ISSN. 2338-7475
E-ISSN. 2620-7869
Hearty
Jurnal Kesehatan Masyarakat
Beriman, Tulus, Sepenuh Hati,Berbesar Hati, Jujur, Sehat dan Kuat
Vol. 14 No. 3, Juni 2026, Hal. 685-691

ANALYSIS OF THE ACHIEVEMENT OF STOPPING OPEN DEFECATION (BABS) IN URBAN AND COASTAL AREAS IN MEDAN CITY

Meutia Nanda, Imsakina Nayla *, Rianda Fadila Nasution, Yusnidar Sari Mutiara, Salshabilla April Lea, Linda Liswana Nasution, Nurul Zahra
Fakultas Kesehatan Masyarakat, Universitas Islam Negeri Sumatera Utara
Jl. Lapangan Golf, No.120, Tuntungan. Kecamatan Pancur Batu. Kabupaten Deli Serdang. Sumatera Utara, Indonesia
Email: *imsakinanayla1@gmail.com*

Abstract

Achievement of Stop Open Defecation (BABS), as the first pillar of Community-Based Total Sanitation (STBM), in coastal and urban areas of Medan City. Stop BABS is a key indicator of the success of the STBM program in achieving Open Defecation Free (ODF) status in villages/sub-districts. This study aims to analyze the achievement of Stop BABS in Medan City, namely urban and coastal areas. The problems encountered in the Stop BABS study are Behavioral issues, Facilities and Infrastructure and Equipment (no proper and safe septic tank suction equipment). This study uses a qualitative method with a descriptive analysis approach. Secondary data was collected from the Medan City Health Office through the STBM progress report for the third quarter of 2025. The results showed a disparity between sanitation achievements from Stop Defecation in urban and coastal areas. Issues encountered in the Stop Defecation study included behavioral issues, facilities, infrastructure, and equipment. Urban areas achieved a Stop Defecation rate of 96.42%, exceeding the national target of 80%. However, coastal areas only achieved 70%, with Belawan and Sicanang Villages still at 0% in Stop Defecation achievement. Conclusion: The disparity in achievement between regions indicates the need for more intensive interventions in coastal areas, particularly in providing basic sanitation facilities and increasing public awareness.

Keywords: Community-Based Total Sanitation, Stop Open Defecation

Introduction

Community-Based Total Sanitation (STBM) is an approach with a simple facilitation process that can change old attitudes, the obligation of sanitation to the responsibility of the community. With one belief that clean, comfortable and healthy conditions are natural human needs. Community-based total sanitation (STBM) sanitation efforts based on the Regulation of the Minister of Health of the Republic of Indonesia Number 3 of 2014 concerning Community-Based Total Sanitation (STBM) which consists of five pillars, namely; 1) stop defecating in the open, 2) washing hands with soap, 3) managing drinking water and household food, 4) securing household waste, and 5) securing household liquid waste. (Yudavi et al., 2023).

Indonesia's growing population has led to a serious problem of open defecation. Indonesia has the second highest prevalence of open defecation in the world, after India. Human waste is disposed of in ditches, gutters, terraces, grasslands, forests, rivers, lakes, or other open spaces, thereby polluting the water system. Open defecation can increase the risk of transmitting diarrhea and other childhood diseases in Indonesia. (Irawati, 2022).

The World Health Organization (WHO) states that open defecation poses a serious risk to public

Submitted: December-2025 Received: April-2026 Available Online: Juni-2026

health because it can contaminate drinking water sources. This contamination can lead to the spread of diseases such as cholera, diarrhea, and dysentery. Furthermore, people, especially women and girls, who practice open defecation experience feelings of shame, loss of personal dignity, and increased safety risks. Since 2000, the number of people practicing open defecation has decreased by 68%. However, approximately 420 million people, or 5% of the global population, still defecate in fields, forests, water bodies, or other open spaces. (Kashiwase, 2023)

The Indonesian government faces significant challenges in ending open defecation (OPD), a practice that has significant negative impacts on health and the environment. Despite the intensive implementation of the Community-Based Total Sanitation (STBM) program, data on the Stop Defecation behavior, which is part of the effort to achieve Open Defecation-Free (ODF) villages/sub-districts, shows that the adoption rate remains very low, particularly in urban areas, where it has only reached 1.56%, and in rural areas, it is slightly higher at 5.54%. These low figures indicate that the majority of people, especially in rural areas, still rely on open defecation facilities or do not have access to adequate, healthy latrines, leaving them at high risk of disease transmission. (BPS, 2024).

Capaian Pemerintah berupa Open defecation Free di harapkan bisa tercapai, yaitu 100% Guaranteed clean water for the community, 0% for slums, and 100% guaranteed public sanitation. It is hoped that all stakeholders can work together to achieve the access that has been planned by the government. The issue of access to sanitation, particularly public access to the use of latrines, has not shown any significant signs of progress, even though sanitation is a crucial element for improving public health, which ultimately leads to improved public welfare. (Luluk Fauziyah et al., 2022).

A well-maintained sanitation system plays a crucial role in preventing pandemics or outbreaks. According to Deputy Minister of Health Prof. Dante Saksono Harbuwono, the Black Death pandemic, or bubonic plague, which was carried by rat fleas from 1347 to 1352 and killed millions of people in Europe, Asia, and North Africa, was caused by poor sanitation. The Deputy Minister emphasized that the healthy sanitation movement is not an individual effort, but a collective community effort and a multi-sectoral effort involving collaboration between various parties, including the Ministry of Transportation, the Ministry of Public Works and Public Housing, the National Development Planning Agency (Bappenas), and the Ministry of Home Affairs. (Kementerian Kesehatan Republik Indonesia, 2024).

Based on the influence of sanitation access on Stop Defecation, the first pillar of STBM, it was found that there was a relationship between sanitation access and the number of defecation in coastal areas and in urban areas, correlated with a p-value of 0.001, which means there is a significant correlation. In addition, an R value of 0.786 was obtained, which means a very strong relationship between the two variables because 0.786>0.76. However, the comparison in KK BABS which is still quite high in the coastal area is caused by several things where access to facilities and sanitation access that has an impact on defecation behavior. In contrast to urban areas in Medan Perjuangan, access to appropriate facilities and access that has reached an average of >80% in several sub-districts, although there are still some recorded figures for defecation behavior. Thus, the comparison of the two areas with the number of defecation behavior that is still recorded is influenced by access to sanitation and facilities in the community. (Sinambela et al., 2024).

Although STBM is a national program, its implementation and achievements vary widely at the regional level, including in Medan City. The national target of stopping open defecation in coastal areas has not yet reached the 80% target, influenced by geographic, socioeconomic, and residential density conditions. Therefore, research focusing on these two regions is important to determine the extent of the achievement of Stop Open Defecation (Pillar I of STBM). This study uses qualitative secondary data from the Medan City Health Office in 2025.

This study aims to analyze the achievement of Stop Open Defecation (BABS) in Medan City, namely urban and coastal areas. The results of the study indicate that there are differences between the

sanitation achievements of Stop BABS in urban and coastal areas. These results will provide data-based information regarding the effectiveness of the program and identify which areas most require more targeted and specific health policy interventions. There are differences between urban and coastal areas in Medan City, where urban areas have reached 96.42% while coastal areas have only reached 70%, even some sub-districts such as Belawan and Sicanang Sub-districts are still at 0%. This raises the issue of the extent to which sanitation access can achieve the National Stop BABS program target in both areas.

Method

This study used a descriptive qualitative method. It aimed to analyze the achievement of Open Defecation Prevention (ODT) in coastal and urban areas. The data used is secondary data derived from progress data for the third quarter of 2025. Urban area data was obtained from several sub-districts in Medan City consisting of Tuntungan Sub-district, Medan Johor Sub-district, Medan Amplas Sub-district and West Medan Sub-district with a total of 8 Community Health Centers, namely Tuntungan Health Center, Simalingkar Health Center, Johor Health Center, Kedai Durian Health Center, Amplas Health Center, Glugur City Health Center, Pulo Brayan Health Center and Sei Agul Health Center then there are from coastal areas namely Medan Deli Sub-district, Medan Labuhan Sub-district, Medan Marelan Sub-district and Medan Belawan Sub-district with a total of 8 Community Health Centers, namely Medan Deli Health Center, Medan Labuhan Health Center, Pekan Labuhan Health Center, Martubung Health Center, Terjun Health Center, Rengas Health Center. The STBM achievement target according to the public health program indicator guidelines in the RPJMN and Renstra 2020-2025 is 80%.

Results

Open defecation is a global issue that causes serious negative consequences for public health and the environment. Local culture, social institutions, and the interaction between local and global cultures play a significant role in shaping public awareness and behavior regarding sanitation. Cultural factors such as norms, values, and beliefs, as well as social institutions such as family, education, and business, have a significant influence on sanitation perceptions and practices. Furthermore, the interaction between local and global cultures also influences public awareness of proper sanitation, while regional cultural differences influence it.

Health development emphasizes preventive and promotive community efforts by directing towards increasing awareness, changing knowledge and attitudes of the community so that they know, want and are able to maintain and improve their health status. Regulation of the Minister of Health of the Republic of Indonesia Number 3 of 2014 concerning Community-Based Total Sanitation (STBM) by strengthening efforts for clean and healthy living behavior, preventing the spread of environmentally-based diseases, increasing community capacity, and access to drinking water and basic sanitation. One of the points of the Minister of Health Regulation is Stop Open Defecation which is a condition when every individual in a community no longer engages in open defecation behavior that has the potential to spread disease. (Ikhtiar et al., 2023).

The government is striving to improve sanitation so that it can run well to support national commitments and achieve the targets of development agreements of countries in the world. Knowledge that greatly influences changes in defecation behavior. Changes in defecation behavior after the STBM trigger is carried out are very important, so it is hoped that the community, especially in Jenetallasa village, must continue to participate in counseling or activities from the health service to increase their knowledge and always maintain clean and healthy living behavior. The local government, especially

the district health service, continues to provide education to the community in maintaining the environment to avoid various diseases, especially those related to environmentally based diseases. (Marselina et al., 2021).

Table 1. Frequency Distribution of Stop Defecation in Urban Areas in Medan City

Health Center	Number of Subdistricts	number of family cards	Achievements of Sub-districts Achieving Stop Open Defecation	%
Tuntungan	6	5034	6	**100**
Simalingkar	3	11305	2	**67**
Medan Johor	3	7997	3	**100**
Kedai Durian	3	6840	3	**100**
Amplas	7	20001	7	**100**
Glugur Kota	2	2800	2	**100**
Pulo Brayan	2	6739	2	**100**
Sei Agul	2	8112	2	**100**
Total	**28**	**68828**	**27**	**96**

(Dinas Kesehatan Kota Medan, 2025)

Based on table 1 at the Tuntungan Health Center with a total of 6 sub-districts with a total of 5034 families with a frequency of 6 who did Stop BABS as much as 100%. At the Simalingkar Health Center in a total of 3 sub-districts with a total of 11305 families with a frequency of 2 who did Stop BABS as much as 66.66%. At the Medan Johor Health Center with a total of 3 sub-districts with a total of 7997 families with a frequency of 3 who did Stop BABS as much as 100%. At the Kedai Durian Health Center with a total of 3 sub-districts with a total of 6840 families with a frequency of 3 who did Stop BABS as much as 100%. At the Amplas Health Center with a total of 7 sub-districts with a total of 20001 families with a frequency of 7 who did Stop BABS as much as 100%. At the Glugur City Health Center with a total of 2 sub-districts, 2,800 families with a frequency of 2 carried out Stop BABS as much as 100%.

At the Pulo Brayan Community Health Center with a total of 2 sub-districts with 6739 families with a frequency of 2 who carried out Stop Defecation as much as 100%. At the Sei Agul Community Health Center with a total of 2 with a total of 8112 families with a frequency of 2 who carried out Stop Defecation as much as 100%. Based on table 1, it can be seen that almost all Community Health Center areas have achieved 100% Stop Defecation, such as the Tuntungan Community Health Center, Medan Johor Community Health Center, Kedai Durian Community Health Center, Amplas Community Health Center, Glugur City Community Health Center, Pulo Brayan Community Health Center, and Sei Agul Community Health Center. This shows that in these areas all heads of families have access to healthy latrines and do not practice open defecation.

Almost all Community Health Center areas have achieved 100% Stop Defecation Openly with an achievement of 96.428%, such as Tuntungan Community Health Center, Medan Johor Community Health Center, Kedai Durian Community Health Center, Amplas Community Health Center, Glugur Kota Community Health Center, Pulo Brayan Community Health Center, and Sei Agul Community Health Center. The STBM achievement target according to the public health program indicator guidelines in the RPJMN and Renstra 2020-2025 is 80%. This shows that in these areas the STBM target has been achieved according to the indicator guidelines, meaning all heads of families have access to healthy latrines and do not practice open defecation.

Open defecation (OD), or the practice of defecating in the open, is a detrimental behavior that can lead to health and environmental sanitation problems. Factors influencing this behavior include

knowledge, toilet ownership, and community habits. The government has created a community-based total sanitation (STBM) program to foster environmentally sound, clean and healthy living habits. The availability of healthy latrines is crucial, including to interrupt the transmission of fecal-oral pathogens. However, it must be accompanied by safe and sustainable sanitation technology, individual attitudes and social norms, and sanitation-related behaviors and interventions (Nandita et al., 2019).

Table 2. Frequency Distribution of Stop Defecation in Coastal Areas in Medan City

Health Center	Number of Subdistricts	number of family cards	Achievements of Sub-districts Achieving Stop Open Defecation	%
Belawan	3	17746	0	**0**
Sicanang	3	11846	0	**0**
Medan Labuhan	2	7455	2	**100**
Pekan Labuhan	2	8530	2	**100**
Martubung	2	17361	2	**100**
Terjun	3	21201	3	**100**
Rengas Pulau	2	9902	2	**100**
Medan Deli	3	28899	3	**100**
Total	**20**	**112940**	**14**	**70**

(Dinas Kesehatan Kota Medan, 2025)

Based on table 2 at Belawan Health Center with a total of 3 sub-districts with a total of 17746 families with a frequency of 0 who did Stop BABS as much as 0%. At Sicanang Health Center with a total of 3 sub-districts with a total of 11846 families with a frequency of 0 who did Stop BABS as much as 0%. At Medan Labuhan Health Center with a total of 2 sub-districts with a total of 7455 families with a frequency of 2 who did Stop BABS as much as 100%. At Pekan Labuhan Health Center with a total of 2 with a total of 8530 families with a frequency of 2 who did Stop BABS as much as 100%. At Martubung Health Center with a total of 2 sub-districts with a total of 17361 families with a frequency of 2 who did Stop BABS as much as 100%. At the Terjun Community Health Center with a total of 3 sub-districts with a total of 21,201 families with a frequency of 3 who carried out Stop BABS as much as 100%. At the Rengas Pulau Community Health Center with a total of 2 sub-districts with a total of 9,902 families with a frequency of 3 who carried out Stop BABS as much as 100%. At the Medan Deli Community Health Center with a total of 3 with a total of 28,899 families with a frequency of 3 who carried out Stop BABS as much as 100%. There are 70% of the Stop BABS Sub-districts in the coastal area of the Community Health Center area.

Based on the table, it can be seen that some Community Health Centers in coastal areas have achieved 100% Stop Defecation, such as Medan Labuhan, Pekan Labuhan, Martubung, Terjun, Rengas Pulau, and Medan Deli Community Health Centers, while 2 other sub-districts, namely Belawan and Sicanang, only achieved 0% with the overall achievement of coastal areas only 70%, which means it is still low because it is below the target achievement of 80%. This shows that coastal areas still need access to clean water, healthy, decent, safe toilet sanitation that is suitable for coastal areas, facilities and infrastructure that are in accordance with the provisions of decent/safe toilets.

Sanitation is an effort to control all human physical environmental factors that will cause things that are detrimental to physical development, health, and endurance. Implementation of the Regional Regulation of Hulu Sungai Utara Regency No. 4 of 2016 concerning the Stop Open Defecation Movement (BABS) in Banjang District (case study of Kalintamui, Kaludan Besar and Pelanjungan Sari Villages) Banjang Health Center, Hulu Sungai Utara is not good because there are conclusions related to technical difficulties faced in implementing this Regional Regulation such as Kalintamui Village regarding insufficient budget funds, Pelanjungan Sari Village which has difficulties due to a lack of

knowledge of this regulation in depth, and at the Banjang Health Center which has difficulties regarding the lack of cooperation between the village and the health center (Urahmah et al., 2022)

Prapat Tunggal Village in Bengkalis District, Riau, which is part of the coastal area, needs special attention for the STMB – Pillar 1 (Stop BABS) program with triggering activities for behavioral changes, assistance with facilities and infrastructure by providing proper sanitation and clean water sources for communal operations so that the community can use it together so that there is no contamination of diseases caused by inadequate basic sanitation. (Herniawati.Sudarto Edi.Ardiana, 2022).

Meanwhile, according to research (Aulia et al., 2021) Kamal Village is one of the villages with the lowest Community-Based Total Sanitation (STBM) achievement in Brebes Regency, with a 21% achievement. This low STBM target achievement indicates a lack of sanitation access in the village, which has the potential to worsen the quality of local community health and facilitate the transmission of various diseases. Open defecation practices are at 47%, residents with poor defecation habits are at 54.5%, education levels are at least elementary school at 16.7%, and residents without access to clean water are at 18.2%.

Sanitation is a fundamental aspect of human life and the pursuit of optimal health. Open defecation (BABS) behavior is highly dependent on available facilities and infrastructure, such as latrines. Ownership of healthy latrines and open defecation behavior are closely related. According to researchers, the lack of healthy latrines in Simangulappe Village is due to the limited land available for septic tanks. Some families have received toilet and cement assistance but have not been able to build latrines because their income is only sufficient for daily living. Others are limited by the limited location of their homes, particularly in the highlands and mountainous areas. Families with private latrines who still open defecation often experience defecation because a family member defecates while gardening, while there is no latrines available in the garden. (R. G. H. Sinambela, 2021).

The implementation of the STBM program, especially the Stop BABS pillar 1, must involve communication and guidance from the community and individuals, in collaboration with the government in order to improve sanitation behavior and empowerment in order to achieve the National target of 80% as an achievement indicator.

Conclusion

This study shows that there is an achievement of Stop Open Defecation (BABS) in urban and coastal areas. With the achievement of Stop BABS in Medan City has exceeded the National target (96.42%) indicating that the provision of adequate sanitation facilities and impact on changes in community behavior, while coastal areas show lower achievement (70%), where there are still coastal areas such as Belawan Village and Sicanang Village have not implemented Stop BABS at all (0%) where this result is still far from the STBM achievement target in accordance with the guidelines for public health program indicators in the RPJMN and Renstra 2020-2025 is 80%. This shows that access to healthy latrines and clean water is still a major challenge in coastal areas.

References

[1] Aulia, A., Nurjazuli, N., & Darundiati, Y. H. (2021). Perilaku Buang Air Besar Sembarangan (Babs) Di Desa Kamal Kecamatan Larangan Kabupaten Brebes. *Jurnal Kesehatan Masyarakat (Undip)*, *9*(2), 166–174. https://doi.org/10.14710/jkm.v9i2.29411

[2] BPS. (2024). Persentase Rumah Tangga yang Masih Mempraktikkan Buang Air Besar Sembarangan (BABS) di Tempat Terbuka menurut Provinsi dan Klasifikasi Desa - Tabel Statistik - Badan Pusat Statistik Indonesia. In *Bps*.

[3] Dinas Kesehatan Kota Medan. (2025). *Monitoring SBS dan 5 Pilar STBM TW III 2025*.

[4] Herniawati.Sudarto Edi.Ardiana. (2022). Penyuluhan Sanitasi Total Berbasis Masyarakat (STBM) Pilar 1 – Stop Buang Air Besar Sembarangan (BABS) di Kecamatan Bengkalis, Riau. *Jurnal Abdidas*, *1*(3), 149–156.

[5] Ikhtiar, M., Sididi, M., & ASRINA, A. (2023). *Kesadaran Masyarakat Menuju Stop BABS* (1 ed.). Nasmedia.

[6] Irawati, D. K. (2022). Faktor Risiko Buang Air Besar Sembarangan Di Indonesia. *Jurnal Keluarga Berencana*, *7*(2), 64–74.

[7] Kashiwase, H. (2023). *No TitleWorld Toilet Day: 420 million people are defecating outdoors*. World Health Organization.

[8] Kementerian Kesehatan Republik Indonesia. (2024). Sistem Sanitasi Lingkungan yang Sehat Langkah Awal Cegah Pandemi. In *Kementerian Kesehatan Indonesia*. https://kemkes.go.id/eng/sistem-sanitasi-lingkungan-yang-sehat-langkah-awal-cegah-pandemi

[9] Luluk Fauziyah, J., Fahlepi, R., & Cahya, T. (2022). *No TitlePROGRAM PEMBERDAYAAN MASYARAKAT KeBaS (KEGIATAN BEBAS BAB SEMBARANGAN) MENUJU DESA ODF (OPEN DEFECATION FREE)*. *VIII*(1).

[10] Marselina, E. E., Yusuf, A., & Juhanto, A. (2021). *Analisis Pengaruh Pemicu Terhadap Stop Buang Air Besar Sembarangan Pendahuluan*. *10*, 492–500. https://doi.org/10.35816/jiskh.v10i2.633

[11] Nandita, A., Respati, T., & Arief, F. (2019). *Faktor-Faktor yang Memengaruhi Pilar Stop Buang Air Besar Sembarangan pada Program Sanitasi Total Berbasis Masyarakat di Puskesmas Cikalong Kabupaten Tasikmalaya Open Defecation in the Community Led Total Sanitation Program at the Cikalong Health Center in Tasikmalaya*. *2*(2), 31–34.

[12] Sinambela, N. D., Saragih, E. F., Rahmadanty, D. A., Susilawati, S., Ramania Sabina, Dalimunthe, H. S., & Putri, D. A. (2024). Pengaruh Akses Sanitasi Terhadap Perilaku Stop Babs Pilar Pertama Stbm Di Kecamatan Medan Labuhan Dan Medan Perjuangan Di Kota Medan. *Prepotif : Jurnal Kesehatan Masyarakat*, *8*(3), 6915–6922. https://doi.org/10.31004/prepotif.v8i3.36469

[13] Sinambela, R. G. H. (2021). *DETERMINAN PERILAKU BUANG AIR BESAR KECAMATAN BAKTIRAJA KABUPATEN HUMBANG HASUNDUTAN TAHUN 2021*. *7*(2).

[14] Urahmah, N., Ulfah, R., & Riyanor. (2022). *SENTRI : Jurnal Riset Ilmiah*. *1*(3), 849–855.

[15] Yudavi, M. V., Fahrana, A., Lukita, T., & Pradana, C. (2023). *Gambaran Pengelolaan Kesehatan Lingkungan di Wilayah Kerja Dinas Overview Of Environmental Health Management In The Working Area Of The Surakarta City Health Office*. *1*(2), 48–51.