

Securing the Future: Reimagining Tuberculosis Financing and Health System Sustainability in Mozambique

Isabelle Munyangaju^{1,2}

¹ISGlobal, Barcelona, Spain

²Faculty of Medicine and Health Sciences, University of Barcelona (UB), Barcelona, Spain

Email: imunyangaju@gmail.com

How to cite this paper: Munyangaju, I. (2025) Securing the Future: Reimagining Tuberculosis Financing and Health System Sustainability in Mozambique. *Journal of Tuberculosis Research*, 13, 41-54.

<https://doi.org/10.4236/jtr.2025.132004>

Received: April 27, 2025

Accepted: May 27, 2025

Published: May 30, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Background: Tuberculosis (TB) remains a major health challenge in Mozambique, which continues to rank among the top 30 high-burden countries for TB, TB/HIV co-infection, and drug-resistant TB (DR-TB). Despite efforts to align with the World Health Organization's End TB Strategy, Mozambique faces significant obstacles, including chronic underfunding, overreliance on external donors, and persistent systemic inefficiencies. The recent reduction in international donor support, notably from USAID, further jeopardizes progress toward the 2030 targets. **Methods:** A narrative literature review was conducted, synthesizing peer-reviewed articles, policy documents, and grey literature published between 2000 and 2024. Databases searched included PubMed, Scopus, Web of Science, and Google Scholar, alongside institutional reports from WHO, the Global Fund, and Mozambique's Ministry of Health. Studies were included if they discussed health financing, TB control, or donor dependency in Mozambique. **Results:** Mozambique allocates only 6% - 9% of its national budget to health, far below the 15% Abuja Declaration target. Donors fund over half of TB program activities, leaving services vulnerable to external shocks. Inefficient resource allocation, fragmented TB/HIV services, substantial patient out-of-pocket costs, and limited private sector integration further weaken TB control efforts. Nevertheless, opportunities exist: progressive tax reforms, innovative financing mechanisms, digital health solutions, and strengthened social protection could improve sustainability. Strengthened public-private partnerships and phased donor transition plans are critical to ensuring service continuity. **Conclusion:** Mozambique stands at a pivotal moment. Without urgent reforms in domestic financing, service integration, and system efficiency, the country risks reversing two decades of TB progress. Achieving the End TB Strategy targets by 2030 remains possible but will re-

quire bold political commitment, strategic investment, and a decisive shift toward sustainable, country-led health financing.

Keywords

Tuberculosis, Health Financing, Donor Dependency, Public-Private Partnerships

1. Introduction

Tuberculosis (TB) remains one of the leading infectious disease killers globally, and Mozambique continues to bear a disproportionate burden of the disease. According to World Health Organization (WHO) estimates, the country had approximately 116,300 TB cases in 2023, with an estimated incidence of 361 cases per 100,000 population [1]. Mozambique is also among the top 30 high-burden countries for TB, TB/HIV co-infection and drug-resistant TB (DR-TB) [2].

While Mozambique shares epidemiological similarities with other high-burden countries such as South Africa, India, and Nigeria—including high rates of TB/HIV co-infection, underdiagnosis, and growing DR-TB prevalence, its health system faces unique vulnerabilities linked to lower domestic health investment and extreme donor dependency. For example, whereas South Africa allocated 11.54% of its national budget to health for 2025/2026 [3] and India and other countries have progressively integrated TB services into national insurance schemes [4] [5], Mozambique's health expenditure remains under 10% of its budget [6] [7], far below the Abuja Declaration target [8]. Nigeria's successful engagement of the private sector and India's large-scale public-private partnership models also contrast sharply with Mozambique's limited private sector integration in TB control efforts [4] [9] [10]. These comparative differences highlight both shared structural challenges across high-burden settings—such as health system fragility, financing gaps, and human resource constraints, and Mozambique's distinctive reliance on external aid with insufficient domestic co-financing.

The End TB Strategy, launched by WHO in 2015, sets ambitious targets to reduce TB deaths by 95% and new cases by 90% by 2030 compared to 2015 levels [11]. Achieving these goals requires robust health systems, consistent financing, and effective program implementation. However, Mozambique's healthcare system faces persistent funding challenges and relies significantly on support from international partners [6] [12].

Recent developments—including the sudden dismantling of United States Agency for International Development (USAID)'s global health architecture and reduced funding from traditional donors—pose a significant risk to Mozambique's progress [13]-[15]. This literature review synthesizes available evidence on Mozambique's health financing landscape, focusing on its implications for TB control and the feasibility of achieving End TB targets amid dwindling donor support.

2. Methodology

This literature review employed a narrative synthesis approach to examine the relationship between health financing and TB control in Mozambique, particularly in the context of declining donor support. Narrative synthesis was chosen because of its flexibility in integrating findings from diverse study types—quantitative, qualitative, and policy analyses—allowing for thematic analysis of complex, context-specific issues that could not be captured through meta-analysis. The review aimed to identify key themes, challenges, innovations and opportunities for sustainable TB financing, aligned with the goals of the WHO End TB Strategy.

2.1. Search Strategy

A comprehensive search of peer-reviewed and grey literature was conducted across multiple databases, including PubMed, Scopus, Web of Science, and Google Scholar, as well as institutional websites such as those of the WHO, Global Fund, and Mozambique's Ministry of Health. The search covered publications from 2000 to 2024 to capture both historical trends and recent developments. Search terms used included: “Mozambique”, “tuberculosis”, “health financing”, “donor dependency”, “USAID”, “Global Fund”, “HIV/TB coinfection”, “End TB Strategy”, “domestic health expenditure”, and “health system sustainability”. Additionally, reference lists of key articles were manually screened to identify additional relevant publications.

2.2. Inclusion and Exclusion Criteria

Studies, reports, and policy documents were included if they:

- Focused on health financing in Mozambique;
- Discussed tuberculosis (including drug-resistant TB and TB/HIV coinfection);
- Provided data or insights relevant to donor support, government health expenditure, or TB program implementation;
- Were available in English or Portuguese.

Exclusion criteria included:

- Studies unrelated to Mozambique or TB;
- Articles focused solely on clinical or laboratory research without relevance to health system financing;
- Publications lacking full text access.

2.3. Data Extraction and Analysis

Data were extracted using a standardized template covering key variables such as publication type, year, study objectives, main findings, financing sources, and implications for TB control. Policy documents, program evaluations, and global health financing reports were analysed in parallel with peer-reviewed studies to ensure a comprehensive understanding of the national and international context. The synthesis process involved coding extracted data into thematic categories

(e.g., domestic financing, donor dependency, private sector engagement, health system challenges) and mapping these themes onto the End TB Strategy pillars. Comparative insights from other high-burden countries were integrated to contextualize Mozambique's unique and shared challenges.

2.4. Limitations

As a narrative literature review, this study does not involve a formal meta-analysis and may be subject to selection bias based on availability and accessibility of documents. Additionally, due to the dynamic nature of donor funding, some information may be outdated at the time of publication. Nonetheless, efforts were made to incorporate the most recent and relevant evidence to inform policy discussions and future research directions.

3. Key Findings

3.1. Chronic Underinvestment in Health and TB Services

Mozambique's government health expenditure consistently falls below both regional and global benchmarks, with allocations ranging between 6% - 9% of the national budget—well short of the 15% target established in the 2001 Abuja Declaration. However, Mozambique's chronic underfunding of the health sector has had direct and detrimental consequences for TB control. Stockouts of essential TB drugs and laboratory reagents remain common, undermining treatment continuity and program effectiveness. Efforts to expand diagnostic capacity have been delayed, resulting in limited access to technologies such as GeneXpert and chest radiography, particularly in rural and peripheral areas where they are most needed. Additionally, inadequate health financing has contributed to poor coverage of TB preventive therapy (TPT) among high-risk groups, including people living with HIV (PLHIV) and children. The lack of sufficient funding has also hindered the scale-up of decentralized and community-based models of care, largely due to shortages of trained personnel and logistical support essential for delivering services at the community level [6]-[8] [12] [16] [17].

3.2. Overdependence on Donor Funding and Lack of Transition Planning

More than half of Mozambique's TB program budget is funded by external donors, with key partners such as the Global Fund and USAID supporting critical programmatic areas, including medication and diagnostic procurement, community health worker stipends and supervision, and the maintenance of monitoring and evaluation systems. While this support has been instrumental in sustaining TB services, Mozambique's heavy reliance on external financing introduces severe vulnerabilities. Recent developments, such as the retraction of USAID's global health programming, have created uncertainty regarding future bilateral support. Additionally, global aid fatigue and a shift in donor priorities toward pandemic preparedness and climate resilience further threaten the stability of funding for

traditional infectious disease programs like TB. Compounding these challenges, Mozambique's inadequate domestic co-financing efforts place it at risk of reduced allocations from the Global Fund under its sustainability and transition framework. Without a robust donor transition strategy, the country faces a significant risk of regression in TB outcomes, the erosion of institutional memory, and major gaps in service continuity [17]-[21].

3.3. Inefficient Resource Allocation and Execution

Even the limited resources allocated to health and TB services in Mozambique are often inefficiently utilized, diminishing their potential impact. One major challenge is the frequent delay in budget disbursements from the central government to provincial and district levels, resulting in postponed programmatic activities and unspent funds that could have strengthened TB responses. Weak procurement and supply chain management systems further exacerbate these issues by delaying the timely delivery of essential commodities such as medications, diagnostic tools, and laboratory supplies. Additionally, the existence of parallel planning systems between HIV and TB programs often leads to duplication of efforts, fragmented services, and resource inefficiencies. These systemic inefficiencies not only lower the overall effectiveness of the funds available but also severely undermine the reliability and continuity of TB services, especially in hard-to-reach and rural areas where consistent service delivery is critical for controlling the disease [7] [17] [22]-[25].

3.4. Financial Barriers and Equity Gaps in Service Access

Although TB care is officially provided free of charge in Mozambique, patients often face significant out-of-pocket (OOP) costs that create major barriers to accessing and completing treatment. These expenses include transport to health facilities, the need to pay for diagnostics not available at primary care levels, the cost of nutritional support and supportive medications, and the loss of income during prolonged periods of treatment or hospitalization. In 2020, OOP expenditure accounted for 10% of current health spending in Mozambique. These financial burdens fall disproportionately on poor, rural, and HIV-positive populations, deepening existing health inequities. The economic hardship caused by these costs delays care-seeking, increases diagnostic and treatment dropout rates, and exposes TB-affected households to catastrophic health expenditures. This situation undermines a central milestone of the World Health Organization's End TB Strategy, which calls for the elimination of catastrophic costs for TB-affected families [7] [23] [24] [26] [27].

3.5. Weak Engagement of the Private Sector

Mozambique's private health sector is largely excluded from national TB strategies, which significantly hampers efforts to control the disease. Private providers have low notification rates for TB cases. Additionally, private health facili-

ties are minimally included in national drug supply chains or training programs, limiting their ability to provide comprehensive TB care. Furthermore, these facilities have limited access to subsidized diagnostics, which are crucial for timely and accurate TB detection. This lack of integration misses a critical opportunity to expand TB case detection, especially in urban settings where private clinics are often the first point of contact for many patients [28]-[31].

3.6. Infrastructure and Human Resource Gaps

There are stark urban-rural disparities in Mozambique's health system, particularly in infrastructure and human resource availability, which severely impact TB control efforts. Diagnostic capacity is unevenly distributed, with advanced tools such as GeneXpert machines and digital radiography far more available in urban centres than in rural areas. Similarly, there is a shortage of trained personnel in rural settings, including TB focal nurses and laboratory technicians, which further limits the ability to diagnose and manage TB effectively. Additionally, rural facilities often lack adequate supervision and access to robust data management tools, hampering both clinical care and program monitoring. These systemic inequities contribute to missed or delayed TB diagnoses, particularly among vulnerable populations such as children and individuals affected by DR-TB, ultimately weakening the country's overall TB response [32]-[36].

3.7. Missed Opportunities for Integration and Efficiency

TB and HIV co-infection remains a major public health challenge in Mozambique; however, integration between the two programs is weak, limiting the effectiveness of efforts to manage both conditions. Several systemic barriers contribute to this fragmentation, including the existence of separate funding streams and reporting systems, differing supervision mechanisms, and distinct performance indicators for TB and HIV programs. At the facility level, the lack of joint service delivery further compounds these issues, forcing patients to navigate parallel and often disconnected services. As a result, this fragmentation leads to duplicated efforts, inefficient use of already limited resources, and a poor patient experience, ultimately undermining the continuum of care for individuals affected by both TB and HIV [37] [38].

3.8. Potential Levers for Reform and Transition

Despite the numerous challenges confronting Mozambique's health sector, several promising avenues for reform have been identified to strengthen system resilience and improve patient outcomes. Implementing progressive tax reforms, such as "sin taxes" on tobacco and alcohol, could generate additional domestic revenue earmarked for health sector investments. Performance-based financing mechanisms and community-based health insurance schemes offer innovative models to improve the efficiency of health spending and reduce the financial burden on patients. To address persistent geographic inequities, digital health solutions and

mobile clinics could be leveraged to extend diagnostic and treatment services to rural and hard-to-reach areas. Finally, the development of phased donor transition plans, co-created with international partners, could help mitigate the risks associated with declining external support and ensure the continuity of essential services as Mozambique moves toward greater financial sustainability in its health programs [6] [7] [12] [17] [39]-[42].

4. Discussion

Sustainable health financing remains a major challenge across Africa, and Mozambique is no exception. Despite the 2001 Abuja Declaration, in which African Union member states pledged to allocate at least 15% of their national budgets to health [8], Mozambique continues to fall short, allocating significantly less and relying heavily on external aid. The TB program in Mozambique sits at a critical crossroads, with decades of progress now threatened by economic instability, diminishing donor support, and weaknesses in national health financing systems. Donor dependency is deeply entrenched, with partners funding up to 80% of TB service delivery costs in some provinces—a model that is increasingly unsustainable as external funding contracts.

Mozambique can draw important lessons from other transitioning countries. Vietnam, for example, successfully increased domestic financing for TB through universal health coverage reforms [43] [44] and co-financing strategies aligned with Global Fund sustainability requirements [45], while South Africa maintains substantial domestic TB investments and integrates TB/HIV services with strong operational research support [46]. Given the predicted 70% decline in Official Development Assistance (ODA) to Africa by 2025 [47] and Mozambique's low domestic revenue generation, urgent reforms are essential [48]. These include mobilizing new domestic resources through progressive tax reforms (e.g., tobacco or alcohol taxes), implementing cost-effective interventions like community health insurance and performance-based financing, improving fiscal planning to integrate revenues from the extractive sector, and reducing inefficiencies in public financial management [7] [17] [47] [49]-[52].

Progressive tax reforms, within Mozambique's economic framework, refer to policy measures aimed at increasing government revenue in an equitable and sustainable manner by ensuring that individuals and entities with higher incomes, profits, or consumption capacities contribute a proportionally larger share of taxes, while protecting low-income populations from excessive fiscal burden. In Mozambique's context—characterized by limited fiscal space, a large informal economy, and dependence on natural resource extraction—progressive reforms would involve increasing taxes on high-income earners, luxury goods, and profitable sectors such as extractive industries; closing tax loopholes and improving compliance, especially among multinational corporations; and expanding health-focused excise taxes (sin taxes) on products like tobacco, alcohol, and sugary beverages. These reforms would also include reducing regressive taxes, exempting essential goods from value-added

tax, and broadening the tax base through gradual formalization of the informal sector (which accounts for over 80% of employment in Mozambique [53]), while ensuring new compliance mechanisms do not stifle small businesses. Crucially, progressive tax reforms can be designed to earmark additional revenues for health spending, including tuberculosis control, thereby reducing dependence on volatile external aid while promoting social and fiscal equity.

Strengthening the integration between TB and HIV services will also be crucial. Overcoming institutional silos through service co-location, shared electronic health records, and joint funding frameworks could improve care continuity and resource efficiency [19] [22]. Reducing patients' financial burden through expanded social protection schemes and engaging the private sector via structured public-private partnerships (PPPs) will help extend services, particularly in underserved areas. A phased donor transition strategy, co-developed with international partners, is urgently needed to mitigate the risks of funding shortfalls and service disruption. This must include capacity-building for procurement, financial management, and governance systems to build donor and domestic confidence [17] [47] [54] [55].

Engaging the private sector in TB control presents both an opportunity and a challenge for Mozambique's health system. Despite its potential to expand case detection, treatment adherence, and service accessibility—particularly in urban areas—the private sector remains largely excluded from the national TB response. Experiences from other high-burden countries demonstrate promising approaches that Mozambique could adapt. For example, Nigeria's Private Sector Engagement Project used financial incentives per notified case, resulting in a threefold increase in private-sector TB notifications [9] [10]; India's Private Provider Interface Agency (PPIA) model provided free diagnostics and drugs to private clinics in exchange for mandatory case reporting and treatment compliance [29] [56].

These models illustrate how a combination of financial incentives, access to subsidized TB commodities, accreditation, and simplified digital reporting can encourage private providers to align with national TB goals. However, Mozambique faces regulatory and operational challenges, including weak enforcement of notification laws, fragmented health information systems, mistrust between sectors, and concerns over treatment quality and accountability. Addressing these challenges requires a coordinated national public-private engagement strategy that includes formal agreements with private networks, piloting output-based financing, investing in digital notification tools, and strengthening regulatory oversight. Leveraging global lessons while adapting to Mozambique's context can help transform the private sector from an underutilized actor into an essential partner in achieving End TB targets.

Emerging innovations offer Mozambique an opportunity to leapfrog systemic constraints. Digital health tools such as AI-assisted chest X-ray interpretation, electronic case notification systems, and digital adherence technologies (DATs) can expand diagnostic reach and improve treatment monitoring in rural areas

[30] [57]-[59]. Innovative financing models—including solidarity levies, diaspora bonds, and blended finance—could mobilize new resources for TB. Differentiated service delivery models, such as community-based treatment and multi-month dispensing, would improve patient-centred care, while public-private integration models could expand diagnostic and treatment coverage. Addressing TB's social determinants through conditional cash transfers, nutritional support, and multi-sectoral collaboration would further align Mozambique's TB response with global best practices and accelerate progress toward the End TB Strategy targets [6] [7] [12] [47] [60].

Finally, a closer examination of Mozambique's health financing context highlights that increasing domestic resource allocation is shaped not only by economic constraints but also by the broader political economy. Budgetary decisions often involve balancing competing priorities such as infrastructure, debt servicing, and security, which can limit the fiscal space available for health. Additionally, centralized budget processes may reduce flexibility for provincial and district health priorities to be adequately reflected in resource allocations. Existing governance structures and institutional practices can sometimes create inefficiencies or delays in resource flow, impacting the implementation of health programs. Furthermore, while the extractive industries contribute significantly to national revenue, opportunities to leverage these resources through earmarked or innovative financing for health have yet to be fully explored. Strengthening legislative oversight, promoting multisectoral collaboration, and enhancing citizen participation in budget processes can play an important role in aligning fiscal decisions with health sector goals. Addressing these political economy dynamics through dialogue, transparency, and partnership will be critical to mobilizing sustainable domestic financing and advancing national commitments to health.

5. Recommendations

To achieve sustainable TB control, Mozambique should implement progressive tax reforms, including targeted increases in excise taxes on tobacco, alcohol, and sugary beverages, with a portion of revenues earmarked for health. The government can further mobilize resources through innovative financing mechanisms such as solidarity levies, diaspora bonds, and blended finance arrangements. Strengthening the integration of TB and HIV services—through co-located care, shared electronic health records, and coordinated funding—will enhance service efficiency and continuity. Scaling up digital health solutions, including AI-supported chest X-ray interpretation, digital adherence technologies, and electronic case notification systems, should follow a phased, evidence-based approach aligned with existing health information systems. Engaging the private sector through structured public-private partnerships—with output-based incentives, access to subsidized diagnostics, and streamlined reporting requirements—can expand service coverage while maintaining quality standards. Finally, fostering multisectoral collaboration, reinforcing legislative oversight, and increasing community partic-

ipation in budgetary processes will be essential to align political commitment with sustainable health financing outcomes.

6. Conclusion

In conclusion, Mozambique's progress toward End TB targets hinges on bold, coordinated action to strengthen domestic health financing, integrate services, and engage new partners. By leveraging proven strategies—progressive taxation, innovative financing, digital tools, and public-private partnerships, the country can reduce aid dependency and build a more sustainable, resilient TB response. The path forward demands both political commitment and practical, context-driven solutions.

Conflicts of Interest

The author has no competing interests to declare.

References

- [1] WHO (2024) Global Tuberculosis Report 2024. World Health Organization. <https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2024>
- [2] World Health Organization (2021) WHO Global Lists of High Burden Countries for Tuberculosis (TB), TB/HIV and Multidrug/Rifampicin-Resistant TB (MDR/RR-TB), 2021-2025: Background Document. World Health Organization. <https://apps.who.int/iris/handle/10665/341980>
- [3] Mkhize, L. (2025) South Africa's 2025/26 Budget Speech: Key Highlights. Brand South Africa. <https://brandsouthafrica.com/177654/news-facts/south-africas-2025-26-budget-speech-key-highlights/>
- [4] Singh, U.B., Rade, K., Rao, R., Kumar, N., Mattoo, S.K., Nair, S., *et al.* (2025) Lessons and Updates from India's National Tuberculosis Elimination Program—Bold Decisions and Innovative Ways of Fast-Tracking Progress toward Ending Tuberculosis. *IJID Regions*, **14**, Article 100599. <https://doi.org/10.1016/j.ijregi.2025.100599>
- [5] Al Mossawi, H., Kak, N., Pillay, Y., Matji, R. and Joshi, S. (2019) Universal Health Coverage—Inclusion of TB in National Health Insurance Programs and Recommendations for Expansion of Coverage of TB Services in LMICs. *Journal of Lung Health and Diseases*, **3**, 16-28. <https://doi.org/10.29245/2689-999x/2019/3.1158>
- [6] Namburete, D. and Chivangue, A. (2023) Health Sector Financing in Mozambique: Analysis of Institutional, Financial and Political Economic Issues. https://nwati.org/en/policy_brief/financing-the-health-sector-in-mozambique-continuous-shortages-and-inadequate-allocation/
- [7] N'weti and Wemos (2024) The Future of Health in Mozambique: Collaborative Efforts for Sustainable Financing. https://www.wemos.org/wp-content/uploads/2024/10/Policy-brief_Wemos-Nweti_The-future-of-health-in-Mozambique.pdf
- [8] African Union (2001) Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases. <https://au.int/sites/default/files/pages/32894-file-2001-abuja-declaration.pdf>
- [9] Okekearu, I., Ojeh, O., Okoineme, K., Adizue, J., Wada, Y.H., Adeyemo, E., *et al.* (2024) Public-Private Sector Mix Approach to Achieving Effective, Efficient and

- Value-Added TB Programming in Nigeria: Lessons Learned. *International Journal of Public Health*, **69**, Article 1606807. <https://doi.org/10.3389/ijph.2024.1606807>
- [10] Chijioke-Akaniro, O., Ubochioma, E., Omoniyi, A., Omosebi, O., Olarewaju, O., Etolue, M., *et al.* (2022) Strategic Engagement of Private Facilities to Increase Public-Private Mix (PPM) Contribution to Nigeria Tuberculosis Case Notification. *Journal of Tuberculosis Research*, **10**, 99-110. <https://doi.org/10.4236/jtr.2022.103008>
- [11] WHO (2015) The End TB Strategy. World Health Organization. <https://www.who.int/teams/global-tuberculosis-programme/the-end-tb-strategy>
- [12] Namburete, D., Chivangue, A., Koutsoumpa, M. and Kfuri, C. (2024) Towards Mapping the Fiscal Space—Health Sector Financing Strategy in Mozambique. https://www.wemos.org/wp-content/uploads/2024/08/Nweti_Policy-Note_Health-Sector-Financing-Strategy-Mozambique_2024.pdf
- [13] Mutapi, F. (2025) The Conversation. Africa Relies Too Heavily on Foreign Aid for Health—4 Ways to Fix This. <http://theconversation.com/africa-relies-too-heavily-on-foreign-aid-for-health-4-ways-to-fix-this-249886>
- [14] Hanlon, C., Pickersgill, M., Amanfo, S., Campbell, H., Chiumento, A., Collin, J., *et al.* (2025) No Health without Aid and Development. *The Lancet Global Health*, **13**, E803. [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(25\)00111-1/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(25)00111-1/fulltext)
- [15] McCoy, D., Riha, J., Lopes, C., van de Pas, R. and Karunakara, U. (2025) Global Health Is at a Crossroads: Let's Be Bold and Aspirational—Health Policy Watch. <https://healthpolicy-watch.news/global-health-is-at-a-crossroads-lets-be-bold-and-aspirational/>
- [16] World Bank (2023) Mozambique Public Expenditure Review: Rebalancing Public Spending. <https://documents1.worldbank.org/curated/en/099042623100581633/pdf/P1769040d0dea90ec088ec0a2c03d8afa37.pdf>
- [17] Southern African Development Community (2023) Health Financing Landscape in Mozambique: Scoping Report Ahead of the 2023 National Health Financing Dialogue and Integrated Report of the African Union ALM Domestic Financing Tracker.
- [18] The Global Fund (2024) Mozambique and Global Fund Launch New Grants to Accelerate Progress Against HIV, TB and Malaria and Strengthen Health Systems. <https://www.theglobalfund.org/en/updates/2024/2024-04-11-mozambique-global-fund-new-grants-progress-against-hiv-tb-malaria/>
- [19] The Global Fund (2023) MOZAMBIQUE Progress Assessment Global Fund Breaking down Barriers Initiative. https://www.theglobalfund.org/media/14533/crg_2024-progressassessmentmozambique_report_en.pdf
- [20] Stop TB Partnership (2025) Report on the Impact of US Government Funding Halt on TB Responses in High TB Burden Countries. <https://www.stoptb.org/sites/default/files/documents/Disruption%20US%20FUNDING%20halt030325.pdf>
- [21] Funds for NGOs (2023) USAID Intends to Provide Funding to Support Efforts to Reduce the Burden of TB. Funds for NGOs. <https://www2.fundsforngos.org/latest-funds-for-ngos/usaid-intends-to-provide-funding-to-support-efforts-to-reduce-the-burden-of-tb/>
- [22] Global Programme on Tuberculosis and Lung Health (GTB) (2020) Mozambique—A Comprehensive Community-Based Service Delivery Intervention for TB.

- <https://www.who.int/publications/m/item/mozambique-a-comprehensive-community-based-service-delivery-intervention-for-tb>
- [23] Nhassengo, P., Atkins, S., Nhamuave, C., Uanela, M., Matusse, C., Banze, D., *et al.* (2025) Understanding Treatment Initiation Pathways and Associated Costs among People with Pulmonary Tuberculosis in a Peri-Urban Area of Mozambique: A Cross-Sectional Study. *BMC Public Health*, **25**, Article No. 1335. <https://doi.org/10.1186/s12889-025-22333-y>
- [24] António, J.M., Pacala, D., Munyangaju, I., Benzana, I., Mutaquiha, C., Osório, D., *et al.* (2024) Assessment of the Indirect Cost of Drug Resistant Tuberculosis Treatment to Patients in a High Burden, Low Income Setting in Mozambique. *Journal of Tuberculosis Research*, **12**, 91-104. <https://doi.org/10.4236/jtr.2024.122006>
- [25] Compaore, S. (2023) New Tuberculosis Diagnostic Tools and Universal Health Coverage in Mozambique. <https://eidhs.fhi360.org/new-tuberculosis-diagnostic-tools-and-universal-health-coverage-in-mozambique/>
- [26] António, J.M., Benzana, I., Munyangaju, I., José, B., Osório, D., Nacarapa, E., *et al.* (2024) An Analysis of the Accounting Costs Associated with 20-Month DR TB Regimens in Maputo City, Mozambique. *Journal of Tuberculosis Research*, **12**, 73-90. <https://doi.org/10.4236/jtr.2024.122005>
- [27] UNAIDS (2024) Mozambique: HIV Sustainability Planning (Analytical Resource). <https://sustainability.unaids.org/wp-content/uploads/2024/08/Mozambique-Executive-Summary-May-2024.pdf>
- [28] Khoza, N., Masekameni, M., Rikhotso, O., Mbonane, T., Shezi, B., Niranjani, I., *et al.* (2024) Regional Capacity Development of Occupational Health Nurses in Southern Africa, Focusing on Audiometry and Spirometry. *Occupational Health Southern Africa*, **30**, 9-13. <https://doi.org/10.62380/ohsa.2024.30.si.02>
- [29] Rahman, M.T., Wells, W.A., Ramis, O., Kamineni, V.V., Bakker, M.I., Matiku, S., *et al.* (2025) Engaging Private Providers to Enhance Tuberculosis Detection and Notification: Evidence from TB Reach-Supported Projects. *BMC Public Health*, **25**, Article No. 665. <https://doi.org/10.1186/s12889-025-21806-4>
- [30] Stop TB Partnership (2022) Mozambique Digital TB Surveillance System Assessment Report.
- [31] African Union Development Agency (2022) Private Sector Engagement in TB Control Strategic Framework and Implementation Roadmap 2022-2025: Regional Strategic Framework for Lesotho, Mozambique, Malawi and Zambia. <https://www.nepad.org/file-download/download/public/140127>
- [32] Munyangaju, I., José, B., Bassat, Q., Esmail, R., Tlhapi, L.H., Maphophe, M., *et al.* (2024) Assessment of Radiological Capacity and Disparities in TB Diagnosis: A Comparative Study of Mozambique, South Africa and Spain. *BMJ Public Health*, **2**, e001392. <https://doi.org/10.1136/bmjph-2024-001392>
- [33] Fernandes, Q., Augusto, O., Machai, H., Pfeiffer, J., Carone, M., Pinto, N., *et al.* (2023) Scrutinizing Human Resources for Health Availability and Distribution in Mozambique between 2016 and 2020: A Subnational Descriptive Longitudinal Study. *Human Resources for Health*, **21**, Article No. 33. <https://doi.org/10.1186/s12960-023-00815-7>
- [34] PNCT (2023) Plano Estratégico Nacional para acabar com a Tuberculose em Moçambique 2023-2030. Ministério da Saúde.
- [35] Gironés, L.A., Belvis, F., Julia, M. and Benach, J. (2018) Health Care Inequalities in Mozambique: Needs, Access, Barriers and Quality of Care. *Medicus Mundi*. <https://www.medicusmundimozambique.org/files/2020/07/inequalities->

[technicalreport-eng-2.pdf](#)

- [36] Llop-Gironés, A., Julià, M., Chicumbe, S., Dulá, J., Odallah, A.A.P., Alvarez, F., *et al.* (2018) Inequalities in the Access to and Quality of Healthcare in Mozambique: Evidence from the Household Budget Survey. *International Journal for Quality in Health Care*, **31**, 577-582. <https://doi.org/10.1093/intqhc/mzy218>
- [37] Buck, W.C., Nguyen, H., Siapka, M., Basu, L., Greenberg Cowan, J., De Deus, M.I., *et al.* (2021) Integrated TB and HIV Care for Mozambican Children: Temporal Trends, Site-Level Determinants of Performance, and Recommendations for Improved TB Preventive Treatment. *AIDS Research and Therapy*, **18**, Article No. 3. <https://doi.org/10.1186/s12981-020-00325-9>
- [38] Haider, H. (2022) Malaria, HIV and TB in Mozambique: Epidemiology, Disease Control and Interventions. Institute of Development Studies. https://opendocs.ids.ac.uk/articles/report/Malaria_HIV_and_TB_in_Mozambique_Epidemiology_Disease_Control_Challenges_and_Interventions/26431561?file=48182875
- [39] Lee, A. and Aga Khan Foundation (2024) On the Road to Save Lives: Mobile Health Clinics in Mozambique. <https://akf.org/article/on-the-road-to-save-lives-mobile-health-clinics-in-mozambique/>
- [40] Gergen, J., Rajkotia, Y., Lohmann, J. and Ravishankar, N. (2018) Performance-Based Financing Kick-Starts Motivational “Feedback Loop”: Findings from a Process Evaluation in Mozambique. *Human Resources for Health*, **16**, Article No. 55. <https://doi.org/10.1186/s12960-018-0320-x>
- [41] Rajkotia, Y., Zang, O., Nguimkeu, P., Gergen, J., Djurovic, I., Vaz, P., *et al.* (2017) The Effect of a Performance-Based Financing Program on HIV and Maternal/Child Health Services in Mozambique—An Impact Evaluation. *Health Policy and Planning*, **32**, 1386-1396. <https://doi.org/10.1093/heapol/czx106>
- [42] Gergen, J., Falcao, J. and Rajkotia, Y. (2018) Stunted Scale-Up of a Performance-Based Financing Program on HIV and Maternal–Child Health Services in Mozambique—A Policy Analysis. *African Journal of AIDS Research*, **17**, 353-361. <https://doi.org/10.2989/16085906.2018.1544574>
- [43] Forse, R., Yoshino, C.A., Nguyen, T.T., Phan, T.H.Y., Vo, L.N.Q., Codlin, A.J., *et al.* (2024) Towards Universal Health Coverage in Vietnam: A Mixed-Method Case Study of Enrolling People with Tuberculosis into Social Health Insurance. *Health Research Policy and Systems*, **22**, Article No. 40. <https://doi.org/10.1186/s12961-024-01132-8>
- [44] Wells, W.A., Waseem, S. and Scheening, S. (2024) The Intersection of TB and Health Financing: Defining Needs and Opportunities. *IJTL D Open*, **1**, 375-383. <https://doi.org/10.5588/ijtdopen.24.0324>
- [45] The Global Fund (2025) Sustainability, Transition and Co-Financing. <https://resources.theglobalfund.org/en/policies-requirements/sustainability-transition-and-co-financing/>
- [46] South Africa National TB Programme (2023) Strategic Plan 2023-2028. South African National Department of Health. <https://tbthinktank.org/wp-content/uploads/2024/05/National-TB-Program-Strategic-Plan-2023-2028.pdf>
- [47] African CDC (2025) Africa’s Health Financing in a New Era. <https://africacdc.org/download/africas-health-financing-in-a-new-era-april-2025/>
- [48] Zumla, A., Sahu, S., Yeboah-Manu, D., Goletti, D., Nyasulu, P.S., Mfinanga, S., *et al.* (2025) Breaking Dependency: Strengthening the Global Tuberculosis Response in the Face of USAID Cuts. *The Lancet*, **405**, 958-961.

- [https://doi.org/10.1016/s0140-6736\(25\)00335-6](https://doi.org/10.1016/s0140-6736(25)00335-6)
- [49] Mathauer, I., Koch, K., Zita, S., Murray-Zmijewski, A., Traore, M., Bitho, N., *et al.* (2019) Revenue-Raising Potential for Universal Health Coverage in Benin, Mali, Mozambique and Togo. *Bulletin of the World Health Organization*, **97**, 620-630. <https://doi.org/10.2471/blt.18.222638>
- [50] Brikci, N. (2023) Innovative Domestic Financing Mechanisms for Health in Africa: An Evidence Review. *Journal of Health Services Research & Policy*, **29**, 132-140. <https://doi.org/10.1177/13558196231181081>
- [51] Loewenson, R. and Mukumba, C. (2023) Recovering Lost Tax to Meet the Health Financing Gap for Universal Public Sector Health Systems in East and Southern Africa. *BMJ Global Health*, **8**, e011820. <https://doi.org/10.1136/bmjgh-2023-011820>
- [52] Nabyonga-Orem, J., Christlms, C.D., Addai, K.F., Mwinga, K., Karenzi-Muhongerwa, D., Namuli, S., *et al.* (2023) The Nature and Contribution of Innovative Health Financing Mechanisms in the World Health Organization African Region: A Scoping Review. *Journal of Global Health*, **13**, Article 04153. <https://doi.org/10.7189/jogh.13.04153>
- [53] UNDP (2025) Supporting Informal Enterprises Transition towards Sustainable Growth and Formalization in Mozambique. <https://www.undp.org/mozambique/projects/supporting-informal-enterprises-transition-towards-sustainable-growth-and-formalization-mozambique>
- [54] World Bank (2021) Mozambique Social Protection for Economic Resilience Project. <http://documents1.worldbank.org/curated/en/730421641925366333/pdf/Mozambique-Social-Protection-for-Economic-Resilience-Project.pdf>
- [55] Facchin, M., Sajid, A.M., Sikapa, L.L., Termine, P., Zheng, W.H. and Di Ruggiero, E. (2022) Public-Private Partnerships for Global Health: The mVacciNation Pilot in Mozambique. <https://reachalliance.org/wp-content/uploads/2021/03/Mozambique-mVacc-final-1.pdf>
- [56] PATH (2020) Engaging Private-Sector Providers to Accelerate TB Care and Treatment. <https://www.path.org/our-impact/case-studies/private-sector-tb-india-ppia/>
- [57] L'Initiative (2025) Fighting Tuberculosis in Mozambique. <https://linitiative.expertisefrance.fr/en/fighting-tuberculosis-in-mozambique/>
- [58] WHO Africa (2025) Digitalization Is Revolutionising Mozambique's Malaria Response. Regional Office for Africa. <https://www.afro.who.int/news/digitalization-revolutionising-mozambiques-malaria-response>
- [59] Byrne, R.L., Wingfield, T., Adams, E.R., Banu, S., Bimba, J.S., Codlin, A., *et al.* (2024) Finding the Missed Millions: Innovations to Bring Tuberculosis Diagnosis Closer to Key Populations. *BMC Global and Public Health*, **2**, Article No. 33. <https://doi.org/10.1186/s44263-024-00063-4>
- [60] Klein, K., Bernachea, M.P., Irribarren, S., Gibbons, L., Chirico, C. and Rubinstein, F. (2019) Evaluation of a Social Protection Policy on Tuberculosis Treatment Outcomes: A Prospective Cohort Study. *PLOS Medicine*, **16**, e1002788. <https://doi.org/10.1371/journal.pmed.1002788>