Evaluation of the Implementation of Community-Based Total Sanitation Program (STBM) With Diarrhea

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Abstract
Community Based Total Sanitation (STBM) is a method of changing sanitation behavior by empowering the community through the use of the triggering method. The STBM program has been implemented in Batu Bara Regency, especially the Tanjung Tiram Health Center. The purpose of this study was to evaluate a community-based total sanitation program with the incidence of diarrhea in Batu Bara Regency (Case Study of Tanjung Tiram Health Center, Tanjung Tiram District). The type of research used is descriptive qualitative with a case study design as a whole, the location of this research is in Batu Bara Regency (case study of Tanjung Tiram Health Center, Tanjung Tiram District). The informants in this study consisted of 5 respondents (Head of Environmental Health Section, Manager of Environmental Health Program of the Health Office, Head of Public Health Center, Manager of Environmental Health Program of Public Health Center and Village Head). The results of the study were seen from the input factors (human resources, funds and facilities and infrastructure were not sufficient), process factors (planning, organization were not adequate while the implementation had been carried out from starting from triggering to verification of stopping open defecation, but after Monev was carried out it had not happened changes), the output factor (there has been no increase in access to sanitation in the Tanjung Tiram Health Center work area) and the outcome factor (there has been no decrease in diarrhea cases in the Tanjung Tiram Health Center area).

Introduction
Diarrhea is caused by bacteria, viruses or parasites that infect the stomach or intestines, the specific germs involved depend on the geographic area, level of sanitation and hygiene. The incidence of diarrhea is influenced by several factors including environmental conditions, community behavior, community services, nutrition, population, education and socio-economic conditions (Selviana et al., 2017; Giorgi et al., 2020). Diarrhea is a disease that causes child mortality and morbidity in the world (Nurhastuti, 2019).

Diarrhea affects the death of a number of people around the world (Monica et al., 2021). Habits such as open defecation and low hand washing habits without soap can increase stunting cases and increase the frequency of diarrhea (Desyanti & Nindya, 2017).

Worldwide, diarrheal diseases affect 5 billion people annually, accounting for nearly 10 million deaths in developing countries. A report released by the United Nations Children's and the
World Health Organization indicates that diarrhea kills around 1.5 million children under 5 years of age each year (Diarrhe Red Glags Anatomic Essentials, 2019).

Based on data from the Indonesia Health Profile in 2019, the age group with the highest prevalence of diarrhea (based on the diagnosis of health workers) was in the 1-4 year age group at 11.5% and in infants at 9%. The age group of 75 years and over is also the age group with a high prevalence (7.2%). The prevalence in women, rural areas, low education, and fishermen is relatively higher than in other groups. The prevalence of diarrhea in children under five (based on diagnosis by health workers) is 11% with a disparity between provinces between 5.1% (Riau Islands) and 14.2% (North Sumatra) (Fay, 1967).

Meanwhile, based on the Health Profile of North Sumatra in 2019, the number of diarrhea sufferers of all ages served was 177,438 people or 45.13%, a decrease compared to 2018 which was 214,303 people or 55.06%, in 2017 there were 180,777 people or 23.47%, and in 2016 as many as 235,495 people or 30.92% of the estimated diarrhea in health facilities. In 2019 the number of children with diarrhea under five who were served was 70,243 people or 27.74%, there was a decrease in cases compared to 2018 which was 86,442 people or 33.07%. In 2019, cases of diarrhea were found in districts/cities with the largest coverage of diarrhea for all ages, namely Pakpak Bharat Regency, which was 1,895 people or 143.43% (exceeding the target case finding rate which was estimated at 10%). Humbang Hasundutan Regency as many as 5,632 people or 109.68%. For cases of diarrhea under five, namely West Nias Regency as many as 1,639 people or 93.95% and Padang Lawas Regency as many as 4,310 people or 67.60% (Sumatera Utara, 2019).

Based on the results of a preliminary survey at the Batu Bara District Health Office on June 23, 2021, diarrhea cases in 2015 amounted to 17,038 sufferers (Bara, 2015), In 2016 there were 22,464 sufferers (Bara, 2016), in 2017 amounted to 4,580 sufferers (Bara, 2017), In 2018 there were 9,685 patients (Bara, 2018), in 2019 there were 1,354 sufferers (Bara, 2019) and in 2020 there are 5,169 sufferers (Bara, 2020).

Meanwhile, access to sanitation pillar 1 (one) in Batu Bara Regency in 2020 reached 74 percent or only 43 villages that have stopped open defecation. Meanwhile, one of the targets for the Sustainable Development Goals (SDGs) is the elimination of open defecation (BABS) (Kemenkes RI, 2015).

Activities that have been carried out by the Batu Bara District Health Office in an effort to increase access to sanitation are the triggering of Community Led Total And Sanitation (CLTS), Hand Washing with Soap (CTPS) Campaign for Elementary School (SD) children and equivalent, Community-Based Total Sanitation Program Socialization (STBM) both at the village and district levels, both to the community and village officials.

**Methods**

This research was carried out using qualitative research methods to analyze how the implementation of a community-based total sanitation program with diarrheal disease incidence in Batu Bara District (Case Study of Tanjung Tiram Health Center, Tanjung Tiram District) was carried out. The problem approach is carried out by descriptive analysis by conducting in-depth interviews with informants and literature studies, thus it is hoped that this research can dig deeper into the implementation of community-based total sanitation programs by reducing the incidence of diarrheal disease in Batu Bara Regency (Case Study of Tanjung Tiram Health Center, Tanjung District Oyster). The main informants are those who are directly involved in the community-based total sanitation program to reduce diarrheal disease. The main informants in this study were the manager of the environmental health program of the Health Office, the head of the puskesmas and the manager of the environmental health program (Puskesmas Tanjung Tiram, Tanjung Tiram District). in their respective villages. The
supporting informants in this study were representatives of the village community in the working area of the Tanjung Tiram Health Center.

**Results and Discussion**

**Characteristics of informants**

The informants of this study were eight people consisting of the Head of the Batu Bara District Health Office, one manager of the health service program, three heads of the puskesmas and three managers of the puskesmas program.

Table 1. Description of Informants

<table>
<thead>
<tr>
<th>No.</th>
<th>Initials</th>
<th>Age</th>
<th>Gender</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LP</td>
<td>38th</td>
<td>Woman</td>
<td>Head of environmental health section</td>
</tr>
</tbody>
</table>

**Main Informant**

<table>
<thead>
<tr>
<th>No.</th>
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<th>Age</th>
<th>Gender</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>MW</td>
<td>36th</td>
<td>Woman</td>
<td>Health service program manager</td>
</tr>
<tr>
<td>3</td>
<td>AW</td>
<td>45th</td>
<td>Man</td>
<td>Head of TT Center</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>45th</td>
<td>Woman</td>
<td>TT environmental health program manager</td>
</tr>
</tbody>
</table>

**Supporting Informant**

<table>
<thead>
<tr>
<th>No.</th>
<th>Initials</th>
<th>Age</th>
<th>Gender</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>P1</td>
<td>49th</td>
<td>Man</td>
<td>Village head</td>
</tr>
</tbody>
</table>

The key informants in this study amounted to 1 person, namely the head of the environmental health, occupational health and sports section, Mrs. Lisdauli Purba, age 38, female, while the main informants in this study were 3 people, namely Ibu Indah Wulan, age 36, female, both Mr. Andi is 45 years old, male, the three Imus mothers are female, Then the supporting informant, Mr. Asnawi, 49 years old, is male.

The results of in-depth interviews that the existing human resources at the Batu Bara District Health Office, especially the environmental health program, are still lacking, and at the Public Health Center there is still a shortage although there are health workers who are basically midwives, but even so the puskesmas has provided training to be able to know about the field of health, environment, especially community-based total sanitation.

Based on the results of interviews obtained by researchers to the main core informants and supporting informants regarding the input factors (Funds) on the incidence of diarrhea in Batu Bara Regency, it is known as follows:

The results of in-depth interviews that the existing funds for STBM, especially for environmental health programs, still do not have funds that are specifically for making STBM for the community, from the health office and the head of the puskesmas confirm this, because funds for environmental health programs are still not available. The puskesmas has provided and the parties concerned have coordinated with each other the issue of the funds for sanitation and other activities.

The results of in-depth interviews that the existing facilities and infrastructure for STBM, especially the environmental health program from the health department and the head of the puskesmas confirmed this, the environmental health program, especially the STBM program, only had a septic tank mold facility and that not all puskesmas were there and there was only 1 mold. The existing septic tanks and septic tank molds are only for land areas, while for water or sea areas there are no facilities. There are no two-wheeled official vehicles for environmental health program management officers.

The results of in-depth interviews that the existing planning for STBM, especially the environmental health program from the health office and the head of the puskesmas confirmed this, the environmental health program, especially the STBM program. The implementation of
the stop open defecation has been running in 2 health centers starting from triggering to SBS verification and this was done before the Covid-19 outbreak after Covid-19 had never had any activities related to STBM due to the large amount of funds being refocused.

The results of in-depth interviews that the existing facilities and infrastructure for STBM, especially the environmental health program from the health office and the head of the puskesmas confirmed this, all SKPD or related institutions both at the district and sub-district levels. The results of in-depth interviews that the existing implementation for STBM, especially the environmental health program from the health office and the head of the puskesmas confirmed this, the environmental health program, especially the STBM program, only had SBS triggering in the work area of the Tanjung Tiram Health Center as well as in the Pagurawan puskesmas work area. done only.

The results of in-depth interviews that the implementation of post-triggering monitoring has also been carried out. When the village has done the triggering and only a few people have changed to defecate in the latrine and the rest are still normal, namely defecating in any place.

The results of in-depth interviews that the overall improvement in sanitation access after the STBM program has certainly increased but not in the working area of the Tanjung Tiram and Pagurawan Health Centers but has increased in the work areas of other health centers, before the STBM program there were no villages declared to stop open defecation after the STBM program there is a data that states that there are 50 villages that stop open defecation, which are scattered in several working areas of the puskesmas.

Based on the results of in-depth interviews conducted on the main informants based on the decrease in diarrhea cases. which is the implementation of health program activities with the implementation of environmental health programs that have been carried out in several places. The outcome is a decrease in diarrhea cases in several puskesmas areas except for the Tanjung Tiram and Pagurawan health centers, this is not because the STBM program is not running but because of geographic and community economic factors.

Based on the results of in-depth interviews conducted with the main informants, it is stated that what influences the success of policy implementation is human resources. The Batu Bara District Health Office which has environmental/sanitarian health personnel is only 3 health centers out of fifteen existing health centers. Likewise, the Health Service still lacks manpower to support STBM activities.

According to the researcher, one of the main tasks and functions is managing the STBM pillar one program. With conditions that often occur at the level of program implementers in Batu Bara Regency, which on average have staff in charge and assistant program implementers with graduates who are not from the health sector.

Based on the results of in-depth interviews conducted on key informants based on Organizing. Organization that is able to run health program activities by organizing environmental health programs is still lacking. The results of in-depth interviews that the existing facilities and infrastructure for STBM, especially the environmental health program from the health office and the head of the puskesmas confirmed this, all SKPD or related institutions both at the district and sub-district levels.

One of the reasons for not implementing commitments with the community regarding the STBM program. If seen in the regulation of the Minister of Health of the Republic of Indonesia in Article 13 The increase in sanitation needs as referred to in paragraph (2) is an effort to increase community needs towards changes in hygienic and sanitary behavior. sanitation, the government must pay more attention to the community and need to add facilitators with the aim of increasing community motivation in improving independent sanitation and the
community needs to get an award for changes in behavior with the aim of increasing motivation or enthusiasm in realizing a clean and healthy living environment.

Based on the results of in-depth interviews conducted with key informants based on implementation, which is the implementation of health program activities with the implementation of environmental health programs that have been carried out in several places. The environmental health program, especially the STBM program, is only available. The SBS triggering implementation in the Tanjung Tiram Health Center has been carried out as well as in the Pagurawan Health Center work area.

Based on the results of in-depth interviews conducted with key informants based on monitoring and evaluation, which is the results of the achievements and results that will be obtained in the program, especially the running of health program activities with monitoring and evaluation of environmental health programs that have been carried out in several places. In the working area at the Tanjung Tiram Health Center, they have started to carry out this activity, because indeed the lurah and village head are also quite alert and responsive so that the community can feel safe and comfortable, and clean water sanitation and latrines for these villages will be implemented if the people care and take part in this. The results of in-depth interviews that post-triggering monitoring has also been carried out. When the village has done the triggering and only a few people have changed to defecate in the latrine and the rest are still normal, namely defecating in any place.

The general monitoring mechanism by the community aims to monitor community defecation behavior. The ngantang community has also implemented the general monitoring mechanism. For the community in Pujon sub-district, there is no general monitoring mechanism by the community. While the fourth indicator in the ODF status is the existence of a general monitoring mechanism made by the community to achieve 100% of HHs having healthy latrines. The last indicator is a clear effort or strategy to achieve overall cleanliness. If Pujon sub-district wants to achieve ODF status, it must maintain the success of the first indicator and increase efforts to achieve the second, third, fourth and fifth indicators of ODF status. After being able to achieve the five ODF indicators, it is required to carry out ODF verification activities that can be carried out by health workers, cadres and local governments who are members of the verification team to ensure that the community's ODF status is collectively free from open defecation.

Based on the results of in-depth interviews conducted with key informants based on Improved access to sanitation, which is the implementation of health program activities with the implementation of environmental health programs that have been carried out in several places. The results of in-depth interviews that the overall improvement in sanitation access after the STBM program has certainly increased but not in the Tanjung Tiram health center work area but increased in other health center work areas, before the STBM program there were no villages declared to stop open defecation after the STBM program there were already tens of stated that there were 50 villages that stopped open defecation, spread over several working areas of the puskesmas.

The development of sanitation in terms of improving sanitation in several villages has already been implemented. The development of this sanitation is really necessary to help the community create a clean and healthy environment. From the community side, sanitation development technology has not been running because there is limited public knowledge about sanitation technology, lack of community knowledge about sanitation development technology.

Based on the results of in-depth interviews conducted on the main informants based on the decrease in diarrhea cases. which is the implementation of health program activities with the implementation of environmental health programs that have been carried out in several places. The outcome is a decrease in diarrhea cases in several puskesmas areas except for the Tanjung
Tiram and Pagurawan health centers, this is not because the STBM program is not running but because of geographic and community economic factors.

The program to reduce the number of diarrhea has decreased according to data obtained from interviews, in several sub-districts there is a clear strategy to achieve total sanitation. However, the level of malaria cases is still quite high starting from 2018 partly not supported by special activities as an effort or strategy carried out by facilitators and the government in implementing the program to reduce the number of diarrhea for this is the achievement of total sanitation.

**Conclusion**

Based on the results of the observation sheet, there are still some that are inadequate, both human resources, funds, facilities and infrastructure, there are still many, namely facilities and infrastructure for examples of vehicles for STBM officers. In addition, the highest number is that there is no technical guidebook, namely there are 7 informants who said they were not in the activity. The Batu Bara District Health Office should plan the human resource needs of the Environmental Health program for each puskesmas, and also pay attention to budgeting funds for STBM activities in the Puskesmas area and pay attention to or provide solutions for appropriate technology in the work area of the puskesmas in particular to achieve the national target, namely 100-0-100.

**References**


