



REPÚBLICA DE MOÇAMBIQUE

MINISTÉRIO DA SAÚDE

**COMMUNITIES, RIGHTS AND GENDER TB
ASSESSMENTS
IN MOZAMBIQUE**

October, 2020

Study aims to explore the impact of the legal environment, and gender relations towards access to health and Tuberculosis treatment among vulnerable groups in Gaza and Maputo Provinces, Mozambique. This CRG assessment is made possible by support from the Stop TB Partnership, in collaboration from The Global Fund to fight AIDS, Tuberculosis and Malaria.

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Table of Content

Acknowledgement from the Ministry of Health (MISAU)	Error! Bookmark not defined.
Stop TB Secretariat messaging on communities, rights, and gender report .	Error! Bookmark not defined.
Foreword from Kenguelekezé	Error! Bookmark not defined.
Report compilation team	Error! Bookmark not defined.
Acknowledgements	3
<i>Steering committee for CRG field work:</i>	3
Acronyms.....	7
Executive Summary	8
1. Introduction.....	10
1.1. TB control landscape	10
1.2. TB burden among key population groups.....	15
1.2.1. People Living With HIV (PLHIV)	15
1.2.2. Female Sex Workers – FSWs	16
1.2.3. People who use Drugs – PWIDs.....	17
1.2.4. Mineworkers and Ex-Mineworkers	18
1.2.5. Healthcare workers	18
1.3. Gender-related TB issues	20
1.3.1. Biological differences in TB vulnerability between men and women	21
1.3.2. Gender-related TB mortality	21
1.4. International, regional and national laws and standards.....	22
1.4.1. Laws, regulations and policies relevant for the health rights.....	22
1.4.2. International Conventions, Declarations and Protocols	22
1.4.2.1. The Universal Declaration on Human Rights (UDHR):	24
1.4.2.2. The International Convention on Civil and Political Rights (ICCPR)	24
1.4.2.3. The Convention on the Rights of the Child (CRC)	25
1.4.2.4. The UN Standard Minimum Rules for the Treatment of Prisoners.....	25
1.4.2.5. The World Health Organization (WHO) 2006 guidelines on HIV/TB.....	25
1.4.2.6. The International Convention on the Elimination of All Forms of Racial Discrimination (CERD) 1969	25
1.4.2.7. The Convention against Torture and Cruel, Inhuman or Degrading Treatment or Punishment	25
1.4.2.8. The United Nations General Assembly Special Session	26
1.4.2.9. The ILO Recommendation 200 of 2010 on HIV and the World of work	26
1.4.2.10. The International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families	26
1.5. Regional Conventions, Declarations and Protocols.....	26
1.5.1. The African Charter on Human and Peoples’ Rights (ACHPR) 1978	26
1.5.2. The African Charter on the Rights and Welfare of the Child 1990	27
1.5.3. The African Union Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria (2014)	27

1.5.4.	The African Charter on Human and Peoples' Rights (ACHPR) on the Rights of Women in Africa.	27
1.6.	Regional Level (at SADC settings)	27
1.6.1.	The Protocol on Mining (1997)	28
1.6.2.	The Southern African Development Community Protocol on Health.	28
1.6.3.	The SADC Code on HIV and AIDS and Employment 57 adopted in 2003.	28
1.7.	Domestic law, policy, guidelines, strategies, programmes, plans, and bodies.....	29
1.7.1.	Mozambique legal framework and rights relevant to TB services	29
1.7.2.	The Constitution of the Republic (CRM)	31
1.7.3.	The Act of labour (Act 23/2007)	31
1.7.4.	The Penal Code (Act 24/2019).....	32
1.7.5.	The Act 19/2014 granting rights and duties to PLHIV	32
1.7.6.	The Act 34/2014 granting the right to information	32
1.7.7.	The Act 26/2014 granting the right to petitions	32
1.7.8.	The Health Sector Policy – HSP	32
1.7.9.	The Act 29/2009 granting protection against domestic/gender-related violence .32	
1.7.10.	The Strategic Plan for the health sector – PESS (2014-2019)	33
1.7.11.	The National Strategic Plan (NSP) for HIV/AIDS (2016-2020)	33
1.7.12.	The National Strategic Plan (NSP) for TB (2014-2018) extended for 2020	33
2.	The objectives.....	33
2.1.	Primary objective.....	33
2.2.	Secondary Objectives.....	33
2.3.	Research questions	34
3.	Methodology.....	34
3.1.	Population, sample size, and research sites.....	34
3.2.	Data collection tools.....	35
3.3.	Data analysis.....	37
3.4.	Ethical considerations.....	37
3.5.	Study limitations.....	37
4.	Findings	38
4.1.	Reported barriers to TB care access	38
4.1.1.1.	PLHIV	38
4.1.1.2.	FSWs.....	39
4.1.1.3.	PWIDs	39
4.1.1.4.	Mineworkers.....	39
4.1.2.	Gendered differences to TB risks	39
4.1.3.	Gender-related differences in barriers to TB care.....	40
4.2.	TB burden, and social representation of TB disease.....	42
4.3.	Legal environment framework.....	43
5.	Recommendations from participants.....	44
5.1.	PLHIV	47
5.1.1.	To improve the TB sector.....	47

5.1.2.	To benefit PLHIV	47
5.1.3.	To improve family health	48
5.1.4.	To improve community health	48
5.2.	Recommendations from FSWs	48
5.2.1.	To improve TB sector competence.....	48
5.2.2.	To benefit FSWs.....	48
5.3.	Recommendations from Mineworkers/Ex-mineworkers	49
5.3.1.	To improve TB sector	49
5.3.2.	To benefit mineworkers	49
5.4.	Recommendations from PWIDs.....	49
5.4.1.	To improve the service	49
5.4.2.	To benefit PWIDs	50
5.5.	Recommendations from health managers and health workers.....	50
5.5.1.	To improve the TB sector.....	50
5.6.	Recommendations from assessment team (on-site observations)	50
5.6.1.	To improve the health sector, and professional competence.....	50
5.6.2.	To improve/build infrastructure for the operation of NTP.....	51
5.6.3.	To perform training of Health Staff on TB Management regularly	51
5.7.	Recommendations from stakeholder workshops (validation committee)	51
6.	Discussion of findings	44
7.	Conclusion.....	51
8.	References	52
9.	Annex: List of participants at the validation Workshop.....	56

Acronyms

ACHPR	African Charter on Human and Peoples' Right
ACRWC	African Charter of the Rights and Welfare of the Child
AIDS	Acquired Immune Deficiency Syndrome
AMIMO	Associação dos Mineiros Moçambicanos / Mozambican Miners Association
ART	Antiretroviral Treatment
CCS	Centro de Colaboração de Saúde/Health Collaborating Centre
CERD	International Convention on Elimination of All forms of Racial Discrimination
CESCR	Committee on Economic, Social and Cultural Rights
COVID-19	Coronavirus Disease 2019 (or SARS-CoV-2)
CRC	Convention on the Rights of the Child
CRG	Community, Human Rights and Gender
DOTS	Direct Treatment Observation Strategy
FSW	Female Sex Workers
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and counselling services
HW	Health Workers
ICCPR	International Covenant on Civil and Political Rights
ICRMW	International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families
ILO	International Labour Organization
IOM	International Organization for Migration
KP	Key Population
LTBI	Latent Tuberculosis Infection
LTFU	Loss To Follow Up
MoH	Ministry of Health
NTP	National Tuberculosis Control Program
PESS	Health Sector Strategic Plan
PLHIV	People Living With HIV/AIDS
PWID	People Who Inject Drugs
SADC	Southern African Development Community
SERNAP	National Correctional Service (of Mozambique)
TB	Tuberculosis
TEBA	The Employment Bureau of Africa
UDHR	Universal Declaration of Human Rights
UN HLM TB	United Nations High Level Meeting on TB
UNAIDS	United Nations Programme on HIV and AIDS
UNGASS	United Nations General Assembly Special Session
UNIDOS	National Network on Drugs & HIV
WHO	World Health Organization

Executive Summary

This report provides findings from assessing the legal environment, human rights and gender-related barriers to accessing TB services amongst TB key populations. This was done in an inclusive and multi sectoral approach to contribute to the efforts of strengthening the National TB Programme in Mozambique. The methods of the analysis included a literature review, site observations, and combination of in-person semi-structured interviews, focus group discussions, and in-depth interviews with people from vulnerable groups, such as individuals living with HIV, female sex workers, people who use drugs, mineworkers, health professionals, and key informants from the TB sector. The process included establishment of a core group, multi-stakeholder working group to ensure participation of the affected individuals and communities in all the processes of the assessment: planning, adaptation of tools, data collection and validation of findings. This also ensured expectations and outcomes in achieving key populations.

The research findings show that poor knowledge about TB and the misconceptions in the ways in which it is commonly understood and represented, limited geographic coverage of the health sector, widespread poverty and marginalization of vulnerable groups, high prevalence of stigma and discrimination. Entrenched gender-related power imbalances and disparities are, together, common barriers to TB service access. In addition, there are a number of key legal environment-linked barriers to TB diagnosis and treatment. These include limited translation and implementation socialization of laws and policy into strategies and interventions. Moreover, there is limited community participation, human rights promotion and protection, and removal of barriers related to gender-dynamics.

The recommendations discussed among vulnerable groups and TB service providers outlined here, include substantial improvements of TB services focused on availability, accessibility, acceptability, quality, and equality. Key recommendations from vulnerable groups and TB professionals are:

- Improvement of professional competence within the TB sector.
- The reduction of TB facility over-crowding.
- The provision of patient incentives for transport support to guarantee adherence to treatment and service linkages in the cascade of healthcare.

In parallel, to benefit vulnerable groups, concurrent interventions can include:

- Food and nutrition security support.
- Psychosocial support.
- Promotion of differentiated models of medication dispensing.
- TB education tailored to group specific needs, guarantees of privacy and confidentiality, and.
- Support of initiatives led by beneficiaries or representative groups.

- The expansion of TB services into community settings.
- Secure and increased the community participation in the planning, decision niches for TB services, and implementation of response.
- Law enforcement and implementation during TB service delivery to secure human rights protection.
- Ethical and professional training for patient-centred services.
- Community linkage to care.
- Increases in human resources for health in quantity and quality.
- Respect to patient needs/culture.

This study was subject to a number of limitations. This includes a limited representation as the study was based on snowball sampling of participants from hard-to-reach groups. There were further site/movement restrictions due to the SARS-CoV-2 pandemic; limited available relevant scientific literature. In fact, this was a small qualitative study and therefore, cannot be seen as representative of all TB service-related issues throughout the country. The report was discussed and validated on 17th May 2020, as per list of stakeholders in annexes.

1. Introduction

1.1. TB control landscape

The World Health Organization (WHO) strategy for the 2016-2035 aims to eliminate TB by accelerating the reduction of TB mortality and incidence. This strategy is in line with the Sustainable Development Goals (SDGs) adopted by the United Nations. Specific goals of the “End TB” strategy include reducing TB mortality by 90% and incidence (new cases of TB annually) by 80% by the year 2030 as compared to 2015. These targets set a major immediate challenge on the TB-fighting sector: the reduction in annual incidence must go from the current 2% to 4-5% annually to reach the first 2020 targets (WHO, 2019).

Despite notable innovations in prevention, diagnosis, care and treatment – including effective prevention messaging, new methods for molecular diagnostics (GeneXpert), and new drugs and regimens for LTBI, sensitive TB, and resistant TB - TB disease remains at epidemic levels in many developing countries (Hall et al., 2012 and Tollefson et al., 2013), including in Mozambique (NTP report, 2017). Social inequalities, including poverty, harmful gender norms, and economic factors play a large role in the continuation of the TB epidemic.

TB affects people of all genders in all age, and social groups, but the largest number are men (aged 15 years or older), who accounted for 57% of all TB cases in 2018. In comparison, women represented 32% and children (less than 15 years accounted for 11%). Among all TB cases, 8.6% were living with HIV (PLHIV). WHO listed 30 countries, including Mozambique, as high-burden TB settings. Collectively these countries account for 87% of global cases of the disease. (WHO, 2019)

Currently, the overall estimated incidence of TB in Mozambique is 551 per 100,000 population¹ and there have been no indications of reduced incidence rates in more than a decade. In 2014, the Government of Mozambique through the Ministry of Health began implementing the Strategic Plan of the Health Sector (PESS) for 2014–2019 period, and at the same time, the National Program for Tuberculosis Control (NTP) its Strategic and Operational Plan 2014–2018 (NSP). The PESS 2014–2019 purpose was to provide strategic guidance for the coordination of sector policies and programs in the medium and long term. Moreover, PESS 2014–2019 also provides a conceptual framework for planning reforms, as well as for the decentralization of service delivery. In parallel, NSP aims to accelerate the expansion and improvement of the quality of TB services in the DOTS strategy, to strengthen the health system to support the expansion and extension of DOTS services Quality, and to strengthen TB control partnerships.

¹Ibid

In 2019, the Ministry of Health was able to diagnose, notify and initiate treatment 97,111 TB cases, of which 12,853 cases were among children under 15 years. This constitutes 13.2% of the total cases reported nationally². In 2019, there were 746 TB cases among mineworkers, 896 cases among prisoners, and 387 cases among health professionals. In terms of gender, clearly men were more affected (1,621 cases) than women (408 cases). In addition, drug-resistant TB is related to serious side effects, in parallel with expensive treatment. Official data show that Mozambique spends between 8 and 9 million USD to treat approximately 2,500 patients with resistant TB and 73,000 sensitive TB cases each year.

In the absence of a completed prevalence survey (this is currently ongoing) the WHO estimates are the best available estimates for TB rates in Mozambique. These estimates place Mozambique as one of the countries with the lowest case detection rate, at about 45%³. The major challenge of 43% of missing cases (118,691 patients) is related to limited coverage of the health sector, which covers less than 55% of country. The main diagnostic method, the GeneXpert machine, is primarily placed to district main facility, which leaves huge uncovered population in the peripheral settings.

Unfortunately, as similar for international figures, in Mozambique, the most of missing cases or even lost to follow up (LTFU) belongs mainly to vulnerable populations, such as, active miners and ex-miners from gold and platinum mines located abroad, sex workers, migrants, drug users, prisoners, PLHIV and sexual minorities, that are confronted with social inequalities, legal and economic conditions which contribute to the low follow-up and compliance with medication uptake as recommended by health services and, consequently, resulting in very poor health conditions⁴.

Cumulatively, these groups are people with exacerbated exposure to TB due to the conditions where they live or work (miners, health providers among community and institutional workers, prisoners, FSW, people crowded in poorly-ventilated areas, TB patient contacts), people with limited access to health services (migrants, women facing gender inequities, children/adolescents, displaced people, illegal miners and/or undocumented, remote rural areas, the elderly, people with physical or mental disabilities, legal barriers and sexual minorities), and persons with high risk to TB due to biological or behavioural factors (PLHIV, diabetics, malnourished, silicosis, tobacco consumers, PWIDs and people with alcohol disorders).

Mineworkers, PLHIV, and prisoners are considered vulnerable populations for TB. Currently, there is no local documentation the reasons for the high rates of TB infection, violations of

²Ibid, p. 03

³ADPP Mozambique, Challenge Facility for Civil Society Round 8, available in www.stoptb.org/assets/documents/.../ROUND8_MOZAMBIQUE.pdf

⁴Global fund advocate networks, TB Key Populations and the Global Fund's 6th Replenishment - "Why Key Populations Need to Fully Funded Global Fund and Why the Global Fund Needs Fully Engaged TB Communities", 2018 available in <http://www.globalfundadvocatesnetwork.org/wp-content/uploads/2018/09/TB-Key-Populations-and-the-Global-Fund%E2%80%99s-Sixth-Replenishment-Full-Report-FINAL.pdf>.

human rights and gender inequities among these vulnerable populations. Somehow this undermines the NTP gains made over the years. These gains, for example include the fact that in 2016, there was an increase around 18% in reporting TB cases, which increased the notification rate from 239 cases per 100,000 to 278 per 100,000 people. These gains are due to introduction and expansion of GeneXpert as the main testing methods, and community active case finding through robust initiatives under Global Fund, WHO, World Bank, TB REACH, and USAID funding.

This is the context in which the NTP/Ministry of Health, guided by their five-year strategic plan emphasizes the importance of increasing the rates of TB detection among high-risk groups, as mentioned above⁵. The NTP, in particular, seeks to pay more attention to the marginalized population and vulnerable groups and victims of natural disasters, without leaving aside the women and children⁶.

From this context, with strategic orientation from NTP, in collaboration with Stop TB Partnership and funding from the Global Fund, through its Principal Recipient (PR) CCS – Health Collaborating Centre, this study aimed to conduct the qualitative evaluation of conditions of the Communities, Human rights and Gender (CRGs) in the provinces of Gaza and Maputo, considering the environment/favourable legal framework, gender relations faced by these vulnerable groups in prevention, diagnosis, care and treatment, particularly in seeking TB services.

National context overview for TB epidemiology and service delivery, in Mozambique, the National Tuberculosis Control Program (NTP) is the entity of Ministry of Health responsible for controlling and eliminating Tuberculosis in the country, through the implementation of various activities designed in its Strategic Plan, which are aligned with the Global Strategies for the elimination of the disease, Stop TB Partnership Global Plan to End TB, WHO End TB Strategy, Global Fund 2017-2022 Strategic Plan, United Nations High Level Meeting 2018 Declaration on TB, among other recommendations.

Mozambique is in all three of World Health Organization (WHO) high burden lists for TB, HIV/TB co-infection, and multi-drug resistant-TB (MDR-TB). In 2018, Mozambique had an estimated TB incidence of 551 per 100,000 people, for a total of 162,000 incident cases annually.⁸⁶ Of these, around 36% are estimated to be co-infected with HIV. The estimated proportion of MDR/RR-TB is 3.7% in new and 20% in previously treated cases and a total of 8,300 annually. The estimated death rate is 72 per 100,000 people in HIV-negative TB patients.⁸⁷ The TB response is currently guided by the (draft) Strategic Vision of the

⁵Republic of Mozambique Ministry of Health, Health Sector Strategic Plan 2014-2019.

⁶National Program for Tuberculosis Control, strategic and operational plan 2014 -2018.

National Tuberculosis Control Program Until 202488 and informed by the Joint NSP Assessment.⁸⁹ It also bears mentioning that the country is currently in the final stages of data analysis and report writing of a National TB Prevalence Survey. It is expected that this survey data will be available to guide and inform grant-making for this funding request.

Men are slightly more likely to be notified TB patients (Figure 1). Inter- and intra-country migration, especially to high TB and HIV burden mining areas of South Africa, is the key reason for this. Co-association with smoking may also be a risk factor in men. Around 13% of notified TB patients are children aged 0-14 years.

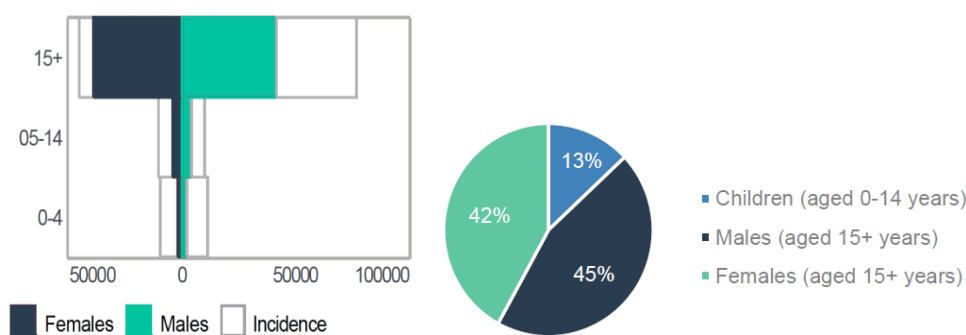


Fig. 1: TB cases notification distribution, disaggregated by age and sex, in 2018

TB is a poverty-related disease. Mozambique has reduced poverty in all forms measured in the last 15 years. Recent poverty assessments all show a decline in monetary poverty rates from 60.3% to 48.4%, reduction in multi-dimensional poverty rates from 92.8% to 71% and a reduction in poverty using the international poverty line from 78.5% to 62.9%⁷ but poverty remains. A lack of basic health services, poor nutrition and inadequate living conditions all contribute to the spread of TB and its impact upon the community⁸.

There is spatial variation in Mozambique's TB burden as well as geographic inequities in service access. In 2019, the highest number of TB notification was in Zambézia province (18,025), and the lowest in Cabo Delgado (4,572). The southern provinces (Maputo city, Maputo province, and Gaza), the study sites, have high TB/HIV co-infection rates, at around 55%.

In parallel, according to 2 population-based HIV surveys, the HIV prevalence ranges from 11.5% (INSIDA, 2009) to 13.2% (IMASIDA, 2015) in men and women aged 15-49 are HIV positive. The prevalence of HIV is higher in women (15.4%) when compared to men (10.1%). However, in both sexes, the prevalence is higher in the urban area (20.5% for

⁷National Poverty Assessment 2016, MEF/UNUWIDER (using 1.54\$ 2011 PPP), and World Bank MZ Poverty Assessment 2018 (using 1.49\$ 2011 PPP) both using data from the Household Budget Survey of 2002/3, 2008/9, 2014/15. The international poverty line is 1.90\$ (2011 PPP). Multidimensional poverty as calculated by World Bank as share of households experiencing three or more deprivations.

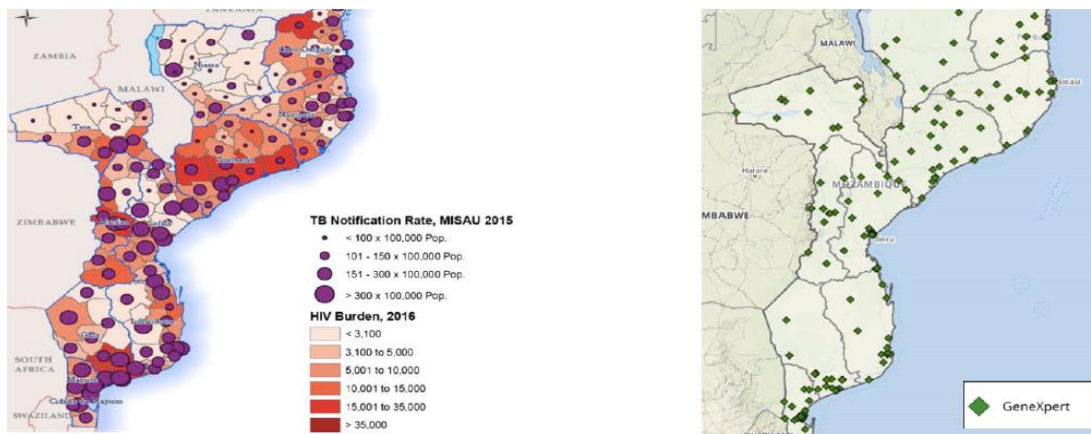
⁸ Addressing Poverty in TB Control, options for national TB control programmes, © World Health Organization 2005.

women and 12.3% for men) than in the rural area (12.6% for women and 8.6% for men). Between 2009 and 2015, the prevalence for men and women in the urban area increased from 15.9% in 2009 to 16.8% in 2015 and in the rural area it increased from 9.2% in 2009 to 11.0% in 2015.⁹ Furthermore, TB is the leading cause of illness and death among people living with HIV and people living with HIV are up to 20 times more likely to fall ill with TB.

Resistant TB cases have been increasing annually. In 2018, about 1,206 cases of resistant TB were reported against 943 cases in 2017, an increase of 27.8%. Despite the effort to increase the reporting of these cases, the achievement was so far below the established goal of 1,683 cases. Regarding the initiation of treatment in patients with MR-TB, 94% of the notified patients started treatment with second-line TB drugs against 95% in the previous year.

The biggest challenge for TB control in Mozambique is related to the fragility of health care coverage. However, making any analysis of the performance of the National Tuberculosis Control Program, it is important to have a perspective on the variation in health care coverage. The availability of health resources greatly affects the performance of health care provision for TB, although other actors also have an influence. As of May 2020, NTP allocated 184 GeneXpert, the main/recommend method to perform sputum testing for TB (fig. 2).

Fig. 2: Geospatial representation of TB notification (left) and diagnostic sites (right)



At the last but not the least, Mozambique has been performing political commitment for adequate health response, including TB services, engagement of communities, civil society organizations, and all public and private care providers, policy and regulatory frameworks for better healthcare, and social protection, poverty alleviation and actions on other social determinants of TB.

⁹Inquérito de Indicadores de Imunização, Malária e HIV/SIDA em Moçambique (IMASIDA) 2015

1.2. TB burden among key population groups

The Stop TB Partnership Global Plan (2018-2022) defines “key populations” as people who are vulnerable, underserved or at risk of TB infection and illness. Key populations vary by country and include people with increased exposure to TB due to where they live or work, people with limited access to quality TB services, and people at greater risk due to biological or behavioural factors. In 2010, the country defined the most affected groups by TB as PLHIV, mineworkers, and health care workers are recognized as top 3 at high TB risk. The identification was based on estimates of the biological factors, behaviour factors, population size, particular barriers to accessing TB care, and gender-related challenges.

In 2018, AMIMO developed a workshop to draw the vulnerability to TB among additional groups. This assessment considered AMIMO’s outcomes. So, for this assessment, four vulnerable groups were addressed, namely PLHIV, FSWs, PWIDs, and MINEWORKERS. However, very limited numbers of men who have sex with men (MSM) were contacted. It was unable to reach PRISONERS due to lock-down motivated by Covid-19.

1.2.1. People Living with HIV (PLHIV)

TB is inseparably linked to the HIV epidemic; this relationship is especially stark in resource-limited settings. In Sub-Saharan Africa, TB is the most common serious opportunistic infections and is the leading cause of death in HIV-infected adults before and while receiving highly active antiretroviral therapy (ART).^{10,11,12} Moreover, the transmission of TB in HIV clinics and other health settings is a risk to patients and health care workers.

In 2019, Mozambique notified 97,111 TB cases, of which 36% (34,960) were PLHIV. The main interventions for PLHIV include TB/HIV collaborative activities, such as HIV counselling and testing, Cotrimoxazole preventive therapy (CPT), and antiretroviral therapy (ART), with the aim of reducing the impact of HIV on TB patients and controlling TB in HIV-positive patients. The NTP introduced and is implementing the One Stop Shop Model strategy, with aim to improve the adherence and retention to antiretroviral and concomitantly to TB treatment.

This approach consists in delivering care and treatment to both morbidities at same time by single provider in the same consultation room. In recent years, the performance of collaborative activities has improved, with particular emphasis on the number of patients who start ART. For example, in 2017, the rate of patients on ART was 95%, while, 97% of patients registered in the TB sector were tested for HIV or knew their HIV status.

¹⁰Macpherson P, Moshabela M, Martinson N, Pronyk P. Mortality and loss to follow-up among HAART initiators in rural South Africa. *Trans R Soc Trop Med Hyg* 2009; 103:588–93.

¹¹Etard JF, Ndiaye I, Thierry-Mieg M, Gueye NF, Gueye PM, Laniece I, Dieng AB, Diouf A, Laurent C, Mboup S, et al. Mortality and causes of death in adults receiving highly active antiretroviral therapy in Senegal: a 7-year cohort study. *AIDS* 2006; 20:1181–1189.

¹²Brinkhof MW, Egger M, Boulle A, May M, Hosseinipour M, Sprinz E, Braitstein P, Dabis F, Reiss P, Bangsberg DR, et al. Tuberculosis after initiation of antiretroviral therapy in low-income and high-income countries. *Clin Infect Dis* 2007; 45:1518–1521.

According to the WHO, the country¹³ is part of 14 countries that are simultaneously in 3 groups of countries with a high burden of TB, TB/HIV and MDR-TB and also of the very few countries in the world with an incidence above 500 per 100 000 population. In 2017, great progress was made in terms of the performance of the Program's main indicators. There was a substantial increase in the diagnosis and notification of cases, representing a 15% increase in the notification rate compared to the previous year, but despite the remarkable advances, several challenges remain to be overcome. Among the biggest challenges are:

- I. The reduction of the gap between the detection of cases and the number of cases estimated by WHO for the country.
- II. The low detection of cases of resistant TB (TB-RR/MDR/ XDR).
- III. The low success rate of MDR-TB treatment.

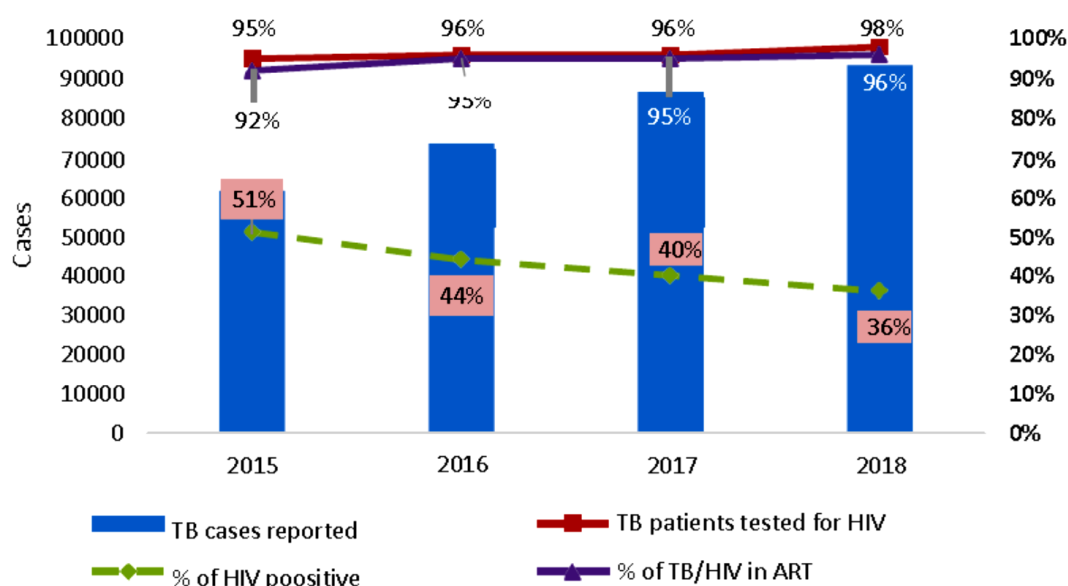


Fig. 3: TB/HIV collaborative activities and indicators, 2015-2018, NTP (2018) report.

1.2.2. Female Sex Workers – FSWs

There are an estimated 86,000 FSWs in Mozambique. FSWs have been largely left out of the TB response and the NTP has no strategy for including or tracking TB or response strategies for this group. However, from integrated biological and behavioural survey (IBBS) for FSWs, conducted in 2011-2012, with the aim to estimate HIV, syphilis, and risk factors for FSWs to HIV. The outcomes confirmed that this group is key population at high risk to acquire HIV. Interviewed FSWs were not aware on their HIV status. The IBBS was conducted in 3 selected main cities (Maputo, Beira, and Nampula), showing HIV prevalence among FSWs of 31.2%, 23.6%, and 17.8% in these cities respectively.

¹³MoH NTCP Annual Report 2018

1.2.3. People who use Drugs – PWIDs

Similarly, to FSWs, NTP still not have strategy to follow up or to handle specific health metrics for people who inject drugs (PWIDs). So, currently there is no data available on TB metrics for PWIDs from NTP register to track TB burden, activities or services. An IBBS (2014) was conducted in two main cities (Maputo and Nampula) aimed to assess HIV, hepatitis B (HBV), hepatitis (HCV), and associated factors. HIV prevalence estimates ranged from 50% (40.1% to 59%) in Maputo, and 19.9% (10.9 to 29.2%) in Nampula. It was estimated that the population size is about 0.22% of adult population in Maputo (1,684 PWIDs), and 0.17% in Nampula (520 PWIDs).

According to this IBBS, the number of PWID in main cities is estimated to be low, at 1,684 (0.22% of the adult population) in Maputo and 520 (0.17% of the adult population) in Nampula. However, recently PWID population was estimated at 12,000 people with prevalence around 45.8%. Given high rates of syringe sharing (42.4% to 50.3%), low rates of condom use (47.6% to 70.9%), and high rates of avoidance of the healthcare system (59.2% to 90.5% did not declare contact with facilities or professionals) due to common experiences of stigma and discrimination, it is likely that HIV rates have increased in this population.

PWIDs can experience high TB prevalence due to social and demographic risk factors such as poverty, employment, homelessness, imprisonment, HIV infection, malnutrition and lack of access to health care. TB rates in PWIDs increase significantly with age, years of drug use, and HIV infection. The years of drug use are closely related to the time spent in sites where TB is easily transmitted, resulting in a cumulative TB risk that justifies continuous screening programmes. Incentives and peer counselling have shown to increase adherence to referral services.¹⁴ Treatment of LTBI, after exclusion of active TB, is effective, even in individuals living with HIV.

Integrated services for HIV/AIDS and TB facilitate treatment monitoring, early identification of side-effects and development of joint strategies to maximize adherence to both treatments. PWIDs require comprehensive care services (e.g. HIV/AIDS, chemical dependency treatment, DOTS, hepatotoxicity monitoring particularly in patients with hepatitis B or C infection or alcoholism) and should be managed by experienced health teams. If comprehensive care is not possible, cooperation, constant communication and adequate referral systems between TB and HIV/AIDS programmes are crucial.¹⁵

¹⁴Chaisson RE, Barnes GL, Hackman J, Walkinson L, Kimbrough L, Metha S, et al. A randomized, controlled trial of interventions to improve adherence to isoniazid therapy to prevent tuberculosis in injection drug users. *Am J Med* 2001;110:610-5. PMID:11382368 doi:10.1016/S0002-9343(01)00695-7.

¹⁵Chaisson RE, Barnes GL, Hackman J, Walkinson L, Kimbrough L, Metha S, et al., et al. A randomized, controlled trial of interventions to improve adherence to isoniazid therapy to prevent tuberculosis in injection drug users. *Am J Med* 2001; 110: 610-5 doi: [10.1016/S0002-9343\(01\)00695-7](https://doi.org/10.1016/S0002-9343(01)00695-7) pmid: [11382368](https://pubmed.ncbi.nlm.nih.gov/11382368/).

1.2.4. Mineworkers and Ex-Mineworkers

TB is a significant problem among mineworkers and ex-mineworkers fuelled by the mining industry in Southern Africa. Of the estimated 500,000 mineworkers in Southern Africa's mines, approximately 40% originate from Mozambique. In addition, there is a significant number of populations of unlicensed miners (*garimpeiros*) underestimated countrywide. TB rates within the mining workforce are estimated at 2,500-3,000 cases per 100,000 individuals (Stuckler et al., 2011; WHO, 2013).

This incidence is 10 times the WHO threshold for a health emergency and is also nearly three times the incidence rate in the general population. Mineworkers are at a higher risk of contracting TB due to prolonged exposure to silica dust, poor living conditions, and high HIV prevalence in mining communities. Furthermore, circular movement of mineworkers across provincial and national borders and a poor cross border health referral system increase infection rates, adversely affect adherence to TB treatment, and contribute to the incidence of drug resistant strains such as multidrug resistant (MDR) and extensively drug-resistant (XDR) TB in the sub-region. Mineworkers are one of the high-risk groups defined by the NTP as requiring regular monitoring.

The trend in the notification of cases for mineworkers has increased in the last 4 years (2015-2018) and can be seen from the previous graph on the next page.¹⁶ There are two projects in Mozambique underway, for 5 years from 2018, one with funding from the World Bank (SATBHSS, <https://www.satbhss.org/mozambique>) and another one, TB in the Mining Sector (TIMS) funded by Global Fund.

1.2.5. Healthcare workers

The risk for healthcare workers (HCWs) of TB attributable to occupational exposure is difficult to determine, as are the conditions contributing to the risk. Recognition of nosocomial transmission as a public health issue is on top of agenda country dialogue in this era of HIV-related comorbidities, and in the settings with more prevalent resistant-TB transmission. Overall, the risk of acquiring TB can be three times higher for HCWs than for the general population.^{17,18,19} Health care workers (HCWs), both formal from facilities and Community Health Workers (CHWs) are at an increased risk of acquiring TB compared to the general population, regardless of economic setting and local TB incidence.^{20,21,22}

¹⁶MoH NTCP Annual Report 2018

¹⁷Joshi R, Reingold AL, Menzies D, Pai M. Tuberculosis among health-care workers in low- and middle-income countries: a systematic review. *PLoS Med.* 2006;3(12):e494.

¹⁸Verkuijl S, Middelkoop K. Protecting our front-liners: occupational tuberculosis prevention through infection control strategies. *Clin Infect Dis.* 2016;62(suppl 3):S231-S7.

¹⁹Tudor C, Van der Walt M, Margot B, Dorman SE, Pan WK, Yenokyan G, et al. Tuberculosis among health care workers in KwaZulu-Natal, South Africa: a retrospective cohort analysis. *BMC Public Health.* 2014;14(1):1.

²⁰deVries G, Šebek MMGG, Lambregts-van Weezenbeek CSB. Healthcare workers with tuberculo-sis infected during work. *EurRespir J.* 2006;28(6):1216-21.

²¹Baussano I, Nunn P, Williams B, Pivetta E, Bugiani M, Scano F. Tuberculosis among health care workers. *Emerg Infect Dis.* 2011;17(3):488-95.

²²Chai SJ, Mattingly DC, Varma JK. Protecting health care workers from tuberculosis in China: a review of policy and practice in China and the United States. *Health Policy Plan.* 2013;28(1):100-9.

However, the risk is higher in low-resource, high-TB-burden settings, such as Mozambique, where HCWs are in more frequent and prolonged contact with people in an infectious stage of active TB.^{23,24} Due to lack of resources to implement effective TB infection control (TBIC), placing HCWs at serious risk mostly in Health care facilities in low- and middle-income countries (LMICs), where TB is more likely to be endemic.^{25,26} An estimated 81% of TB cases among HCWs are attributable to occupational exposure.²⁷ TB laboratory staff also constitutes a high-risk occupational category due to poor occupational biosafety measures, such as biological safety cabinets, proper ventilation, ultraviolet germicidal lights, and personal respiratory protection in labs.^{28,29}

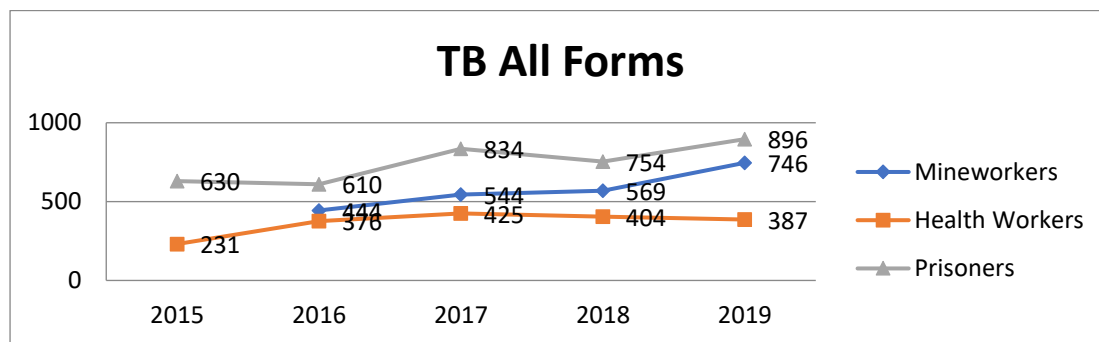


Fig.4: Evolution of TB cases in high-risk groups, 2015-2019 (NTP, 2019)

Another risk group are medical and nursing students, who are closely involved in delivering services to people with TB during their training. A study in India noted a high prevalence of LTBI in nursing trainees, with an ARTI of 7.8% compared to the national average of 1.5%.³⁰ Also the community health workers (CHWs), who commonly receive less formal training, remuneration and support, yet work in similar high-risk environments.³¹ HCWs are also at greater risk for multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) than the general population.^{32,33}

In the country, about 17,553 HCWs are considered exposed to TB as result of an occupational risk without adequate workplace. Significant number of TB facilities is lacking adequate environment ventilation, means for infection control, and compliance with personal

²³ Joshi R, Reingold AL, Menzies D, Pai M. Tuberculosis among health-care workers in low- and middle-income countries: a systematic review. *PLoS Med.* 2006;3(12):e494.

²⁴ Christopher DJ, Daley P, Armstrong L, James P, Gupta R, Premkumar B, et al. Tuberculosis infection among young nursing trainees in South India. *PLoS ONE.* 2010;5(4):e10408.

²⁵ Woith WM, Volchenkov G, Larson JL. Russian healthcare workers' knowledge of tuberculosis and infection control. *Int J Tuberc Lung Dis.* 2010;14(11):1489-92.

²⁶ Christopher DJ, James P, Daley P, Armstrong L, Isaac BTJ, Thangakunam B, et al. High annual risk of tuberculosis infection among nursing students in South India: a cohort study. *PLoS ONE.* 2011;6(10):e26199.

²⁷ Baussano I, Nunn P, Williams B, Pivetta E, Bugiani M, Scano F. Tuberculosis among health care workers. *Emerg Infect Dis.* 2011;17(3):488-95.

²⁸ Demkow U, Broniarek-Samson B, Filewska M, Lewandowska K, Maciejewski J, Zycinska K, et al. Prevalence of latent tuberculosis infection in health care workers in Poland assessed by interferon-gamma whole blood and tuberculin skin tests. *J PhysiolPharmacol.* 2008;59(Suppl 6):209-17.

²⁹ Zhang X, Jia H, Liu F, Pan L, Xing A, Gu S, et al. Prevalence and risk factors for latent tuberculosis infection among health care workers in China: a cross-sectional study. *PLoS ONE.* 2013;8(6):e66412.

³⁰ Christopher DJ, James P, Daley P, Armstrong L, Isaac BTJ, Thangakunam B, et al. High annual risk of tuberculosis infection among nursing students in South India: a cohort study. *PLoS ONE.* 2011;6(10):e26199.

³¹ Claessens MM, Sismanidis C, Lawrence K-A, Godfrey-Faussett P, Ayles H, Enarson DA, et al. Tuberculosis among community-based health care researchers. *Int J Tuberc Lung Dis.* 2010;14(12):1576-81.

³² Jarand J, Shean K, O'Donnell M, Loveday M, Kvasnovsky C, Van der Walt M, et al. Extensively drug-resistant tuberculosis (XDR-TB) among health care workers in South Africa. *Trop Med Int Health.* 2010;15(10):1179-84.

³³ O'Donnell MR, Jarand J, Loveday M, Padayatchi N, Zelnick J, Werner L, et al. High incidence of hospital admissions with multidrug resistant and extensively drug resistant tuberculosis among South African health care workers. *Ann Intern Med.* 2010;153(8):516-22.

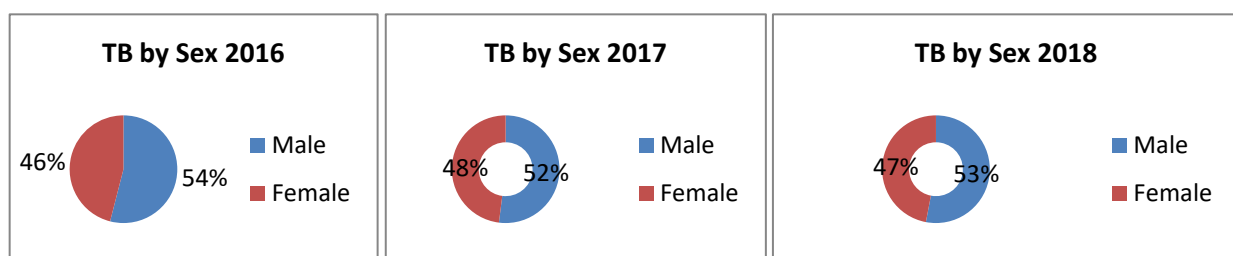
protection equipment. For example, HCWs are up to six times more likely to be hospitalized for MDR-TB than the general population.³⁴ A study conducted in South Africa found that HCWs diagnosed with XDR-TB were subject to delayed diagnosis, poor treatment outcomes and high mortality.³⁵

In Mozambique the TB screening among health workers (HCWs) deserves special attention, not only because they are constantly exposed but also because the infrastructure often does not meet the minimum standards for effective infection control.

1.3. Gender-related TB issues

Some studies have attempted to explain the differential TB infection rates between men and women in terms of biology. One group of studies have argued that men may be biologically more vulnerable than women to pulmonary TB.³⁶ Others, including in Malawi, Bangladesh, India, South Africa, and more settings, argued that TB is more difficult to diagnose in women;³⁷ some studies have found that women with pulmonary TB have a different immune response to TB than men,³⁸ resulting in different symptoms, signs and outcomes, and that women with TB may not test positive on microscopic examination of the sputum.³⁹

The NTP introduced in 2016 new tools to collect gender disaggregated information from provinces. The data collection tools were modified in order to collect information about sex and age group. The Chart below shows the data disaggregated by sex in 2016-2017 and 2018, respectively, where females represents 46%, 47% and 48% and Male 54%, 53% and 52% respectively. From this report we can see that men are more frequently diagnosed than women, it doesn't follow that rates are necessarily higher in men than women, though they may well be.⁴⁰



³⁴ O'Donnell MR, Jarand J, Loveday M, Padayatchi N, Zelnick J, Werner L, et al. High incidence of hospital admissions with multidrug resistant and extensively drug resistant tuberculosis among South African health care workers. *Ann Intern Med.* 2010;153(8):516-22.

³⁵ Jarand J, Shean K, O'Donnell M, Loveday M, Kvasnovsky C, Van der Walt M, et al. Extensively drug-resistant tuberculosis (XDR-TB) among health care workers in South Africa. *Trop Med Int Health.* 2010;15(10):1179-84.

³⁶ Kilale, A.M. et al., Perceptions of tuberculosis and treatment seeking behaviour in Ilala and Kinondoni Municipalities in Tanzania, *Tanzania Journal of Health Research* 2008; 10(2): 89–96.

³⁷ Onifade, D.A. et al., Gender-related factors influencing tuberculosis control in shantytowns: a qualitative study, *BMC Public Health* 2010, 10:381, <http://www.biomedcentral.com/1471-2458/10/381>.

³⁸ Waisbord, S., Behavioral Barriers in Tuberculosis Control: A Literature Review, The CHANGE Project/Academy for Educational Development, Washington, DC, 2005, http://pdf.usaid.gov/pdf_docs/Pnadf406.pdf.

³⁹ Long, N.H., E. Johansson, V.K. Diwan and A. Winkvist, Fear and social isolation as consequences of tuberculosis in Vietnam: a gender analysis, *Health Policy* 2001, 58(1):69–81.

⁴⁰ Ibid

Fig. 5: TB Disaggregated data by sex from 2016 to 2018 (NTP, 2018)

1.3.1. Biological differences in TB vulnerability between men and women

In general, TB cases among men outnumber those among women, but in some countries — Iran, Afghanistan and regions of Pakistan bordering Afghanistan — more women than men are detected with TB.⁴¹ However, the reasons for higher TB rates among women in these regions are poorly understood. Although the Afghanistan National Strategic Plan for Tuberculosis Control attributes these rates to early marriage and short intervals between pregnancies,⁴² the lack of comparative data from countries with similar early marriage and high birth rates makes it difficult to determine whether this explanation holds true. Whatever, there is evidence that genital extra pulmonary TB is neglected among women in many countries. In Mozambique, NTP is lacking data for genital TB.

1.3.2. Gender-related TB mortality

The Global Fund carried out a baseline assessment for gender to support its efforts to scale up programmes to reduce human rights and gender (HRG)-related barriers to HIV and TB services. The objectives of the assessment were to (i) identify the key HRG-related barriers to HIV and TB services, (ii) describe existing programmes put in place to reduce such barriers, (iii) indicate what a comprehensive response to existing barriers would comprise in terms of the types of programmes, their coverage and costs, and (iv) to identify the opportunities to bring these to scale over the period of the Global Fund's 2017-2022 strategy.

The findings for HIV are as follow (a) HIV disease continue to face HRG-related barriers, namely stigma and discrimination in personal and community settings, especially for key populations, lack of confidentiality and privacy in HIV services, abusive and illegal practices by police (mostly involving bribery and extortion), particularly against men who have sex with men, female sex workers, and people who inject drugs, despite recent changes to the penal code, harmful gender norms that amongst other things, fuel sexual and GBV against AGYW and limit their agency and autonomy to seek needed health services, and barriers related to poverty to the extent that HIV services are inaccessible for some or unaffordable given a prevailing practice of extra charges for health services that are legally required to be provided free-of-charge.

⁴¹Johansson, E., N.H. Long, V.K. Diwan and A. Winkvist, Gender and tuberculosis control: perspectives on health seeking behaviour among men and women in Vietnam, *Health Policy* 2000; 52: 33-51.

⁴²Yamasaki-Nakagawa, M., Gender difference in delays to diagnosis and health care seeking behaviour in a rural area of Nepal, *International Journal of Tuberculosis and Lung Disease* 2001; 5:24-31.

1.4. International, regional and national laws and standards

1.4.1. Laws, regulations and policies relevant for the health rights

Mozambique's human rights framework is inspired from international treaties and conventions, issued globally, continentally and regionally. The Constitution of the Republic (2004) and diverse legislation regarding human rights are examples of internal law reflecting those international law bodies. This section examines the international, continental, regional and national human rights frameworks in the context of key populations infected/affected by TB/HIV diseases in Mozambique. Since 56% of TB patients are co-infected with HIV, TB/HIV co-infection patients to some extent are subjected to various forms of discrimination. These international, continental and regional conventions give a sense of direction to the country in such a way that it can conform to the universal standards of handling TB including TB/HIV issues.

TB (and HIV) patients in the context of this study (mineworkers, prisoners, people who take drugs, health workers and PLHIV) experience infringements of their human rights daily. This includes lack of access to effective testing and treatment, discrimination in employment and health care settings, and unnecessarily detention and isolation against their will. TB has been linked to social and economic inequalities, and it is seen as a disease that primarily affects disadvantaged people, thus violating the principle of social equality and access to health for all (one of the fundamental principles of Universal Declaration of Human Rights – UDHR).

1.4.2. International Conventions, Declarations and Protocols

The Government of Mozambique over the years has ratified several conventions, Universal declarations, resolutions and guidelines in a bid to conform to the international human rights norms in the context of human rights of TB/HIV co-infected patients and HIV positive TB patients.

The following conventions discussed briefly below have been adopted by the government of Mozambique:

Table 1: International bodies, conventions and treaties ratified by Mozambique

#	Body, Convention or Treaty	Relevance on TB services
International Bodies, Conventions or Treaties		
1	UDHR – The Universal Declaration on Human Rights	Secure protection of human dignity of TB communities
2	ICCPR – International Convention on Civil and Political Rights	Protects TB community's privacy and confidentiality
3	CRC – The Convention on the Rights of the Child	Affords protection to children in accessing TB services
4	UN – The Standard minimum Rules for the Treatment for Prisoners	Secure availability, accessibility, acceptability and quality of TB services
5	WHO (2006) – Guidelines on HIV/TB	Establishes quality standards for TB services
6	CERD – The International Conventional on the Elimination of all forms racial discrimination	Guarantee rights to TB service access
7	CAT – The Convention against Torture and Cruel, inhuman or degrading	Secure access to TB access among detainees and those in custody
8	UNGASS	Provide political commitment to TB service access
9	ILO	Recommends and safeguards workers rights in accessing TB services
10	ICPRMW	Guarantees TB-related rights for mineworkers
Continental (African) Bodies, Conventions or Treaties		
11	ACHPR	Addresses TB stigma and discrimination
12	ACRWC	Addresses rights for children and access to TB services
13	AU (2014) – African Union	Reiterates human dignity of people against TB
14	The African Protocol on Mining	Reiterates political

		commitment on TB delivering
15	SADC Protocol on Health	As similar to SADC Code, it reiterates
16	SADC Code on HIV	Addresses TB epidemic in the workplace
Domestic Bodies, Law and Policy		
17	CRM – The Republic Constitution of Mozambique	Is the mother-law in the country.
18	LABOUR – The Act of Labour 23/2007	It is the health guarantee at the in-domestic workplace
19	PENAL – The Penal Code 24/2019	Is the safeguard of rights and secure punishment for physical, psychological, and other harmful practices against citizens
20	PVHIV – The Act 19/2014	Guarantee and states rights and duties of PLHIV
21	The Act 34/2-14	Secure access to TB-related information

1.4.2.1. The Universal Declaration on Human Rights (UDHR):

The UDHR was proclaimed by the United Nations General Assembly in Paris on 10 December 1948. This declaration provides that “all human beings are born free and equal in dignity and rights.” It is based on the “inherent dignity” of all people and affirms the equal rights of all men and women, in addition to their right to freedom⁴³. These human rights principles apply equally to TB/HIV co-infected Mineworkers, Prisoners and Detainees, Health Workers, People Who Use Drugs, and PLHIV. Article 25 recognises the right to access medical care.

1.4.2.2. The International Convention on Civil and Political Rights (ICCPR)

ICCPR principally calls for the right to equality, freedom from non- discrimination and access to justice without any discrimination to equal protection of the law. Concerning the subject matter under review (human rights TB/HIV co-infections), the convention takes into consideration wide varieties, civil and political rights such as rights to equality, privacy and protection from unpleasant, inhumane, discrimination and indecent treatment. Article 7 provides that “no one shall be subjected to torture or cruel, inhuman or degrading treatment or punishment including people ill of TB. TB patients should not only be protected from acts

⁴³ The Universal Declaration on Human Rights

that cause physical pain but also acts that cause mental suffering. Mozambique ratified this convention in 1993.

1.4.2.3. The Convention on the Rights of the Child (CRC)

The CRC ensures that children are safeguarded against all forms of abuse, neglect and exploitation, including special care for refugee children; safeguards for children in the criminal justice system; protection for children in employment; protection and rehabilitation for children who have suffered exploitation or abuse of any kind. It is vibrant in protecting total orphans, children who are living with HIV/AIDS, and children whose parents are infected with HIV/ TB co-infections. The CRC recognises that children's programmes and policies for HIV/AIDS including TB/HIV Co-infection should be designed, taking into account "the best interest of the child". Mozambique ratified this convention in 1994.

1.4.2.4. The UN Standard Minimum Rules for the Treatment of Prisoners

This came into force in 1977. The declaration's purpose is to establish the standard minimum rules that protect the rights of prisoners taking into consideration TB/HIV Co-infected patients.

1.4.2.5. The World Health Organization (WHO) 2006 guidelines on HIV/TB

These guidelines establish standards and procedures in administering HIV/TB Co-infections in certain population groups. These guidelines go a long way towards recognizing the rights, situation of the incarcerated men and women living with HIV/TB Co-infection. However, there is a need to reduce the risks related to the environment and detect cases of TB as early as possible through screening for tuberculosis on entry and at regular intervals during imprisonment.

1.4.2.6. The International Convention on the Elimination of All Forms of Racial Discrimination (CERD) 1969

Its underlying goal is to call the attention of Member States to undertake to prohibit and to eliminate racial discrimination in the right to public health, medical care, social security and social services. Mozambique ratified this convention in 1983.

1.4.2.7. The Convention against Torture and Cruel, Inhuman or Degrading Treatment or Punishment

The State should also adopt all necessary measures to protect detainees from contracting tuberculosis, hepatitis B, C and HIV/AIDs. Prisoners should be able to have prompt access to an independent doctor at any time when requested by the detainee, without conditioning such access on the permission or request of officials.⁴⁴

⁴⁴ Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment(Observations of the Committee against Torture on the revision of the United Nations Standard Minimum Rules for the Treatment of prisoners(SMR) page 7&8 <http://www.unodc.org/documents/justice-and-prison-reform>

1.4.2.8. The United Nations General Assembly Special Session⁴⁵

Political Declaration convened in 2011 with an agenda to appraise the progress achieved in meeting the 2001 Declaration of Commitment on HIV/AIDS and the 2006 Political Declaration on HIV/AIDS. UNGASS declaration provides us with guidelines of controlling the spread of HIV/TB Co-infections and simultaneously mitigates the impact thereby creating an enabling environment to come up with laws and policies that uphold human rights and gender equality.

1.4.2.9. The ILO Recommendation 200 of 2010 on HIV and the World of work

The underlying purpose of this recommendation is to put in place HIV preventive measures against the transmission of HIV, safeguard the rights of workers and mitigate the impact of HIV and AIDS on employees and their families. In light of HIV/ TB Co-infection, and human rights, the recommendation is a vital component in that it covers principles such as the recognition of HIV and AIDS as a workplace issue, non-discrimination and confidentiality.

1.4.2.10. The International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families

Mozambique signed this convention on 15th Mar 2012 and ratified on 19th August 2013. The Convention sets minimum human rights standards for migrant workers and members of their families, with a special focus on eliminating labour exploitation in the migration process. Article 23 of this convention provides that " migrant workers and members of their families shall have the right to receive any medical care that is urgently required for the preservation of their life or the avoidance of irreparable harm to their health.

Despite the progress made in adopting and ratifying these international protocols, conventions and treaties, implementation still falls short of the stated commitments. Some of the have not been fully integrated in the national laws, policy documents and strategic plans.

1.5. Regional Conventions, Declarations and Protocols

Mozambique has ratified and signed the following regional protocols as outlined below:

1.5.1. The African Charter on Human and Peoples' Rights (ACHPR) 1978

ACHPR intends to promote dignified living conditions of the individuals; Article 5 provides that every individual shall have the right to respect of the dignity inherent in a human being and the right to recognition of his legal rights and status. The ACHPR is relevant to our situation on the ground to the extent that it provides for a range of basic human rights which are vital to HIV/AIDS in this respect TB/HIV co-infected children),no discrimination, inequality

⁴⁵UNGASS

or degrading punishment and treatment and the right to the highest attainable standard of health, amongst others⁴⁶.

1.5.2. The African Charter on the Rights and Welfare of the Child 1990

The African Charter on the Rights and Welfare of the Child (ACRWC) provides for the rights of children to basic civil, political, and socio-economic rights such as health rights. It provides that every child has the right to enjoy the best attainable state of physical, mental and spiritual health. Article 5: Every child has a right to live. Article 16: Children should be protected from all forms of torture, inhuman or degrading treatment and especially physical or mental injury or abuse, neglect or maltreatment including sexual abuse. ACRWC addresses the rights of children in accessing TB services.

1.5.3. The African Union Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria (2014)

This roadmap is aimed at supporting African nations to fight jointly and meet the TB, Malaria and HIV set targets. Further to this, it is also intended to seek African solutions to ensure universal access to health-related services for all those in need on a sustainable basis. Pillar 3 of the roadmap includes an obligation for Member States to address stigma and discrimination, create enabling frameworks and empower communities to know their rights and access services.

1.5.4. The African Charter on Human and Peoples' Rights (ACHPR) on the Rights of Women in Africa.

The provides for important rights such as the right to quality discrimination, the right to human dignity, the right to health and reproductive rights, including protection against STIs such as HIV and a right to abortion in given circumstances; as well as the right to be informed of one's health status and on the health and the health status of one's partner (including HIV/TB status) following international recognised standards and best practices.

1.6. Regional Level (at SADC settings)

First and foremost, Mozambique is a signatory to the SADC Declaration on Tuberculosis in the Mining Sector and the Code of Conduct on Tuberculosis in the Mining Sector.

⁴⁶https://www.unicef.org/esaro/African_Charter_articles_in_full.pdf

1.6.1. The Protocol on Mining (1997)

Through this protocol, member states agree to share information on exploitable mineral resources in the region, enhance the technological capacity of the sector as well as promote policies that will encourage and assist small scale farming. Furthermore, member states agree to cooperate in improving the practices and standards of occupational health in the region's mining⁴⁷.

1.6.2. The Southern African Development Community Protocol on Health.

Its underlying purpose is to co-operate with State parties to address health problems and challenges through effective regional collaboration and mutual support. It deals with several health problems and topmost among them is TB Control. Article 12 of the same (SADC) Protocol stipulates that. In view of the seriousness of tuberculosis in the Region, States Parties shall co-operate and assist one another:

- To develop strategies for the sustained control of tuberculosis, including the efficient supply and delivery of drugs.
- To ensure, where appropriate, the harmonisation of tuberculosis control activities and HIV/AIDS programmes.⁴⁸

1.6.3. The SADC Code on HIV and AIDS and Employment 57 adopted in 2003.

The purpose of this code is to establish the regional standards on how best to deal with the twin epidemics of HIV and TB in the places of work. The code goes a long way towards guiding employers, workers and states to respond to HIV in workplaces. This code is relevant to the health and human right in the sense it underlines the key principles for rights-based response to HIV in places of work, the right to confidentiality, none forceful HIV testing, the rights to be safeguarded from unfair labour practices and unlawful dismissals, the right to a conducive working environment, right to compensation for injury including occupational infection with HIV and TB.

The section 3 of the SADC Declaration on TB in the mining sector provides that: Every worker in the region has the right to health and safety at work and to a healthy and safe environment that sustains human development and access to adequate shelter⁴⁹. This is not the case; mineworkers sleep in crowded dormitories which create a high-risk environment for TB transmission.

⁴⁷Southern African Development Community , Available at: <https://www.sadc.int/documents-publications/show/808>(accessed 30th August, 2019)

⁴⁸ Southern African Development Community Protocol on Health ,Available at:<https://www.ifrc.org/docs/IDRL/Southern%20African%20Development%20Community.pdf>(Accessed on 30th Aug, 2019)

⁴⁹FINAL Draft declaration on TB in the mining sector04 April 2012

1.7. Domestic law, policy, guidelines, strategies, programmes, plans, and bodies

In Mozambique, the mother law is the Constitution of the Republic (CRM). In its article 18, the international treaties and agreements are in force in the Mozambican legal order after their official publication and as long as they link the State of Mozambique internationally. The table below summarizes the international, regional, and domestic instruments adopted relevant for TB services.

1.7.1. Mozambique legal framework and rights relevant to TB services

The table below summarizes the legal framework that assessment considered relevant to address the rights to be linked to TB service delivering.

Table 3: The rights instruments to be linked to TB services

Right to	International/regional instrument	National framework (law, policy, strategy, etc.)	Potential meaning/role in TB
Respect the dignity inherent to human being	ACHPR	The Constitution Act 19/2014	Elaboration of specific law for rights in TB services
Enjoy the best attainable state of physical, mental, and spiritual health	ACRWC	The Constitution Penal Code Act 19/2014 GBV strategy	Removal of institutional barriers observed in the correctional services for detainees
Support the fight and meet the TB, Malaria, and HIV targets	AU Roadmap	NSP for TB NSP for HIV NSP for Malaria	Robust TB programme response, including funding and research
Protect detainees from TB, HBV, HCV, and HIV/AIDS	CAT	The Constitution Penal Code	Removal of institutional barriers observed in the correctional services for detainees
Prohibit and eliminate racial discrimination	CERD	The Constitution Act 19/2014	As right to public health medical care

Children safeguarded against abuse, protect OVC	CRC	The Constitution Children National Plan	Children overcome social and institutional barriers to access TB services, including early infant diagnostic
Every human being has inherent right to life, no one shall be arbitrarily deprived of life	ICCPR	The Constitution Penal Code	TB communities and patients have the right to have access to diagnostics and treatment, seen as protecting/promoting life
Set minimum human rights standards for migrant workers	ICPRMW	The Constitution Act 27/2007 – Labour law	Specific strategies and cross-border interventions for TB service delivering for mineworkers.
Put in place HIV prevention measures, safeguard the rights of workers	ILO	The Constitution Act 27/2007 – Labour law	To grant TB services in communities highly burdened by HIV, especially for miners and FSWs.
Set up TB control	SADC protocol on Health	The Constitution NSP for HIV NSP for TB	TB service in Mozambique is harmonized with regional to track and support migrant TB patients.
Establish standards on how to deal with TB/HIV in the workplace	SADC protocol on HIV	The Constitution NSP for TB NSP for HIV	TB service in Mozambique is harmonized with regional to track and support migrant TB patients.
Promote policies that	SADC protocol on	The Constitution	TB service in

assist occupational health	mining	NSP for TB NSP for HIV	Mozambique is harmonized with regional to track and support migrant TB patients.
All human beings are born free and equal in dignity and rights	UDHR	The Constitution	The health sector prioritizes TB response and scale up to track current not-enrolled groups in the NTP register.
Provision of services in controlling HIV/TB and mitigate impact, and come up with laws and policies to uphold human rights and gender equalities	UNGASS UN HLM on TB	NSP for TB NSP for HIV	NTP adopts international commitments to achieve United Nations 2030 Agenda.

1.7.2. The Constitution of the Republic (CRM)

The CRM grants the right to life and physical and moral integrity. No one can be subjected to torture or cruel or inhuman treats. In Mozambique there is no death penalty⁵⁸. Additional general rights granted by CRM are, (i) Right to honour, good name, reputation, the defence of your public image and the reserve of your private life (41). All citizens have the right to freedom of expression, freedom of the press, as well as the right to information (48). Right to education (88), right to health, including medical and health care, as well as to promote and defend public health (89).

1.7.3. The Act of labour (Act 23/2007)

The CRM is translated into diverse laws determining the legal framework and environment. From CRM article granting the right to work (84), emanate into the Act 23/2007 for labour, other rights such as the right to privacy, including your health status (5), protection of personal data, including confidentiality and consent (6), right to free circulation of migrant worker, entitled to protection by the competent national authorities.

1.7.4. The Penal Code (Act 24/2019)

Other relevant legal instruments include (i) penal code (Act 24/2019) which grants penalties against to voluntary physical harm resulting in illness or health-related disabilities, torture and other cruel, degrading or inhuman treatment, sexual violence (from 2 up to 8 years), placing a person in a state of being unable to protect themselves, exposing others to sexual illness and danger of contagion or serious illness, (1 up to 5 years).

1.7.5. The Act 19/2014 granting rights and duties to PLHIV

The Act 19/2014 grants protection to all citizens, including people vulnerable to TB. This legal instrument recommends HIV planning, activities and coordination, including affected communities. In addition, the Act states that the State has competencies through the Ministry of Health in the field of HIV and AIDS to ensure the allocation of the necessary means to the health facilities for the care and treatment of PLHIV, to ensure access to health services and care, providing better conditions for testing, medical assistance and treatment of people infected with HIV and AIDS, and to ensure free of charge medical and medication services to PLHIV.

1.7.6. The Act 34/2014 granting the right to information

The Act 34/2014 grants the right to information, meaning for health, comprehensive explanation regarding accessing healthcare, diagnostics, prognostics, and treatment, including the availability of norms of functioning of facilities such as, business-time, medication regimens, taxing, and mechanism of community participation.

1.7.7. The Act 26/2014 granting the right to petitions

Citizens are granted the right to demand petitions to Assembly of Republic, addressing concerning issues, including health-related services performing poorly.

1.7.8. The Health Sector Policy – HSP

The HSP is the governing document in the health sector. The remaining documents are developed, harmonized, and aligned with HSP, including the government quinquennial plan (2020-2024), sectoral policy, and national and international conventions.

1.7.9. The Act 29/2009 granting protection against domestic/gender-related violence

This Act enforce law against domestic violence as a way of exercising power, using physical, psychological, economic and social strength, with the ultimate goal of achieving the victim's

submission to the perpetrator. When violence occurs between de facto spouses or consorts, or boyfriends, aspects of a cultural nature and mentalities are intertwined with socioeconomic issues.

1.7.10. The Strategic Plan for the health sector – PESS (2014-2019)

PESS, a quinquennial document, is the main guideline of the health sector (MISAU) in planning, programming for health services country. The other health guidelines, strategies, and protocols rely oriented to PESS, including NSPs for HIV and TB.

1.7.11. The National Strategic Plan (NSP) for HIV/AIDS (2016-2020)

The NSP for HIV/AIDS is the main guideline in programming, delivering services, and engaging communities in the response to HIV epidemic. The most achievement for this NSP is the focus on certain populations groups considered vulnerable and key populations, including for TB, such as PLHIV, FSWs, PWIDs, adolescent girls and young women (AGYW), mineworkers, prisoners, truck-drivers, among others.

1.7.12. The National Strategic Plan (NSP) for TB (2014-2018) extended for 2020

The NSP for TB has expired in 2018, but extended for this current year 2020, is the main guideline in programming, delivering services, and engaging communities in the response to TB epidemic. The most achievement for this NSP is the focus on certain populations groups considered vulnerable and key populations, however, currently NTP register recognize the general population aside of PLHIV, mineworkers, prisoners, and health professionals.

2. The objectives

2.1. Primary objective

Assess the legal environment, human rights and gender barriers to accessing TB health services among the TB Key populations in Gaza and Maputo provinces and contribute to the strengthening of the National Tuberculosis Control Program in the country aims to document the main bottlenecks in accessing and providing TB services in Mozambique.

2.2. Secondary Objectives

- Assess the impact of limited data on access to prevention, treatment and care;
- Analyse impact of the legal framework on vulnerability to TB infection and on access to prevention, treatment at the sites covered by the research;

2.3. Research questions

1. What factors contribute to the limitation of data related to TB prevention, treatment and care among key populations?
2. What are the human rights barriers that key TB populations encounter in accessing TB prevention, treatment and health care?
3. What are the barriers imposed by gender relations that contribute to the vulnerability of key populations to TB regarding access to prevention, treatment and health care in the research sites?

3. Methodology

The rapid community, rights, and gender assessment (CRG) in Mozambique was implemented in two provinces (Maputo and Gaza), within 5 districts (Matola, Chibuto, Chokwe, Mandlakazi, and Xai-Xai city). These districts were selected in the TB stakeholder meetings because they have the highest TB burdens in-country, are highly populated by mining sector labour-sending communities and have high proportions of the included groups. These groups were further selected due to the availability of partner organizations representing/working with targeted groups to assist with participant access. Community-based organizations representing/working with PLHIV (Hixikanwe), FSWs (UNGAGODOLI), PWIDs (UNIDOS), and mineworkers (AMIMO) were key supporters in this research process.

3.1. Population, sample size, and research sites

Participant interviews and focus group discussions were conducted at places suitable to the interviewees. For PLHIV, interviews took place at Hixikanwe main office, FSWs at UNGAGODOLI main office, PWIDs at the community drug consuming hotspots/sites, MINERS at community/residence settings, and MSM at UNGAGODOLI office.

The sample size was initially calculated using simple random sampling and the following parameters, TB prevalence, confidence interval at 95%, and relative precision at 5.66%. Based on the above parameters, we aimed to include a total of 300 participants from the included populations (PLHIV, FSWs, PWIDs, Prisoners, and health workers) from selected six districts, namely Xai-Xai City, Manjacaze, Chibuto, Chokwe, and Matola.

The sample of respondents was distributed proportionally among these districts. About 30 participants from different vulnerable groups were expected within each district. However, due to emergency declaration at central level of government due to Covid-19, we were unable to include prisoners, and reach some settings in Moamba, and Matola districts. In total 171 participants were enrolled among PLHIV (51 participants), FSWs (28), PWIDs (30), mineworkers (47), and MSM (2). In addition, 13 TB providers from provincial level (health

directorate (2), district (5), and facilities (7) were included. The table below summarizes the respondents from different sites.

Table 2: Distribution of sample respondents through districts

Districts	PLHIV	FSWs	PWIDs	MINERS	MSM	TB Officials		Total
						Managers	Providers	
Xai-Xai	0	0	0	0	0	2	1	3
Chibuto	0	0	0	0	0	1	2	3
Manjacaze	0	0	0	0	0	1	2	3
Chokwe	0	0	0	47	0	2	2	51
Matola	51	28	30	0	2	0	0	111
Total	51	28	30	47	2	6	7	171

3.2. Data collection tools

The research used in this assessment is a combination of 4 qualitative approaches: the in-person semi-structured interviews with people from vulnerable groups, focus group discussions (FGDs), in-depth interviews with key informants, and on-site observations. The data tools for this assessment are attached in annex, at the end of this report.

Data was collected by 12 trained health professionals (doctors, nurses, laboratory technicians, pharmacy technicians, and community/social assistants for health). Data collectors were from Kenguelekezé management staff, with expertise and experience in working in the TB sector. All data collectors were trained or refreshed on TB infection and disease, biological/behavioural vulnerabilities to TB, key and vulnerable populations prioritized in Mozambique, community engagement and participation, general human rights, diverse legislation/recommendations on human rights, political commitment/declaration at international, regional, and national forums, “Mozambicanization”/domestication of international/regional laws/recommendations and protocols, and gender roles gender-related barriers to health and TB services. The table below summarizes the administered tools to specific key populations enrolled to this assessment.

Table 3: Administered tools to each enrolled group

#	Tool	Participating group	Comments/descriptions
1	Semi-structured interviews	Members of key-populations (KPs)	KPs members had opportunity to fully express themselves in confidential settings, and invited to present their opinions and make recommendations to the public health sector regarding their needs.
2	In-depth-structured interviews	Representatives of key-populations	After semi-structured approach sessions, key-informants from both KPs and TB providers were enrolled to in depth assessment and hopefully compare reliable needs and expectation of KPs as whole.
3	Focus group discuss (FGDs)	PLHIV (1 male group, and 1 female groups)	The assessment scheduled FGDs among PLHIV to ask questions on their experiences, perceptions and opinions in an interactive manner to gather overall recommendations to the TB provision sector.
4	On-site observations (OBS)	NTP units and TB sector settings	Assessment researchers performed facility inspections for TB IPC (infection prevention and control) compliance, supply chain and management programme

3.3. Data analysis

The data were tabulated and analysed thematically using electronic packages, namely **NVivo Release 1.0**, and **EVOC 2005**, for qualitative data by lead and adjunct consultants. Interviews and FDGs records were subject of speech content and textual content analysis. Themes and sub themes were generated under the research questions.

3.4. Ethical considerations

The assessment was submitted to CNBS – National Bioethics Committee for Health. CNBS approved the protocol on 22 October 2019(54/CNBS/19). The researchers took responsibility for addressing ethical considerations throughout assessment process and respected rights to privacy and confidentiality of research participants as well as the cultural values of the included communities.

Informed consent was undertaken with all participants. The assessment aims, objectives in interviewing vulnerable groups to TB were explained. The research team further explained the methodology, risks and benefits of participating. The research team then read and explained the consent form, following request of consented form information, including the right of withdrawal at any time of interview. Signatures, contact details, and other identifiers were collected but was explained that they would not appear in the analysis and/or publication forms. The NTP was the entity of safeguarding the participant identify details (participant confidentiality).

3.5. Study limitations

The study faced a number of challenges and limitations:

1. Snowball sampling was used because it enabled access to hard-to-reach populations. Sampling was therefore not representative.
2. The study sample size achieved at 158 participants does not permit to perform generalization of the findings. However, the assessment observed saturation (invariability) of speeches in all contacted groups.
3. Restrictions in the access to prisoners, and harder to access rurally located participants in the peripheral of districts. This was particularly the case because Mozambique government declared restrictions to movements, stay home measures due to Covid-19 pandemic. The survey therefore lacks information on these groups.
4. The time allocated for data collection and analysis was very limited. The assessment was assigned only three weeks for collection and processing of data, which was quite a challenge due to long distances to reach study sites for respondents' interviews. Reaching some districts required 800km of travel.

5. Furthermore, in some settings, the assessment conducted data collection in local language (Changana) but the tools were written in Portuguese. This meant that interviewers introduced their views, thoughts and personal biases during the research implementation.
6. Low levels of education among respondents affected familiarity with the areas of enquiry, notably in terms of the legal environment, human rights linked to health service delivery, and gender.
7. The assessment built on very little local literature on rights and gender-related barriers to TB care access.

4. Findings

4.1. Reported barriers to TB care access

About 171 participants from different vulnerable groups, TB service managers and providers, were asked questions regarding community factors, human rights and gender-related barriers to TB services access. Notable number of participants from all enrolled vulnerable groups mentioned several barriers to TB services, as below. Community and rights-related barriers are based or related to social, economic, cultural, and health institutional coverage factors. Purchase power, stigma, discrimination, and limited coverage of the health facility network are the roots of community-related constraints. The sections below summarize the main outcomes reported barriers for key populations as well as gender and human rights related barriers. Settings with limited or without TB programme coverage, harmful professional attendance, diverse denials, several types of fears, and stigma and discrimination, are the core factors fuelling the inaccessibility of TB services. GeneXpert devices are primarily placed at the district main health facility. This location is not appropriate and timely accessed by communities living in the remote/rural areas, due to long distances, limited transport means or not affordable in the public transport.

4.1.1.1. PLHIV

For PLHIV, the main reported barriers are (i) lack of money to pay transport to facility, (ii) long distances to the nearest facility, and (iii) stigma and discrimination. In addition, PLHIV, fear of dismissal from labour entity, denial or delays in healthcare authorization by employers, lack of professional repentance, delays at attendance, and disturbance of differentiated models in treatment. Social protection to most vulnerable groups is very limited, addressing orphaned children, household headed by children, and elderly irrespectively of their status for HIV. Even though HIV treatment is delivered free of charge, long distances to places of service delivery results in transport costs, which, combined with limited financial resources prevents health seeking. GeneXpert devices are primarily placed

at district centres and cannot be easily and quickly accessed by communities living in the remote/rural settings, who struggle to travel the distance required.

4.1.1.2. FSWs

For FSWs, key reported barriers include fear of disclosure to their parents, lack of money for transport, medicine stock outs, and bad attendance at facility. FSWs, who often have not disclosed their occupation to their families, fear that care access will reveal their work. Widespread stigma and discrimination commonly experienced by FSWs in healthcare facilities them fearful of going to facilities and is also a key barrier to service access. Those who have previous histories of being poorly adherent to chronic medication are also fearful of approaching healthcare facilities for fear that they will be scolded and poorly treated due to their historic relationship with facility staff.

4.1.1.3. PWIDs

For PWIDs, key reported barriers to service access include fear to engaging their families for required support, lack of money for transport, stigma/discrimination, and lack of specific health attention to PWIDs. For PWIDs, (i) stigma and discrimination, (ii) lack of money for transport, (iii) bad attendance, and (iv) fear to disclose to parents.

4.1.1.4. Mineworkers

Mineworkers report stigma and discrimination, medicine stock outs, bad attendance, fear to inform hierarchical chiefs, cuts in salaries, lack of specific attention to mineworkers, to disclose to their parents, fear to inform hierarchical chiefs, lack of money for transport, lack of specific attention to mineworkers, and dismissal from company.

4.1.2. Gendered differences to TB risks

Participant descriptions for gender differences in TB risk emphasize that work performed by men is likely to leave them at greater risk of contracting TB in comparison to women and children. Participants also reported that behaviours more common in men, including migration, frequent visits to crowded environments, and not staying at home increase men's risk of TB and related infections.

In parallel, in general, social norms were identified as roots of observed differences opportunities between men and women, including risks faced by specific gender. Men are seen as the head of the household and key household decision-makers. Men have active voice and women have not. Men are seen as stronger than women, so there are activities assigned to men that women are not allowed to perform. For example, men have the role of pursuing income generation labour, and are encouraged to perform physically strenuous

labour like building houses, fishing, mining, livestock guards, amongst others. Women are educated to take care of home and family. Women are supposed to be submissive to men. Women depend and pursue their spouses' authorization to seek healthcare services.

These social differences impact on TB risk, care seeking, care access and quality and the likelihood of getting treated to cure. In Mozambique, though BCG coverage is not discriminatory at antenatal/post-partum care settings, TB infection and its progress to disease are disproportional due to gender-rooted life conditions. In general, girls and women are likely to “stay home” to deal with household activities, with lower risk to TB mostly common in crowded settings in the industry and commerce. For boys and men, “staying home” is seen as male incompetence and failure to thrive socially. Men are encouraged to pursue income sources mostly outside household or even outside communities or abroad.

The assessment captured the sense that local concepts of masculinity require men to be strong. Frequent health facility visits, or visits early in illness onset, are seen as a sign of weakness and this undermines men's health seeking. Men are expected (or even see themselves) to be strong than female counterparts or being the head of the households. Gender-related differences in barriers to TB care.

Significant numbers of responders from all vulnerable groups mentioned differences between men and women in TB service access. Women are prioritised in queues to see doctors and nurses. This means that men are likely to have less access than women. Another difference was noted in terms of client preferences about being attended by male or female health professionals. In general, client and healthcare worker belonging to opposite gender are likely to perform better their interaction during health consultation. 69.4% (50/72) of women and 54% of men reported that they prefer male health professional. The reported reason why women prefer male workers is that are more attentive, patient, sympathetic good attendance, and they create comfortable consultation settings. Male workers are described as calmer. However, notable number of responders (50.5%) declared “no preference assigned to healthcare worker sex, suggesting that gender has potential to confound the service quality in the consultation settings.

Gender norms for both genders are associated with reduced likelihood of TB diagnosis and successful treatment. For females, stereotypical gender roles manifest as the belief that female health has lower priority than the health of children and men. High levels of household work also undermine TB diagnosis and successful treatment. In parallel, men are likely to avoid health-seeking due to spending extended time out of their household settings due to work, lower perception of illness, and fear of stigmatization related to notions of masculinity and the fear that masculinity is threatened by illness and health-seeking.

The fig.6 bellow summarizes views of different groups on gender differences.



Fig. 6: Gender differences disaggregated by vulnerable groups

Table 3: Gender differences for social norms and accessing TB services

Differences	PLHIV	FSWs	PWIDs	Miners
For social norms (Gender role)	Males are household (HH) commanders and females are HH keepers. TB services accessibility for women depends on male decisions.	Males are HH decision-makers and fathers	Males are stronger than females	Males are owners of active voice for HH
In accessing TB services	Women rely on their male partner consent to seek healthcare	Males have privilege to be attended properly	Females are dependent on their partners.	Health professionals and attendance lanes give primacy to women and children
How differences affect retention in care	Women face delays in health seeking. Women feeling unwell they first consult their males' partners rather than seeking care immediately.	Females are likely to seek care for their children and partners but not necessary for themselves.	Females who inject drugs do not have access to healthcare	Men took more time to have access to healthcare

4.2. TB burden, and social representation of TB disease

Participants were asked questions regarding their TB status, their knowledge on TB, and HIV-related TB. Diverse stories about TB disease were obtained from all vulnerable groups. In general, all vulnerable groups are highly burdened by TB. Below we provide breakdowns for each population.

Table 4: TB burden and knowledge by vulnerable group

Group	Knowledge on TB disease
PLHIV	Significant number of interviewees from PLHIV reported co-infection with TB. Similarly, significant number of PLHIV reported having relatives with TB. Among 31 interviewed individually, 9 (29%) reported current TB and 12(38.7%) of PLHIV declared having TB relatives with current TB. Regarding HIV status, in general PLHIV are most likely to disclose their status to children (58%), and to spouses (42%), but due to fear of stigma and discrimination are unlikely to disclose their status outside of household. In addition, TB is interpreted as male-specific disease (6.5%), or linked to death within household (10%), absence of death purification of the households (10%) or related to mineworkers (6.5%). This list it seen as the causes of TB. For PLHIV, TB is reportedly acquired from family members working abroad, in the mining sector. These have potential to explain, from PLHIV, that TB is caused by specific social events and men can get sick to TB by importing the disease from outside of household.
FSWs	Among 28 FSWs interviewed, 6 (21.4%) reported current TB. 11 (39.3%) were HIV cases. Active TB cases, among FSW relatives accounted for 18 (64.3%) within their households. FSWs said they are likely to disclose their HIV status but not their activities related to their sex work, preventing opportunity to access the TB services. FSWs confound TB cause with its suggestive symptoms, limiting healthcare seeking and concomitantly promoting self-treatment, likely through wrong regimen. For this regard, coughing, fever are mostly linked to acute manifestation of exposure to environment or diet conditions. The assessment recorded reports of TB as a disease related to limited individual hygiene, cold-drinks, and dust inhalation.
PWIDs	About 10% (3 interviewees) among PWIDs reported current TB. 5 (17%) PWIDs declared having TB cases among relatives, currently. PWIDs reported not disclosing their HIV status due to stigma and discrimination. Among PWIDs, the TB knowledge is very limited. PWIDs attribute TB to causes like being man (13.3%), drug user (27%), death within household

	or witchcraft (13.3%), and syringe sharing (20%).
Mineworkers and Ex Mineworkers	47 mineworkers (current and ex-) were interviewed. 23.4% (11 mineworkers and ex-mineworkers) reported current TB, and 18 (38.3%) respondents reported TB disease within their households. For mineworkers TB is seen to be a male disease (4.3%), mineworker-specific disease (49%), and death-related disease (12%), when a family member passes away.

4.3. Legal environment framework

All 4 vulnerable groups were asked question regarding international laws, its appropriation in Mozambique (“mozambicanization”), regional protocols, political declarations, stakeholder’s statements addressing general and specific scope, including TB. Participants were asked whether they know and if so, they describe their application to TB services. The fig. below summarizes ONLY the negative response to these questions (please compare to sample size of each group).

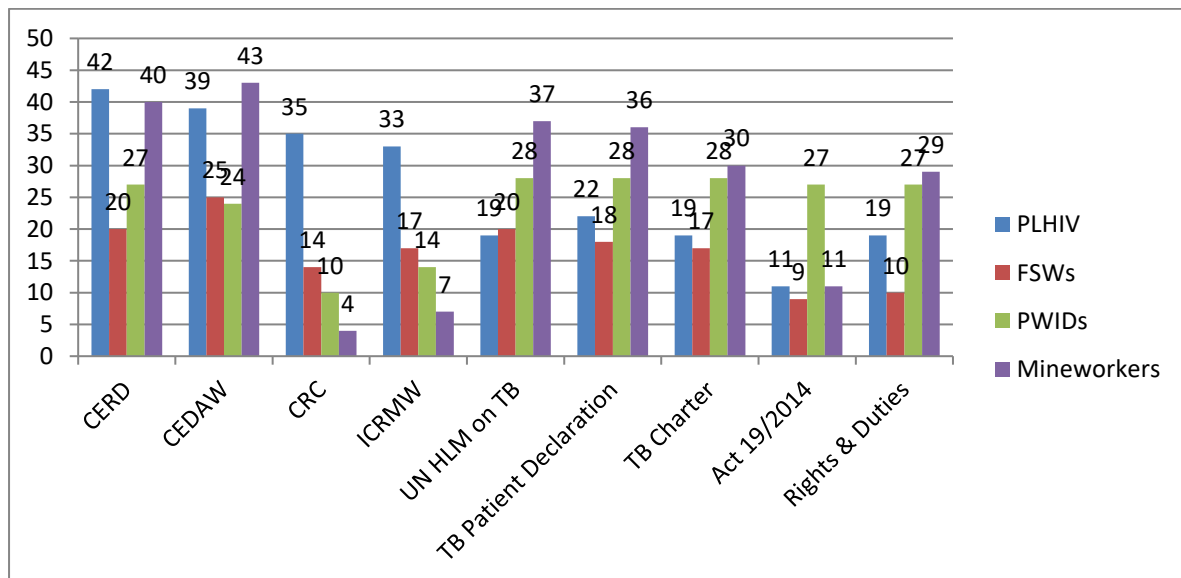


Fig. 7: Very high rate of “NO” of KPs on knowledge on international/regional laws.

In general, international and regional rights protecting/promoting instruments are not well known among interviewed groups. Instruments such as Convention prohibiting racial discrimination (CERD), women discrimination (CEDAW, children rights (CRC) are well known among PLHIV mineworkers, but not among FSWs, and PWIDs. Similarly, the United Nations TB meeting, TB Charter, TB patients’ declaration, and the rights and duties of patients regarding healthcare are not well known.

5. Discussion of findings

In this section, the CRG assessment team presents reflections about current TB services environment, literature review, and CRG assessment findings. CRG assessment outstands important thematic sets on programming, service delivering, policy making and legal environment.

In general, outstanding thematic sets are important because they underline the key areas concerning TB services, TB vulnerable groups, and enabling environment. CRG assessment framed reflections for understanding the findings from each enrolled group.

5.1. Overarching findings

TB knowledge is quite limited among all interviewed groups. Despite the high TB burden in the communities, population, and vulnerable groups, TB knowledge generally is characterized by misinterpretation of TB cause, TB disease, and how it is spread. Recorded understanding is that TB is a male-specific disease, or due to death within household without purification, witchcraft to household, limited individual hygiene, drinking cold-drinks, and dust inhalation. Interviewed people didn't explain the cause of TB as bacteria potentially spread by infected people.

This lack of knowledge is important as it is set out in the Constitution that all people have the right to information (Act 34/3014), right to access to healthcare (CRM, Act 19/2014), and the right to health information. Domestic policy and programming (HSP, NSPs) also clearly state the need to provide information as one of health sector strategies in the response to public health problems.

It seems that TB messages are not reaching communities, and vulnerable groups. The gaps are related to planning, implementation, and resources, weakening client-provider interaction rather than absence of TB information, education, and communication (IEC) driving instruments such as health/patient charter of rights and duties, protocols, and recommendations. However, legal and policy framework is generally unknown in the TB communities and delivery settings. Currently, TB legal environment is a neglected issue. Differently with what happens in the HIV response, TB service is lagging behind. Mozambique has not performed the TB LEA, domestication of the global declaration from TB patients, lack of specific TB act against some rights violations, gender violence, among other threats.

TB-related stigma and discrimination is widespread. This prevent care seeking due to fear, particularly in settings lacking privacy and confidentiality, or where there are long distances

to reach TB facility, impacting negatively individuals facing illness, fuelling poverty, social isolation, psychological distress, and employment loss/failure.

As outlined above, Mozambique Constitution (CRM), and diverse legal instruments and policy, protect the rights and enable environment for non-discriminatory healthcare, even not specifying TB care. The HSP, NSP for TB (even NSP for HIV) provide implementing pillars, encompassing reduction/elimination of stigma and discrimination, and all forms of denying access to healthcare.

Males and females face TB disease differently. It seems men have higher incidence rates than women, in settings which extra-pulmonary TB disease is neglected. In parallel, women report many barriers to TB diagnoses, whereas men report struggling to access TB treatment. Social norms undermine willingness to seek care and reveal illness (due to masculinity notions), whereas women rely on the male partner consent to do so. This situation can mean that the most affected by TB are men rather than women, and concomitantly, women are underserved by TB services.

In addition, men and women identify TB risks differently. Men identify the risk as result of witchcraft, intimacy with women who performed abortion, and death in the household. In contrast, women perceive risks as coming from outside the household, mostly through men returning home from the workplace, particularly when the men are mineworkers or livestock guards.

In assessed settings, it seems that legal framework is not implemented. Interviewed mineworkers claimed the need of filling the gap of adopting the ICRMW recommendations, and the SADC protocol on mining sector, to guarantee TB service access throughout cross border. Legal recommendations and commitment, at political level, in the TB response are lacking, at grassroots level. The dynamics related to gender, in combination with cross border TB migration, indicate a need to attend to the adoption of gender policy for TB, cross border programming, and monitoring in mining sector labour-sending communities.

6.1.1 PLHIV

TB patient contact tracing among PLHIV along with effective preventive TB therapy (TPT) and treatment (DOT) ca potentially bring many of TB cases into the facilities. The NTP indicates that active case finding is challenging due to high facility workloads and limited outreach coverage, dispersed human settlements, long distances, and GeneXpert placed in urban areas due to logistical/electricity needs.

In this CRG assessment, PLHIV reported overcrowded facilities, stigma and discrimination, non-friendly service provision of providers, and lack of support in terms of food and nutrients. As already mentioned, the CRM, Act 19/2014, provides a legal environment to enable access to healthcare among PLHIV. However, many of facilities are not friendly and do not provide privacy and confidentiality. For example, in the same clinical room, there are 2-3 consultations occurring simultaneously, separated by silk/nylon walls/screens.

6.1.2 FSWs

There is limited knowledge about TB in FSWs. NTP doesn't disaggregate data to show FSW TB burden. This CRG assessment, which examined this, though limited, contributes to an under-studied area of TB research. Of all the groups that CRG assessment addressed, FSWs appeared to have the very limited understanding of what TB is, though they face numerous vulnerabilities to TB infection and disease. Similar to PLHIV and PWIDs females, FSWs face significant challenges as such, including stigma and discrimination, neglected extra pulmonary TB, but also additional barriers to TB care, including fear to the exposure themselves to non-friendly professionalism due to be sex worker. The combination of lack of TB knowledge and poor access to care is a big concern. AS women, FSWs already face gender-related barriers to care. This is overlaid by the law and policy constraints that disable proper healthcare access for FSWs.

6.1.3 PWIDs

The CRG assessment sought to provide insights into the needs of PWIDs, whether they are left behind in accessing the healthcare. The findings indicate that PWIDs have limited understanding of TB infection, TB disease and how diagnosis is done and how to access care. PWIDs also reported inaccessibility of healthcare due to stigma and discrimination, non-friendly facilities, limited professional competence to deal with PWIDs specific needs, and lack of involvement of PWIDs in the planning and implementation as peer-educators.

This can play significant role in preventing healthcare seeking, undermining the interaction between clients and facilities. In contrast, health providers reported difficulties in managing PWIDs due to their personal instability, misconduct regarding medical recommendations and limited willing to quit drug consumption for better medication.

6.1.4 Mineworkers and Ex Mineworkers

Despite workplace and mining sector law and policy protecting and pursuing care to mineworkers/Ex mineworkers as right to healthcare, this group remain at high risk and highly burdened by TB. In fact, mining settings exposure greatly mineworkers and communities sending male labour force to mining sector to TB. Cross border importation of TB disease occurs from mining environment to home-communities.

Limited harmonization of cross border referral, limited health passport implementation, undocumented mineworkers, and fear of being dismissed from company, prevent seeking TB service. Moreover, inadequate implementation and enforcement of prevention and infection control procedures and adoption of personal protection equipment (PPE) within mines, insufficient training, limited routine screening for TB, and TB (and silicosis) compensation, undermine the access to TB services abroad/in the mining settings.

CRG research showed that Mozambican mineworkers, working abroad, prefer return home to seek healthcare. Mineworkers' relatives are involved in picking and delivering TB medicines between facilities and beneficiaries. The delivery process occurs at cross border site. Mineworkers leave the company to the transfer point to pick up medicines and return. In general Christmas and Easter seasons are the main times when mine workers return home to present personally in order to interact with the health provider and/or to medicine replenishment.

6. Recommendations from participants

6.1. PLHIV

6.1.1. To improve the TB sector

- To reduce the facility crowding.
 - Continue and expand the quarterly of dispensing medicines as the main service delivery model of TB medicines.
 - Support the creation of community self-support groups (GAAC) for TB as the second service delivery model of TB medicines.
- To guarantee quality and humanization of services:
 - Reduce waiting time, and the interaction provider-client has to be quick to reduce lost to follow up and improve retention in treatment.
 - Health providers must to be friendly with their patients.
 - There should be a setup of specific clinical offices for chronic patients' priorities should be given to community self-support-linked patient (GAAC).
 - Psychological stigma and discrimination must be eliminated.

6.1.2. To benefit PLHIV

- Provide "Cesta-Básica" (food baskets) for food and nutrition security.
- Improve nutritional and food support (CSB distribution) particularly in the rural settings, particularly during drought seasons.

6.1.3. To improve family health

- To support family with money incentives for resistant TB patients for transport to facility and to secure adherence and retention to treatment.
- To adopt family approach in delivering medicines as the main TB dispensing model and clinical management and consultations.
- Intensify psycho-social support.

6.1.4. To improve community health

- Expand and sustain health education sessions at the community settings.
- Involve the community leaders and opinion-makers in decision-making processes.
- Allocate comprehensive TB services in the peripheral settings, particularly within hard-to-reach, rural and remote areas.
- Strengthen differentiated care models.
- Set up TB diagnostic services in communities. This should include private providers.

6.2. Recommendations from FSWs

6.2.1. To improve TB sector competence

- Improve professional ethical behaviour.
- Engage of FSWs as activists in the health education for TB in the peer education sessions.
- Establish partnership between facilities and FSWs groups to manage TB-related issues.
- Establish and support FSW participation in the health forums, including as members of health committees, village health committees, and co-management of health facilities.

6.2.2. To benefit FSWs

- Ensure humanized and personalized services, and combat stigma and discrimination.
- Implement health education on TB tailored for FSWs, and comprehensive services.
- Guarantee privacy, confidentiality, provision of medicines, and avoid delays.
- Establish robust linkage between pharmacy/dispensary and FSWs health needs.
- Perform active case finding through TB screening among FSWs.
- Implement condom distribution to FSWs.
- Respect the fact that sex work is a profession.

6.3. Recommendations from Mineworkers/Ex-mineworkers

6.3.1. To improve TB sector

- Increase the number of qualified health professionals at facilities.
- Build new facilities in the peripheral and hard-to-reach mining communities.
- Improve the availability of quality medicines.
- Improve the professional and ethical care provision
- Build suitable TB infrastructure.
- Eradicate corruption and bribery in the facilities.
- Reduce waiting times.
- Improve TB care for children.
- Involve mineworkers and ex-mineworkers in the health committee.
- Involve mineworkers in health planning, TB implementation in collaboration with mineworkers' representatives (AMIMO).

6.3.2. To benefit mineworkers

- Provide psychosocial support.
- Mobilize mineworkers, during their return home, in the TB activities.
- Implement home visits to the mineworkers and ex-mineworkers.
- Establish verticalized health services to the mineworkers and ex-mineworkers.
- Establish dialogue forums between mineworkers and health providers and facilities managers.

6.4. Recommendations from PWIDs

6.4.1. To improve the service

- Eliminate poor performance of service provision, which marginalize or are not friendly for PWIDs.
- Eliminate discrimination and stigma.
- Equip facilities to become PWID-friendly settings in delivering privacy and confidentiality.
- Involve PWIDs in the health committees for monitoring services from client and community perspectives.

6.4.2. To benefit PWIDs

- Respect the rights and integrity of PWIDs.
- Provide adapted services for PWIDs.
- Involve and train PWID as health education activists, peer educators.

6.5. Recommendations from health managers and health workers

6.5.1. To improve the TB sector

- Support monthly coordination meetings
- Improve medicine supply chain for TB
- Support TPT implementation
- Refurbish NTP facilities
- Equip TB laboratories with new microscopy and GeneXpert supplies
- Equip NTP settings with fans, and infection control and prevention measures (PPEs, ventilation, biosafety)
- Supply the NTP with suitable furniture
- Recruit more human resources for TB programme
- Establish a routine refresher training on TB programme management
- Expand TB diagnosis and treatment capacity into peripheral facilities
- Scale up community engagement through CBOs, activists to support health education within hard-to-reach areas.

6.6. Recommendations from assessment team (on-site observations)

6.6.1. To improve the health sector, and professional competence

- Improve infection control implementation, in all healthcare facilities, by providing PPEs, SOPs for control and prevention of infection.
- Implement a process of tracking occupational TB and providing infection control support to facilities with high rates of infection in health care workers.
- Implement an assessment of latent TB in HCWs and develop a policy on the provision of preventive therapy for HCWs with latent TB.
- Intensify TB screening among health workers
- Include in NTP other KPs for TB screening such as FSWs, PWIDs, MSM, and others, People with Silicosis and Pregnant Women.
- Include in NTP disaggregation by age and sex other KPs such as Elderly, Diabetes.
- Implement “simplified checklist for TB infection control” at community level (from USAID/TB-CTA/FHI360 workshop in Livingstone, Zambia, 2010).

6.6.2. To improve/build infrastructure for the operation of NTP.

- Improve NTP infrastructures and also the physical space is very small with poor ventilation.
- Expand the diagnostic/treatment of TB into peripheral health facilities.
- Provide means of transport to NTP district supervisors.
- Build public toilets for patients.
- Improve the hospital water and sanitation.

6.6.3. To perform training of Health Staff on TB Management regularly

- Improve professional capacity of staff (all providers) at district and community levels
- Increase human resources for TB services.

6.7. Recommendations from stakeholder workshops (validation committee)

- The country should ratify the SADC TB Declaration in the Mining Sector. The country can adopt this instrument to improve TB services to the mineworkers not only those working in South Africa but also for miners at local/domestic mining companies.
- Carry out cross-border Infection Control programme.
- Implement a study on stigma in TB at the health facility and community level to help design interventions to combat stigma and discrimination.
- Empower health workers to manage stigma and human rights in the context of TB patient care
- Establish a TB-related law for Mozambique, to secure tracing and tracking violations and abuses in TB service delivery

7. Conclusion

Based on a qualitative analysis of factors contributing to the limitation of TB prevention data, human rights barriers, and gender relations preventing TB services access and/or promoting vulnerabilities, it can be concluded that limited knowledge of TB disease, limited geographic coverage of the health sector, poverty, stigma and discrimination, power imbalance rooted on gender, and limited legal translation and literacy in the healthcare settings, are the important factors to consider/address when designing and targeting NTP improvements.

Mozambique has ratified a significant number of international laws, conventions and protocols, and to some extent these have been incorporated into domestic law. However, the impact of this international legislative framework on policy development, strategic

planning, and activity implementation is minimal. Beneficiaries of TB services strongly recommend substantial improvements focusing availability, accessibility, equality, quality, and acceptability. Private providers are needed to contribute in filling gaps and accelerating the TB response in accordance to already ratified United Nations sustainable development goals (The UN 2030 agenda), in line with UN HLM on TB attended in September 2018.

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9. Annex: List of participants at the presentation of main study findings meeting

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