

BMJ Open Gendered gaps to tuberculosis prevention and care in Kenya: a political economy analysis study

Leila H Abdullahi ¹, Sandra Oketch ², Henry Komen,² Irene Mbithi,³ Kerry Millington,⁴ Stephen Mulupi,⁴ Jeremiah Chakaya ³, Eliya M Zulu ⁵

To cite: Abdullahi LH, Oketch S, Komen H, *et al*. Gendered gaps to tuberculosis prevention and care in Kenya: a political economy analysis study. *BMJ Open* 2024;**14**:e077989. doi:10.1136/bmjopen-2023-077989

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<https://doi.org/10.1136/bmjopen-2023-077989>).

Received 20 July 2023

Accepted 14 March 2024



© Author(s) (or their employer(s)) 2024. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Research Department, African Institute for Development Policy, Nairobi, Kenya

²African Institute for Development Policy (AFIDEP), Nairobi, Kenya

³Respiratory Society of Kenya, Nairobi, Kenya

⁴Liverpool School of Tropical Medicine, Liverpool, UK

⁵African Institute for Development Policy, Nairobi, Kenya

Correspondence to

Dr Leila H Abdullahi; leylaz@live.co.za

ABSTRACT

Background Tuberculosis (TB) remains a public health concern in Kenya despite the massive global efforts towards ending TB. The impediments to TB prevention and care efforts include poor health systems, resource limitations and other sociopolitical contexts that inform policy and implementation. Notably, TB cases are much higher in men than women. Therefore, the political economy analysis (PEA) study provides in-depth contexts and understanding of the gender gaps to access and successful treatment for TB infection.

Design PEA adopts a qualitative, in-depth approach through key informant interviews (KII) and documentary analysis.

Setting and participants The KIIs were distributed among government entities, academia, non-state actors and community TB groups from Kenya.

Results The themes identified were mapped onto the applied PEA analysis framework domains. The contextual and institutional issues included gender concerns related to the disconnect between TB policies and gender inclusion aspects, such as low prioritisation for TB programmes, limited use of evidence to inform decisions and poor health system structures. The broad barriers influencing the social contexts for TB programmes were social stigma and cultural norms such as traditional interventions that negatively impact health-seeking behaviours. The themes around the economic situation were poverty and unemployment, food insecurity and malnutrition. The political context centred around the systemic and governance gaps in the health system from the national and devolved health functions.

Conclusion Broad contextual factors identified from the PEA widen the disparity in targeted gender efforts toward men. Following the development of effective TB policies and strategies, it is essential to have well-planned gendered responsive interventions with a clear implementation plan and monitoring system to enhance access to TB prevention and care.

BACKGROUND

Globally, tuberculosis (TB) is among the leading causes of mortality in low-income and middle-income countries, with an estimated 10.6 million people developing TB and 1.6 million deaths in 2021.¹ The TB cases were notably higher in males compared with

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ To the best of our knowledge, this will be the first political economy analysis (PEA) to evaluate the tuberculosis (TB) programme from a gendered perspective.
- ⇒ The PEA study uses key informant interviews and documentary analysis to triangulate data findings.
- ⇒ The documentary framework analysis allowed for the structured approach and interpretation of themes while the applied PEA framework highlighted the complexities of political and economic systems.
- ⇒ Triangulation alongside member checking and peer debriefing enhanced the validity, reliability and credibility of the results.
- ⇒ This study is missing the voices and lived experiences of men living with TB.

females^{1 2} at 56.5% and 32.5%, respectively, while the prevalence for children was 11%.¹ Kenya is ranked 13th among the 22 highly burdened countries^{3–5} and is exceedingly burdened by TB, TB- HIV coinfection and multidrug resistant TB.^{1 4 5} In 2021, the estimated TB incidence in Kenya was 133 000 cases per 100 000 population, while TB mortality was 31 000 deaths per 100 000 population¹ with an overall disproportionately high burden in men comprising 64% of all TB cases.⁶

The WHO End TB strategy endorsed in 2014 has set the goal for ending the TB epidemic globally by 2035 with a targeted 95% decline in TB deaths and a 90% reduction in TB incidence.⁷ TB prevention and care are hampered by delayed diagnoses and treatment, poor health infrastructures and under-reporting of TB cases.⁸ Consequently, highly burdened TB countries, including India, China and Kenya, need to continuously focus on the priorities for TB prevention and care, such as health systems strengthening and optimising the linkage to treatment through meeting the needs for TB services.⁹

TB treatment involves taking anti-TB drugs for at least 6–ten months, which includes an intensive phase comprising the first 2–3 months that has a combination of a two-dose regimen and followed by a continuation phase of 4 or 6 months, which has a one-dose regimen.^{10 11} However, if the treatment fails, the treatment regimen can go up to 18 months, including the first 6 months of the intensive phase and 12 months of the continuation phase.¹⁰ Patients with TB who are undiagnosed or have poor adherence to treatment are highly infectious. Moreover, patients with poor adherence are likely to either relapse or succumb to TB.¹²

There have been efforts to increase access, acceptability, adherence and uptake of TB prevention and care programmes to the general population and among children, including improved diagnostics,^{13 14} capacity building of healthcare providers,¹⁵ use of mobile and digital health technologies,¹⁶ integrated screening for TB and COVID-19, TB self-testing, active case finding and contact tracing, networks for TB survivors and TB communities.^{10 17–20} Although there have been global and country-level efforts to control TB infections, the ultimate success depends on concerted efforts around targeted populations, including a male-centred gendered approach while designing TB prevention interventions.^{21 22} Despite the attempt to have TB gender-disaggregated data, there is a paucity of information on gender-responsive interventions to address the significantly high cases of TB among men.

Through the Leaving no-one behind; Transforming Gendered Pathways to Health for TB Consortium ongoing work in Kenya, the African Institute for Development Policy and Respiratory Society of Kenya conducted a political economy analysis (PEA) study to understand the barriers to access and successful treatment for TB infection both pulmonary and extrapulmonary TB among Kenyan male adolescents and adults. The PEA study seeks to dig deeper into the gaps that lead to TB treatment interruptions and poor health-seeking behaviours among men and recommends approaches to enhance TB gender-responsive programmes to improve TB access and successful treatment among men.

OBJECTIVE

To understand the political and economic contextual factors that hinder access to and successful treatment for TB infection among Kenyan male adolescents and adults.

Specific objectives

1. To understand the contextual factors that hinder access to and successful treatment for TB infection among Kenyan male adolescents and adults.
2. To explore the political and power dynamics that shape opportunities and challenges towards TB gender-responsive programmes.

METHODOLOGY

Study design

The PEA methodology is a structured qualitative approach examining power dynamics and economic and social forces influencing development.^{23–26} The analytical approach in this study is informed by the applied political economy, which has three primary constructs: (1) problem identification, which examines the operational or developmental problem to be addressed by looking at the relationships between individuals, communities and Institutions, their motivations which are either personal, cultural, political, financial; (2a) Structural diagnosis which looks at the contextual and institutional characteristics relevant to the problem. The context examines the analysis of relevant structural features such as culture and social structures, demography, geopolitics and culture. At the same time, the institutions focus on the ‘rules of the game’, including formal laws and regulations that shape the power and the power balance between them to influence change or development; (2b) Agency diagnosis examines the power, incentives and behaviour that is linked to their relationships and motivations; (3a) Examining ‘what can be done’? Through identifying and analysing issues arising from these relationships, gain insights into the reflections and the plausible pathways to change.²³ Figure 1 summarises the conceptual framework for the PEA.

Study site and population

In Kenya, through consultations with the National TB programme (NTP) implementation team, a list of study participants was generated as a starting point for data collection comprising national and county level top-level and mid-level health policy-makers in the TB ecosystem. The target sample included TB actors in Kenya who work alongside and influence the policy-makers on approaches to improve access to and successful treatment of TB infection and incidence among Kenyan male adolescents and young adults.

Sampling

In Jan 2023, 16 participants were sampled throughout Kenya using a purposive, maximum variation sampling technique.²⁷ The maximum variation sampling technique captured a wide range of perspectives²⁸ relating to gender and TB and its transformation to gendered approaches to health for TB. To ensure maximum variation, participants included health sector-related government entities, civil society groups in health, individuals in research institutions conducting health-related research, the private sector and academia with expertise in Kenya’s political economy, TB coordinators and TB champions. Below is a summary of the stakeholders interviewed and their positions (table 1).

Data collection

Data were gathered in January 2023 from two primary sources, including (1) documents review, which included

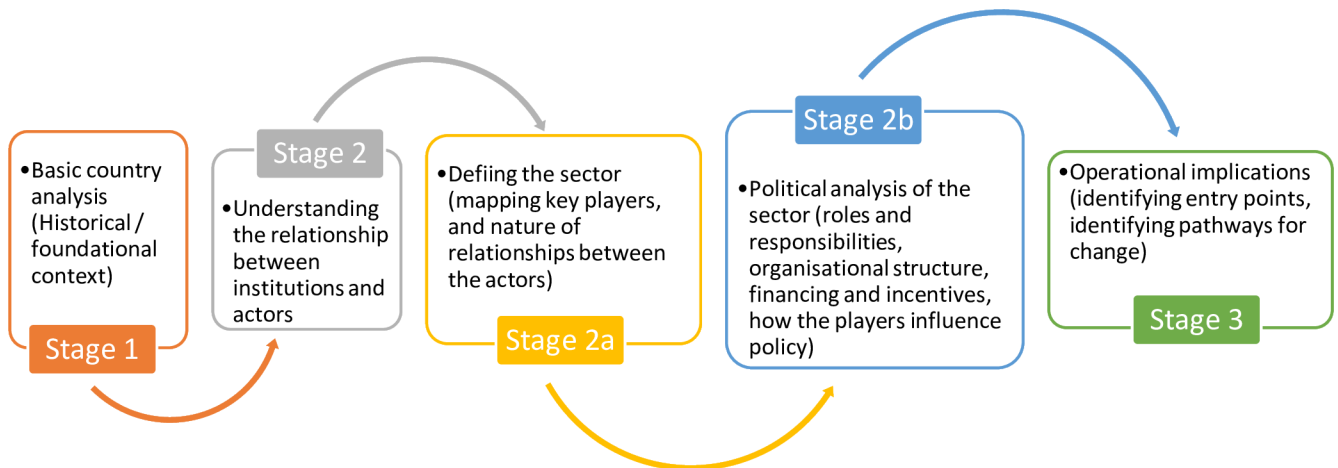


Figure 1 Source: Adapted from applied political economy analysis framework.²³

a comprehensive review of government reports, policy documents and relevant literature to identify key political and economic factors shaping TB care and treatment, (2) Key informant interviews where semistructured interview guide was designed guided by the PEA framework²³ to capture information related to interaction (between power, institutions and actors) between political interests and power dynamics that shape interventions around gendered TB and opportunities and pathways for more significant impact in reducing the number of people affected by TB in the country. The semistructured interview guide (online supplemental file 1) had a mix of open-ended and closed-ended questions. Interview participants were recruited and followed up using email and telephone. All the interviews were conducted virtually using Microsoft Teams. All the interviews were audiorecorded and transcribed after obtaining written informed consent. The interview transcripts were anonymised and stored in a password-protected file accessible only to the project team.

Data analysis

Data from the qualitative interviews were analysed using a combination of inductive and deductive approaches using the framework thematic approach.^{29 30} The approach included developing themes inductively from the experiences and views of study participants and deductively from the PEA framework's constructs and concepts. The study team had regular meetings to review the identified themes and discuss cases. We resolved any disagreements by consulting a third reviewer. Using Dedoose software,³¹ two members coded each transcript independently producing coding reports for joint review through a series of meetings. The codes were then mapped onto the domains from the applied PEA analysis framework²³ while identifying emerging themes and subthemes.

Patient and public involvement

It was not appropriate or possible to involve the public or patients in the design, conduct or reporting as the study

Table 1 Stakeholders interviewed

Stakeholder groups	Organisation/institution	Role within the institute	Number
Government entities (Ministry of Health)	National TB Programme	TB coordinator, TB manager	4
	National Aids and Sexually transmitted infections (STIs) Control Programme		
Universities and research institutions	Universities	Programme manager	1
Healthcare workers	Private health facility	TB programme clinician	2
	Public health facility		
Non-governmental organizations (NGOs) /partners	Kenya Legal and Ethical Issue Network	Director of programme, TB programme manager, Programme Coordinator	3
	Centre for Health Solutions Kenya		
	Amref Health Africa in Kenya		
Community TB groups	Stop TB Partnership (KE)	TB programme coordinator, programme manager	6
	Men Engage Kenya Network		
	Network of TB Champions Kenya		
TB, tuberculosis.			

was neither on public involvement in research nor clinical research involving patients.

RESULTS

Contextual and structural issues

Gender concerns related to TB care

Gender disparity in TB care

Men account for roughly twice the TB burden compared to females while displaying low health-seeking behaviors with the highest TB treatment interruptions.^{32–34} Further, men with a TB infection face unfavorable outcomes of TB deaths and treatment failure, possibly due to non-adherence to treatment.^{32 34} The qualitative inquiry reported on the concerns around limited, targeted interventions towards men, which in turn do not meet the needs of men, thereby influencing their overall access to TB services.

Most of the time, more men than women get tuberculosis, which is a problem. ... I agree that most women now are more empowered but they're leaving out men. (KII, TB Champion, 2022)

..., there are minimal interventions with TB in Kenya geared towards men. We don't focus on men regarding case finding, meeting their needs, and so on, which is quite unfortunate. (KII, Development Partner, 2022)

Call for action: Make use of the gender-disaggregated data to inform gendered TB interventions/approaches

Investments in male-friendly diagnostic and screening services

Kimani *et al* recommended that actors actively target men with systematic TB screening and diagnostic services to ensure early diagnosis and interrupt transmission.³⁵ The recommendation aligns with the majority of the key informant responses, where participants emphasised the need to invest in male-friendly diagnostic and screening services to reduce undiagnosed TB.

The social workplace and networks of TB stakeholders are increasingly being taken into consideration rather than visiting men at their homes. (KII, TB Coordinator, 2022)

Since men are more likely to be affected than women, we usually focus on places where men gather, such as social places. (KII, Development Partner, 2022)

Focusing on men gathering places as potential intervention spaces is important if we are to reduce the burden of TB and achieve the End TB targets. (KII, MoH, 2022)

Call for action: Invest in male-friendly diagnostic and screening services

Health infrastructure

In Kenya, broad TB diagnostic tests exist in urban compared with rural settings, thereby higher costs in the health facilities in urban areas.^{33 36 37} Further, the

public healthcare system is overworked and has very long waiting times, limiting access to the impoverished population that would otherwise seek care in these facilities.³⁸ Additionally, there are reported logistical issues around access to TB services where the health facilities are in far-off areas.³⁷ Therefore, there is a need to decentralise treatments offering TB services.³⁹ Overall, the high TB treatment costs are attributed to various factors, such as laboratory costs, drug prices, nutritional support and hospitalisation costs.³⁶ The participants from the qualitative finding echoed the need to make TB services more accessible by equipping more hospitals with the necessary resources and offering flexible times to meet the needs of patients beyond the 8:00–17:00 hours working hours. These efforts would essentially expand TB services to men who are casual labourers who work during the day.

Some facilities do not offer TB services as expected, there is a need to have more healthcare staff and equipped facilities in Kenya offering TB services. (KII, Health care practitioner, 2022)

The Arid and Semi-Arid Land area harbors vulnerable and pastoralist communities that have additional challenges to access health care due to the fixed hospital working hours of between 8 AM to 5 PM. This timing limits casual laborers who are faced with the competing needs of work to provide for their families against seeking medication. (KII, TB Champion, 2022)

Participants recommended that health centers offering TB services be flexible and offer services on the weekend to suit everyone. (KII, policy maker, 2022)

Call for action: A need for decentralised facilities offering TB services beyond 8 PM

Social and economic context

Social and cultural norms (stigma)

In Kenya, the high TB burden, mostly in men³² is partly attributed to poor health-seeking behaviour attributed to cultural norms and traditional beliefs. The cultural beliefs lead to seeking traditional interventions, including a preference for complementary medicine, thereby taking longer to get medical help or TB treatment attribution.^{32 37 40–42} Furthermore, social stigma attributed to TB and HIV/AIDS increases patients' delay in treatment.⁴⁰

There is a stigma attached to TB and is scary. ...If you delay TB diagnosis, you become slim and thin and people mistake it for HIV. The stigma associated with HIV and TB has created late case detection or missed cases. (KII, TB champion, 2022).

Call for action: Stigma leads to patients' delay in treatment. Therefore, strategies to reduce stigma are vital to improving TB outcomes.

Poverty and unemployment

The Africa Development Bank reports that the inflation in Kenya was at 6.1% in 2021, with a public debt surge of 68%. Additionally, the proportion of Kenyans living in extreme poverty was 16%, and unemployment was 12.3%.⁴³ Consequently, poverty makes it easier for TB to spread, mainly because it affects living conditions (people living in overcrowded, poorly ventilated homes).⁴⁴ Further, poverty leads many people to hesitate to receive medical treatment and seek cheap alternative therapies such as herbal medications.⁴⁵

In Kenya, unemployment is a significant contributor to TB treatment interruptions, leading to a loss of follow-up.^{32 33} Consequently, men who are the sole breadwinners and rely on daily wages face the hurdle of providing for the family or seeking care for ailments or worrying symptoms.³² The study participants emphasised unemployment effects on poor health outcomes, such as the inability to pay for medical care while ill and the usage of drugs at reduced dosages necessitated by the logistical and access costs, leading to drug resistance. Even though TB treatment is free in public health facilities, the 8:–17:00 hours working hours hinder the men from seeking care as they are working to obtain their daily wages.

Further, most participants described the poor state of the economy, which the COVID-19 pandemic has exacerbated, which has led to the loss of jobs and high living costs.

Unemployment affects health because if you have no money, you cannot go to the hospital when sick. Also, you can't afford drugs you go for half doses creating drug resistance in the body. (KII, Development Partner, 2022)

Most people lost their jobs after corona and now jobs are very scarce impacting TB access. (KII, Health care practitioner, 2022)

Call for action: We need to reduce unemployment as it is a major contributor to TB treatment interruptions.

Food insecurity and malnutrition

Like other countries, Kenya is affected by climate change brought on by global warming, thereby affecting agriculture and food security.^{46 47} Food has a long-term impact on health since it can lead to malnutrition and mental health.^{46 47} TB patients with severe malnutrition have higher risks of failure rates or deaths³⁴ and it is a vital driver of the TB epidemic in Kenya.⁴⁸ Therefore, a substantial contributor to TB treatment access in Kenya is food insecurity. The interviewed participants agreed that most Kenyans, including males, focus on food and daily sustenance rather than healthcare since it has reached a point where it equates to a life-or-death situation.

...., we are experiencing a lack of rain, leading to drought and famine, so everyone is more concerned with food and daily nourishment than health care. (KII, Development Partner, 2022)

Call for action: Global warming affects food security

Political context

Poor coordination between national and county governments

Since 2010, due to the devolved system, each county in Kenya has had a different level of efficiency in providing healthcare services.⁴⁹ The qualitative inquiry findings showed that the counties struggle to prioritise evidence-informed decisions that will improve TB programming. Most counties indicated that the national government only provides them with meagre funding, with a further low prioritisation of TB programmes by the county health teams. Additionally, most participants indicated that corruption and lack of coordination between national and county governments contribute to poor health service delivery.

The health sector is struggling because of how the health services are being run. The counties are having a hard time, and the national decision-making process isn't making things better at the county level. (KII, Policymaker, 2022)

They get a lot of money and allowances, which they use to benchmark in places like Dubai. And sometimes they choose to buy furniture (KII, Health care practitioner, 2022)

.... They must depend on the national government. We are behind other countries in finding cases because of this. Based on the report from last year, we didn't diagnose close to 50% of the people we were supposed to. (KII, TB Coordinator, 2022)

Call for action: There is a need for structured coordination between national and county government

Institutional environment

TB policies and gender

Overall, limited budgetary allocations have hampered TB policies and strategy implementation in Kenya.⁵⁰ The policy analysis revealed that various components of active TB, including management and diagnosis, were included in Kenya's National Strategic Plan for TB and Lung Health 2019–2023.⁵¹ However, the policies/strategies lack a gendered approach to address men's barriers to TB care. These findings were validated by the qualitative study, which pointed out the overlook from policy-makers and implementers on the gender influences on TB and its control.

It is evident from the data that men are more burdened concerning the highest TB mortality^{1 2} with minimal interventions targeting men. The consideration for a gendered interventions/approach should stem from the NTP and partners meetings, where there is strengthened advocacy for targeted gendered approaches for TB care and prevention among young males and elderly persons.

We have policies and guidelines, but none talk about a specific gender. Instead, they cover everyone. But we've found that TB affects men more than women. This is a hot topic, and we need to consider gender

issues in TB care and prevention. (KII, Policymaker, 2022)

..., men are more affected and wait longer to get help. So, TB is different for men and women in some ways. So, TB policy planning and advocacy should include both men and women, ..., you should focus on other ways to reach them. (KII, Academician, 2022)

Call for action: We call for a gendered responsive policy and implementation plan that addresses the gendered TB gap in Kenya

Evidence-informed decision-making

Capacity gaps in research translation

Skills in evidence synthesis, utilisation and communication are vital among policy-makers, civil society organisations (CSOs), researchers and media to communicate findings to stakeholders, including the community.⁴⁹ Most of the research participants identified capacity gaps in the translation of evidence that hinder the dissemination of research findings to inform healthcare decision-making. Respondents from the development partner suggested an online TB research hub to disseminate research findings in a plain language summary to aid decision-makers in their decision-making process. Additionally, participants concurred that researchers need to break down technical research information for easy consumption by all actors who use evidence for decision-making, such as policy-makers and legislators, among other key stakeholders.

..., but most of it [research] doesn't get to the people who make policy because it isn't shared with them. They can't use it to decide what to do or develop policies. So, if there were, you know, research hubs, I think that would go a long way toward helping us get all this information together. (KII, Development Partner, 2022)

Call for action: Capacity strengthening on EIDM is key to informing decisions in the TB programme

Lack of research funding

Notably, the research participants indicated the need for a dedicated staff member within the government sector who will support the coordination and collaboration of the government TB sector with research institutes, including universities, development partners and non-governmental organizations (NGOs), where several innovative research are ongoing. Through increasing capacity, young, upcoming researchers can receive mentorship from senior researchers on emerging TB management and diagnosis technologies. Importantly, through knowledge-sharing platforms like digital technology, the community can gain awareness and knowledge while dispelling pre-existing myths and prejudices concerning TB.

...investing in the capacity on communication strategy will help to deliver the dedicated TB messages

to policymakers and the community at large. (KII, Development Partner, 2022)

The problem is to do with resources. There is a need to add more resources to the research sector. They need to have specific staff that deals with research. Collaboration between organizations, e.g., universities, will also work. (KII, Healthcare Practitioner, 2022)

Call for action: Funding and collaboration among partners is key to supporting knowledge-sharing

TB actors in Kenya

TB is a public issue in Kenya that has attracted a diverse set of actors in government (at the three levels), non-state actors and development partners. The degree of involvement of these actors is informed by their interests, roles and power relations in the TB control programme. Overall, the Ministry of Health plays a central role in managing TB in the country. The NTP controls most of the funding for TB work in the country. The national-level actors, including the researchers, community, healthcare professionals, TB champions, development partners, civil society actors and politicians, occasionally engage in various forums, including the TB technical working group, on the issue of TB care and prevention. However, an action plan with gender-responsive approaches is still missing.

Roles and power relations

TB funding prioritisation

The Directorate of Preventive and Promotive Health in the Ministry of Health provides the overall leadership on TB prevention and care.⁵¹ The NTP provides a critical interface between policy, strategic planning and practice, offering technical assistance and decisions around TB prevention and care at the national and county levels.^{52 53} Furthermore, The NTP has had significant reforms in the past decades where activities to end TB have been decentralised to the county level (previously known as the district level). Consequently, decentralisation has strengthened the county-level power and responsibility for priority setting, budget allocation and training.^{52 53} Note that, the resource and allocation of health resources are both technical and political processes.⁵⁴ The county health management teams spearheaded by the county TB coordinators develop the TB budgets and work plans while the political leaders are included in the resource allocation processes.⁵⁴ However, political interference exists around the health sector utility and budgeting at the county levels.⁵²

Development partners have primarily contributed to the annual global funding towards ending TB, with reported funding gaps in recent years.^{53 55} Like most countries, Kenya relies heavily on Development partners for TB financing⁵³ with reported challenges on limited funding and poor collaborations of TB programmes with the private health sectors.^{56 57} In the current decade, the government is working with development partners^{53 55} to

adopt programme-based budgeting to facilitate resource allocations and prioritisations.^{58 59}

Up to 80% of TB funding is from donors, thus risking sustainability. If NTP doesn't get enough money from the national government, with some donors giving less money, it's easy to see how this could be a big problem for the country (KII, TB Coordinator, 2022)

Call for action: A need for the government to prioritize TB funding in the country

Interventions that include men in screenings and health education

In Kenya, a few NGOs, such as The Kenya Legal and Ethical Issues Network on HIV and AIDS (KELIN), have segregated gendered guidelines and services where they offered gendered services in a structured way. KELIN organisation concentrates on specific interventions involving men in the workforce. The organisation has an initiative that goes to areas where men are available, including their leadership. Some of the interventions include performing screenings and health education.

Our guidelines call for different kinds of service delivery.we usually focus on places where men gather, such as social places. (KII, Development Partner, 2022)

Stigmatized men are being attended to during specific times of their convenience to accommodate their poor health-seeking behavior. (KII, TB Champion, 2022).

Men should be targeted where they are, rather than waiting for them to come to treatment centers, to ensure they do not miss out on their jobs while seeking or receiving care. (KII, TB Coordinator, 2022)

Call for action: Initiatives/ interventions that include men in screenings and health education

Initiatives regarding gender and human rights through Communities, Rights and Gender

The Stop TB Partnership and TB champions have significantly raised awareness of gender and human rights through their Communities, Rights and Gender (CRG) initiative. The interventions help to find cases, raise awareness or participate in any community-based TB response. The organisations actively engage. With funders, including the Global Fund and the US government, among others, to mobilise financial resources for TB initiatives and to undertake community awareness and dialogues.

We have been making the people we work with more aware. We look at it regarding gender and human rights. We have taught them about gender and human rights so that when they go out into the community to look for TB cases, raise awareness, or make any other community-based TB response, they are aware of the gender and rights of the community. (KII, TB Coordinator, 2022)

Call for action: There is a need for initiatives regarding gender and human rights through CRG

Sensitisation forums

Communities can improve overall TB treatment outcomes at minimal costs.⁶⁰ Additionally, including TB and other healthcare in the communities essentially improves acceptance and access.^{60 61} The qualitative inquiry reported that most communities are slowly changing and are becoming positive and receptive to TB programmes involving TB policies, including men, women and the community at large. Further, there's a need to focus on more sensitisation, awareness and capacity building of community members, community health volunteers, TB champions, healthcare workers and policy-makers. Importantly, CSOs have a keen interest in ending TB and incorporated community interventions, including the use of TB champions, to create awareness.

Most communities are changing and are open to TB programs, To amplify further, the focus needs to be on raising awareness, lobbying for resources, and leadership, and getting everyone on board. (KII, TB Champion, 2022)

The social workplace and networks of TB stakeholders are increasingly being taken into consideration rather than visiting men at their homes. Community Rights and Gender (CRG) is being included as a subject area by the Network of TB Champions as it advances from the entire cascade regarding prevention, care, and cure. (KII, TB Coordinator, 2022)

Call for action: A need to focus more on sensitization forums to improve awareness of TB and gender

DISCUSSION

Reducing the global TB burden requires concerted gendered efforts such as focusing on institutional and sociopolitical lenses that are essential aspects in the TB prevention and care cascade, ultimately contributing to efficient and effective programming. This study found similar findings to the global concerns around gender disparity in TB case findings and high TB treatment interruptions and defaults among male compared with their female counterpart.^{62 63} This study further noted the need for targeted gender-responsive interventions and the development of progressive policies to improve men's health-seeking behaviours. The targeted interventions must also consider structural systems such as surveillance of loss to follow-up, decentralised TB services that reach even the marginalised populations, and reducing other opportunity costs associated with the treatment.

The need for targeted gender-responsive TB interventions is consistent with other study findings, including a study done across highly burdened TB countries, which reported on the need to consider efficient mechanisms in the policy and administration, including innovative financing policy options for successful gender-responsive



TB implementation guidelines and policies.⁶⁴ The 2011 Rio political declaration emphasised the need to address inequalities and inequities around the social determinants of health, including giving special attention to gender-related aspects.⁶⁴ Therefore, mitigating the challenges associated with treatment such as time loss, income, distance to treatment and household expenditures will address inequalities and inequities that will improve access to TB services and health services in general.⁶⁵

Men are disadvantaged in accessing TB care across the full spectrum of the TB care cascade from early diagnosis, linkage to care and adherence to treatment/retention in care to post-treatment monitoring of patients with TB. One critical social determinant impeding TB treatment and completion is sociocultural beliefs, such as the use of alternative medicines and social stigma, which have been reported in various studies.^{66–69} Consequently, there is an urgent need to necessitate culturally sensitive health education on TB disease targeting men to clarify any myths and misperceptions and enhance positive attitudes towards TB disclosure. Poverty is the second reported determinant that hampers TB treatment and care.^{45 70} This study has shown that men, often the primary earners in their families, might prioritise work over seeking medical care due to the fear of lost wages or the inability to support their families during illness. Importantly, the negative impacts of global warming have raised concerns about food insecurity due to extended drought and, therefore, have led to the prioritisation of the search for food and livelihood over healthcare that escalates the poor TB treatment outcomes among TB patients. However, most countries, including Kenya, are not sufficiently prepared to combat health impacts due to climate change.⁴⁶ Therefore, this stresses the need for integrating multisectoral health strategies⁴⁴ and socioeconomic empowerment interventions to achieve the END TB 2030 goals and promote health equity within communities.^{46 70}

Evidence-informed decision-making is a crucial strategy to inform decisions towards sustainable efforts towards ending TB. This PEA study found that evidence synthesis and utilisation skills are vital among governments, research and implementing partners to inform the decision-making process.^{71 72} Research must be prioritised at the country and regional level with adequate dissemination capacity to inform policy and practice.^{73–75} Different political prioritisations often impede these, such as poor governance and limited financial and, budgetary prioritisation.⁶⁴

On the other hand, the researchers need to assist TB implementers in identifying the issues contributing to gender disparity in seeking healthcare. Kenya must adapt its resource-allocation culture to ensure the planned gender-responsive strategies funding for successful implementation and monitoring. The government and other TB stakeholders should brainstorm on interventions to combat TB in a gender-transformative manner. For example, the government can practice the policies

already developed with the necessary human and financial resources.

It is worth noting that the study focused on a targeted sampling approach, which included the key actors in the TB prevention space. Nonetheless, we acknowledge the limitation of the sampling variation as it is missing the voices and lived experiences of men living with TB. As such, we do not have their perspectives as they may better articulate some barriers to access and uptake of TB prevention and management programmes. These limitations notwithstanding, this study provides insights into the political, economic and social contexts influencing TB prevention and care efforts. Further, documentary reviews and a qualitative approach to triangulate findings provide complementary rich findings and robust reliability and validity.

CONCLUSION

This PEA study demonstrates an interplay of politics and other sociodynamics in health decision-making and implementation. Overall, broad contextual factors identified from the PEA study widen the disparity in targeted gender efforts towards men. Following the development of the 2024–2028 Tuberculosis, Leprosy and Lung Health Strategic Plan, it is essential to have well-planned gendered responsive interventions with a clear implementation plan and monitoring system to enhance access to TB prevention and care. Moreover, capacity strengthening among researchers and policy-makers on how to translate evidence into an actionable recommendation is vital to inform decision-making.

RECOMMENDATIONS

1. TB stakeholders need to include gender-responsive plans, interventions and strategies in existing policies to address gender disparities in TB care and treatment cascade.
2. There is an urgent need to mobilise and earmark resources to enable the successful implementation and sustainable gender-responsive approaches for TB care and treatment.
3. Stakeholder engagement and collaboration are critical to implementing effective gendered TB policies to end TB. Most importantly, engaging with communities can establish a better understanding of real-life issues to inform evidence-based policies that address the specific needs of men and women.

Twitter Sandra Oketch @sandyvone68

Acknowledgements The study was part of the LIGHT program. LIGHT is a cross-disciplinary global health research program funded with UK aid from the UK government in partnership between the UK and six partner institutes: African Institute for Development Policy (AFIDEP), Kenya and Malawi; Zankli Research Center—Bingham University (ZRC), Nigeria; Malawi-Liverpool-Wellcome Trust Clinical Research Programme (MLW), Malawi; Respiratory Society of Kenya (ReSOK), Kenya; Makerere University Lung Institute (MLI), Uganda and Liverpool School of Tropical Medicine (LSTM). LIGHT Consortium aims to reduce TB mortality and morbidity among men, women, and children through generation and synthesis

of evidence on the effectiveness of different TB gender-sensitive pathways and approaches to health. The initiative will contribute to improved health, socioeconomic and equity outcomes, and efforts to stop the spread of TB.

Contributors All study authors were involved in the conceptualisation of the study. EMZ, LHA, KM and JC provided overall guidance on study design and manuscript preparation. LHA was involved in project management. SO, IM, HK, SM and LHA were involved in data collection, data coding and analytical support, and manuscript preparation. All authors were involved in drafting various sections of the initial manuscript. All authors read and approved the final manuscript. LA is responsible for the overall content of the study.

Funding UK aid provided funding for this research.

Disclaimer The content is solely the authors' responsibility and does not necessarily represent the official views of UK aid. The funders had no role in the study's design and data collection, analysis, and interpretation of data and in writing the manuscript or decision to publish.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants and the qualitative study obtained ethics approval from Kenya Medical Research Institute (SERU number 4205). All participants provided written informed consent before participation in the study. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Leila H Abdullahi <http://orcid.org/0000-0002-7198-0558>

Sandra Oketch <http://orcid.org/0000-0002-7328-0301>

Jeremiah Chakaya <http://orcid.org/0000-0002-3229-2429>

Eliya M Zulu <http://orcid.org/0000-0002-8680-4311>

REFERENCES

- Global tuberculosis report 2022. Available: <https://www.who.int/teams/global-tuberculosis-programme/tb-reports/global-tuberculosis-report-2022> [Accessed 27 Mar 2023].
- Law I, Floyd K, Abukaraig EAB, et al. National tuberculosis prevalence surveys in Africa, 2008–2016: an overview of results and lessons learned. *Trop Med Int Health* 2020;25:1308–27.
- Figueroa-Munoz J, Palmer K, Poz MRD, et al. The health workforce crisis in TB control: A report from high-burden countries. *Hum Resour Health* 2005;3:1–9.
- Ministry of Health, Kenya. *National strategic plan for tuberculosis, leprosy and lung health 2015 - 2018*.
- Toczek A, Cox H, du Cros P, et al. Strategies for reducing treatment default in drug-resistant tuberculosis: systematic review and meta-analysis. *Int J Tuberc Lung Dis* 2013;17:299–307.
- Ministry of Health, Kenya. National tuberculosis, leprosy and lung disease program annual report; 2019.
- Uplekar M, Weil D, Lonnroth K, et al. WHO's new end TB strategy. *Lancet* 2015;385:1799–801.
- Kasse Y, Jasseh M, Corrah T, et al. Health seeking behaviour, health system experience and tuberculosis case finding in Gambians with cough. *BMC Public Health* 2006;6:1–8.
- Vesga JF, Hallett TB, Reid MJA, et al. Assessing tuberculosis control priorities in high-burden settings: a Modelling approach. *Lancet Glob Health* 2019;7:e585–95.
- Ministry of Health, Kenya. Integrated guideline for tuberculosis, leprosy and lung disease; 2021.
- Ministry of Health, Kenya. Guidelines on the programmatic management of tuberculosis preventive therapy (PMTPT); 2020.
- Munro SA, Lewin SA, Smith HJ, et al. Patient adherence to tuberculosis treatment: a systematic review of qualitative research. *PLoS Med* 2007;4:e238.
- Engel N, Ochodo EA, Karanja PW, et al. Rapid molecular tests for tuberculosis and tuberculosis drug resistance: a qualitative evidence synthesis of recipient and provider views. *Cochrane Database Syst Rev* 2022;4:CD014877.
- Smith JP, Song R, McCarthy KD, et al. Clinical and radiologic factors associated with detection of Mycobacterium tuberculosis in children under 5 years old using invasive and noninvasive sample collection techniques-Kenya. *Open Forum Infect Dis* 2022;9:ofac560.
- Angala P, Dlodlo RA, Wanjala S, et al. TB training in Kenya: building capacity for care and prevention. *Public Health Action* 2022;12:40–7.
- Yah CS, Tambo E, Khayeka-Wandabwa C, et al. Impact of telemonitoring approaches on integrated HIV and TB diagnosis and treatment interventions in sub-Saharan Africa: a Scoping review. *Health Promot Perspect* 2017;7:60–5.
- Mbithi I, Thekkur P, Chakaya JM, et al. Assessing the real-time impact of COVID-19 on TB and HIV services: the experience and response from selected health facilities in Nairobi, Kenya. *Trop Med Infect Dis* 2021;6:74.
- Deya RW, Masese LN, Jaoko W, et al. Yield and coverage of active case finding interventions for tuberculosis control: a systematic review and meta-analysis. *Tuberc Res Treat* 2022;2022:9947068.
- Szkwarko D, Amisi JA, Peterson D, et al. Using a mobile application to improve pediatric presumptive TB identification in Western Kenya. *Int J Tuberc Lung Dis* 2021;25:468–74.
- Khundi M, Carpenter JR, Nliwasa M, et al. Effectiveness of spatially targeted interventions for control of HIV, tuberculosis, leprosy and malaria: a systematic review. *BMJ Open* 2021;11:e044715.
- Chikovore J, Pai M, Horton KC, et al. Missing men with tuberculosis: the need to address structural influences and implement targeted and multidimensional interventions. *BMJ Glob Health* 2020;5:e002255.
- Medina-Marino A, Bezuidenhout D, Ngcelwane N, et al. Qualitative identification of intervention preferences to support men's engagement and retention in TB care in South Africa. *Am J Mens Health* 2022;16:15579883221129349.
- Harris D. Applied political economy analysis a problem-driven framework methods and resources; 2013.
- Reich MR. Political economy analysis for health. *Bull World Health Organ* 2019;97:514.
- Loffreda G, Bello K, Kiendrébéogo JA, et al. Political economy analysis of universal health coverage and health financing reforms in low- and middle-income countries: the role of stakeholder engagement in the research process. *Health Res Policy Syst* 2021;19:143.
- Ssenyonjo A. Beyond “lack of political will”: elaborating political economy concepts to advance “thinking and working politically” comment on “health coverage and financial protection in Uganda: a political economy perspective” *Int J Health Policy Manag* 2023;12:7297.
- Guest G, Bunce A, Johnson L. How many interviews are enough? *Field Methods* 2006;18:59–82.
- Campbell S, Greenwood M, Prior S, et al. Purposive sampling: complex or simple? Research case examples. *J Res Nurs* 2020;25:652–61.
- Gale NK, Heath G, Cameron E, et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol* 2013;13:1–8.
- Smith J, Firth J. Qualitative data analysis: the framework approach. *Nurse Res* 2011;18:52–62.
- SocioCultural Research Consultants L. Dedoose version 9.0.17, cloud application for managing, analyzing, and presenting qualitative and mixed method research datapresenting. 2021. Available: <https://www.dedoose.com> [Accessed 28 Feb 2024].
- Mutere BN, Keraka MN, Kimuu PK, et al. Factors associated with default from treatment among tuberculosis patients in Nairobi province, Kenya: a case control study. *BMC Public Health* 2011;11:696.

- 33 Kizito KW, Dunkley S, Kingori M, *et al.* Lost to follow up from tuberculosis treatment in an urban informal settlement (Kibera), Nairobi, Kenya: what are the rates and determinants? *Trans R Soc Trop Med Hyg* 2011;105:52–7.
- 34 Kiplimo R, Kosgei M, Mwangi A, *et al.* Longitudinal-survival models for case-based tuberculosis progression. *Front Public Health* 2021;9:543750.
- 35 Kimani E, Muhula S, Kiptai T, *et al.* Factors influencing TB treatment interruption and treatment outcomes among patients in Kiambu County, 2016–2019. *PLoS One* 2021;16:e0248820.
- 36 Kairu A, Orangi S, Oyando R, *et al.* Cost of TB services in healthcare facilities in Kenya. *Int J Tuberc Lung Dis* 2021;25:1028–34.
- 37 Rachlis B, Naanyu V, Wachira J, *et al.* Identifying common barriers and facilitators to linkage and retention in chronic disease care in Western Kenya. *BMC Public Health* 2016;16:741.
- 38 Azevedo MJ. The state of health system(s) in Africa: challenges and opportunities. *Afr Hist Modernities* 2017:1–73.
- 39 Kangangi JK, Kibuga D, Muli J, *et al.* Decentralisation of tuberculosis treatment from the main hospitals to the peripheral health units and in the community within Machakos district, Kenya. *Int J Tuberc Lung Dis* 2003;7:S5–13.
- 40 Liefoghe R, Baliddawa JB, Kipruto EM, *et al.* From their own perspective. A Kenyan community's perception of tuberculosis. *Trop Med Int Health* 1997;2:809–21.
- 41 Mbutia GW, Olungah CO, Ondicho TG. Health-seeking pathway and factors leading to delays in tuberculosis diagnosis in West Pokot County, Kenya: a grounded theory study. *PLoS One* 2018;13:e0207995.
- 42 Mbutia GW, Olungah CO, Ondicho TG. Knowledge and perceptions of tuberculosis among patients in a Pastoralist community in Kenya: a qualitative study. *Pan Afr Med J* 2018;30:287.
- 43 Kenya economic outlook | African development bank - building today, a better Africa tomorrow. Available: <https://www.afdb.org/en/countries-east-africa-kenya/kenya-economic-outlook> [Accessed 27 Mar 2023].
- 44 Barter DM, Agboola SO, Murray MB, *et al.* Tuberculosis and poverty: the contribution of patient costs in sub-Saharan Africa - a systematic review. *BMC Public Health* 2012;12:1–21.
- 45 Msoka EF, Orina F, Sanga ES, *et al.* Qualitative assessment of the impact of socioeconomic and cultural barriers on uptake and utilisation of tuberculosis diagnostic and treatment tools in East Africa: a cross-sectional study. *BMJ Open* 2021;11:e050911.
- 46 Opoku SK, Leal Filho W, Hubert F, *et al.* Climate change and health preparedness in Africa: analysing trends in six African countries. *Int J Environ Res Public Health* 2021;18:4672.
- 47 Sheriff M, Mash R. Climate change and primary health care in Chakama, Kilifi County, Kenya. *Afr J Prim Health Care Fam Med* 2022;14:e1–3.
- 48 Ministry of Health, Kenya. National tuberculosis, leprosy and lung disease annual report; 2019.
- 49 Mulupi S, Ayakaka I, Tolhurst R, *et al.* What are the barriers to the diagnosis and management of chronic respiratory disease in sub-Saharan Africa? A qualitative study with Healthcare workers, national and regional policy Stakeholders in five countries. *BMJ Open* 2022;12:e052105.
- 50 Faust L, Ruhwald M, Schumacher S, *et al.* How are high burden countries implementing policies and tools for latent tuberculosis infection? A survey of current practices and barriers. *Health Sci Rep* 2020;3:e158.
- 51 Ministry of Health, Kenya. National strategic plan for tuberculosis, leprosy and lung health 2019 – 2023; 2019.
- 52 Tsofa B, Musotsi P, Kagwanja N, *et al.* Examining health sector application and utility of program-based budgeting: county level experiences in Kenya. *Int J Health Plann Manage* 2021;36:1521–32.
- 53 Hanson C, Kibuga D, Bank W. Effective tuberculosis control and health sector reforms in Kenya: challenges of an increasing tuberculosis burden and opportunities through reform. *Int J Tuberc Lung Dis* 2000;4:627–32.
- 54 Kiririgia JM, Sambo LG, Agu VU, *et al.* How to develop an operational plan for health. *E Afr Med Jnl* 2001;78.
- 55 Chakaya J, Petersen E, Nantanda R, *et al.* The WHO global tuberculosis 2021 report - not so good news and turning the tide back to end TB. *Int J Infect Dis* 2022;124:S26–9.
- 56 Uplekar M. Public-private mix for tuberculosis care and prevention what progress? What prospects? *Int J Tuberc Lung Dis* 2016;20:1424–9.
- 57 Lei X, Liu Q, Escobar E, *et al.* Public-private mix for tuberculosis care and control: a systematic review. *Int J Infect Dis* 2015;34:20–32.
- 58 Worthington R. Performance and programme-based budgeting in Africa: a status report 2013. *SSRN Journal* 2013.
- 59 Lakin J, Torbert S, Hasan S. Program budget structure in the health sector: a review of program-based budgeting practices in low-and middle-income countries; 2018.
- 60 Maher D. The role of the community in the control of tuberculosis. *Tuberculosis (Edinb)* 2003;83:177–82.
- 61 Chamie G, Kwarisiima D, Clark TD, *et al.* Leveraging rapid community-based HIV testing campaigns for non-communicable diseases in rural Uganda. *PLoS One* 2012;7:e43400.
- 62 Theobald S, Tolhurst R, Squire SB. Gender, equity: new approaches for effective management of communicable diseases. *Trans R Soc Trop Med Hyg* 2006;100:299–304.
- 63 Vijay S, Balasangameshwara V, Jagannatha P, *et al.* Pre-treatment outcome of smear positive tuberculosis cases under DOTS in Bangalore city. *Indian J Tuberc* 2002.
- 64 Munodawafa D, Onya H, Amuyunzu-Nyamongo M, *et al.* Achieving Sdgs and addressing health emergencies in Africa: strengthening health promotion. *Glob Health Promot* 2021;28:97–103.
- 65 Kaswa M, Minga G, Nkiere N, *et al.* The economic burden of TB-affected households in DR Congo. *Int J Tuberc Lung Dis* 2021;25:923–32.
- 66 Edginton ME, Sekatane CS, Goldstein SJ. Patients' beliefs: do they affect tuberculosis control? A study in a rural district of South Africa. *Int J Tuberc Lung Dis* 2002;6:1075–82.
- 67 Courtwright A, Turner AN. Tuberculosis and Stigmatization: pathways and interventions. *Public Health Rep* 2010;125:34–42.
- 68 Amo-Adjei J. Individual, household and community level factors associated with keeping tuberculosis status secret in Ghana. *BMC Public Health* 2016;16:1196.
- 69 Somma D, Thomas BE, Karim F, *et al.* Gender and socio-cultural determinants of TB-related stigma in Bangladesh. *Int J Tuberc Lung Dis* 2008;12:856–66.
- 70 Sabiiti W, TWENDE consortium. Beyond the numbers: interpreting WHO's global tuberculosis report 2016 to inform TB policy and practice in the East African community. *East Afr Health Res J* 2017;1:2–7.
- 71 A global action framework for TB research in support of the third pillar of WHO's end TB strategy. Available: <https://www.who.int/publications/i/item/9789241509756> [Accessed 27 Mar 2023].
- 72 Lienhardt C, Lönnroth K, Menzies D, *et al.* Translational research for tuberculosis elimination: priorities, challenges, and actions. *PLoS Med* 2016;13:e1001965.
- 73 Theobald S, Taegtmeier M, Squire SB, *et al.* Towards building equitable health systems in sub-Saharan Africa: lessons from case studies on operational research. *Health Res Policy Syst* 2009;7:26.
- 74 Gross JM, McCarthy CF, Verani AR, *et al.* Evaluation of the impact of the ARC program on national nursing and midwifery regulations, leadership, and organizational capacity in East, Central, and Southern Africa. *BMC Health Serv Res* 2018;18:406.
- 75 Harries AD, Thekkur P, Mbithi I, *et al.* Real-time operational research: case studies from the field of tuberculosis and lessons learnt. *Trop Med Infect Dis* 2021;6:97.