



Exploration of Implementation for Countermeasures Against Tuberculosis in Tabanan District: A Qualitative Study

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Abstract: The achievement target for accelerating TB control in Bali Province and Tabanan Regency has not shown results that meet the target, which can have negative impacts in the form of delays in diagnosis and death in sufferers. This study aims to explore the implementation of tuberculosis control in Tabanan district, Bali Province. The study used a qualitative approach with in-depth interviews and focus group discussions (FGD) with regulators, program implementers, and other stakeholders, with a total of 25 respondents. The result of this study demonstrates that the integration of tuberculosis prevention implementation recommendations from the center to the Tabanan Regency Public Health Center is well established. The local government has allocated funds based on the number of tuberculosis elimination targets achieved in each health center. However, there was a misalignment between the guidelines and their execution in the Public Health Center. This is due to the lack of regional regulations that precisely outline the initiatives described in the center's guidelines. If this trend continues, tuberculosis control efforts will not be as effective as hoped. As a result, complete support is expected due to strong and explicit policies, as well as cross-sector cooperation, to ensure the program's success.

Keywords: Health Policy; TBC Control; Tuberculosis

Introduction

Acceleration in the prevention of tuberculosis is being intensively promoted by the central government and regional governments in Indonesia (Fahrudha et al., 2021). This acceleration is carried out because, until now, Tuberculosis has been a major threat to the world (Chakaya et al., 2021). Despite several efforts to eradicate tuberculosis, the number of cases remains high, and it is Indonesia's biggest cause of death (Caren et al., 2022; Harding, 2020). The Indonesian TB elimination effort has been challenging to implement. The country has a significant TB burden, with an expected 847,000 new TB cases and 144,000 TB-related deaths in 2020. Tuberculosis is one of the top five causes of disability-adjusted life years and one of the most challenging infectious diseases to treat (Asri et al., 2022). However,

in recent years, the government has made strides in reducing the number of TB cases and deaths. As a result, more comprehensive efforts in tuberculosis management in Indonesia, including health communication, are required (Ggita et al., 2018). Health communication is required to emphasize the need of BCG vaccination for children, TB testing for those who have been exposed, complete care for those who have tested positive for TB, hygiene measures to avoid transmission, and increasing the quality of life.

Indonesia has one of the highest TB incidence rates in Asia (Kak et al., 2020). In Asia, Indonesia has the second-highest number of TB cases after India and China (World Health Organization, 2022). The release of RI Presidential Regulation No. 67 of 2021 addressing tuberculosis control accelerated the reduction in the number of tuberculosis cases in Indonesia. After the

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issuance of this regulation, the Province of Bali, including Tabanan Regency, had yet to meet the government's target indicators.

Strengthening tuberculosis control implementation, beginning in the areas, will help achieve the aim of eliminating tuberculosis by 2030 (Kanchar & Swaminathan, 2019). Collaboration between the government and stakeholders in the management of tuberculosis in a specific area will speed up the achievement of Indonesia's aim of eliminating tuberculosis (Lestari et al., 2023). Policy implementation can be visible in activities, actions, or mechanisms built on a specific system. A public policy can be implemented in two ways: directly as a program or through the design of derivative policies or derivatives of a public policy. As a result, the purpose of this research is to look into the implementation of tuberculosis control in Tabanan Regency, Bali Province, Indonesia.

Method

This study conducted a qualitative study with an exploratory approach at the Tabanan Health Office, Bali Province, Indonesia. Data collection was carried out through focus group discussions (FGD) and in-depth interviews with informants representing stakeholders in the district, as well as health workers who served as holders of the Tuberculosis program. The FGD was conducted once with participants from 10 health centers, and in-depth interviews were conducted with all respondents in this study. The research was conducted in June 2023 after obtaining research permission from Udayana University Postgraduate Studies with permit number: B/677/UN14.3.III.5/PK.01.03/2023.

An interview guide was used in this study, which contained the following points: Understanding and Actions Taken to Implement Presidential Regulation No. 67 of 2021 Concerning Tuberculosis Control. Questions Regarding Program Implementation on Target. The impact that is felt after the policy is used and the achievement of the target indicators set.

The informants were made up of 7 (28%) women and 18 (72%) men. There are 20 tuberculosis program holders in Tabanan Regency's 20 Public Health Centers, including three Tabanan District Health Office representatives. One elected Village Head and one elected Principal represent the other stakeholders. In-depth interviews were conducted with 25 respondents consisting of 20 tuberculosis program holders in all Public Health Centers, 3 people from the health office, 1 village head, and 1 school head. Meanwhile, the FGD was conducted at 10 randomly selected Public Health Centers. All data collection activities were recorded and

transcribed in Indonesian. Coding is done based on the deductive method.

Result and Discussion

Understanding and Action taken

The results of the study show that the local government has understood the governance of TB eradication and has prepared a budget. Readiness to carry out tuberculosis elimination activities has been integrated in accordance with the directions and targets of the Indonesian Ministry of Health. This is supported by the following statement: "We have adopted a presidential regulation from the center and have changed several targets according to those set for the prevention of tuberculosis. The adjusted target has been divided per health center. The issue of funding is also clear in the Work Plan and Budget. But if the problem of guidelines and regulations does not yet exist because we immediately use presidential regulations to guide activities". Source: respondent IDI 03.

Local governments face difficulties in engaging private and public facility stakeholders. A personalized approach that encourages institutional support of health facilities for the tuberculosis program, as well as a system approach, is used for intervention (Sunjaya et al., 2022). Apart from being bureaucratic, preparedness is also carried out by having human resources like health worker and cadres ready to be trained to achieve this tuberculosis elimination target. Regarding the target set by the central government, it has been calculated and distributed proportionally to each health center. This is evidenced by the information below: "We have paid attention to the provision of human resources. Several trainings have been carried out and some are still being planned". Source: respondent IDI 02.

The District Head, the Health Office, the Head of the Public Health Centers, and Village Representatives such as village heads, sub-district heads, and community forums (Cross-sectoral) work together to ensure the success of an activity (Marín-González et al., 2022). Although various stakeholders have agreed upon the commitment, there is no clear way to translate it into a program. There is also no official policy on Tuberculosis Control that has been stipulated by the Regional Government. This has caused some stakeholders to not take specific actions in the disease management process, such as the village not allocating funds for preventive measures, tuberculosis screening at schools, or other programs related to tuberculosis control. As in the following statements: "A leadership forum for the elimination of tuberculosis has been held to raise commitment, but the priority programs have not been explained in detail. Actually, this tuberculosis elimination activity cannot be carried out optimally, let

alone encourage village funds for tuberculosis, because regional regulations are needed for this". Source: respondent IDI 09.

"There are no regional regulations or official policies regarding the use of village funds for the tuberculosis program; there was one in 2019, but I don't think there is one in particular. If there is one in the latest year, maybe we can share it. But we also need an official policy so that there is a clear legal basis for program implementation, which has been carried out intensively by cadres through counseling". Source: respondent IDI 20. "...we at school have never received any training on tuberculosis screening". Source: respondent IDI 15.

The Tabanan District Health Office and the tuberculosis program implementers at the Public Health Centers are aware of the changes targeted in the implementation of the Presidential Decree, both in terms of improving performance indicators to changing behavior and support from other stakeholders. Learn from previous studies that tuberculosis is the biggest problem for marginalized communities in India (Bhat et al., 2022). In this study, the village head and the school have opened space to carry out health promotion, especially about tuberculosis. The village also plays a role in selecting tuberculosis cadres to expedite the implementation of contact investigations and case finding (Iswandari et al., 2023). So that the implementation of the policy does not only concern the Administrative Institutions that are responsible for implementing the program but there is community participation, political power, social various parties.

Implementation

As a form of implementation, adjusting targets, and accelerating TB control, such as carrying out contact investigations, TB treatment, and health promotion, the referral process has been carried out by the Public Health Center based on Presidential Decree No. 67 of 2021 concerning TB Control. Target indicator adjustments have been adjusted to the latest targets set by the Public Health Office. Supported by the following statements: "...we have used Presidential Regulation No. 67 of 2021 as a reference for program implementation, apart from that the Department has also made adjustments..." Source: respondent IDI 08.

Several programs cannot be implemented by the Public Health Center, namely the implementation of community-based health businesses carried out across sectors such as villages and schools. This is because there are no specific regional policy restrictions.

"...for contact investigations, case finding and prevention have been carried out, all that remains is to adjust to the logistics. But cross-sectoral ones cannot be implemented because there are no clear regulations". Source: respondent IDI 10.

Tuberculosis infection control measures are generally well designed, but local governments have yet to take them seriously, such as through regional regulations or circulars to each relevant agency. As a result, strengthening the Public Health Center is the simplest way to reduce *M. tuberculosis* transmission to health workers, patients, and visitors (Apriani et al., 2021).

Impact

The changing target indicators have been adapted to TB control by the Tabanan district health office; however, the Public Health Center has not found a tuberculosis control program that complies with the guidelines of the presidential regulation. It can be seen in the interview results as follows: "The Health Office has made changes to targets related to indicators and adjusted to a predetermined budget". Source: respondent IDI 11. "There are no official guidelines at the Public Health Center, but the program has been set according to the Presidential Decree and has been implemented". Source: respondent IDI 15.

This problem arises from the central government's position as the spearhead of health services in the community. In previous studies in the community itself, there is still a stigma that people who are positive for tuberculosis must be avoided, and the number of health workers supervising tuberculosis patients is still insufficient (Asri et al., 2022). In addition, it was also found that due to the limited program activities engaging families and the larger community, there was also a lack of public awareness about the availability of TB control options (Main et al., 2019; Son et al., 2021).

In today's digital age, infection control procedures must be monitored using methods that have been created and tested locally. To measure TB incidence, monitor trends, and implement interventions to reduce occupational TB, various methodologies, such as routine monitoring systems, can be utilized to evaluate the TB burden on healthcare workers (Quang Vo et al., 2023). Moreover, the coordination and collaboration between different stakeholders involved in TB control programs are vital. This includes government agencies, non-governmental organizations, healthcare providers, and community-based organizations (Kabwama et al., 2022). Effective communication and cooperation can help streamline efforts and ensure the efficient implementation of treatment programs. To address these challenges, the World Health Organization (WHO) has developed the End TB Strategy, which aims to reduce TB deaths, incidence, and catastrophic costs by 2035. The strategy focuses on integrating TB services into the existing healthcare system, addressing social determinants, and promoting research and innovation (Mini et al., 2023).

The suboptimal implementation of TB treatment programs in various regions can be attributed to factors such as poverty, lack of awareness, limited resources, and inadequate coordination (Prakoso et al., 2023). Addressing these challenges requires a comprehensive approach that includes addressing social determinants, improving education and training, strengthening healthcare systems, and promoting collaboration among stakeholders. The WHO's End TB Strategy provides a framework for guiding efforts towards optimal implementation and control of TB (Dlatu et al., 2023).

Conclusion

In sum, this study shows that the integration of implementation guidelines for tuberculosis prevention from the center to the Public Health Center in Tabanan Regency has been well established. The local government has provided a budget according to the number of tuberculosis elimination targets in each health center. However, an out-of-sync program between the guidelines and their implementation in the Public Health Center occurred. This is due to the absence of regional regulations that specifically describe the programs that are in the guidelines from the center. If this continues, tuberculosis control efforts will not be as successful as targeted. Therefore, full support is expected thanks to strong and specific policies and cross-sector involvement to make the program successful.

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Author Contributions

Conceptualization, N.W.R.H. and I.G.M.R.J.; methodology, N.W.R.H.; software, N.W.R.H.; validation, N.W.R.H., I.G.M.R.J. and N.N.A.; formal analysis, N.W.R.H.; investigation, N.N.A.; resources, N.N.A.; data curation, N.W.R.H.; writing—original draft preparation, N.W.R.H. and A.S.; writing—review and editing, N.W.R.H. and A.S.; visualization, N.W.R.H.; supervision, N.N.A.; project administration, N.W.R.H.; funding acquisition, N.W.R.H. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare no conflict of interest.

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