Chapter 4
Defining Tuberculosis Notification:
Key Determinants and Associated Factors

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ABSTRACT

Tuberculosis (TB) remains one of the most deadly infectious diseases worldwide, with accurate notification playing a critical role in its control. This chapter explores the importance of TB notification in public health, focusing on international guidelines from the World Health Organization (WHO) and their implementation in high burden of TB, such as Indonesia. Several factors associated with TB notification, such as patient demographics, healthcare provider characteristics, and notification-system challenges, are discussed. The chapter also highlights the problem of under-notification in private healthcare settings and examines how technological advancements can improve notification systems. Finally, it provides policy recommendations for enhancing TB notification, emphasizing private-public partnerships and regulatory reforms.

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INTRODUCTION

Globally, tuberculosis (TB) continues to be a major contributor to mortality from infectious diseases. According to the World Health Organization (2023), TB was responsible for roughly 1.3 million deaths worldwide in 2022, solidifying its position as a leading cause of infectious disease-related deaths (World Health Organization, 2023). Even with worldwide efforts spearheaded by the WHO and improvements in diagnosis and treatment strategies, tuberculosis (TB) presents a formidable public health challenge, with a disproportionate impact on high-burden nations like Indonesia, India, and Nigeria. In these settings, constrained health systems, poverty, and limited access to care exacerbate the impact of the disease.

Accurate and timely reporting of diagnosed TB cases is essential for TB control. This process, known as notification, which involves the official reporting of TB cases to public health bodies, allows for disease monitoring, aids in the effective distribution of resources, and promotes the application of specific control measures. A key challenge to effective tuberculosis (TB) management is the persistent issue of under-notification, particularly in private healthcare settings. This is often attributable to deficiencies in knowledge, a lack of motivating incentives, and the fragmented nature of health systems (Rusnoto, Murti, & Reviono, 2022; Suryanti & Ahmed, 2024).

Tuberculosis poses a significant challenge in Indonesia, a country that ranks among those with the highest TB burden in the world, the challenge of under-reporting—especially within the private health sector—continues to hinder national TB control efforts. A recent review highlighted the critical need for stronger integration between public and private systems to improve case detection and reporting (Suryanti & Ahmed IA, 2025).

A wide range of factors influence TB notification practices, including demographic characteristics of patients, such as socioeconomic status, geographic location, and gender, as well as the competencies and motivations of healthcare providers. Operational barriers within health information systems—such as inadequate infrastructure, data fragmentation, and lack of interoperability between public and private sectors—further impede comprehensive reporting. In high-burden countries, the disconnect between public health mandates and the realities of private clinical practice contributes to persistent data gaps and missed opportunities for intervention.

Strengthening TB notification systems requires a multifaceted approach. Policy reforms must be supported by strong regulatory frameworks and public-private collaboration, while frontline healthcare workers need greater support through training, simplified reporting tools, and incentive mechanisms. Addressing TB stigma, enhancing community engagement, and leveraging digital technologies are also essential to improving case detection and reporting accuracy.