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A call to action to address four decades of stagnant tuberculosis case detection in Somalia

Halima Mohamed^{1,2,3*} 

*Correspondence:

Halima Mohamed

halima.mohamed@phc.ox.ac.uk

¹Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

²Ministry of Health and Human Services, Federal Government of Somalia, Mogadishu, Somalia

³The International Centre for Future Health Systems, University of New South Wales, Sydney, Australia

Abstract

Tuberculosis (TB) remains a leading cause of death of infectious diseases globally, with progress towards elimination slowest in fragile and conflict-affected settings. In Somalia, tuberculosis case detection has stagnated at approximately 40–45% for over 4 decades, representing one of the most persistent case-detection gaps worldwide. TB incidence and mortality remain among the highest in the World Health Organization Eastern Mediterranean Region, despite substantial donor investment and the scale-up of advanced diagnostic technologies. TB care delivery remains highly fragmented, with limited or no integration into primary care services. Rural, remote, displaced, pastoralist and conflict-affected populations face persistent barriers to essential health services, including TB care, hampering sustained community transmission. This editorial examines four decades of TB control in Somalia, shaped by protracted instability, humanitarian substitution, donor-dependency, and vertically organised programming. It argues that achieving meaningful, impactful, equitable and sustainable progress requires repositioning tuberculosis control as a core public health priority. This requires anchoring TB services in integrated primary healthcare, supported by community-based delivery models.

Keywords Tuberculosis, Case detection, Primary healthcare, Health systems, Fragile settings, Somalia

1 Introduction

Tuberculosis (TB) remains one of the leading causes of death globally, second only to COVID-19 in recent years [1]. The World Health Organisation (WHO) End TB Strategy aims to reduce TB incidence by 80% and Mortality by 90% by 2023, and relative to 2015 levels [2, 3]. Progress toward these targets has been profoundly uneven. Fragile and conflict-affected settings like Somalia have experienced the slowest gains, reflecting the limitations of disease-specific TB control interventions implemented within weak, fragmented, donor-dependent health systems [4, 5]. Consequently, these contexts continue to account for a disproportionate share of the global TB burden, regardless of decades of sustained international investment.



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Somalia represents an extreme and instructive example of this global challenge. TB incidence and mortality remain among the highest in the WHO-EMRO Region, while national TB case detection has stagnated at approximately 40–45%, far below the WHO target of 90% [1]. This stagnation has endured despite prolonged donor engagement, repeated programmatic reforms, and successive waves of diagnostic scale-up. Although advanced diagnostic technologies have improved testing availability, recording, and reporting benchmarks, their impact has been constrained by weak integration of TB services into primary healthcare (PHC) and limited reach beyond urban centres [4]. Rural, pastoralist, and displaced populations, who constitute a substantial proportion of the Somali population, continue to face significant barriers to timely testing and treatment services [5, 6].

For more than four decades, Somalia has remained one of the countries with the highest TB incidence and mortality globally [1, 4]. TB services have evolved through fragmented, vertically organised, externally driven interventions rather than being embedded within a coherent national health system [7]. TB Care was delivered through a highly fragmented mix of public, nongovernmental, and private providers, with an estimated 80–90% of TB-related services delivered by unregulated private practices [8]. The private sector dominates TB-related care, accounting for an estimated 80 to 90% of first-point-of-care service provision, yet poorly linked to national strategies, surveillance systems, and referral pathways [8].

Consequently, large numbers of people with TB remain undiagnosed, or experience interrupted treatment, sustaining community transmission and perpetuating the cycle of poor outcomes, yet continued programme expansion. Despite continued programme expansion, TB outcomes have improved only marginally, resulting in expansion without control: growth in activities and technologies without sustained reductions in transmission or mortality [1]. Drawing on four decades of experience, this editorial argues for a decisive shift away from fragmented, donor-driven TB projects toward restructuring TB control as a core health systems and equity priority, anchored in integrated PHC, community-based delivery, private-sector regulation, and sustained national investment.

2 Four decades of stagnation in tuberculosis control in Somalia

Understanding why TB case detection in Somalia has remained stalled at approximately 40–45% for more than four decades requires examining the historical evolution of TB service delivery within its broader political and health system context. Somalia's TB response has undergone distinct phases, shaped by state collapse, humanitarian substitution, donor-driven recovery, and prolonged fragmentation [4, 6]. Rather than producing cumulative gains, each phase has reinforced structural weaknesses that continue to constrain equitable access to care and effective transmission control.

2.1 1980s: TB control within an integrated PHC system

During the 1980s, TB care services in Somalia were embedded within a nationally coordinated PHC system. It was integrated into district-level microscopy centres, sanatoria with structured supervision, supported by the WHO and many international partners [9, 10]. In spite of severe workforce constraints, TB control functioned as a unified, publicly led programme with clear supervision and community linkages [9]. This period represents the final phase in which TB control programmes operated within an integrated,

publicly led health system, prior to the institutional fragmentation that followed the collapse of the Somali state in 1991.

2.2 1991–2000: state collapse and humanitarian substitution

The collapse of the Somali state in 1991 dismantled the health system infrastructure on which TB control depended [11]. Humanitarian agencies and non-governmental organisations assumed responsibility for TB service delivery in the vacuum created by state collapse [5, 12]. However, humanitarian substitution filled the immediate service gap but did not rebuild institutions or integrate care systems. As a result, interventions prioritised emergency response and survival, leading to vertically organised, donor-dependent programmes with limited national ownership and weak long-term sustainability of basic health services [5, 6]. By 2000, these dynamics had left few TB centres functional; national TB case detection had fallen below 40%, and TB mortality exceeded 70 per 100,000 population [5].

2.3 2000–2010: donor-led expansion without system integration

The early 2000s saw the renewed international engagement through Global Fund financing and the WHO-led expansion of the Directly Observed Treatment, Short-Course (DOTS) strategy [3, 13]. DOTS implementation expanded treatment availability, with reported success rates approaching WHO benchmarks [3]. However, TB services remained largely NGO-managed and donor-driven, operating in parallel to, rather than within, broader PHC platforms [6]. As service availability expanded without system integration, national TB case detection stagnated at approximately 40–45%, well below global targets [2]. This plateau demonstrates that increased inputs and coverage failed to translate into population-level impact or sustained reduction in transmission, underscoring the limits of expansion in the absence of effective integration and governance [2, 6].

2.4 2011–2020: technology scale-up and deepening inequities

From 2011 onward, Somalia scaled up advanced TB diagnostic technologies, including GeneXpert and LED-fluorescence microscopy, alongside electronic TB recording and reporting systems [4]. While these interventions improved diagnostic accuracy and surveillance completeness, they concentrated largely in urban settings. Thus, enhanced data availability did not translate into improved outcomes, underscoring once again the limits of technology-led approaches in the absence of effective health system integration. As a result, TB incidence declined modestly, while mortality and national case detection rates remained largely unchanged [1, 4]. Consequently, rural, pastoralist, and displaced populations, who constitute a substantial share of Somalia's population, remained underserved and continued to face structural barriers to timely diagnosis and treatment [4, 6]. At the same time, the expanding private sector operated largely outside formal TB control structures [8].

2.5 2021–2024: persistent stagnation driven by fragmentation

By the early 2020s, TB case detection in Somalia remained mainly unchanged, while population growth and displacement substantially increased the absolute burden of disease [1, 2, 7]. The COVID-19 pandemic further disrupted service delivery, exposed

weaknesses in surveillance systems, and widened gaps in continuity of care [14]. Notwithstanding decades of investment and expanded diagnostic and treatment capacity, TB transmission remained persistently uncontrolled, particularly among underserved populations [4]. By 2024, Somalia recorded the highest incidence, prevalence and mortality in the WHO-EMRO region [1]. Over the same period, the population nearly doubled from approximately 9.5 million in 2000 to around 19 million in 2024 [1, 15]. Continued reliance on short-term, project-based, and fragmented TB service delivery limited the programme's capacity to respond to demographic change, address structural inequities, or sustain epidemiological gains.

The historical trajectory demonstrates that Somalia's persistent TB crisis is not the result of insufficient tools, knowledge, or efforts. Rather, it reflects a chronically fragmented delivery model in which TB services remain poorly integrated within PHC [4, 5]. Short-term projects have consistently been prioritised over system coherence, expansion over equity, and activity over accountability. Addressing four decades of stagnation, therefore, requires a fundamental shift away from fragmented, vertical interventions towards integrated, PHC-anchored reform.

3 The paradox of expansion without control

Viewed over four decades of TB control, Somalia's experience reveals a persistent paradox: sustained expansion in diagnostics, funding, and programme activity without commensurate improvements in case detection and transmission control [1, 4]. Despite repeated investments and successive programme reforms, national TB case detection has remained stalled at approximately 40–45% for more than four decades, far below the WHO global targets of 90% [2, 16, 17]. This stagnation has persisted even as diagnostic capacity and reporting systems have expanded, underscoring the disconnect between programme activity and population-level impact.

Surveillance data indicate that more than half of the people with TB in Somalia remain undiagnosed each year, sustaining ongoing community transmission. Although the scale-up of diagnostic services and treatment sites has increased service availability, reductions in TB incidence and mortality rates have been modest [1]. Over the same period, the absolute number of TB cases has continued to rise, driven largely by rapid population growth rather than by effective transmission control [1]. Collectively, these trends demonstrate that programme expansion, measured through tests conducted, facilities supported, or funds disbursed, has failed to translate into meaningful population-level epidemiological impact.

At a structural level, TB services in Somalia operate through fragmented, vertically organised arrangements characterised by parallel financing, supply chains, reporting systems, and supervisory mechanisms, which constrain efficiency, continuity, and accountability [4, 6]. Short-term donor financing cycles prioritise measurable outputs over sustained investment in governance, workforce capacity, and service integration [6, 7]. The absence of a robust PHC-integrated delivery platform further isolates TB services from routine care, delaying diagnosis and weakening long-term follow-up. These system failures are compounded by structural inequities, leaving rural, pastoralist, and displaced populations systematically underserved [4, 6].

These interrelated factors explain why TB control in Somalia has expanded in scope but not in impact. The central challenge is not a lack of innovation, but a misaligned

delivery model that prioritises activity over outcomes. Breaking this cycle requires reorienting TB control in Somalia from project-based expansion toward an integrated, nationally led, PHC-anchored system capable of reducing transmission rather than merely counting cases.

4 A call to action: five system-level priorities

The preceding analysis shows that technological expansion and programme scale-up, without system integration, have failed to improve TB case detection or interrupt transmission in Somalia. Reversing this trajectory requires more than incremental adjustment. TB control must be deliberately restructured as a core health system and equity priority, anchored in primary healthcare, community-based delivery, and strong national stewardship.

1. *Integrate TB services into primary healthcare*: TB care and follow-up services must be embedded within primary care services rather than vertically organised delivery models. Integration is essential for early case detection, continuity of care, and alignment, engagement, and regulation of private-sector practices.
2. *Institutionalise community-based TB care delivery*: Community-based services should be formalised and scaled as a central pillar of TB control. Train and remunerate community health workers to lead active case-finding, contact tracing, treatment support, and defaulter follow-up, particularly in rural, pastoralist, displaced, and conflict-affected populations.
3. *Regulate and strategically engage the private sector*: Given the scale of private provision in Somalia, effective TB control is impossible without regulation and engagement of private service providers. Licensing, contracting, and mandatory reporting mechanisms are required to integrate private service providers into national strategies, surveillance systems and referral pathways.
4. *Shift donor financing from projects to system strengthening*: Donor financing should move beyond short-term project cycles towards multi-year investment aligned with national TB strategies. Priority must be given to governance capacity, workforce development, integrated supply chains, interoperable health information systems, and PHC-based service delivery.
5. *Redefine accountability around transmission and equity*: Programme performance must be judged by outcomes that reflect genuine progress, including reduced diagnostic delay, treatment interruption, catastrophic household costs, and community transmission. Equity in coverage among rural, displaced and marginalised populations must be central to assessment. If incidence and mortality are not declining, success cannot be claimed.

5 Conclusion

Four decades of TB control in Somalia illustrate the limits of externally driven, vertically organised interventions in fragile health system settings. With sustained donor financing and expanded diagnostic capacity, TB case detection has remained unchanged while incidence and mortality continue to rank among the highest in the WHO-EMRO region. This persistent TB control failure is not technical but systematic, rooted in weak governance, fragmented service delivery, short-term financing, and the limited reach of PHC in Somalia.

State collapse, humanitarian substitution, and donor-driver programming have produced a centralised TB care service provision that operates largely outside of the main health systems. Rural pastoralist, displaced, and conflict-affected populations have been systematically excluded, while the dominance of largely unregulated private provisions has further undermined surveillance, continuity of care, and transmission control for over four decades. Reversing this trajectory requires restructuring TB control as a core health system and equity priority, anchored in integrated PHC, community-based delivery, effective private-sector regulation, and sustained national investment. Without such reform, TB control efforts in Somalia will continue to generate activity-driven projects that yield no tangible improvements.

Author contributions

Dr Halima Mohamed solely conceived, authored, revised, and approved the final manuscript. No other individuals contributed to the conceptualisation, analysis, writing or revision of this work.

Data availability

No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate

This editorial involves no primary research with human participants, animals, or identifiable personal data. It is based exclusively on publicly available data, policy documents, and published literature; therefore, ethical approval was not required. Not applicable as there were no human participants involved in the preparation of this manuscript.

Consent for publication

Not applicable as the manuscript does not contain any individual-level, personal, or identifiable information requiring consent for publication.

Competing interests

The authors declare no competing interests.

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