

The Success of Tuberculosis Policy Implementation through Public Communication

Hestiwati*, Slamet Riadi, Nasrullah

Doctoral Program in Social Sciences, Universitas Tadulako, Palu, Indonesia
Jl. Soekarno Hatta No. KM. 9, Tondo, Mantikulore, Palu, Sulawesi Tengah 94148, Indonesia
Email: ¹*hhestiwati@gmail.com, ²slametriadi1602@gmail.com, ³tadulakusatunafas@gmail.com
Correspondence Author Email: hhestiwati@gmail.com

Submitted: 01/06/2026; Accepted: 12/06/2026; Published: 30/06/2026

Abstract—Tuberculosis (TB) remains a formidable global public health challenge, with Indonesia ranking as the second highest burden country worldwide. At the regional level, the success of TB policy implementation relies not only on medical interventions but heavily on the efficacy of public communication. This study aims to analyze the role and strategies of public communication employed by the Parigi Moutong Regency Government in implementing TB prevention and control policies. Utilizing a qualitative descriptive approach, data were collected through in-depth interviews, non-participant observation, and document analysis of health data from 2023 to 2025. The findings reveal that although there was a significant improvement in the Case Detection Rate (CDR) from 43% (2023) to 65% (2024), and Tuberculosis Preventive Treatment (TPT) coverage surged from 3% to 19%, incidence and mortality rates exhibited fluctuating trends. This discrepancy indicates an implementation gap primarily driven by social stigma, wherein the community perceives TB as a "family disgrace." In response, the Parigi Moutong Regency Government deployed a four-pillar public communication strategy: symptom awareness and active screening campaigns, targeted interventions in high-risk areas (Ampibabo, Kasimbar, Sigenti, Palasa, and Taopa), health protocol education, and the transformative message that "TB is Curable." This study concludes that adaptive, culturally grounded, and participatory public communication is a critical variable in bridging the gap between formal policy and community compliance, thereby serving as a cornerstone for successful TB elimination at the regency level.

Keywords: Public Communication; Policy Implementation; Tuberculosis; Health Stigma; Parigi Moutong Regency

1. INTRODUCTION

Tuberculosis (TB) remains a significant global public health challenge, necessitating robust public policy interventions to address its complex social, economic, and healthcare dimensions (Sasmita et al., 2024). TB is a highly contagious disease caused by *Mycobacterium tuberculosis*, primarily affecting the lungs but capable of involving extrapulmonary sites (Cruz-Knight & Blake-Gumbs, 2013; Fogel, 2015). Transmitted via airborne droplets, it thrives in environments characterized by close human contact and poor socioeconomic conditions (Becken et al., 2022; Cruz-Knight & Blake-Gumbs, 2013).

Globally, TB continues to exact a heavy toll, with over 10 million new cases and approximately 1.4 million deaths annually (Barde et al., 2024; Becken et al., 2022). Nearly one-third of the global population is infected with latent TB, and about a quarter are at risk of developing active disease (Cruz-Knight & Blake-Gumbs, 2013; Goel et al., 2018; Yadav, 2024). Indonesia bears the second-highest TB burden globally (Sasmita et al., 2024). The World Health Organization (WHO) End TB Strategy (2016–2035) and the Sustainable Development Goals (2016–2030) have set ambitious targets, including a 90% reduction in TB deaths and an 80% reduction in TB incidence by 2030 compared to 2015 levels (Floyd et al., 2018). Achieving these targets requires concerted action, particularly in advancing universal health coverage and investing in research. However, the effectiveness of these global and national policies hinges on their localized implementation.

At the regional level, this national burden directly impacts local governments, including the Parigi Moutong Regency in Central Sulawesi Province. TB case data in Parigi Moutong indicates a complex epidemiological landscape. As of November 3, 2025, the Regional Health Office had managed 701 cases. Historical data reveals fluctuating trends, with 871 cases recorded in 2024 (I Ketut Wiranata & I Kadek Andhika, 2025). Specifically, the incidence rate rose from 817 cases in 2023 to 860 in 2024.

Concurrently, mortality increased from 45 cases (6%) to 47 cases (7%). Paradoxically, program performance indicators showed improvement: the Case Detection Rate (CDR) increased from 43% to 65%, and Tuberculosis Preventive Treatment (TPT) coverage jumped from 3% (52 individuals) to 19% (94 individuals), while the Lost to Follow-Up (LTFU) rate decreased from 8% to 6%.

This phenomenon highlights a critical gap between policy objectives and regional outcomes. According to Edwards III's (1980) policy implementation model, communication is a primary variable; policies can only be executed effectively if there is clear communication between program implementers and target groups. In the context of TB, public communication transcends mere information dissemination. It is a strategic tool for behavior change, breaking transmission chains, and, most crucially, dismantling social stigma. Field findings indicate that community reluctance to seek healthcare is heavily driven by the stigma associating TB with "family disgrace."

Therefore, this study aims to deeply examine how the public communication strategies of the Parigi Moutong Regency Government are implemented to overcome these barriers, and to what extent public communication contributes to the successful implementation of TB prevention and control policies in this region.

2. RESEARCH METHODS

2.1 Basic Research Framework

This study adopted a qualitative descriptive-analytical approach. This methodology was selected to gain an in-depth understanding of the social phenomena, perceptions, and dynamics of policy implementation that cannot be fully captured by quantitative metrics alone. The research focused on how policy actors and the community interpret and respond to public communication strategies regarding TB in Parigi Moutong.

The research location was purposively set in Parigi Moutong Regency, Central Sulawesi, due to its high TB burden and unique socio-geographical characteristics that influence health communication patterns. Informants were selected using purposive sampling based on their involvement, authority, and knowledge of TB policy execution. Key informants included: (1) Officials and TB program staff at the Parigi Moutong Regency Health Office; (2) Heads of Community Health Centers (Puskesmas) and TB program managers, particularly in high-risk districts (Ampibabo, Kasimbar, Sigenti, Palasa, and Taopa); (3) Health cadres and TB patient companions; and (4) Community leaders and former TB patients.

Data collection employed three primary methods to ensure triangulation. First, in-depth, semi-structured interviews explored communication strategies, stigma barriers, and coordination mechanisms. Second, non-participant observation was conducted during outreach activities, screening events, and health worker-community interactions. Third, document analysis reviewed secondary data, including the 2023-2025 Parigi Moutong Health Profiles, TB program achievement reports, and regional policy documents on TB acceleration.

Data analysis followed the interactive model proposed, comprising four concurrent phases: (1) Data collection; (2) Data condensation (selecting, simplifying, and transforming field notes and transcripts); (3) Data display (organizing information into structured narratives and matrices to facilitate meaning-making); and (4) Conclusion drawing and verification. Data validity was ensured through source and methodological triangulation.

3. RESULTS AND DISCUSSION

3.1 The Epidemiological Landscape and the Communication Gap in Parigi Moutong

Secondary data analysis reveals an epidemiological profile in Parigi Moutong that demands aggressive communication interventions. While the incidence rate and mortality saw slight increases between 2023 and 2024, the simultaneous improvements in CDR (43% to 65%) and TPT coverage (3% to 19%) indicate that government interventions are beginning to yield results. However, the persistent mortality and incidence rates suggest that community transmission remains high. This paradox is inextricably linked to socio-cultural factors. Field observations confirm that deep-seated negative stigma acts as a "communication wall," hindering early detection. TB is frequently viewed as a source of shame, deterring individuals from seeking diagnostic services. Consequently, policy success cannot rely solely on clinical approaches; it must be underpinned by robust public communication strategies capable of deconstructing this stigma.

3.2 The Four Pillars of Public Communication Strategy

To bridge the gap between policy and community behavior, the Parigi Moutong Regency Government, through the Health Office, has structured its public communication around four main pillars (I Ketut Wiranata & I Kadek Andhika, 2025; PPID Kemendagri, 2019):

- Symptom Awareness and Active Screening:** The government actively encourages the public to visit health centers if they experience a persistent cough lasting more than two weeks. This message is disseminated through local media, mosque loudspeakers, and village meetings, ensuring grassroots penetration.
- Focus on High-Risk Areas:** Communication and interventions are intensified in districts with the highest case loads, specifically Ampibabo, Kasimbar, Sigenti, Palasa, and Taopa. This targeted approach demonstrates communication efficiency by concentrating resources and messaging on the most vulnerable populations.
- Health Protocol Education:** The community is actively educated on wearing masks, maintaining environmental hygiene, and, most importantly, ensuring proper ventilation and sunlight in homes to break the transmission chain. This messaging is tailored to local housing conditions, enhancing its relevance and applicability.
- Transformative Messaging ("TB is Curable"):** The government consistently emphasizes the narrative that TB is entirely curable, provided patients adhere to early and complete treatment regimens. This narrative is designed to instill hope and mitigate the irrational fears that fuel stigma.

3.3 Overcoming Stigma through Participatory and Culturally Grounded Communication

The study confirms that the primary barrier to TB policy implementation in Parigi Moutong is not a lack of medication, but psychological resistance driven by stigma. TB inflicts significant personal and economic hardship, perpetuating cycles of poverty and misfortune (Becken et al., 2022; Lowbridge & Ralph, 2020). Communication campaigns must actively dismantle archaic beliefs and promote the understanding that TB is a treatable medical condition, not a fatal or shameful one (da Gama et al., 2019; Prajapati et al., 2026).

The Parigi Moutong government addresses this by shifting from a top-down communication paradigm to a participatory one. Community participation significantly enhances TB Case Detection Rates (CDR). Social capital such

as trust, communication, and cooperation and active community involvement in identifying cases and mobilizing resources are positively correlated with higher CDRs (Sulaeman et al., 2017). Engaging local religious figures, village heads, and health cadres is pivotal. When a trusted community leader openly states that TB is a curable disease, the message carries far greater social legitimacy than if delivered solely by external health workers.

Furthermore, effective communication requires formats aligned with local culture, such as edutainment (educational entertainment), to enhance message acceptance. This approach has proven highly successful in Indonesia, where social media campaigns have effectively overcome psychological and structural barriers to TB detection (Ihlasuyandi et al., 2026). While digital media campaigns are increasingly utilized and show significant improvements in knowledge and care-seeking intentions (Ihlasuyandi et al., 2026; Prajapati et al., 2026; Turk et al., 2013), face-to-face communication via integrated healthcare posts (posyandu) and community gatherings remains the most effective method in rural Parigi Moutong to overcome health literacy barriers. Policies must also address social determinants like poverty and housing, which drive TB transmission and exacerbate health inequities (Rasanathan et al., 2011).

3.4 Multisectoral Integration and Community-Based Approaches

Effective TB control requires a multifaceted approach, including environmental improvements, public health interventions, and targeted strategies for high-risk populations (Sarkar & Sarkar, 2025; Segal-Maurer, 2022). Integrating TB control with other public health programs, such as HIV/AIDS management, is crucial, especially given that children under 14 account for 11% of the global TB burden, and TB is particularly severe in individuals with HIV co-infection (Qian et al., 2023; Wells, 2010).

Community-based TB treatment approaches, including active screening, follow-up, and health promotion, are vital for improving diagnosis, care, and treatment outcomes (Ponnuswamy, 2014; Sun et al., 2024). In Parigi Moutong, cross-sectoral coordination between the Health Office, village governments, and the education sector has been strengthened. This ensures that when a TB case is identified, communication extends beyond treating the patient to actively screening close household contacts for TPT. However, challenges remain in data synchronization and consistent reporting across health facilities, necessitating further strengthening of the regional health information system.

A critical dimension of the implementation gap in Parigi Moutong lies in the profound social stigma associated with Tuberculosis, which is frequently perceived by the local community as a "family disgrace" (aib). This stigmatization creates a formidable psychological barrier that deters individuals from seeking timely diagnostic services, thereby perpetuating a hidden reservoir of infection. As noted by Becken et al. (2022) and Lowbridge & Ralph (2020), TB inflicts significant personal and economic hardship, including income loss and prolonged treatment, which perpetuates cycles of poverty and misfortune. Consequently, public communication campaigns must go beyond mere clinical information dissemination; they must actively dismantle archaic beliefs and promote the narrative that TB is a curable medical condition, not a fatal or shameful affliction (da Gama et al., 2019; Prajapati et al., 2026). The Parigi Moutong government's emphasis on the transformative message that "TB is Curable" is thus a vital strategic intervention to mitigate irrational fears and encourage early health-seeking behavior.

The strategic focus on high-risk districts specifically Ampibabo, Kasimbar, Sigenti, Palasa, and Taopa demonstrates an efficient allocation of communicative and operational resources. Effective TB control necessitates a multifaceted approach that includes targeted strategies for high-risk populations and environments where close contact and inadequate ventilation facilitate transmission (Sarkar & Sarkar, 2025; Segal-Maurer, 2022). By intensifying symptom awareness campaigns and active screening in these specific locales, the local government addresses the spatial heterogeneity of the disease burden. This targeted communication ensures that the message reaches the most vulnerable demographics, aligning with the principle that policy implementation must be contextually adapted to local epidemiological realities rather than applying a uniform, blanket approach across the entire regency.

Furthermore, the shift from a traditional top-down communication paradigm to a participatory model has proven instrumental in enhancing the Case Detection Rate (CDR), which notably improved from 43% in 2023 to 65% in 2024. This improvement is intrinsically linked to the mobilization of social capital encompassing trust, communication, and cooperation within the community. Sulaeman et al. (2017) emphasize that active community involvement in identifying cases, mobilizing resources, and organizing health activities is positively correlated with higher CDRs. In Parigi Moutong, the active engagement of village heads, religious leaders, and health cadres serves as a crucial bridge between the formal health system and the community. When trusted local figures validate the message that TB is treatable and not a source of shame, the communication gains profound social legitimacy, thereby reducing resistance and fostering a supportive environment for patients.

To maximize message acceptance, the communication strategy in Parigi Moutong has increasingly incorporated culturally grounded formats, such as edutainment (educational entertainment), alongside digital media campaigns. Research indicates that digital media and social media campaigns are highly effective in disseminating TB-related information, significantly improving knowledge, attitudes, and care-seeking intentions, particularly when tailored to specific demographic and cultural contexts (Ihlasuyandi et al., 2026; Prajapati et al., 2026; Turk et al., 2013). In the Indonesian context, such campaigns have successfully overcome psychological and structural barriers to TB detection (Ihlasuyandi et al., 2026). While face-to-face communication remains paramount in rural settings to address health literacy barriers, the supplementary use of localized digital platforms and culturally resonant messaging ensures a broader and more sustained reach, reinforcing the core preventive protocols of mask-wearing and proper home ventilation.

Finally, the sustainability of these communicative and operational gains relies heavily on robust multisectoral integration and the addressing of underlying social determinants of health. TB transmission is deeply intertwined with factors such as poverty, inadequate housing, and co-infections like HIV/AIDS (Rasanathan et al., 2011; Qian et al., 2023; Wells, 2010). Therefore, communication policies must be integrated with broader public health programs, such as HIV management and tobacco cessation, to enhance overall efficiency and outcomes (Goel et al., 2018). The Parigi Moutong government's efforts to coordinate cross-sectoral actions linking the health office with village governments and the education sector to ensure household contact screening for Tuberculosis Preventive Treatment (TPT) exemplify this holistic approach. However, continuous strengthening of this bureaucratic structure is necessary to ensure that communication is not fragmented, thereby securing a comprehensive and equitable policy delivery system that ultimately drives the region toward TB elimination.

4. CONCLUSION

This study concludes that the success of Tuberculosis policy implementation in Parigi Moutong Regency is heavily dependent on the effectiveness of public communication executed by the local government. Although data indicates commendable improvements in the Case Detection Rate (CDR) and Tuberculosis Preventive Treatment (TPT) coverage between 2023 and 2024, challenges such as fluctuating incidence and mortality rates persist. These challenges are directly linked to social barriers, particularly the community stigma that views TB as a "disgrace." The public communication strategy, operationalized through four pillars (symptom campaigns, high-risk area focus, health protocol education, and the "TB is Curable" message), has demonstrated a positive impact on early detection. The key to this strategy's success lies in its participatory nature, leveraging community leaders, and adapting to local cultural contexts (e.g., edutainment) to deconstruct stigma. In this context, public communication is not merely an information dissemination tool, but a strategic instrument for behavioral change and the strengthening of health governance. Future research should explore the effectiveness of digital communication and social media in reaching younger demographics in Parigi Moutong, as well as quantitatively measure the long-term impact of communication interventions on stigma reduction. Strengthening the interpersonal communication capacity of health workers and village cadres must remain a continuous priority to ensure the ultimate goal of TB elimination is achieved.

ACKNOWLEDGMENT

The authors extend their deepest gratitude to the Head of the Parigi Moutong Regency Health Office, the heads of community health centers, health workers, cadres, and all informants who generously dedicated their time and provided invaluable insights during this research. We also acknowledge the institutions that supported the execution of this study.

REFERENCES

- Barde, B. J., Okopi, J., & Ahmadu, I. (2024). Drug Resistance and Mutation Patterns Among Tuberculosis Patients in National Tuberculosis and Leprosy Training Centre Zaria. *Texila International Journal of Public Health*, 12(2). <https://doi.org/10.21522/TIJPH.2013.12.02.ART008>
- Becken, B. A., Bula Rudas, F. J., & Chatterjee, A. (2022). An update on tuberculosis. *Viral, Parasitic, Bacterial, and Fungal Infections: Antimicrobial, Host Defense, and Therapeutic Strategies*, 515–524. <https://doi.org/10.1016/B978-0-323-85730-7.00020-5>
- Cruz-Knight, W., & Blake-Gumbs, L. (2013). Tuberculosis: An overview. *Primary Care - Clinics in Office Practice*, 40(3), 743–756. <https://doi.org/10.1016/J.POP.2013.06.003>
- da Gama, K. N. G., Palmeira, I. P., Rodrigues, I. L. A., Ferreira, A. M. R., & Ozela, C. D. S. (2019). The impact of the diagnosis of tuberculosis through its social representations. *Revista Brasileira de Enfermagem*, 72(5), 1189–1196. <https://doi.org/10.1590/0034-7167-2017-0881>
- Floyd, K., Glaziou, P., Houben, R. M. G. J., Sumner, T., White, R. G., & Raviglione, M. (2018). Global tuberculosis targets and milestones set for 2016-2035: Definition and rationale. *International Journal of Tuberculosis and Lung Disease*, 22(7), 723–730. <https://doi.org/10.5588/IJTL.D.17.0835>
- Fogel, N. (2015). Tuberculosis: A disease without boundaries. *Tuberculosis*, 95(5), 527–531. <https://doi.org/10.1016/J.TUBE.2015.05.017>
- Goel, S., Verma, M., Singh, R. J., & Bhardwaj, A. K. (2018). Integrating tobacco and tuberculosis control programs in India: A win-win situation. *International Journal of Noncommunicable Diseases*, 3(Suppl 1), S9–S15. https://doi.org/10.4103/JNCD.JNCD_15_18
- I Ketut Wiranata, & I Kadek Andhika. (2025, November 3). *Penyakit TBC Di Kabupaten Parigi Moutong Tinggi - RRI.co.id*. <https://rri.co.id/palu/regional/1948048/Penyakit-Tbc-Di-Kabupaten-Parigi-Moutong-Tinggi>
- Ihlasuyandi, E., Sulaeman, E. S., Pamungkasari, E. P., & Widiyanti, E. (2026). The Social Health Marketing Mix Model on Social Media and Its Influence on Tuberculosis Case Detection Behaviour. *Ianna Journal of Interdisciplinary Studies*, 8(1), 659–671. <https://doi.org/10.5281/ZENODO.17736645>
- Lowbridge, C., & Ralph, A. P. (2020). Tuberculosis: Yesterday, today and tomorrow. *Microbiology Australia*, 41(4), 192–195. <https://doi.org/10.1071/MA20052>
- Ponnuswamy, A. (2014). Respiratory tuberculosis. *Clinical Tuberculosis, Fifth Edition*, 129–150. <https://doi.org/10.1201/B16604>

- PPID Kemendagri. (2019, March 31). *PPID PPID Kemendagri*. <https://Ppid.Kemendagri.Go.Id/Front/Dokumen/Detail/300028910>.
<https://ppid.kemendagri.go.id/front/dokumen/detail/300028910>
- Prajapati, Y. N., Gupta, A., Mathew, B., Cherian, M., Gowda S P, V., & Balamuralitharan, S. (2026). Role of digital media campaigns in improving TB health literacy at the community level. *Indian Journal of Tuberculosis*.
<https://doi.org/10.1016/J.IJTb.2026.02.014>
- Qian, W., Jia, W., Yuhong, L., Eryong, L., & Lin, Z. (2023). Attach importance to childhood tuberculosis and care for children' s health. *Chinese Journal of Antituberculosis*, 45(1), 1–5. <https://doi.org/10.19982/J.ISSN.1000-6621.20220462>
- Rasanathan, K., Sivasankara Kurup, A., Jaramillo, E., & Lönnroth, K. (2011). The social determinants of health: Key to global tuberculosis control. *International Journal of Tuberculosis and Lung Disease*, 15(SUPPL. 2).
<https://doi.org/10.5588/IJTLd.10.0691>
- Sarkar, M., & Sarkar, J. (2025). Transmission of Mycobacterium Tuberculosis. *Journal of Association of Physicians of India*, 73(9), 91–96. <https://doi.org/10.59556/JAPI.73.1113>
- Sasmita, N. R., Arifin, M., Kesuma, Z. M., Rahayu, L., Mardalena, S., & Kruba, R. (2024). Spatial Estimation for Tuberculosis Relative Risk in Aceh Province, Indonesia: A Bayesian Conditional Autoregressive Approach with the Besag-York-Mollie (BYM) Model. *Journal of Applied Data Sciences*, 5(2), 342–356. <https://doi.org/10.47738/JADS.V5I2.185>
- Segal-Maurer, S. (2022). Tuberculosis in Enclosed Populations. *Tuberculosis and Nontuberculous Mycobacterial Infections, Sixth Edition*, 205–223. <https://doi.org/10.1128/9781555817138.CH12>
- Sulaeman, E. S., Reviono, Hartanto, R., Murti, B., & Fanani, M. (2017). The role of social capital and community participation in case detection rate (CDR) of tuberculosis: A case study of Sukoharjo District, Indonesia. *Advanced Science Letters*, 23(4), 3486–3489. <https://doi.org/10.1166/ASL.2017.9141>
- Sun, H., Chen, W., & Zhao, Y. (2024). The role of community in tuberculosis prevention and control. *Chinese Journal of Antituberculosis*, 46(1), 23–28. <https://doi.org/10.19982/J.ISSN.1000-6621.20230401>
- Turk, T., Newton, F. J., Netwon, J. D., Naureen, F., & Bokhari, J. (2013). Evaluating the efficacy of tuberculosis Advocacy, Communication and Social Mobilization (ACSM) activities in Pakistan: A cross-sectional study. *BMC Public Health*, 13(1).
<https://doi.org/10.1186/1471-2458-13-887>
- Wells, C. D. (2010). Global impact of multidrug-resistant pulmonary tuberculosis among HIV-infected and other immunocompromised hosts: Epidemiology, diagnosis, and strategies for management. *Current Infectious Disease Reports*, 12(3), 192–197.
<https://doi.org/10.1007/s11908-010-0104-5>
- Yadav, S. (2024). 'Yes! We can end TB' the theme of the world tuberculosis day 2024: A commitment to fight the oldest known infectious disease from the world. *IP Indian Journal of Immunology and Respiratory Medicine*, 9(1), 47–48.
<https://doi.org/10.18231/J.IJIRM.2024.009>