pumps | 1 | 1 | 0 | 0 |
| 3. | Non-Processing Piping | 2 | 2 | 0 | 0 |
| Total | | 22 | 21 | 1 | 0 |

Source: Secondary Data of Sanggona Public Health Center, 2022

Based on Table 2, the types of clean water facilities in the working area of Sanggona Public Health Center consist of dug wells, drilled wells with pumps, and non-processing piping. Based on the table, the level of contamination risk in dug wells by 94.7% of the number of dug well facilities examined is included in the low category, and 5.3% is included in the medium category. In drilled wells with pumps and non-processing pipelines, the total number of facilities inspected is included in the low contamination risk level category.

3.3. Family Latrines

Table 3 shows the number of latrine owners in Uluiwoi District, 97.6% of the houses had latrines that met the requirements, and 2.4% of the houses had latrines that did not meet the requirements.

4. Discussion

4.1. Clean Water Facilities

Water is one of the basic needs needed by humans. The water used by humans every day is closely related to health. If the sources and health standards are not considered, then water can be a medium for spreading disease [1].

TABLE 3: Total Latrine Ownership based on the Number of Houses in Uluiwoi District in 2022.

| No. | Name of Villages | Family Latrines Condition | |
|-----|------------------|---------------------------|-----------------------------|
| | | Meet the Requirement | Do Not Meet the Requirement |
| 1. | Aukora | 28 | 1 |
| 2. | Uete | 89 | 1 |
| 3. | Tondowatu | 98 | 4 |
| 4. | Sanggona | 130 | 0 |
| 5. | Lalombai | 89 | 0 |
| 6. | Undolo | 68 | 3 |
| 7. | Tawanga | 80 | 0 |
| 8. | Amolulu | 75 | 4 |
| 9. | Amokuni | 21 | 3 |
| 10. | Pehanggu | 60 | 2 |
| | Total | 738 | 18 |

Source: Secondary Data of Sanggona Public Health Center, 2022

The provision of clean water facilities is one of the efforts that can be made to improve public health status. Good quality water needs to be provided as a basic fulfillment of human life needs. Unclean water can transmit various diseases, such as water-borne diseases or transmitted through water [2].

The types of clean water facilities used in the working area of Sanggona Public Health Center consist of dug wells, drilled wells with pumps, and non-processing piping. Based on the type of clean water facilities examined, most of the conditions of clean water facilities (94.7%) had a low level of contamination risk. Moreover, some of the conditions of clean water facilities (5.3%) in dug wells were still in the medium category at contamination risk level [9].

The use of clean water sources greatly affects the incidence of disease. This is because water is a very important element in the aspect of public health, which can be a source, breeding ground, and medium for disease germs [10]. Rahman et al research (2018) shows 52,9 % of canteen facilities have not fulfilled the standard of clean water, this could lead to many problems due to clean water health that have not fully covered health standards [11].

4.2. Family Latrines

The respondents in the family latrine conditions who met the requirements in the working area of Sanggona Public Health Center were 738 houses (97.6%). The respondents

in the family latrines category who met the requirements were those with gooseneck latrines. Meanwhile, the family latrines category respondents who still needed to meet the requirements were those with cemplung latrines, namely 18 houses (2.4%) [9].

Based on this, it shows that almost all houses in the working area of Sanggona Public Health Center already have latrines with conditions that meet the requirements. However, there are still some houses that still use latrines that still need to meet the requirements. Therefore, the condition of houses with family latrines that do not meet the requirements can be included in the category of fulfilling the requirements and being suitable for use in the future. This is because the condition of the unsanitary latrines, in this case, does not meet the requirements and can cause various kinds of diseases, one of which is diarrhea, one of the 10 highest diseases at the Sanggona Public Health Center.

Healthy latrines are family sanitation facilities that must be owned by every household. Environmental sanitation problems in residential areas, especially in the disposal of feces, can cause various health problems, such as diarrhea, which is the second cause of death in toddlers worldwide [12].

According to the 5 Pillars of CBTS (Community-Based Total Sanitation) Guidelines, a healthy latrine is a latrine that meets building criteria and health requirements. The health requirements in question are not causing the spread of materials that are harmful to humans due to the disposal of human waste and can prevent carrier vectors from spreading disease to users and the surrounding environment. A latrine building is called healthy if it meets the criteria for a healthy latrine building which consists of a building over the latrine (walls and/or roof) to protect users from weather and other disturbances and the middle building of the latrine, a goose neck-shaped manure hole. In areas where water is scarce, holes can be made without a gooseneck but must be covered. The floor of the latrine is made of waterproof, non-slippery material and has a channel for draining used water into the Wastewater Disposal System (WWDS). The lower building functions as a container, processor, and decomposition of feces. The substructure can be a septic tank or a pit. Cubluk may only be used in rural areas with low population density and water shortages [4].

5. Conclusion

The types of clean water facilities used in the working area of Sanggona Public Health Center consist of dug wells, drilled wells with pumps, and non-processing piping. Based on the type of facility, the contamination risk level is 94.7%, including dug wells, drilled wells with pumps, and non-processing piping with a low pollution risk. Moreover, some of the conditions of clean water facilities (5.3%) in dug wells were still in the medium category at contamination risk level [9]. As a suggestion, with the existence of a small number of clean water facilities that still have a moderate risk of contamination, namely dug wells, the community should make repairs and pay attention to dug well facilities that still have a risk of contamination, especially the distance to the disposal site (septic tank), which is close to clean water facilities and do not meet health requirements. Meanwhile, 97.6% of the latrine conditions in the working area of Sanggona Public Health Center have met the requirements, which is a gooseneck latrine model, and 2.4% still need to meet the requirements, which is a cemplung latrine model. Therefore, it is hoped that the community can understand that the cemplung latrine model is a type of latrine that does not meet the requirements and can cause disease due to the environment. Based on this case, the role of health workers and related parties is also needed to provide socialization or counseling regarding the importance of healthy latrines to increase public knowledge and encourage the community to make improvements to community latrines that do not meet the requirements.

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