



TB SITUATION **ASSESSMENT**

among Key populations in
Algeria, Egypt, Lebanon,
and Morocco.

Foreword

Dear Readers,

It is my pleasure to present to you the Situation Assessment on TB among Key Populations in Algeria, Egypt, Lebanon, and Morocco. This report sheds light on new dimensions of drug use-related harms and provides valuable information for anyone interested in this topic.

I would like to express my gratitude to our consultants, Mr. Karim El Firikh and Mr. Khaled Darwish, for their exceptional work and dedication. I also extend my appreciation to Ms. Samar Hachem for her invaluable support in reviewing this document. Our donor, the Stop TB Partnership, deserves special thanks for making this report possible.

MENAHRA takes pride in being one of the leading organizations in the region that advocates for harm reduction, where one of the strategies of harm reduction strategies that MENAHRA focuses on is TB. The goal is to raise awareness about TB, prevent it from spreading among KPs, and advocate for treatment availability for KPs in the MENA region. This report reflects our commitment to promoting a more conducive environment for key populations and people who use drugs in the MENA Region. We recognize that achieving this goal would not have been possible without the tireless efforts of our partners and the entire harm reduction community in this region.

We hope that this report will be of great value to civil society organizations and decision-makers in their efforts to scale up the harm reduction response. Our aim is to improve the quality of life for key populations and people who use drugs in the MENA Region.

Thank you for your interest in this report, and we look forward to your continued support in our efforts to promote harm reduction in the region.

Best regards,



Elie Aaraj – Executive Director



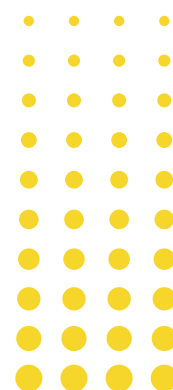
About MENAHRA

In 2007, the World Health Organization (WHO) collaborated with the Harm Reduction International (HRI) organization to launch a project aimed at preventing and treating HIV/AIDS among people who inject drugs (PWIDs) in the Middle East and North Africa (MENA) region. As part of this effort, the MENA Harm Reduction Association (MENAHRA) was established, becoming the first network focused on harm reduction for PWIDs in the MENA region. MENAHRA's primary objective is to enhance the availability, access, and coverage of harm reduction services for PWIDs, through capacity building and advocacy. In 2012, MENAHRA was officially established and registered as an international non-governmental organization (INGO). Its key mission is to support PWUD by providing technical assistance, building capacity, advocating for their rights, and serving as a central resource center in the MENA region.



Acknowledgment

The authors of this document are Mr. Karim El Firikh and Mr. Khaled Darwish. The report was edited by Ms. Samar Hachem and it has been developed with the support of the Stop TB Partnership. MENAHRA expresses its appreciation to all the individuals and organizations that played a role in the development of this document. The assistance of the Stop TB Partnership was instrumental in the development of this document.



Acronyms and abbreviations

AIDS	Acquired immunodeficiency syndrome	MOPH	Ministry of Public Health
ART	Antiretroviral Therapy	MSM	Men who have sex with men
CSOs	Civil Society Organizations	NAP	National Aids Program
FDCTA	Fund for Drug Control and Treatment of Addiction	NGO	Non-Governmental Organizations
FGD	Focus Group Discussion	NSP	National Strategic Plan
FSW	Female sex workers	NTP	National Tuberculosis Program
GFAN	Global Fund Advocates Network	OAT	Opioid Agonist Therapy
GFATM	Global Fund Against AIDS, TB, and Malaria	OST	Opioid Substitution Therapy
HBV	Hepatitis B virus	PLHIV	People Living with HIV
HCV	Hepatitis C virus	PWID	People Who Inject Drugs
HIV	Human immunodeficiency virus	PWUD	People Who Use Drugs
HRI	Harm Reduction International	SDR	Substantial drug resistance
IOM	International Organization of Migration	SOPs	Standard Operating Procedures
KI	Key Informant	STI	Sexually Transmitted Infections
KPs	key populations	TB	Tuberculosis
MAF-TB	Multisectoral Accountability Framework on TB	UN	United Nations
MDR-TB	Multi-drug resistant tuberculosis	UNDP	United Nations Development Program
MENA	Middle East and North Africa	UNODC	United Nations Office on Drugs and Crime
MENAHRA	Middle East and North Africa Harm Reduction Association	WHO	World Health Organization

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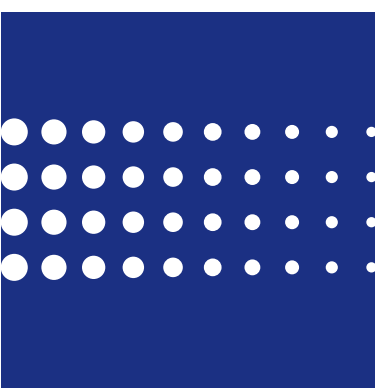
Executive Summary

This report investigates the challenges and opportunities in delivering tuberculosis (TB) services to key populations (KPs) in the countries of the Middle East and North Africa, specifically Algeria, Egypt, Lebanon, and Morocco. These countries have adopted national strategies to control and address TB based on the World Health Organization's (WHO) global strategy guidelines. However, KPs access to TB-related services is hindered by various challenges. The report aims to explore these challenges and identify the necessary steps to improve access to TB services for KPs, as well as to explore collaboration between TB centers and other key sectors.

The study is based on three main components: a desk review, key informant interviews (KIIs), and focus group discussions (FGDs). The desk review synthesizes available national policies and peer-reviewed/Grey literature on TB needs among KPs. The KII and FGD phases collect qualitative data from National Tuberculosis Program (NTP) managers, Civil Society Organizations (CSO), and KPs who currently access or have completed TB treatment.

In Algeria, lack of information and data on TB prevalence and incidence among KPs, stigma, and lack of collaboration between the NTP and CSOs have hindered KPs access to TB services. In Egypt, there is no collaboration between the program and CSOs that could support people living with HIV (PLHIV), and drug use data is lacking. The NTP extends its services to PLHIV in prisons, but PWUD are not recognized as a high-risk group for TB. In Lebanon, integrating TB services within primary health care and developing a referral system to facilitate tracking and follow-up, increasing human and financial resources, and forming a technical working group to update operational guidelines are necessary. In Morocco, lack of awareness regarding TB management, post-treatment follow-up, and TB facilities within the vicinity of KPs are the main challenges.

The report highlights the need for a collaborative effort from different sectors to ensure effective TB control, particularly among KPs. Increasing awareness, promoting access to high-quality TB services, and providing adequate resources and follow-up after treatment are necessary to improve KPs access to TB-related services.



SECTION 1

REGIONAL OVERVIEW

Algeria country profile

The Covid-19 pandemic and resulting lockdowns have had a negative impact on harm reduction measures and availability of services, putting KPs in Middle Eastern and North African countries at higher risk. In Algeria, the economic effects of the pandemic and limitations on movement have caused people who use drugs (PWUD) to withdraw from harm reduction programs such as opioid agonist therapy (OAT) and affected their accessibility to treatment and screening services.

The incidence of tuberculosis (TB) in Algeria remains relatively high, with 54 cases per 100,000 persons reported as of 2021. The number of incidents has fluctuated over the years, with the sharpest decrease reported in 2019 and continuing to decrease by 2021. The mortality rate for HIV-negative individuals was approximately 7.5 per 100,000 in 2019, with an 86% treatment success rate [1,2]. In 2020, over 17,000 instances were reported [1,2]. The risk of contracting TB is 18 times higher in people living with HIV (PLHIV) than in those without HIV, making collaborative TB/HIV activities and comorbidity management a key component in the End TB Strategy.

UNAIDS statistics report an estimated 21,000 PLHIV in Algeria as of 2021, with 82% receiving antiretroviral therapy (ART). HIV prevalence is reported to be 2.4% among men who have sex with men (MSM), with 14.3% covered by HIV prevention programs [3]. In 2018, it was estimated that 14.7% of PLHIV in Algeria had TB [4]. The TB control program focuses on prevention through vaccination at birth and detection and treatment of active TB cases. The HIV program was funded with less than 32 million USD in 2017 [5]. The Global Fund provides various services to those at high risk of HIV infection, including prevention, education, diagnosis, and treatment.

Challenges exist in obtaining updated official data on PWUD in Algeria. Estimates range from 250,000 to one million PWUD in Algeria. Although there are punitive laws against drugs in Algeria, the judicial system prioritizes therapy over punishment, with incarceration only being intended for individuals who reject treatment [6]. The efficacy of the government's response and harm reduction efforts, such as the OAT program and addiction treatment centers, are unclear. Data on the prevalence of TB infection in PWUD is lacking.

In conclusion, more information is needed on the pattern and risks of TB, as well as prevalence and mortality in KPs, in Algeria. Additionally, the impact of Covid-19 on TB prevention, screening, and treatment in KPs requires further research. The government's commitment to KPs requirements in the context of TB is not clear, as national TB control strategy and plan of action were not available for assessment, and data on national TB program funding was not identified. It is crucial to obtain a comprehensive view of the situation and government commitment to KPs requirements in the context of TB.

Egypt country profile

The COVID-19 pandemic has had a negative impact on the ability of the National Tuberculosis Program (NTP) staff in Egypt to provide TB services, with an estimated 13% drop in services. The lockdowns and quarantine measures have made it difficult for patients to receive care, and health spending has been diverted to combat COVID-19. As a result, there may be an increase in the number of undetected TB cases [7]. While some smaller centers have continued to provide TB services, the exact impact on key populations' access to TB services is not clear, and more research is needed to understand the impact of the pandemic on TB services in Egypt.

In the last 20 years, Egypt has made significant progress in reducing tuberculosis (TB) incidence and mortality rates. TB incidence has decreased from 26 to 11 cases per 100,000 persons in 2020, and the death rate from TB has been reduced to 0.6 per 100,000 people by 2020 [8,9]. However, treatment coverage and notification remain low, with only 60% of cases being notified [10]. The treatment success rate is 87%, according to the 2021 Global Tuberculosis Report.

There are approximately 30,000 people living with HIV in Egypt, with 40% receiving Antiretroviral Therapy (ART) [11]. The HIV prevalence among MSM is around 6.7%, compared to 2.5% in People Who Inject Drugs (PWID) [12]. However, there is limited data on the number of PWID on ART, patients in preventative programs, or statistics on stigma and discrimination. The government of Egypt is working with UN agencies and Civil Society Organizations (CSOs) to provide HIV-related preventive services to key populations, including MSM and PWID, through the Global Fund Against AIDS, TB, and Malaria (GFATM) [7]. UNDP is collaborating with the Ministry of Health and Population (MOHP) through a grant of USD 5.2M from the GFATM to strengthen the national program on HIV and TB with a focus on "vulnerable populations," including interventions directed towards decreasing stigma [13,14]. PWID are likely to have a higher prevalence of TB and latent TB infection, regardless of their HIV status. A 2018 study published in the Egyptian Journal of Bronchology showed that drug users, including convicts, have an increased risk of TB infection and an increased risk of TB/HIV comorbidity in PWID [19]-20.

Egypt has strict drug regulations, with severe penalties for those found guilty of drug-related offenses. However, the court may refer a person found to be addicted to a specialized medical institute for a minimum of six months. The Fund for Drug Control and Treatment of Addiction (FDCTA) supports PWUD in Egypt through preventive initiatives, education, capacity building, media campaigns, evidence-based treatment, rehabilitation activities, and the establishment of 23 treatment centers in 14 governorates [15]. In November 2021, MENAHR collaborated with the National Aids Program (NAP) and UNODC to provide training to health workers and psychiatrists in Egyptian government hospitals and introduce the Opioid Substitution Therapy (OTP) program as part of harm reduction interventions [16].

In summary, there is an increased prevalence of TB among people living with HIV and key populations in Egypt, with access to healthcare, stigma, and the negative impacts of the COVID19 pandemic being major issues. There is a need to strengthen existing programs and initiatives to provide adequate services, follow-up, and training to combat TB among key populations, including people living with HIV. Civil society organizations play an essential role in providing support to key populations and raising awareness about TB. Establishing national policies to address and reduce the stigma associated with TB and providing funding for organizations working on TB and HIV is crucial. With appropriate collaboration and support, it is possible to reduce the impact of TB among key populations and ensure equitable access to TB prevention and treatment services.

Lebanon country profile

Lebanon faced significant challenges in 2021, including the COVID-19 epidemic and the devastating Beirut port blast that destroyed the National Tuberculosis Program (NTP) headquarters in Karantina. Despite these obstacles, the NTP continued to conduct contact investigations and implement measures to ensure the delivery of TB services for people affected by TB during the pandemic.

Lebanon has a low TB burden, with an estimated incidence of 13 per 100,000 population and a mortality rate of 1.4 per 100,000 population [18]. However, the detection of TB cases has significantly decreased since 2019 due to the decrease in migrant detection [19]. In 2021, the NTP diagnosed and enrolled 474 TB patients, including 4 with drug-resistant TB [19].

Drug and alcohol use is prevalent among the Lebanese population, and smoking, including water pipe tobacco use, is the highest among all MENA countries [20,21]. The country's HIV profile is considered low-endemic, with a total of 2,366 People Living with HIV (PLHIV) reported by the Lebanese Ministry of Public Health's National Aids Program [22].

Limited statistics are available on TB treatment, management, and follow-up of inmates in Lebanon, although prison-based testing for TB is recorded [23]. The most recent Lebanese National TB Guidelines Report released in 2017 emphasizes TB prevention, treatment, and diagnosis in PLHIV but fails to mention guidelines for other key populations such as men who have sex with men (MSM), people who use drugs (PWUD), and female sex workers (FSW).

The International Organization for Migration (IOM) and Lebanon MoPH have collaborated to support the NTP in Lebanon under the regional Middle East Response program, funded by The Global Fund to Fight AIDS, Tuberculosis, and Malaria [24]. The National Strategic Plan (NSP) towards TB Elimination in Lebanon for the years 2017–2021 includes five objectives aligned with the WHO End TB Strategy to reduce TB burden and improve indicators among the general population, with minimal focus on key populations. However, there are gaps in TB treatment, management, and follow-up of prisoners, and the rising prevalence of TB among key drug-using populations is limited.

In conclusion, there is a need to address gaps and ensure comprehensive coverage for key populations, such as MSM, PWUD, and FSW, to combat TB and meet the 90-90-90 targets of the Global Plan to END TB. Many HIV-positive individuals are not aware of the available services, and accessing centralized services can be time- and money-consuming, particularly in Greater Beirut [25].

Morocco country profile

The COVID-19 outbreak has led to activity limitations and physical distancing requirements, which helped to contain the spread of the virus but also caused a setback to years of TB control efforts in Morocco. In 2020, TB case notifications decreased by 6% compared to 2019 (Stop TB Partnership 2021). Patient adherence to therapy and loss to follow-up were also limited by COVID-19 restrictions. Morocco's economic crisis, compounded by COVID-19 variations, put further strain on its people and financial resources.

In the 1970s, Morocco established a national TB program, and in the early 1990s, it implemented the DOTS (Directly Observed Treatment Short course) program [26]. Standardized treatment regimens are free of charge, and there are two national laboratories that screen for TB [27]. Morocco has achieved an 80% reduction in the number of TB primary infections between 1980 and 2018 due to significant funding from the Global Fund [28]. Morocco has met WHO standards for identifying and treating TB, with an estimated 87% of cases being detected and treated. However, TB incidence has not decreased in Morocco, with an estimated incidence of 98 cases per 100,000 inhabitants [29].

TB remains the most prevalent infectious cause of mortality in Morocco, and there were 179.4 fatalities attributed to multi-drug resistant tuberculosis (MDR-TB) in 2019 [30]. The fatality rate among females was twice that of males for both drug-susceptible and MDR-TB. Furthermore, only 11% of newly diagnosed TB cases underwent MDR-TB testing [31]. Despite efforts to combat TB, the annual decrease in incidence remains low at 1.1%, which raises concerns about achieving the goal of "Ending Tuberculosis by 2030." TB's epidemiological propensity for high-density areas is evident, with 86% of TB cases observed in marginal neighborhoods in six districts, which are home to 79% of the Moroccan population. The socioeconomic factors that underpin the disease, such as poverty, unemployment, malnutrition, and insufficient housing, threaten the effectiveness of TB programs and interventions.

A nationwide population study conducted by the Moroccan Ministry of Health in 2010 focused on the incidence of mental disorders and drug addiction among a sample of 6,000 people aged 15 and up [32]. It estimated that 4.8% of the population has used psychoactive drugs at some point in their lives, with males and those living in rural regions being more likely to use psychoactive substances [32]. However, there is limited data on the incidence of TB among key drug-using populations in Morocco.

In conclusion, there is a need to address gaps and ensure comprehensive coverage for key populations, such as MSM, PWUD, and FSW, to combat TB and meet the 90-90-90 targets of the Global Plan to END TB. Many HIV-positive individuals are not aware of the available services, and accessing centralized services can be time- and money-consuming, particularly in Greater Beirut [25].

SECTION 2

METHODOLOGY



Framework

In response to a request from 117 delegates following a Global Ministerial Conference on Ending TB: A Multisectoral Response, the WHO Secretariat developed the MAF-TB multisectoral accountability framework in 2019 [34]. The framework was designed to accelerate progress towards TB elimination by enhancing the effective accountability of governments and other key stakeholders at the global, regional, and national levels. The MAF-TB is fully aligned with the End TB Strategy and the 2030 Agenda for Sustainable Development.

To assess the level of national commitments made on TB and the actions taken on those commitments, as well as monitoring and reporting approaches and the nature of any high-level review mechanisms, the Middle East and North Africa Harm Reduction Association (MENAHRRA) has hired consultants to use the WHO National Assessment Checklist for the Multisectoral Accountability Framework on TB (MAF-TB) in Algeria, Egypt, Lebanon, and Morocco.

Intended Study design

The purpose of this project is to gain insight into the tuberculosis (TB) needs of individuals who use drugs and those living with HIV in four countries in the MENA region: Lebanon, Morocco, Egypt, and Algeria. The project will then propose key actions on how TB services can be effectively delivered to key populations in these countries.

The project has three specific objectives:

- Identify current challenges and opportunities to strengthen the integration and delivery of TB services among key populations (KPs).
- Identify the necessary support and capacity-building steps required to implement TB services for KPs through a systems-strengthening approach.
- Identify collaborations between primary healthcare and other key sectors required to support TB.

This study will employ a qualitative research design using purposive sampling, and it will be conducted in two phases: data collection and analysis, and roadmap validation.

Data collection will be conducted in a stepwise approach, using a comprehensive grey literature review, key informant interviews, and focus group discussions (If applicable in TC). Desk review

A comprehensive desk review of TB literature in KPs will be conducted in the targeted countries, including national programs, action plans, progress reports, statistics, and related data.

Key Informant Interview (KII)

Key informant interviews will be conducted to understand the views and opinions of the directors of the National Tuberculosis Program in the targeted countries and representatives from Civil Society Organizations (CSOs). The interview questions were designed to obtain information about the national plan, the inclusion of Key Populations (KPs) in the national TB program, the services available, the challenges, the gaps, and how to overcome the obstacles.

Intended Study design

Key informant interviews will be conducted to understand the views and opinions of the directors of the National Tuberculosis Program in the targeted countries and representatives from Civil Society Organizations (CSOs). The interview questions were designed to obtain information about the national plan, the inclusion of Key Populations (KPs) in the national TB program, the services available, the challenges, the gaps, and how to overcome the obstacles.

Focus Group Discussions (FGDs)

Focus group discussions will be conducted to understand the experiences and needs of key populations, their satisfaction with provided services, and the challenges they face. The inclusion criteria for the focus group discussions are as follows:

- Participants must be 18 years old or older.
- Participants can be of any gender.
- Participants must either be current TB patients or individuals who have successfully completed treatment.
- Participants must be individuals who are currently or previously used drugs, including those who inject drugs and receive services related to drug use.

Data Analysis and Quality Control

Qualitative data collected will be analyzed using a thematic data analysis approach. The quality of data collection, validation, analysis, and triangulation will be ensured using specific tools. The major themes identified based on the interview and focus group discussion guides will be used as a framework for the thematic data analysis. Additional themes identified will be generated and inputted into the framework.

Ethical considerations

It is ensured that all data collected do not pose a risk to any participating stakeholder or beneficiary by respecting the participant's privacy and confidentiality. All interviews and discussions weren't recorded, and any notes taken will be destroyed after the final deliverable. It is important to emphasize on the anonymity of all participants and optimal confidentiality of all provided information.

1. Algeria Methods

1.1 Study design

The data collection process followed a stepwise approach that involved conducting a comprehensive review of grey literature and key informant interviews. However, focus group discussions were not included in the study. Desk review

The first step involved a thorough literature review, which included national programs, action plans, progress reports, statistics, and related data.

Key Informant Interview (KII):

The second step involved conducting key informant interviews to understand the views and opinions of the directors of the National Tuberculosis Program in the targeted countries and representatives from Civil Society Organizations (CSOs).

Data Analysis and Quality Control

The qualitative data collected were analyzed using thematic data analysis and a framework that identified major themes based on the interview and triangulation with the grey literature. Additional themes were also generated and included in the framework.

Limitations

However, the study had limitations. The interview with the head of the National Tuberculosis Program provided limited information about TB in KPs. The study was unable to conduct focus group discussions due to challenges in finding willing KPs participants. Nonetheless, the study interviewed an HIV-positive person and a representative from a national Civil Society Organization to offer information regarding TB-related services in People Who Use Drugs (PWUD). The study used quality control tools to ensure data validation, analysis, and triangulation.

2. Egypt Methods

2.1 Study Design

The methodology employed for this project in Egypt adhered to the original plan outlined in the assessment, with only minor limitations that are described below. Data collection was carried out in the stepwise approach, which included a comprehensive review of the Grey literature, key informant interviews, and focus group discussions.

Desk review

A thorough literature review on Tuberculosis in Egypt was conducted as part of this study, which included an examination of the National Program, action plans, progress reports, available statistics, and related data.

Key Informant Interview (KII):

A Key Informant Interview (KII) was conducted as planned to gather the opinions and views of the director of the National Tuberculosis Program in Egypt.

Focus Group Discussions (FGDs):

FGD was conducted to understand the experience and needs of the KPs and their satisfaction towards the provided service and challenges faced.

The inclusion criteria for the focus group discussions are as follows:

- Participants must be 18 years old or older.
- Participants can be of any gender.
- Participants must either be current TB patients or individuals who have successfully completed treatment.
- Participants must be individuals who are currently or previously used drugs, including those who inject drugs and receive services related to drug use.

Data Analysis and Quality Control

To ensure the quality of the qualitative data collection, validation, analysis, and triangulation processes, appropriate tools were utilized. Thematic data analysis was conducted for all focus group discussions and key informant interviews, utilizing a framework with major themes identified based on the interview and focus group discussion guides. Any additional themes that emerged were included in the framework.

Limitations

However, the study has some limitations. The interview with the director of the National Tuberculosis Program provided information on the national strategy and plan but did not offer significant insights into the targeted key population's situation. The Focus Group Discussion involved seven individuals who represented the targeted key population, including people who use drugs and people living with HIV who have had TB infection and previous experiences with TB service providers and civil society organizations. Additionally, an interview was conducted with a representative from a local civil society organization specializing in providing TB-specific services.

3. Lebanon Methods

3.1 Study design

The National Tuberculosis Program (NTP) in Lebanon held a consultative workshop intended to introduce its revised National Strategic Plan (NSP) for 2030, identifying knowledge gaps, and collaboratively developing recommendations with pivotal representatives. Following the completion of desk review, MENAHRA attended the event and key figures were selected for the key informant interviews (KII). Lebanese government representatives, non-governmental organizations (NGOs), and civil society organizations (CSOs) were all present for the workshop.

Key Informant Interviews

To complement the desk-based review and the NSP workshop, key informants were sampled from different sectors to collect data on TB needs and management in Lebanon as well as to gather in-depth insights and perspectives on TB needs among key populations.

The sampling strategy used a purposeful sample, which identified three key informants representing the National tuberculosis program, National AIDS program, and International Organization of Migration.

By synthesizing the findings from the desk review, NSP workshop, and qualitative data, valid, consistent, and evidence-based recommendations were developed considering the input from various stakeholders.

Analysis of Main findings

Following the completion of the key informant interviews (KIIs), a thorough data analysis was conducted to triangulate all the collected data into the major themes. This was done to guarantee that the findings were accurately captured and to identify any underlying patterns and trends that could influence potential decisions moving forward.

To assess the data, a coding framework was developed based on the themes identified in the National Strategic Plan (NSP) for 2030 and the key informant interviews. These themes included governance and policy frameworks, funding, monitoring and evaluation, and the workforce.

Limitations

Due to a lack of existing data on Key Populations (KPS) accessing or utilizing TB services in Lebanon, it was challenging for MENAHRA to conduct a focus group discussion to understand the experiences and needs of this population. To mitigate this, MENAHRA was able to discuss TB issues at the national strategy plan workshop hosted by NTP and IOM, which was facilitated by an international TB specialist and attended by all TB key stakeholders including NAP, PHC department, MOPH, and others. Two KIIs were conducted by NAP and IOM, to gather in-depth insights and perspectives from a health system level on TB needs among key populations.

4. Morocco Methods.

4.1 Study design

Data collection was planned to be conducted in a stepwise approach using a comprehensive Grey literature review, key informants' interviews, and focus group discussions. Desk review

A thorough literature review on Tuberculosis in Morocco was conducted as part of this study, which included an examination of the National Program, action plans, progress reports, available statistics, and related data.

Key Informant Interviews

To understand the perceptions and opinions around TB management and needs in Morocco, we made use of purposeful sampling to select two key informants - representing Non-Governmental

Organizations (NGOs) and Civil Society Organizations (CSOs) involved in TB and key population work - to participate in our Key Informant Interview (KII) phase.

Focus Group Discussions

We also conducted a Focus Group Discussion (FGD) with five Persons Who Use Drugs (PWUD) and People Living with HIV (PLHIV) who have benefited from or were currently benefiting from TB services in Morocco. The FGD was conducted in person in Morocco and was facilitated by a representative from the Middle East and North Africa Network of People Who Use Drugs. All participants were orally consented at the start of the interviews and FGDs and informed that they could withdraw from participating at any time.

Analysis of Main findings

Following the completion of the key informant interviews (KIIs), a thorough data analysis was conducted to triangulate all the collected data into the major themes. This was done to guarantee that the findings were accurately captured and to identify any underlying patterns and trends that could influence potential decisions moving forward.

To assess the data, a coding framework was developed based on the themes identified in the National Strategic Plan (NSP) for 2030 and the key informant interviews. These themes included governance and policy frameworks, funding, monitoring and evaluation, and the workforce.

Limitations

Unfortunately, despite our efforts, we were unable to hold a KII with the National TB Program (NTP) manager. Therefore, to make up for it, we conducted KIIs with other CSOs and NGOs engaged in TB-related activities at a national level.

Although Moroccan Arabic, commonly known as Darija, resembles other Arabic dialects, there are still enough distinctions to make it often difficult for speakers of other Arabic dialects, particularly when leading focus group discussions. To support with the moderating of the FGD and the subsequent analysis of the FGD results, MENAHRA collaborated closely with a national speaker who serves as a focal point for MENANPUD in to help mitigate this.

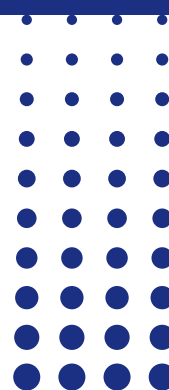
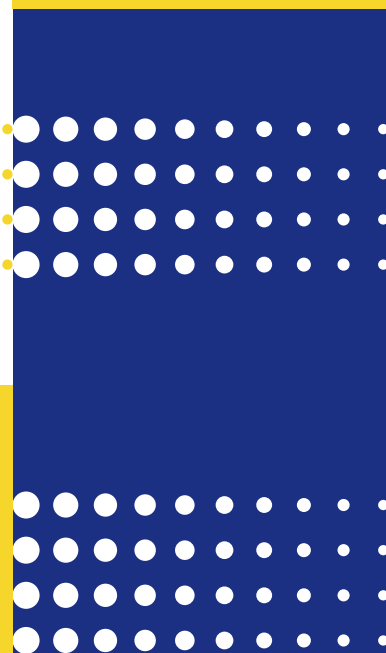
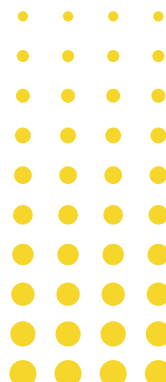


SECTION 3

COUNTRIES

SITUATION

ASSESSMENT



Algeria Governance and Policy Frameworks

The Algerian government has established the National Tuberculosis Program (NTP) with the support of the World Health Organization (WHO). The aim of this program is to reach the target of 10 cases per 100,000 people by 2025.[IS1] [1]

The National Tuberculosis Program (NTP) in Algeria has established a strategic plan aimed at reducing the incidence of tuberculosis cases to less than 10 per 100,000 people by 2025. The NTP focuses on early detection and management of multidrug-resistant tuberculosis (MDR-TB) and reduction to less than 2% of pulmonary TB cases (personal communication by Professor Sophian, director of the NTP in Algeria). The program also prioritizes reducing the incidence of TB among children.

To end this, The NTP works in close collaboration with the Ministry of Health and has established a national TB elimination plan committee consisting of TB physicians and medical experts meeting twice yearly to evaluate progress and address challenges. However, the program is facing limited engagement from other non-health government sectors and local non-governmental organizations.

Although the program's focus is to address TB issues in the general population, TB-related services to KPs are integrated within the general health services.

The NTP is also collaborating with other programs, including the National HIV Program, the School and University Health Program, and the Prison Health Program to fight the spread of TB.

Algeria Main findings

The Algerian national health system provides comprehensive tuberculosis (TB) services to key populations, which are integrated within the services available to the public and covered by the national health insurance program. All health services, including 39 programs, are offered free of charge, and fully subsidized by the government. Although the exact extent of access to these services by key populations is not known, it is likely to be hindered by stigma.

The National Tuberculosis Program (NTP) has a specific chapter for people living with HIV (PLHIV) but fails to mention people who use drugs (PWUD) (Personal communication by NTP director). It provides information about TB risks and protection to high-risk groups, including children under 5, PLHIV, immune-compromised individuals, organ transplant recipients, and those in close contact with smear-positive patients. However, there is limited information available regarding specific awareness-raising approaches for other key populations, except for PLHIV who are targeted through collaboration with the National AIDS Program.

The absence of an automated system for collecting and processing TB data at the national level has resulted in a lack of information about the prevalence and incidence of TB and related complications among different key populations (KPs) in Algeria. As a result, it is difficult to establish quality standards for TB-related services. Despite the recognition of PLHIV's specific needs within the national TB program, the same level of attention has not been given to people who use drugs (PWUD). While there is a national program aimed at raising awareness about the risks of drug use, there is no collaboration with the National TB Program (NTP) to support PWUD's access to TB-related services.

Stigma remains a significant barrier to KPs access to TB health services in Algeria, with both the general community and health service providers perpetuating negative attitudes. This has a detrimental effect on KP's willingness to utilize available services. One of the challenges faced by the study is the difficulty in reaching KPs in Algeria. An interview with a TB patient was conducted to gain insight into the attitudes and challenges faced by key populations with regards to TB-related services. Despite the provision of free services through health centers, the patient reported issues with access to adequate medicines and limited availability of TB centers, leading to long distances to receive care. However, the role of CSOs in providing not only medical services such as medicine dispensing and referrals to government centers, but also psychological support and phone consultation services, was noted to be crucial in overcoming these barriers.

Obstacles such as marginalization, exclusion from society, stigma for PLHIV individuals, and criminalization for PWUD continue to negatively impact key populations in accessing TB health services in Algeria. A report by The Global fund included statistics on HIV stigma, indicating over 70% of MSM respondents reported foregoing health care treatments due to discrimination and stigma.

Discussion

In Algeria, the role of Civil Society Organizations (CSOs) is crucial and needs to be amplified to assist key populations with accessing TB care and support. As per an interview with the head of Al-Hayat Association for AIDS Patients and Carriers, Mrs. Nawal Lahoul, the organization offers a wide range of services for TB patients, including connecting them to government health centers and ensuring their access to treatment. The association also provides psycho-social support, financial aid for those who may be experiencing depression because of isolation and feelings of exclusion, even within their own families.

Individuals with TB face numerous challenges, particularly those belonging to key populations such as PLHIV and PWUD, who experience marginalization and exclusion due to stigma. One major hindrance to accessing services from organizations is the lack of awareness and information. To overcome this, organizations must directly engage with their target communities and raise awareness. Organizations also face difficulties due to limited funding for TB programs, often relying on funds from related programs. Despite these challenges, there is cooperation between national TB programs and organizations through awareness campaigns and the provision of grants for PWUD who face difficulties finding employment. These organizations also work with government centers to guarantee access to TB medical services (Personal communication by Mrs. Lahoul).

Roadmap: Towards ending TB in Algeria

The roadmap towards ending TB in Algeria is designed to consider both the global commitment as well as the national challenges. To start with, a contextual assessment summary is presented to discuss the major findings of the assessment in addition to analysis on the opportunities implied as well as the challenges faced.

To address the main objective of the map, key actions needed to be taken are presented in addition to the measures required to cover several areas including resources, networking, key actors, communications, and advocacy plan in addition to the various roles and responsibilities. Milestones of the implementation are presented on a short-term, medium-term, and long-term basis.

Contextual assessment summary

The situation of Tuberculosis (TB) in key populations in Algeria has shown significant improvements over the years. According to data, there has been a gradual decrease in the incidence of TB, which was recorded at 80 cases per 100,000 people in 2005 and reduced to 59 cases per 100,000 people in 2020. Despite this, the incidence of TB is still considered to be relatively high in the country [1]. The number of TB cases notified in 2020 was 17,000 with a treatment success rate of 86% [2]

To enhance tuberculosis (TB) clinical services in Algeria and improve the national TB control plan, the government should focus on modernizing data collection and analysis methods. This includes automating the health information system to monitor the pattern and risk of TB among key populations (KPs) in the country.

More funding is needed to maintain regular TB screening for high-risk groups and improve various clinical services. Outreach campaigns must also be established to provide services to individuals living in remote areas and refugees. Training sessions should be included in the updated action guidelines for health service providers to improve their medical and psychological skills.

The use of social media should also be utilized to increase TB awareness and reduce the associated stigma. The role of civil society organizations (CSOs) should be strengthened to provide additional support to KPs.

Further research is essential to better understand the TB situation among KPs, including people who use drugs (PWUD), people living with HIV (PLHIV), and men who have sex with men (MSM), who are at the highest risk of infection and mortality. Studies are also needed to assess the government's response to the needs of KPs in the context of TB, including the impact of COVID-19 on TB prevention, screening, and treatment.

Finally, political support is crucial to ensure that KPs is prioritized in the future and to enhance coordination among all parties at the national, regional, and international levels.

The Roadmap Towards ending TB in Algeria: Objective

The objective of the roadmap may be summarized as follows:

To ensure equitable access of TB clinical services to key populations and secure a surrounding environment free of stigma and all types of discrimination, in collaboration with governmental and non-governmental actors at the national, regional, and international levels.

The roadmap towards ending TB in Algeria: Key Actions

1. Strengthen Advocacy at all levels.

1.1 Targeting: Political leaders, global, regional, and national advocacy partnerships, civil society, religious leaders, public figures, and opinion leaders.

- Ensure that addressing the TB problem remains one of the top priorities at the national, regional, and international levels;
- Engage policymakers to develop necessary plans to address the various needs of key population;
- Advocate for research and innovation to end TB.

2. Foster National Leadership and Accountability

2.1 Targeting: policymakers, and national and district level program managers. Civil society communities.

- Attain intended outcomes within given timeframes and designated resources;
- Recognize the importance of practical steps to allocate adequate national sources; Strengthen the capacity of programs and health workers;
- Ensure linkages with accountabilities for critical services.

3. Increase funding for National TB Programs

3.1 Targeting: advocacy partners, donors, government leaders, policymakers.

- Increase awareness of the need for additional resources and secure buy-in from political leaders and decision-makers;
- Develop a strategy to ensure optimal use/distribution of available resources;
- Coordinate and harmonize donor and country interests and investments with increased flexibility and the opportunity

Ensure health financing becomes progressively less donor-dependent and more equitable, by moving from successful pilot projects to more integrated and sustainable; programmatic scale-up at all levels including continuous quality improvement efforts and the use of TB-agreed indicators;

As TB is a disease of poverty, encourage poverty reduction strategies and social protection expansion to improve support for TB patients and their families; Move with urgency toward the global goal of universal health coverage.

4. Bridge the Policy Practice gap

4.1 Targeting: Policymakers, managers of relevant programmers at the national and district level and implementing partners.

- Widely disseminate and enhance the use of capacity-building tools on TB to train health workers to diagnose and manage TB infection disease with emphasis on TB prevention;
- Strengthen the skills of healthcare providers in the use of diagnostic tools;
- Establish supporting supervision at all levels;
- Ensure implementation of TB prevention guidelines;
- Scale up locally developed communication material to raise awareness of the importance of TB prevention among health workers and the general population;
- Sensitize the public and private sectors to the importance of mandatory TB notification and implement user-friendly reporting tools (e.g., mobile phones and social media).

5. Scale up TB Detection and Treatment

5.1 Targeting: National policymakers, donors, relevant programs, district health program managers, technical partners, private sector partners, and health care workers.

- Provide necessary training at all levels;
- Develop strategies and mechanisms for diagnosis; Develop a referral system;
- Adopt infection control measures.

6. Implement Community-Centered Strategies

- Encourage the use of contextualized local solutions in response to issues of concern regarding TB;
- Integration approaches, with a focus on prevention and sharing of best practices models;
- Strengthen global and country-level coordination;
- Decentralize and integrate successful models of TB healthcare.

7.1 Improve Data Collection and Use

- Record, evaluate, and report outcomes of TB diagnosis and treatment regularly;
- Implement electronic and case-based surveillance to facilitate reporting TB cases data and analysis disaggregated by age, sex...etc.;
- Collaborate with WHO and other partners in developing and improving the vital registration system;
- Build capacity in countries for quality data collection, reporting, and analysis, as well as the use of data for strategic planning, procurement, and supply management policy formulation;
- Conduct national inventory studies to assess the extent of under-reporting.

8. Encourage Research on TB among Key Population

- **8.1 Targeting:** policymakers, academia, donors, implementing partners, private sector.
- Dedicate specific attention to the following priorities;
- Adopting the most recent approaches for prevention, detection and management of TB in KPs;
- Engage in WHO efforts in developing a more effective TB vaccine;
- Identifying the social determinants underpinning the difficulties facing KPs in accessing TB-related detection and treatment services.

Milestones in implementation of the key actions

Short-term by 2025

- Documenting the progress in providing TB-related services to KPs for the upcoming two years.
- Signing partnership agreements between the NTP and stakeholders.
- Develop a research program with the purpose of adopting most advanced diagnostic, prevention, vaccination, and treatment methods.
- Medium-term by 2028
- Review progress in TB control in KPs for the upcoming five years.
- Establish a domestically funded TB control program integrating the KPs.
- Rollout of a functionable scalable TB control model.
- Long-term by 2030
- Reach the national TB control target aligned with the national SDGs and the global TB strategy objectives.

Algeria: Monitoring And Evaluation Plan

INDICATOR	PURPOSE	INDICATOR TYPE	SOURCE OF INFORMATION	RESPONSIBLE	BASELINE	TARGET
TB guidelines/policies for KPs	To improve TB detection and management in KPs	Process	Algeria TB national strategy and NTP	NTP	0	1 by 2025
National multisectoral coordination mechanism	To improve collaboration and accountability	Process	NTP/NAP/CS O	NTP	0	1 by 2025
TB Incidence rate among KPs	To estimate the burden of TB in KPs	Output	NTP	NTP	NA	10 cases per 100,00
Community centered awareness programs	Decrease stigma	Output	NTP	NTP	0	0 by 2025
Number of KPs referred for TB screening and treatment	To improve KPs TB-related data collection and analysis	Output	NTP	NTP	TBD	1 by 2025
TB Health Workers development plan	To improve TB-related services in KPs (prevention, detection, treatment, and follow-up)	Process	NTP	NTP / M	NA	TBD
Number of TB health workers including community health workers	Improve TB related services	Output	NTP / M	NTP/MoHP	TBD	1 by 2025
Health financing for TB including KPs	Improve TB general services and KPs specific services	Output	NTP/MoHP	NTP/MoHP	TBD	TBD

Egypt Governance and Policy Frameworks

To monitor and accelerate progress in its efforts to combat Tuberculosis (TB), the Ministry of Health and Population (MOHP) in Egypt established a National Committee for Pulmonary Diseases and TB in 2022. The committee has a crucial role in ensuring the application of newly developed scientific techniques in the screening and management of pulmonary diseases, including TB. The National Committee for Pulmonary Diseases and TB can also play an important role in promoting greater investment in TB research and development and advocating for the importance of TB control to decision-makers at the national and international levels.

The establishment of the National Committee for Pulmonary Diseases and TB and the implementation of the National Tuberculosis Program in Egypt are significant steps towards improving the TB response in the country. The program aims to reach a target incidence of 7 cases per 100,000 population and lower mortality rate of 75% by 2025, with several strategies being implemented to increase TB screening and treatment, especially among key populations such as people living with HIV. Despite these efforts and the commitment of the Egyptian government to ending Tuberculosis (TB), there are still gaps in the identification and management of TB among PWUD in Egypt.

The National Tuberculosis Program (NTP) in Egypt, has outlined the main objectives of the program to be achieved by 2025 (personal communication with director of program). These objectives include reaching more than 90% TB case detection, reaching 90% detection of estimated cases of Multi-Drug Resistance (MDR) TB with an 80% successful treatment rate, strengthening TB-HIV activities, expanding latent TB infection treatment, and strengthening the capacity of NTP staff and TB service providers. This is in line with recent studies reporting a higher prevalence of drug-resistant TB and MDR-TB among key populations in comparison to the general population [12].

To monitor progress towards these objectives, the NTP collects regular TB-related data through various methods from multiple TB centers across the country. This data is segregated by age, sex, and nationality to maintain accurate records of the TB situation, including incidence, mortality rates, and treatment success rates. This data collection and analysis helps the NTP to identify trends and patterns in the TB epidemic, which can inform the development and implementation of targeted and effective TB control strategies. It also enables the NTP to monitor progress towards its objectives and adjust its approach as needed to achieve its goal of ending TB in Egypt by 2025.

Egypt Governance and Policy Frameworks

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Egypt Main findings

A strong collaboration has been established between the National Tuberculosis Program (NTP) and the National Aids Program (NAP). This collaboration highlights the importance of providing services to PLHIV, who are identified as a "high-risk" group of the population and require specific services (Personal communication by Dr. Amin). These services include regular screening, investigations for suspected cases, treatment, and follow-up of active cases to ensure they complete their treatment. This approach helps to ensure that PLHIV receives the necessary care and support to prevent and manage TB effectively.

The HIV prevalence among MSM is roughly 6.7%, compared to 2.5% in People Who Inject Drugs (PWID); however, the report did not include further statistics on KPs with HIV, including the number of KPs on ART, patients in preventative programs, or data on stigma and discrimination [15]. Furthermore, men who have sex with men (MSM), sex workers, transgender people, and people who inject drugs have a 14-50 times higher risk of contracting HIV than the general population (thus an increased risk of TB co-infection) and are frequently subjected to higher stigma and discrimination, limiting their access to prevention and treatment resources [10]. Program (NTP) extends its services to include people living with HIV (PLHIV) in prisons by conducting regular investigations and treatments and providing capacity building and training to prison staff on case identification and management.

In response, the Ministry of Health and Population (MOHP) is collaborating with international organizations to enhance its efforts to improve the lives of PLHIV. One such collaboration is with the United Nations Development Programme (UNDP), which has a budget of 5.2 million from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) between 2022 and 2025. This program is aimed at supporting efforts to eliminate TB and HIV in highly vulnerable groups, such as refugees and prisoners, with part of the grant directed towards reducing stigma [18]. While there is no direct collaboration between the program and civil society organizations that support PLHIV, there is a partnership between the NTP, and a few organizations specialized in TB. These organizations may support PLHIV, but there is no available data on the number of key populations they support and the type of services they provide to them.

The Ministry of Health and Population (MOHP) in Egypt has been releasing data on substance use in the country since 1996, and the data indicates a significant rise in the number of people who use drugs (PWUD), particularly among adolescents and young people. Despite the lack of accurate data on the number of PWUD in Egypt, the rate of drug use in the country is estimated to be double the global average due to various factors, such as low efforts in prevention, decreased awareness, and ongoing criminalization laws towards PWUD [9]. The MENA HRA Harm Reduction Advocacy Brief MENA region emphasizes advocacy priorities, including reform of some components of existing legislation [20]. There are no statistics on the number of PWUD in Egypt,

Discussion

In Egypt, Civil Society Organizations (CSOs) play an important role in providing support to People Living with HIV (PLHIV) and Key Populations (KPs). However, the limited number of NGOs with experience in TB-HIV comorbidities and risks is a concern that must be addressed. The efforts made by the “TB and Smoking Elimination Society” in Cairo to support TB patients are commendable. By organizing awareness sessions and follow-up campaigns, they are helping to raise awareness of the risks associated with TB and encourage patients to seek the care and support they need. Providing financial and non-financial assistance, such as extended paid sick leave, is also a crucial component of their efforts to support TB patients. This type of support can help to reduce the burden of TB treatment on patients and their families and ensure that they receive the care and support they need during the treatment period.

It is important to recognize the important role that CSOs like the TB and Smoking Elimination Society play in supporting TB patients and addressing the challenges associated with TB. By working together, organizations like this can make a significant impact in reducing the burden of TB and improving the health and well-being of those affected by the disease. The TB and Smoking Elimination Society is taking an active role in minimizing the drop-out rate of TB treatment. By acting as a link between TB treatment centers and patients, they are helping to ensure that patients receive the care and support they need throughout their treatment journey. In addition, their collaboration with the national TB program to provide training to TB health workers on case detection and the proper ways of dealing with suspected cases and patients is a positive step towards improving the quality of TB care. By training health workers on best practices in TB care, they can ensure that patients receive the highest standard of care and support.

Although, there has been collaboration with the WHO to raise awareness about TB, smoking, and drug use; however, the lack of collaboration with other NGOs working in the field of HIV or combating drug use is a concern. It is important for CSOs to work together and coordinate their efforts to ensure that all aspects of the TB epidemic are addressed and that patients receive the comprehensive care and support they need. By pooling resources and expertise, they can maximize their impact and make a greater difference in the lives of those affected by TB.

It is also important to note that despite some progress in reducing stigma associated with TB, the stigma associated with drug use and HIV remains a barrier. This highlights the need for continued efforts to raise awareness and educate the public about the realities of TB, drug use, and HIV, and to work towards reducing stigma and discrimination. The lack of funding and resources is a major challenge facing CSOs in Egypt, and this must be addressed if they are to be effective in their efforts to support TB patients. Increasing investment in TB-related programs and initiatives, as well as increasing mass media and social awareness about TB-related issues, will be important in ensuring that CSOs are able to provide the support and services that patients need.

Roadmap: Towards ending TB in Egypt

In line with the global commitment to the Sustainable Development Goals target of eradicating tuberculosis by 2030 and the National TB Plan, Egypt is actively working to combat TB. The roadmap developed for this purpose takes into account both global commitments and national challenges. The roadmap begins with a summary of the contextual assessment, which highlights the major findings of the assessment as well as analysis on the opportunities and the challenges faced. The roadmap outlines key actions to be taken, including resource allocation, networking, engaging key stakeholders, communication, advocacy planning, and defining roles and responsibilities. Implementation milestones are also presented on a short-term, medium-term, and long-term basis.

Contextual assessment summary

Egypt has achieved great progress in controlling the TB problem over the past years in the general population with a significant drop in the incidence of the disease to reach 11 cases per 100,000 population, a major decline from 26 cases two decades ago. Moreover, Egypt reported an approximately 87% treatment success rate. Meanwhile, TB notification remains low, this raises many questions about the extent of other social and economic contributions toward combating TB.

The establishment of the National Committee for Pulmonary Diseases and TB and the implementation of the National Tuberculosis Program in Egypt are significant steps toward improving the TB response in the country. The program aims to reach a target incidence of 7 cases per 100,000 population and a lower mortality rate of 75% by 2025, with several strategies being implemented to increase TB screening and treatment, especially among key populations such as people living with HIV. Despite these efforts and the commitment of the Egyptian government to ending Tuberculosis (TB), there are still gaps in the identification and management of TB among PWUD in Egypt.

There is an increased prevalence of TB among people living with HIV and key populations in Egypt. This includes issues related to access to healthcare, stigma, and the negative impacts of the COVID-19 pandemic. As highlighted in this report, there is a need to strengthen the existing programs and initiatives to provide the adequate services, follow-up, and training necessary to combat TB among key populations, including people living with HIV. This includes ensuring that civil society organizations, which play an important role in providing support to key populations, have the resources and capacity they need to support and raise awareness about TB among this population. Establishing national policies to address and reduce the stigma associated with TB and providing funding for organizations working on TB and HIV is also essential for addressing the challenges faced by these populations in accessing healthcare services for TB. With appropriate collaboration and support, it is possible to reduce the impact of TB among key populations and ensure equitable access to TB prevention and treatment services.

The roadmap towards ending TB in Egypt: Objective

The objective of the roadmap may be summarized as follows:

To ensure equitable access of TB clinical services to Key Population, secure a surrounding environment free of stigma and all types of discrimination, in collaboration with governmental and non-governmental actors at the national, regional, and international levels.

The roadmap towards ending TB in Egypt: Key Actions

1. Strengthen Advocacy at all levels

1.1 Targeting: Political leaders, global, regional, and national advocacy partnerships, civil society, religious leaders, public figures, and opinion leaders.

- Ensure that addressing the TB problem remains one of the top priorities at the national, regional, and international levels;
- Engage policymakers to develop necessary plans to address the various needs of the key population.

2. Foster National Leadership and Accountability

1 Targeting: policymakers, and national and district-level program managers. Civil society communities.

- Attain intended outcomes within given timeframes and designated resources;
- Recognize the importance of practical steps to allocate adequate national sources; Strengthen the capacity of programs and health workers; Ensure linkages with accountabilities for critical services.

3. Increase Funding for TB Program.

3.1 Targeting: advocacy partners, donors, government leaders, policymakers.

- Increase awareness of the need for additional resources and secure buy-in from political leaders and decision-makers;
- Coordinate and harmonize donor and country interests and investments with increased flexibility and the opportunity to move from a disease-specific to an integrated system-focused approach toward achieving universal health coverage

- Ensure health financing becomes progressively less donor-dependent and more equitable, by moving from successful pilot projects to more integrated and sustainable programmatic scale-up at all levels including continuous quality improvement efforts and the use of TB-agreed indicators;
- As TB is a disease of poverty, encourage poverty reduction strategies and social protection expansion to improve support for TB patients and their families; Move with urgency toward the global goal of universal health coverage.

5. Scale up TB Detection and Treatment.

5.1 Targeting: National policymakers, donors, relevant programs, district health program managers, technical partners, private sector partners, and health care workers.

- Provide necessary training at all levels;
- Develop strategies and mechanisms for diagnosis; Develop a referral system;
- Adopt infection control measures.

6. Implement Community-Centered Strategies.

- Encourage the use of contextualized local solutions in response to issues of concern regarding TB;
- Integration approaches, with a focus on prevention and sharing of best practices models;
- Strengthen global and country-level coordination;
- Decentralize and integrate successful models of TB healthcare.

7. Improve Data Collection and Use.

- Record, evaluate, and report outcomes of TB diagnosis and treatment regularly;
- Implement electronic and case-based surveillance to facilitate reporting TB cases data and analyses disaggregated by age, sex...etc;
- Collaborate with WHO and other partners in developing and improving the vital registration system;
- Build capacity in countries for quality data collection, reporting, and analysis, as well as the use of data for strategic planning, procurement, and supply management policy formulation;
- Conduct national inventory studies to assess the extent of under-reporting.

8. Encourage research on TB in KPs

8.1 **Targeting:** policymakers, academia, donors, implementing partners, private sector.

- Dedicate specific attention to the following priorities;
- Improve prevention, diagnosis, and management of TB in key population;
- Develop a TB vaccine with enhanced and longer, listing protective efficacy;
- Understanding determinants of TB and key barriers faced by TB patients to access TB diagnostic and treatment services.

Milestones in implementation of the key actions

Short-term by 2025

- Two-year Progress report on implementation of key actions.
- Functional Partnerships bringing together relevant stakeholders.
- Funded research agenda on new diagnostics, drugs, and vaccines as well as implementation models.

Medium-term by 2028

- Five –Year Comprehensive review of progress.
- Sufficient domestic funding for integrated and sustainable programs. Successful models of care implemented and scaled up. Long-term by 2030
- End the TB epidemic Globally in line with the SDGs target and begin Moving toward TB elimination.

Egypt: Monitoring and Evaluation plan

INDICATOR	PURPOSE	INDICATOR TYPE	SOURCE OF INFORMATION	RESPONSIBLE	BASELINE	TARGET
TB guidelines/policies for KPs	To improve TB detection and management in KPs	Process	Egypt TB national strategy and NTP	NTP/MoHP	0	1 by 2025
National multisectoral coordination mechanism	To improve collaboration and accountability	Process	NTP/NAP/C SO/MoHP	NTP/MoHP	0	1 by 2025
TB Incidence rate among KPs	To estimate the burden of TB in KPs	Output	NTP	NTP/MoHP	NA	7 cases per 100,000 by 2025
Community centered awareness programs	Decrease stigma	Output	NTP	NTP	0	0 by 2025
Number of KPs referred for TB screening and treatment	Improve case detection and management	Output	NTP	NTP	NA	TBD
TB Health Workers development plan	To improve TB-related services in KPs (prevention, detection, treatment and follow up)	Process	NTP	NTP/MoHP	NA	1 by 2025
Number of TB health workers including community health workers	Improve TB related services	Output	NTP / M	NTP/MoHP	TBD	TBD
Health financing for TB including KPs	Improve TB general services and KPs specific services	Output	NTP/MoHP	NTP/MoHP	TBD	TBD

Lebanon Governance and Policy Frameworks

The governance and policy frameworks have a crucial role in shaping the availability and accessibility of TB services for Key Populations (KPs). In Lebanon, the Ministry of Public Health (MOPH) is responsible for setting policies and guidelines for the prevention, diagnosis, and treatment of TB. The National TB Program (NTP) within the MOPH is responsible for the implementation of TB control activities, working in collaboration with other stakeholders such as healthcare providers, International Organization of Migration (IOM), and The World Health Organization (WHO). The governance of TB in Lebanon involves a multi-sectoral approach that ensures effective TB control in the country.

Lebanon Main findings

In terms of coordination and collaboration with other sectors, participants emphasized the importance of coordination between different sectors and elaborated on the key roles each entity has in the effective screening of TB among KPs. The NTP works in coordination with NGOs/CSOs to ensure that TB control activities are integrated into the healthcare system, and the NTP and the National Aids Program cooperate to screen all beneficiaries for TB and HIV. Recommendations included the formation of a technical working group, comprising representatives from different sectors, to update technical operational guidelines bi-annually. Participants also stressed the importance of having CSOs working with KPs on the technical working group to ensure that the needs of KPs are considered.

Participants also highlighted the need for integrating TB services in primary health care (PHC) as it can play a vital role in identifying high-risk TB cases through outreach campaigns and active case finding. Another stakeholder said:

Other sectors play a huge role in supporting TB among KPs – academic medical societies and order of physicians play a role providing education and training, developing guidelines and protocols, advocating for policies that support TB prevention and treatment, and conducting research, these organizations can help ensure that all patients, including key populations, have access to high-quality TB care.

Another stakeholder mentioned the importance of integrating TB services in primary health care (PHC) where they said:

PHC can play an important role in identifying high risk TB cases through outreach campaigns and active case finding. By training the healthcare providers at the PHC centers, they will also be able to provide DOTs for KPs who are reluctant to seek care.

TB management in Lebanon is funded through a combination of public and private sources. The Ministry of Public Health (MoPH) oversees the national TB control program and provides a significant portion of the funding for TB management.

In addition to government funding, the National TB Program (NTP) receives support from international organizations, such as the World Health Organization (WHO), the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and other non-governmental organizations, which provide financial aid and technical assistance for TB prevention and control. Several stakeholders, including the NTP, National AIDS Program (NAP), and other supporting agencies, have suggested that increasing government funding allocated to TB is the most prominent financial resource needed to support TB needs. It was also noted that UN agencies currently play a major role in financially supporting the NTP in Lebanon, but this is viewed as a timely solution and not sustainable in the long run.

During discussions on monitoring and evaluation, all participants highlighted the efficiency of Lebanon's centralized and unified system for managing data related to TB. This system, which is used by the National TB Control Program (NTP), enables the timely detection and reporting of new TB cases, monitoring of treatment outcomes, and evaluation of the overall effectiveness of the program. By using standardized protocols for diagnosis and treatment and collaborating with international organizations like the World Health Organization, Lebanon has been able to improve case detection rates and treatment success rates. All TB-related data is stored centrally at the NTP, segregated by age and gender, with a list of national indicators for TB developed and reflected in the 2030 National Strategic Plan. However, the data does not include information on substance and drug use to improve care-seeking behavior among key populations. Participants emphasized the need for a national referral system that facilitates tracking and follow-up between the NTP, National AIDS Program (NAP), primary healthcare centers, and civil society organizations for effective implementation of TB needs.

One of the main challenges highlighted by the key informants is the lack of human and financial resources, particularly community health workers, social workers, and directly observed treatment workers. As accessing TB services among key populations may be hindered by stigmatization, there is a growing demand for the availability of community health workers to conduct outreach campaigns, active case finding, and directly observed treatment.

To improve the integration of TB services into existing roles and cadres to support key populations, the recommendation was made to integrate mental health services into primary health care centers. While Lebanon is the only country actively working towards and achieving many targets of the National Strategic Plan for TB, other countries have also recognized the importance of developing comprehensive plans to address the global TB epidemic. The World Health Organization's End TB Strategy provides a global plan to end the TB epidemic by 2030, with three main pillars focused on integrated, patient-centered TB care and prevention, bold policies and supportive systems, and intensified research and innovation.

Discussion

Lebanon has made significant efforts to reduce the burden of tuberculosis (TB) in recent years, with a 13% increase in TB notifications in 2022 [12]. The National TB Program (NTP) has worked tirelessly to develop and implement the National Strategic Plan (NSP), which aims to improve case detection and treatment, strengthen healthcare systems, and address social and economic factors that contribute to the spread of the disease. As a result, Lebanon is considered a country with a low TB burden, with an estimated incidence rate of 10 cases per 100,000 individuals in 2021 [18] and an overall success rate of more than 80% for TB treatment [34].

Although key populations, including individuals who are at higher risk of contracting and transmitting TB, such as people living with HIV, prisoners, and people who use drugs, are not a significant concern in Lebanon due to various factors such as low HIV prevalence, strict infection control measures, and a relatively small population of incarcerated individuals, it is still important to ensure that they have access to appropriate screening, diagnosis, and treatment to prevent and control the spread of the disease, as studies suggest [10, 25, 33].

Efforts to integrate TB services into primary healthcare (PHC) can play a vital role in reducing the TB burden in Lebanon. This can be achieved by integrating TB diagnosis and treatment services into existing PHC facilities and training healthcare providers to diagnose and manage TB effectively. By doing so, patients can access TB care more easily and promptly, with better continuity of care. Furthermore, integrating TB care into PHC can help identify high-risk patients and provide preventive treatment to reduce the incidence of TB in key populations.

Roadmap: Towards ending TB in Lebanon

The roadmap for ending tuberculosis (TB) in Lebanon considers both global commitments and national challenges. The report begins with a summary of a contextual assessment, highlighting major findings as well as analysis on the opportunities and the challenges faced. Key actions are then identified and presented, along with necessary measures to address various areas such as resources, networking, key actors, communications, advocacy plans, and roles and responsibilities. The roadmap also includes short-term, medium-term, and long-term milestones for implementation.

Contextual Assessment Summary

Tuberculosis management in key populations remains a major barrier to global TB control due to greater exposure to TB risk factors and, as a result, a significant probability of infection. Key population cases differ by country based on environmental, biological, or behavioral factors. In accordance with the aforementioned risk factors, the majority of TB cases affect key populations (KPs), which include HIV-positive individuals, people who use drugs (PWUD), prisoners, and migrants.

Lebanon has made significant efforts to reduce the burden of tuberculosis (TB) in recent years, with a 13% increase in TB notifications in 2022. The National TB Program (NTP) has worked tirelessly to develop and implement the National Strategic Plan (NSP). As a result, Lebanon is considered a country with a low TB burden, with an estimated incidence rate of 10 cases per 100,000 individuals in 2021 and an overall success rate of more than 80% for TB treatment.

Key populations, including individuals who are at higher risk of contracting and transmitting TB, such as people living with HIV, prisoners, and people who use drugs, are not a significant concern in Lebanon. However, it is still important to ensure that they have access to appropriate screening, diagnosis, and treatment to prevent and control the spread of the disease, as studies suggest.

Efforts to integrate TB services into primary healthcare (PHC) can play a vital role in reducing the TB burden in Lebanon. This can be achieved by integrating TB diagnosis and treatment services into existing PHC facilities and training healthcare providers to diagnose and manage TB effectively. By doing so, patients can access TB care more easily and promptly, with better continuity of care. Furthermore, integrating TB care into PHC can help identify high-risk patients and provide preventive treatment to reduce the incidence of TB in key populations. The roadmap towards ending TB in Lebanon: Objective

The objective of the roadmap may be summarized as follows:

To ensure equitable access of TB clinical services to key populations and secure a surrounding environment free of stigma and all types of discrimination, in collaboration with governmental and non-governmental actors at the national, regional, and international levels.

The roadmap towards ending TB in Lebanon: Key Actions

1. Establish a Technical Working Group.

1.1 Targeting: NTP, IOM

- Develop a term of reference for the technical working group (TWG);
- Establish the TWG;
- Develop evidence-based policies and strategies that address the specific needs of KPs populations;
- Convene bi-annually or as needed to discuss updates and progress on the annual plan.

2. Amend TB Guidelines to include KPs (PWUD, PLHIV, LGBTQ+ etc...) Targeting: NTP, MOSA, IOM, WHO

- Establish collaboration with other governmental and UN sectors to develop and update TB national strategy and SOPs;
- Update TB national strategy and SOPs to include not only PLHIV, but also PWUD and LGBTQ+ and other KPs;
- TB prevention and TB screening focused at KPs;
- Active case findings;
- Recommendations for social support;
- Leverage social media tools to share information about TB directed at KPs in the community.

3. Integrate TB Services in Primary Health Care Targeting: NTP, MOPH, IOM

- Develop screening tools and integrate the prevention and management of TB into available packages in PHCCs;
- Identify referral facilities for KPs;
- Develop referral pathways from PHCCs to NTP centers that are double sided (back and forth), feasible and context appropriate;
- Benefit from PHCC to expand outreach workers to conduct awareness campaigns and active case finding from remote locations among KPs into the NTP / PHCC.

4. Develop a plan to Enhance and Expand on Human Resources Targeting: NTP, IOM, political leaders, CSO

- Earmark funds from the MOPH yearly budget to support the human resources at NTP;
- Allocate funds from the MOPH yearly budget for mandatory capacity building programs of healthcare providers on TB;
- Recruit social workers and outreach community workers to increase the number of home visits for KPs patients who do not seek care due to factors such as stigma, poverty, or limited mobility.

5. Train healthcare Providers and Medical Students

Targeting: NTP, MOPH, MEHE, Order of Physicians

- Develop training & capacity building tools to train healthcare providers and laboratory staff;
- Screening, referrals, active case finding and management of TB among KPs effectively, including effective communication skills;
- Provide high-quality training and education to the healthcare providers and laboratory; In-person training, online courses, or continuing education programs.
- Milestones in implementation of the key actions

Milestones in implementation of the key actions

Short term by 2025

- Development of TORs for upcoming two years.
- Formation of TWG for upcoming two years.
- Regular meetings.
- Amend TB Guidelines to include KPs.
- Establish coordination all levels.

Intermediate term by 2025-2028

- Integration of TB services in PHC for the upcoming 2-5 years.
- Develop referral network.
- Active case detections by outreach health workers.
- Develop sustainable plan to support HR.
- Training of healthcare providers and medical students

Long-term by 2030

End the TB epidemic Globally in line with the SDGs target and begin Moving toward TB elimination.

Lebanon: Monitoring and evaluation plan

INDICATOR	PURPOSE	INDICATOR TYPE	SOURCE OF INFORMATION	RESPONSIBLE	BASELINE	TARGET
TB guidelines/ policies for KPs	To update knowledge and improve treatment capacity for KPs	Process	NTP	NTP	0	1
TB incidence rate among KPs	To estimate the burden of TB in KPs	Output	NTP	NTP	-	
Human resources development plan developed	To sustain provision of TB services including screening, treatment and follow-up	Process	NTP	NTP	0	1
Number of newly recruited health care workers including community health workers	As above	Output	NTP	NTP		
% of TB screened and confirmed in PHCCs	To integrate provision of TB services in PHC	Output	MOPH	NTP, MOPH		
% of PHC staff trained on TB services and communication with KPs (including active case finding)	As above	Process	NTP	NTP/MoHP	NA	1 by 2025

Morocco Governance and Policy framework

At the end of the 1970s, a national TB program was established in Morocco to prevent, control, and ultimately eliminate TB. In the early 1990s, Morocco was also one of the first countries to implement the DOTS (Directly Observed Treatment Short course) program [26]. Standardized treatment regimens are free of charge, with only two recognized national laboratories that screen for TB [27]. Morocco was able to achieve an 80% reduction in the number of TB primary infections between 1980 and 2018 due to significant funding from the Global Fund to fight Malaria, Tuberculosis, and AIDS [28]. Morocco has met the WHO standards for identifying and treating tuberculosis, with 87% of cases estimated to be detected and being treated [29]. However, TB incidence does not seem to decrease in Morocco.

Morocco joined the STOP TB Strategy in 2006 to consolidate previous efforts and develop new interventions to combat drug-resistant TB and HIV co-infections. The 2006-2015 plan resulted in a 59% reduction in TB-related mortalities and a 27% decrease in TB prevalence, attaining Millennium Development Goal 6C [36;37].

The Moroccan National Strategic Plan (NSP), which covered the years 2018 to 2021, set a target of a 40% drop in TB mortality from 2015 to 2021. Additionally, it aimed to strengthen and enhance the programmatic management of drug-resistant TB as well as TB/HIV collaborative activities. The managerial capabilities of the NTP need to be strengthened and developed at all levels in order to develop and implement the interventions mentioned above.

The Moroccan National Strategic Plan, published in 2018, discusses tuberculosis (TB) prevention, treatment, and diagnosis among PLHIV [37], but it lacks relevant information on these guidelines for other key populations such as men who have sex with men (MSM), people who use drugs (PWUD), female sex workers (FSW), etc. This NSP includes an operational component that outlines how each strategic intervention and action will be carried out. The budget required to do this also was stated; the total budget was expected to be 558.14 million Dirhams (60 million US\$). Indicators also were developed to monitor and assess the development and implementation of interventions and activities [37]. The NSP has four primary objectives: increase the number of TB cases detected, increase MDR TB detection, sustain 100% of TB/HIV patients on ARV treatment, improve governance, and establish an integrated and multisectoral strategy to end TB.

The second of the three objectives contained in the Global Plan to END TB is dedicated to key populations, acknowledging their importance in containing the epidemic: TB testing and treatment services must reach at least 90% of key populations by 2020, as determined by nations worldwide. The third goal of achieving at least 90% treatment success encompasses all persons diagnosed with tuberculosis, including key populations.

Morocco Main findings

There are currently several obstacles preventing the complete provision of TB services to key populations (KPs). During our interviews, it became apparent that there are significant gaps in awareness among KPs regarding TB and the services that are available to them. The lack of collective awareness is a major challenge, as it hinders the education of KPs on TB prevention and management, while perpetuating the stigma surrounding the disease. This lack of awareness is a widespread problem, and it is essential to involve entire communities, including families, in efforts to combat it.

Moreover, it was also revealed during the interviews that the TB services offered at centers are not systematically available, and there is a lack of resources to support them. The infrastructure in each center is often fragmented, and laboratory testing machines frequently need maintenance and are unable to keep up with the number of patients. As a result, beneficiaries often experience significant delays in receiving their laboratory test results, which can be frustrating and discouraging. Some individuals are even forced to seek care from different TB centers that are far away or from the private sector, where services are not free. For example, some beneficiaries reported having to pay for lab tests in other centers because the machine at their center was broken: "I had to go to another center and pay fees because it was not possible to carry out free analysis since the machine in my center was broken." Another beneficiary had to wait for almost a month to receive their lab results and expressed frustration about the delay: "I once waited almost a month for my lab results to come out. I was frustrated." Therefore, spreading awareness is necessary, but it is equally essential to ensure that adequate resources are available to provide timely and high-quality TB services to all KPs in need.

The stakeholders have proposed an increase in the number of centers to overcome demographic barriers and ensure adequate coverage of all geographic areas. The beneficiaries have emphasized the importance of providing high-quality tuberculosis (TB) services in all areas, rather than having to bear the burden of high transportation costs to access satisfactory services. The provision of accessible, high-quality TB services is a critical element in ensuring beneficiary satisfaction and encouraging follow-up. To this end, beneficiaries have suggested improvements in TB management procedures, including infrastructure, waiting areas, waiting times, appointment systems, and cleanliness and infection prevention and control measures.

To enhance sustainability and TB services for key populations (KPs), there is a recurring suggestion to conduct awareness campaigns. This is primarily due to a lack of knowledge and information about TB screening, management, and follow-up among KPs. The absence of awareness is a significant concern, as it may lead to new cases of TB being undetected and undiagnosed. All stakeholders and beneficiaries identified a lack of awareness as a major barrier to KPs seeking TB services.

Morocco Main findings

KPs emphasized the need for more awareness campaigns focused on TB prevention and posttreatment follow-up. To effectively reach KPs, media campaigns during peak times and on social media were recommended to raise awareness and encourage people who use drugs and people living with HIV, who may be staying at home, to seek TB services. In summary, increasing awareness is a critical step in addressing the TB needs of KPs.

Stakeholders have stressed the importance of follow-up after the completion of TB treatment as it is essential to ensure that the patient is entirely cured of the disease and to prevent any relapse or the emergence of drug-resistant strains. Moreover, follow-up can help to identify underlying health conditions that may have contributed to the development of TB, such as HIV infection, and provide appropriate treatment and management.

The KPs also highlighted the need to enhance the capacities of healthcare providers, a suggestion that was echoed by stakeholders, especially regarding community outreach and home visits. However, stakeholders raised concerns about the lack of social workers who could provide home visits for KPs patients who do not seek care due to factors such as stigma, poverty, or limited mobility. Upon completion of treatment, there is often no follow-up, and social workers who are available are typically overworked and may even have to pay transportation costs out of pocket.

Discussion

Tuberculosis (TB) is a significant public health issue in Morocco, with an estimated incidence rate of 69 cases per 100,000 people in 2019 [1]. Certain groups, such as those living in poverty, experiencing malnutrition, and lacking access to healthcare, are particularly vulnerable to TB as studies have shown [22, 23]. People living with HIV are especially at risk, as TB is a leading cause of death among this population in Morocco. To combat the spread of TB and improve health outcomes, it is essential to ensure that people living with HIV are screened and treated for the disease.

Raising awareness about TB among key populations in Morocco is critical to reduce the incidence of the disease, increase early detection, and promote effective treatment. By increasing knowledge and understanding of TB, these groups can better protect themselves and their communities, reduce the spread of the disease, and promote more inclusive and equitable healthcare services. As one study has also shown, effective management of TB among these populations requires a multidisciplinary approach, including social workers who can provide holistic support and ensure that patients are receiving the care they need

Roadmap: Towards ending TB in Morocco

Morocco is committed to ending tuberculosis (TB) by 2030, in line with the global Sustainable Development Goals target and the National TB Plan. To achieve this goal, a roadmap has been developed that considers both global commitments and national challenges. The report begins with a summary of a contextual assessment, highlighting major findings and SWOT analysis of the opportunities and challenges. The roadmap outlines key actions to be taken, including resource allocation, networking, engaging key stakeholders, communication, advocacy planning, and defining roles and responsibilities. Implementation milestones are also presented on a shortterm, medium-term, and long-term basis.

Discussion

1. Contextual Assessment Summary

Tuberculosis management in key populations remains a major barrier to global TB control due to greater exposure to TB risk factors and, as a result, a significant probability of infection. Key population cases differ by country based on environmental, biological, or behavioral factors. In accordance with the aforementioned risk factors, the majority of TB cases affect key populations (KPs), which include HIV-positive individuals, people who use drugs (PWUD), prisoners, and migrants.

Raising awareness about TB among key populations in Morocco is critical to reduce the incidence of the disease, increasing early detection, and promoting effective treatment. By increasing knowledge and understanding of TB, these groups can better protect themselves and their communities, reduce the spread of the disease, and promote more inclusive and equitable healthcare services.

Home visits by social workers can be particularly effective in ensuring that TB patients receive appropriate care, especially in cases where patients face barriers to accessing health services due to factors such as stigma, poverty, or limited mobility. However, there is a shortage of social workers in Morocco, which limits the number of home visits that can be conducted. Increasing the number of trained social workers could help to improve TB management among key populations in Morocco.

Addressing the needs of key populations is crucial for controlling the spread of TB and reducing the burden of the disease in Morocco. Improving access to healthcare, TB screening, and treatment for these populations should be a priority for TB control efforts in the country.

2. The roadmap towards ending TB in Morocco: Objective

Morocco is committed to ending tuberculosis (TB) by 2030, in line with the global Sustainable Development Goals target and the National TB Plan. To achieve this goal, a roadmap has been developed that considers both global commitments and national challenges. The report begins with a summary of a contextual assessment, highlighting major findings and SWOT analysis of the opportunities and challenges. The roadmap outlines key actions to be taken, including resource allocation, networking, engaging key stakeholders, communication, advocacy planning, and defining roles and responsibilities. Implementation milestones are also presented on a shortterm, medium-term, and long-term basis.

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3. The roadmap towards ending TB in Morocco: Key actions

1. Reinforce the Infrastructure at TB Centers Targeting: NTP, IOM.

- Provide healthcare facilities with the necessary resources, such as adequate staff, medical supplies, and laboratory equipment to provide high quality TB services and improve the capacity of healthcare providers to diagnose and treat TB patients;
- Recruit social workers and outreach community workers to increase the number of home visits for KPs patients who do not seek care due to factors such as stigma, poverty, or limited mobility;
Improve the management procedures, including infrastructure, waiting areas, waiting times, appointment systems, and cleanliness and infection prevention and control measures.

2. Amend TB Guidelines to include Post-Treatment Follow-Up.

Targeting: NTP, MOSA, IOM, WHO.

- Establish collaboration with other governmental and UN sectors to develop and update TB national strategy and SOPs;
- Update TB guidelines to include not only management and screening of TB patients but also include protocols for post-TB treatment follow-up to ensure that patients receive comprehensive care and support beyond their treatment completion.

3. Conduct Awareness Campaigns

Targeting: NTP, IOM, political leaders, CSOs.

- Spread awareness during peak times and on social media to target and raise awareness among KPs, especially people who use drugs and people living with HIV;
- Leverage social media tools to share information about TB directed at KPs in the community;

- Leverage social media tools to share information about TB directed at KPs in the community;
- Identify key community stakeholders such as religious figures, village chiefs, teachers, etc. and build their capacities to increase knowledge and skills in managing TB among KPs.

Prevention: TB prevention should be a primary focus for KPs populations, particularly for those who are at high risk of TB infection. Prevention measures should include active case finding, TB screening, and preventive treatment, particularly for PLHIV and PWUD who have a higher risk of developing active TB disease.

Social support: KPs populations often face significant social and economic challenges that can impact their TB management, such as poverty, stigma, and discrimination. Updated TB guidelines should include recommendations for social support.

4. Integrate TB services in Primary Health Care Centers.

Targeting: NTP, MOPH, IOM.

- Develop screening tools and integrate the prevention and management of TB into available packages in PHCCs;
- Identify referral facilities for KPs;
- Develop referral pathways from PHCCs to NTP centers that are double sided (back and forth), feasible and context appropriate;
- Expand outreach workers to conduct awareness campaigns, active case finding from remote locations among KPs into the NTP / PHCC.

5. Train Healthcare Providers

Targeting: NTP, MOPH, CSOs

- Develop training & capacity building tools to train healthcare providers and laboratory staff;
- Post-treatment follow-up;
- Screening, referrals, active case finding and management of TB among KPs effectively, including effective communication skills;
- Provide high-quality training and education to the healthcare providers and laboratory; In-person training, online courses, or continuing education programs.

Milestones in implementation of the key actions

Short term by year 2025.

- Recruit social workers and CHW for the upcoming two years.
- Ensure maintenance of lab equipment and supplies.
- Amend TB Guidelines to post TB treatment follow-up.
- Establish coordination all levels.
- Increase development of Awareness campaigns on TB prevention and social support.

Morocco: Monitoring and evaluation plan

INDICATOR	PURPOSE	INDICATOR TYPE	SOURCE OF INFORMATION	RESPONSIBLE	BASELINE	TARGET
TB Guidelines with post TB treatment follow-up included	To update knowledge and improve treatment capacity for KPs	Process	NTP	NTP	0	1
TB incidence rate among KPs	To estimate the burden of TB in KPs	Output	NTP	NTP	-	
Number of newly recruited health care workers including community health workers	As above	Output	NTP	NTP		
% of TB screened and confirmed in PHCCs	To integrate provision of TB services in PHC	Output	MOPH	NTP, MOPH		
% of PHC staff trained on TB services and communication with KPs (including active case finding)	As above	Output	MOPH	NTP, MOPH		

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