

Implementation of the Tuberculosis (TB) Program Management at Bontonompo 1 Community Health Center, Gowa

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Article Info	ABSTRACT
<p>Keywords: Tuberculosis Program Management Implementation Community Health Center</p>	<p>Tuberculosis (TB) remains a major public health problem in Indonesia, with the number of cases continuing to rise, including in Gowa District. Community Health Centers (Puskesmas) play a strategic role in case detection, treatment, and monitoring of TB patients. This study aims to evaluate the implementation of TB program management at Bontonompo 1 Community Health Center, Gowa, based on the management functions: planning, organizing, implementing, and controlling. The research used a descriptive qualitative approach. Data were collected through observations, in-depth interviews with four informants (the Head of the Community Health Center, TB program officer, TB cadre, and TB patient), as well as documentation in the form of case reports, health profiles, and activity photos. The results showed that TB program planning was carried out in a structured manner through the Health Planning Meeting (Musrenbangkes) and evaluation of the previous year's achievements. Strategies implemented included community education, early screening, close contact examination, and involvement of health cadres. Internal organization at the Community Health Center was well-structured with clear task distribution among program officers, laboratories, and cadres, although cross-sectoral coordination still needs to be strengthened. Program implementation followed national guidelines using DOTS and TOSS TB strategies, covering patient counseling, cadre assistance, and community education. The main challenges included low patient awareness, social stigma, and limited educational media. Program control was conducted through monthly patient monitoring, internal evaluation, and routine recording, although there were obstacles such as delays in reporting and cross-sector monitoring. In conclusion, the implementation of TB program management at Bontonompo 1 Community Health Center has been in line with national guidelines, but still faces challenges in organization and control.</p>
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INTRODUCTION

Tuberculosis (TB) remains a major global health challenge, with a total of 10.6 million cases reported in 2022, up from 10.1 million cases in 2021 (Y.I.W & Faidati, 2025). The disease continues to be a significant cause of morbidity and mortality, particularly in developing

countries. According to the WHO Global Tuberculosis Report (2023), Indonesia ranks second after India in terms of the highest number of TB cases worldwide. Nationally, TB is among the top five communicable diseases causing death, and thus has been designated as a key priority in health development (Ministry of Health of the Republic of Indonesia, 2021).

TB is an infectious disease caused by the bacterium *Mycobacterium tuberculosis*, which can affect various organs, including the lungs, spine, skin, brain, lymph nodes, and heart. TB transmission occurs through the air when an infected person coughs, sneezes, or talks without following recommended precautions.

Currently, Indonesia holds the second position globally in TB cases, with an estimated 824,000 new cases in 2022. The total number of TB patients in Indonesia reached 1,060,000, with 134,000 deaths per year. The TB treatment success rate in Indonesia has not yet met the global target of 87.5% of the 90% goal. This situation is worsened by the emergence of drug-resistant TB (TB RO), which requires longer treatment duration, higher costs, and has lower cure rates (Y.I.W & Faidati, 2025).

As part of TB control efforts, the Indonesian government issued Presidential Regulation No. 67 of 2021 on TB Control, which serves as a legal basis and guideline for healthcare workers. Several strategic programs have been implemented, including TOSS TB (Find, Treat, Until Cured), the DOTS strategy (Directly Observed Treatment Short-course), and BCG immunization. Indonesia has also committed to the WHO global "End TB Strategy," aiming to reduce TB incidence by 90% and TB mortality by 95% by 2030.

However, the implementation of these programs faces challenges across various service lines. According to (Sudirman et al, 2024), limited human resources and lack of coordination among units in Puskesmas Parigi are obstacles to program success. Meanwhile, Hasrita & Khairunnisa (2024) reported that weak monitoring mechanisms in Banda Aceh contribute to the low TB patient recovery rate.

According to the South Sulawesi Provincial Health Profile 2022, the number of pulmonary TB patients in Gowa Regency in 2021 was 1,012, and the number of TB cases increased significantly in 2022 to 11,778 cases, approximately a 40% rise compared to pre-pandemic figures (around 7,000 cases in 2019) (<https://www.antaraneews.com>).

Based on previous observations at Puskesmas Bontonampo 1 Gowa, the number of TB patients has continued to rise. In the working area of Puskesmas Bontonampo 1 Gowa, TB cases increased from 71 cases in 2023 to 92 cases in 2024 (Mutmainnah L, et al, 2025). To measure the number of TB cases reached by the program, the indicator known as Treatment Coverage (TC) is used. TB diagnosis is typically conducted through two sputum examinations, and patients diagnosed with TB receive counseling on treatment management over a six-month period.

In primary healthcare services, puskesmas play a key role in early case detection, treatment, monitoring patient progress, and providing community education. Evaluating the implementation of TB program management in puskesmas is essential to identify gaps in implementation, improve service quality, and accelerate the achievement of TB elimination targets. Therefore, evaluating the implementation of TB program management at Puskesmas Bontonampo 1 Gowa is necessary to analyze the management functions planning,

organizing, implementation, and controlling and provide recommendations for improving TB program management.

METHODS

This study used a descriptive qualitative approach with the aim of evaluating the implementation of TB program management at Puskesmas Bontonompo 1 Gowa. The research was conducted at Puskesmas Bontonompo 1 Gowa, selected due to the high number of TB cases in its working area compared to other health centers in Gowa Regency.

Data were collected using three methods: observation, interviews, and documentation. Observation involved visiting the research site to determine the number of TB cases and to observe the educational and treatment program activities carried out by the health center. In-depth interviews were conducted to explore the processes of planning, organizing, implementation, and control.

The informants in this study consisted of four individuals: the Head of Puskesmas Bontonompo 1, a TB program officer with in-depth knowledge of program implementation, a TB cadre who acts as a liaison between the health facility and the community, and TB patients both those still undergoing treatment and those who have completed it who could provide first-hand experiences regarding the treatment process. Documentation, including TB case reports, health profiles, and photos of field activities, was also used to strengthen the research data.

RESULTS AND DISCUSSION

Results

Program Planning

The TB control program at Puskesmas Bontonompo 1 Gowa is designed through several activities, including community education, early detection (screening), and contact tracing of TB cases. Educational activities are carried out through direct counseling at the health center, posyandu (integrated health post) meetings, and the distribution of leaflets.

Based on interviews with the Head of the Puskesmas and TB program officers, TB program planning at the health center is conducted in a structured manner at the beginning of each year through the Health Planning Deliberation (Musrenbangkes). The Head of the Puskesmas explained:

"TB program planning is usually carried out at the beginning of the year through the health planning deliberation or Musrenbangkes. We also always evaluate the achievements of the previous year's program to determine priorities, such as increasing the coverage of new case detection, treatment success, and preventing treatment interruption." (Informant 1, May 2025).

The TB program officer added that the strategies applied to achieve program targets include strengthening TB screening in the community, conducting contact examinations, and involving health cadres in case detection. The officer stated:

"The strategies we have developed include strengthening TB screening in the community, conducting contact examinations, and involving health cadres in case

detection. Health cadres play a crucial role as a bridge between the Puskesmas and the community, including patients undergoing treatment." (Informant 2, May 2025).

Although systematic planning has been carried out, informants also revealed various challenges in its implementation. The Head of the Puskesmas stated:

"The challenges we often face are limited human resources, inadequate laboratory facilities, and restricted funding for field activities." (Informant 1, May 2025).

Based on the interviews, it can be concluded that TB program planning at Puskesmas Bontonompo 1 is structured and evaluation-based. The strategies implemented emphasize early screening, contact tracing, and the involvement of health cadres, although implementation still faces obstacles related to human resources, facilities, and funding. These findings form the basis for formulating program improvement recommendations, including enhancing human resource capacity, strengthening laboratory facilities, and providing more adequate funding allocation.

Program Organization

Based on interviews with the Head of the Puskesmas, TB program officers, and TB cadres:

Head of the Puskesmas :

"In managing the TB program, we try to clearly divide tasks so that each staff member knows their responsibilities. TB program officers are responsible for recording and reporting all patient data, as well as providing direct counseling to patients and their families. TB cadres act as a liaison between the Puskesmas and the community; they conduct educational outreach, supervise patients taking medication, and monitor patient adherence during the treatment period. We hold regular internal coordination meetings every month to evaluate program progress. However, for cross-sector coordination, such as with village authorities, schools, and community leaders, we still face several challenges, so this collaboration has not been fully optimal."

TB Program Officer :

"Our main duties focus on patient administration and counseling. We ensure that all patient data is properly recorded, including treatment schedules and follow-up results. In addition, we provide education about the importance of treatment adherence, symptoms to watch for, and ways to prevent TB transmission. Sometimes challenges arise when patients do not attend consistently, so we need to work with the cadres to remind them."

TB Cadre :

"We accompany patients to take their medication every day, ensuring they do not interrupt their treatment. We also conduct community education about TB, its transmission, and the importance of completing treatment. Our biggest challenge is the lack of support from village or school authorities. Sometimes, patients' families are unable to help monitor the TB treatment, so we have to be more proactive in reminding them." (Informant 3, May 2025).

In general, the internal organization of Puskesmas Bontonompo 1 Gowa is well-structured, with each staff member having a clear role. Internal coordination through regular

meetings runs smoothly; however, cross-sector collaboration still needs to be improved so that the TB program can reach the community more effectively and patient support can be maximized.

Program Implementation

Based on interviews with the Head of the Puskesmas, TB program officers, TB cadres, and TB patients:

Head of the Puskesmas :

"The implementation of the TB program at the Puskesmas always follows national guidelines using the DOTS strategy. We emphasize early case detection through screening chronic cough patients visiting the Puskesmas, examining close contacts of TB patients, and conducting home visits carried out by the cadres. We strive to ensure that no cases are missed. Once a patient is diagnosed with TB, we provide counseling on the importance of adhering to medication for six months. We also involve cadres or family members as companions to prevent patients from interrupting treatment."

TB Program Officer :

"Every patient diagnosed with TB is engaged in open discussion. We explain the risks of not completing treatment, including the dangers of drug resistance. We also monitor the patients' medication records and prepare regular reports. Challenges often arise because some patients do not fully understand the importance of treatment adherence or fear stigma from neighbors and family if their TB status is known."

TB Cadre :

"In the field, our duty is to accompany patients taking their medication every day. We also provide education about TB, its transmission, and the importance of completing treatment. The biggest challenge is social stigma. Some patients feel ashamed or fear being ostracized by neighbors once their TB status is known. Educational media in the field is also limited, so we need to be creative, for example by using simple posters or direct counseling at patients' homes."

TB Patient :

"At first, I felt scared and ashamed when the doctor told me I was positive for TB. I didn't want my neighbors to know because I feared being isolated. Initially, I was also reluctant to take medication daily because the side effects felt severe. But after the cadre came every day to accompany me and explain the importance of treatment, I started taking my medication regularly and continue to do so." (Informant 4, May 2025)

The interview results indicate that the implementation of the TB program at Puskesmas Bontonompo 1 Gowa follows national guidelines with the DOTS strategy, including screening, close contact examination, counseling, and patient accompaniment. The role of cadres and family members is crucial in supporting patient adherence. Existing challenges include low patient awareness, persistent social stigma, and limited educational media in the field. Internal support from the Puskesmas and collaboration with families has been proven to enhance treatment effectiveness; however, additional interventions are needed to reduce stigma and expand community education.

Program Control

Based on interviews with the Head of the Puskesmas, TB program officers, and TB cadres:

Head of the Puskesmas:

"The control of the TB program at our Puskesmas is carried out through several mechanisms. Every month, patients are asked to visit the Puskesmas to collect their medication, during which their clinical progress is also evaluated. We also conduct internal evaluations to ensure that all patient records and reports comply with national standards. If any data are incomplete or delayed, we immediately provide guidance to staff for correction. This control is important to ensure that the program continues to operate effectively and that patients receive timely treatment."

TB Program Officer:

"In the field, we work together with cadres to monitor patients directly. We ensure that patients take their medication on time and check their health progress. However, challenges often arise, such as delayed case reporting because some staff divide their time between routine services and program documentation. In addition, cross-sector monitoring, for example with villages or schools, has not yet been optimal. As a result, some patients living far from the Puskesmas are not always thoroughly monitored."

TB Cadre:

"Our role in the field is to accompany patients every day. We record medication adherence and patient conditions and report regularly to the Puskesmas. However, reports are sometimes delayed due to patients' distant homes, weather conditions, or limited network coverage. We believe that a digital application-based system could make recording faster, more accurate, and timely, thus improving coordination with the Puskesmas."

The interview results indicate that TB program control is carried out through direct patient monitoring by cadres and program officers, monthly evaluations at Puskesmas Bontonompo 1, and internal evaluations by the Head of the Puskesmas to ensure that recording and reporting meet the standards. The main challenges include delayed reporting, weak cross-sector monitoring, and difficulties in coordinating with patients living far from the health facility. Improving control through a digital application-based system is expected to enhance accuracy, transparency, and timeliness of reporting, making the TB program more effective and well-controlled.

Discussion

1. Planning

The research results indicate that TB program planning at Puskesmas Bontonompo 1 Gowa is carried out through the Musrenbangkes (Health Planning Deliberation) and evaluation of previous program achievements. This aligns with the management function proposed by George R. Terry, which states that planning is the process of determining goals and the steps to achieve them. Good planning in the TB program is crucial considering the high number of cases in Gowa Regency, which increased from 71 cases in 2023 to 92 cases in 2024. However, challenges such as limited healthcare personnel

and funding align with the findings of Sudirman et al. (2024), which indicate that shortages of human resources and facilities can hinder TB program success. Therefore, innovative strategies, such as empowering health cadres and strengthening cross-sector collaboration, need to be reinforced.

2. Organization

In terms of organization, task distribution is clear among TB program officers, laboratory staff, and health cadres. This aligns with Henry Fayol's management theory, which emphasizes the importance of organizational structure and division of work to achieve goals effectively. Nevertheless, cross-sector coordination remains a weakness, even though WHO (2023), in the End TB Strategy, emphasizes the importance of a multi-sectoral approach in TB control. Involvement of village authorities, schools, and community leaders is essential to reduce stigma and increase public awareness.

3. Implementation

The implementation of the TB program at the Puskesmas follows the DOTS (Directly Observed Treatment Short-course) guidelines and the TOSS TB (Find, Treat, Until Cured) strategy in accordance with national policy. TB patients receive counseling and accompaniment from cadres to ensure better adherence to medication. However, obstacles such as low patient awareness and social stigma still exist. This is consistent with the study by Hasrita & Khairunnisa (2024), which shows that weak education and stigma contribute to low TB treatment success rates. Therefore, community-based educational approaches and the use of more interactive communication media need to be enhanced.

4. Control

Program control is carried out through monthly patient monitoring and internal supervision by the Head of the Puskesmas. This function aligns with management theory, which states that control is an effort to ensure activities are in accordance with plans and to make corrections if deviations occur. However, field findings show delays in reporting and weak cross-sector monitoring. This condition reinforces research results in Banda Aceh, which revealed weak monitoring mechanisms as an obstacle to TB program success (Hasrita & Khairunnisa, 2024). Therefore, an information technology-based control system (e.g., the Ministry of Health's SITB application) is needed to ensure more accurate, transparent, and real-time recording.

CONCLUSION

The implementation of TB program management at Puskesmas Bontonampo 1 has been carried out in accordance with guidelines, but challenges remain in the aspects of organization and control. Strengthening cross-unit coordination, optimizing the use of the SITB system, and improving patient adherence through continuous education are needed. Recommendations: Enhance cross-unit coordination (pharmacy, laboratory, outpatient services), Strengthen monitoring and evaluation systems based on SITB data, Provide regular training for TB officers on program management, and Increase educational support for patients and families to improve treatment adherence.

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