THE UNITED REPUBLIC OF TANZANIA

Ministry of Health, Community Development,
Gender, Elderly and Children

National Tuberculosis and Leprosy Programme

National Policy Guidelines for TB care and prevention at Workplace

Second Edition

July 2018

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Foreword

Tanzania is among 30 countries that contribute more than 87 percent of the world's tuberculosis (TB) burden; it is designated as a high-burden country by the World Health Organization (WHO). In 2017, the National Tuberculosis and Leprosy Programme (NTLP) notified about 69,819 cases; among these, 28,687 (41 percent) were bacteriological confirmed TB cases, the group most likely to transmit the disease to others, the disease has contributed to more than 8.5 percent mortality among people with HIV/AIDS. (NTLP 2017 Report)

The distribution of TB cases by geographical area shows that the Dar es Salaam region remains the major contributor of TB cases (21 percent of all cases notified). Other major contributors were Mwanza (6%), Mbeya (6%), Dodoma (5%), and Arusha (5%) (NTLP 2017 Report).

Baseline information on TB case detection and management at workplace that was recently collected and analyzed to understand current practices within public and private-sector institutions/industries in Tanzania, revealed that there are limited interventions and knowledge about TB among employees and employers. The rationale lies in the fact that a large portion of the population spends a great deal of time at their places of work. This, coupled with an unfavorable workplace environment, can influence the spread (transmission) of TB. Studies and reports from various sources suggest that transmission of TB at workplaces is three to four times higher than in the community (WHO, 2010). Therefore, this policy guide is an effort to augment TB care and prevention through interventions in the workplace.

The successful implementation of TB at workplace initiatives offers several benefits, including a healthier workforce, reduced medical costs, higher work morale, higher productivity, and enhanced status in the society through credible demonstration of corporate social responsibility and improved image in relation to customers and potential clients. Therefore, workplaces have a responsibility to implement interventions aimed at preventing TB infection to mitigate the negative socioeconomic impact of TB disease.

In line with current WHO recommendations, the Ministry of Health, Community Development, Gender, Elderly, and Children (MoHCDGEC) decided to review and updated this policy guidelines in order to provide new guidance to employers and employees in public, private, and informal sectors in Tanzania on interventions that can reduce the burden of TB at workplaces.
On behalf of MoHCDGEC I invite and request all to participate in ensuring that this policy guideline is fully operationalized.

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July 2018

Acknowledgment

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I take this opportunity to thank all those who selflessly gave their time to review and comment on various documents we shared with them. Special thanks should go to MoHCDGEC staff, particularly Dr.Leonard Subi, Director of Preventive Services for coordinating the whole process of updating this document. I would also like to appreciate the leadership of the program managers NTLP, Dr. Beatrice Mutayoba and Dr. Liberate Mleoh as well as Dr. Allan Tarimo PPM coordinator in coordinating development of this manual, including contributions from other staff members within the NTLP.

The MoHCDGEC would like to express appreciations to TACAIDS, TUCTA and Trade Unions for their significant contributions toward the development of this guidelines.

In particular, I wish to acknowledge with gratitude the valuable inputs provided by Dr. W. Mbawala and E. Mukasa of KNCV, Dr. P. Riwa consultant occupational physician and Dr. G. Ruyange from OSHA in addition to the people who provided notable contributions to this document.

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Abbreviations

AIDS	Acquired immunodeficiency syndrome
ATE	Association of Tanzania Employers
CBOs	Community Based Organizations
CHMT	Council Health Management Team
CSOs	Civil Society Organizations
DOTS	directly observed treatment, short course
HIV	human immunodeficiency virus
ILO	International Labour Organization
IPC	infection prevention and control
M&E	monitoring and evaluation
MOHCDGEC	Ministry of Health, Community Development, Gender, Elderly, and Children
PMO-LEYD	Prime Minister's Office, Ministry of Labor, Employment, Youth, and People with Disability
NGOs	Non Governmental Organizations
NTLP	National Tuberculosis and Leprosy Programme
OSHA	Occupational Safety and Health Authority
RHMT	Regional Health Management Team
TB	tuberculosis
TB/HIV	tuberculosis and human immunodeficiency virus co-infection
TB-IPC	tuberculosis infection prevention and control
TPSF	Tanzania Private Sector Foundation
WHO	World Health Organization

Chapter 1
Background

1.1 Tuberculosis burden

Tuberculosis (TB) is a major public health problem throughout the world. About a third of the world's population is estimated to be infected with the tubercle bacilli and is at risk of developing active TB disease. According to WHO Global TB report, in 2017, 6.4 million new TB cases were reported (Up from 6.1 million in 2015), equivalent to 64% of the estimated incidence of 10.0 million.

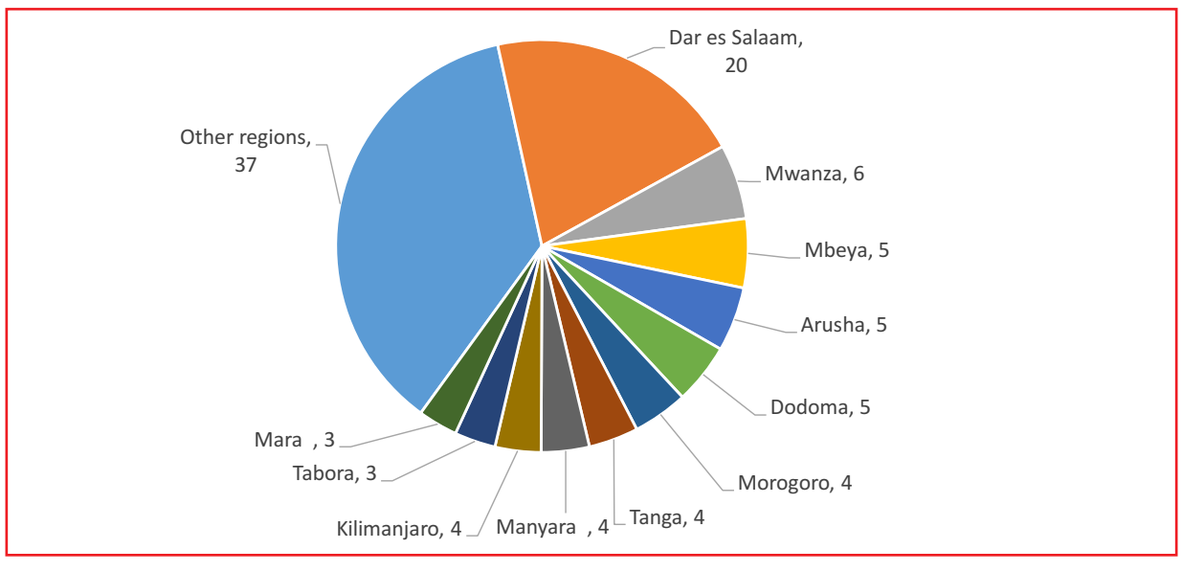
The global Male: Female (M: F) ratio for notification was 1.7:1 Children (Aged < 15 years) accounted for 6.9% of the new TB cases notified.

Globally 60% of notified TB patients had a documented HIV test result up from 57% in 2016. In the WHO, African region, where the burden of HIV-associated TB is highest, 86% of TB patients had documented HIV test result. There were estimated 1.3 million TB deaths in 2017. In addition, 0.3 million deaths resulted from TB disease among People Living with HIV (PLWHIV). Although the number of TB deaths fell by 35 percent between 2000 to 2017.TB remained one of the top ten causes deaths worldwide. In 2016, Africa and South East Asia regions accounted for 85% of the combined total of TB deaths in HIV negative and HIV positive people. There were estimated that,

Tanzania ranks sixth among 30 high TB- and TB/HIV-burden countries in the world. A total of 69,818 cases of all forms were notified in 2017, which shows an increase of 6% percent (or 4007) cases compared to the year 2016. However, WHO estimates for Tanzania indicate that there were 154,000 TB incident cases in 2017. This implies that TB cases detected account for only 44 percent of the estimated incident cases. In 2016, testing for HIV among TB patients stood at 97 percent nationwide, with 34 percent co-infection rate.

According to the 2017 National TB and Leprosy Programme (NTLP) report on geographical distribution of TB cases, Dar es Salaam city has remained the major contributor of TB case notification, contributing to 21 percent of all cases notified. At the same time, about 51 percent of cases notified were obtained from only seven regions: Dar es Salaam, Mwanza, Mbeya, Morogoro, Arusha, Dodoma and Tanga.

Figure 1. Percentage distribution of TB cases in Tanzania by region in 2017.[1]



[1]National Tuberculosis and Leprosy Programme Annual Report, 2017.

1.2 Socioeconomic determinants of tuberculosis infection

Poverty is a major determinant of tuberculosis infection. Crowded and poorly ventilated living and working environments often associated with poverty constitute direct risk factors for tuberculosis transmission. Poverty is also associated with poor general health knowledge and lack of empowerment to act on health knowledge. Poverty alleviation reduces the risk of tuberculosis transmission and the risk of progression from infection to disease. It also helps to improve access to health services and adherence to recommended treatment. Occupational risk in urban settings predisposes employees in both formal and informal sectors to TB infection largely due to poor living and working conditions and thus contributes to continuous TB transmission in both workplaces and the community at large.

1.3 National TB care and prevention strategies

The NTLP of the MOHCDGEC is currently implementing its fifth national strategic plan (2015–2020) in line with the global End TB Strategy,[2] which targets 80 percent reduction of new TB cases, 90 percent reduction of TB deaths, and elimination of catastrophic costs for TB-affected households by 2030 through holistic health and social interventions. Among the interventions, TB care and prevention in the workplace is included. In addition, the 2013 TB workplace policy guidelines stipulated in detail the key workplace interventions implemented by both public and private employers and other stakeholders. Despite these initiatives, there has been little information on implementation of TB care and prevention services in the workplace largely due to lack of dissemination of the guidelines. However, anecdotal data collected in 2016 by USAID's Challenge TB Project showed that among 7,279 health care providers in six regions across the country who were screened for TB, 41 (0.6 percent) were confirmed TB cases. This evidence shows that there is potential for reinforcing the scale-up of TB care and prevention services at workplaces, including health care settings.

1.4 TB/HIV in the workplace

HIV infection is the major factor that increases the risk of progression from TB infection to active TB disease. With rising immunosuppression, HIV-infected individuals are increasingly at risk of developing TB disease. Thus, the higher the HIV prevalence in a population, the greater will be the impact of HIV on TB incidence. The opportunity to integrate TB interventions into the existing HIV/AIDS workplace policy will contribute to reducing stigma among TB/HIV-infected people and improve case finding, reporting, treatment, care, and support in the workplace.

1.5 Rationale for TB care and prevention in the workplace

1.5.1 Occupational risk and impact of TB at workplace

TB can negatively impact productivity through increased absenteeism and turnover of staff due to TB-associated morbidity and mortality.

According to the 2011 International Labour Organization (ILO) Global Employment Trends Report, there are currently 3 billion people in the world of work. Of these, 1.3 billion do not earn enough to lift themselves out of poverty. Studies and reports from various sources suggest that transmission of TB at workplaces is three to four times higher than in the community.[3]

Further studies suggest that on average, an employee with TB loses three to four months of work per year, resulting in potential losses of 20 to 30 percent of annual household income. In addition, many barriers to accessing TB- and HIV-associated services are linked to work-related concerns, such as loss of wages or job discrimination.

[2]WHO. Implementing End TB Strategy: The Essentials. 2015.
[3]WHO and ILO. Joint WHO/ILO policy guidelines on improving health worker access to prevention, treatment and care services for HIV and TB. 2010.

1.5.2 Workplace settings have potential for increased risk of TB transmission

The risk of becoming infected with TB in the workplace depends on factors including the number of infected people, work conditions, and the state of a person's immune system. The following workplaces have higher potential for increased risk of TB transmission:

1. Mining and extractive industries (due to increased exposure to silica dust, confined working environments, and poor living conditions).
2. Prisons (due to congested living and working environments).
3. Health care settings (due to prolonged exposure to infectious TB patients and limited working space).
4. Immigrant and migrant workforce living and working in poor conditions.
5. Construction and manufacturing industry (due to poorly ventilated and congested working environments).

1.5.3 Opportunities for TB care and prevention at workplace

To implement TB care and prevention activities, workplaces can take advantage of regular worker attendance and use existing communication systems, structures, services, and facilities for prevention, care, and support.

Many employers have the management skills needed to implement successful control activities, including strong analytical and project management skills, ability to forecast supply and demand requirements, and ability to track results. The same rigorous approach applied to running business initiatives—considering correct staffing capacity, funding, and management support—is required for a large-scale organization to run a directly observed treatment, short course (DOTS) program successfully. Program monitoring mechanisms should also be in place, in line with corporate practices such as quarterly business progress reviews.

These guidelines identify and explain activities that all employers and employees can undertake to contribute to TB care and prevention. Most employers will be able to contribute to the following key components of TB care and prevention implemented by the NTLP:

- Identifying presumptive TB cases.
- Referring presumptive TB cases for diagnosis.
- Helping TB patients complete their treatment.
- Reallocating jobs for people living with HIV/AIDS, diabetes, and other causes of immunosuppression which predisposes them to higher risk of contracting TB disease.

The introduction, implementation, and monitoring of TB care and prevention practices in the workplace offers several benefits: a healthier workforce, reduced medical costs, higher work morale, higher productivity, and an enhanced image in society through a credible demonstration of corporate social responsibility.

Therefore, the successful implementation of TB workplace policy guidelines requires strong collaboration between the MOHCDGEC and other stakeholders, including employers and employees in the public, private, and informal sectors.

1.5.4 Existing regulatory framework for TB care and prevention at workplaces

One of the cardinal threats to labor force participation in Tanzania is the HIV/AIDS pandemic and other related fatal diseases, such as TB and malaria.[4] TB contributes to loss of economic productivity in Tanzania, since the active working population—particularly young people—is the group most vulnerable to TB. This results in labor market–related impacts, absenteeism from work, medication costs, termination benefit costs, and replacement costs.

[4] Ministry of Labour, Employment and Youth Development. National Employment Policy 2008.

National Strategy for Growth and Reduction of Poverty II (MKUKUTA) Goal 3 reveals that the TB/HIV-AIDS epidemic poses a threat to development and security for economic growth.[5] This undermines efforts to attain Sustainable Development Goal 8 (economic growth, employment, and decent work for all).[6] Commitment of employers is therefore essential for care, prevention, and support of TB-infected persons in workplaces.

The government, through the MOHCDGEC in collaboration with stakeholders, formulates laws and develops guidelines and strategies for controlling communicable diseases, epidemics, and emerging and re-emerging diseases. Specific objective 3 of the Tanzania National Health Policy requires the employers to promote, control, and provide treatment for communicable diseases and common conditions in workplaces.[7] Workplace management is therefore called upon to offer health information and services to their employees according to guidelines given by MOHCDGEC.

The MOHCDGEC also promotes provision of free health services for some communicable diseases, including TB.[8] On the same note, the Ministry exempts vulnerable groups and people with chronic diseases such as TB from cost-sharing.[9] Furthermore, the 2009 National Occupational Safety and Health Policy stipulates that employers shall ensure health and safety at work, establish health and safety committees at workplaces, conduct training, and report accidents, diseases, and other dangerous occurrences to relevant authorities.

[5]Ministry of Finance and Economic Affairs. National Strategy for Growth and Reduction of Poverty II. 2010.
[6]WHO. Global TB Report 2017.
[7]Ministry of Health and Social Welfare Health Policy. 2007.
[8]Tanzania Policy on Health Care Fee Waivers on Exemptions. 2004.
[9]Ministry of Health and Social Welfare Health Policy. 2007.

Chapter 2
Goal and Objectives

The goal of these policy guidelines is to empower employers, employees, and their representatives in all sectors to reduce the burden of TB at workplace.

This document provides guidance to employers and employees in public, private, and informal sectors in Tanzania on interventions that reduce the burden of TB at workplaces. Ultimately, implementation of these interventions will contribute to the reduction of morbidity and mortality due to TB in the workplace, in communities, and throughout Tanzania.

2.1 Objectives of the TB workplace policy guidelines

2.1.1 Overall objective

The overall objective of the TB workplace policy guidelines is to provide guidance to employers, employees, and other stakeholders on interventions to reduce the burden of TB in workplace settings.

These policy guidelines provide practical guidance to institutions and industries in public, private, and informal sectors on appropriate TB care and prevention efforts, which should be implemented to reduce the burden of TB disease and minimize transmission within the workplace and surrounding communities.

2.1.2 Specific objectives

The specific objectives of the TB workplace policy guidelines are:

1. To strengthen commitment of the government and management at workplaces in the public, private, and informal sectors to mobilize necessary resources for workplace-based TB care and prevention.
2. To provide a framework that will facilitate involvement of all stakeholders in the public, private, and informal sectors in TB care and prevention activities at workplace settings.
3. To facilitate identification of workplace needs and support required for TB care and prevention in public, private, and informal sectors.
4. To guide, design, and implement effective infection prevention and control (IPC) measures that reduce the risk of TB transmission at workplaces and the surrounding community.
5. To facilitate monitoring and evaluation of the implementation of TB care and prevention interventions at workplaces and the surrounding community.

2.2 Guiding principles of the TB workplace policy

The guiding principles of the TB workplace policy are as follows:

1. Obtain commitment of the government through the President's Office Regional Administration and Local Government (PORALG) MOHCDGEC and Prime Minister's Office, Labor, Employment, Youth, and People with Disability (PMO-LEYD) to support the workplace TB policy guidelines.
2. Disseminate and advocate for implementation of the workplace TB policy guidelines.
3. Engage all stakeholders to implement the TB workplace policy guidelines.
4. Protect patients' rights.
5. Ensure that TB care and prevention interventions at workplaces are based on sound evidence which are in line with national and internationally recommended workplace TB strategies.
6. Integrate TB interventions into HIV/AIDS workplace policies.

Chapter 3
National situational analysis of current TB care and prevention practices (SWOC Analysis)

For several years, the MOHCDGEC has been overseeing the implementation of TB care and prevention activities. An analysis of the current TB care and prevention practices at workplaces informed these policy guidelines. Below is a strengths, weaknesses, opportunities, and challenges (SWOC) analysis based on a review of existing data.

3.1 Strengths

Strengths of the current TB care and prevention practices at workplaces include the following:

1. **Government commitment to implement policy guidelines in line with national and international standards**: The Government, through the MOHCDGEC, implements the National Health Policy of 2007, in line with international recommendations. Also, there are several policies and Acts that uphold many of the international declarations, recommendations, and treaties with regard to infectious disease control within the workplace. These include the Occupational Safety and Health Act of 2003, the 2004 Employment and Labour Relations Act, the 2008 National Employment Policy, and the 2009 Public Health Act.

2. **Availability of the national guidelines addressing TB and its interventions**: The MOHCDGEC, through the NTLP, has been implementing TB related policies, including the 2016 National Policy Guidelines for Collaborative TB/HIV Activities, the 2013 Operational Guidelines for the Management of Drug-Resistant TB in Tanzania, the 2017 Guidelines for TB Infection Prevention and Control in Health Care Facilities, and the 2013 National Guidelines for Tuberculosis Control at Workplace.

3. **Multisectoral collaboration and cooperation addressing infectious diseases including TB**: There is multisectoral collaboration addressing TB care and prevention initiatives through technical working groups. Stakeholders include the Occupational Safety and Health Authority (OSHA), PMO-LEYD, the Ministry of Energy and Minerals, mining unions, civil society organizations, and academia. Furthermore, there have been public and private partnerships for TB care and prevention involving diverse groups to leverage efforts and resources from both sectors.

4. **Availability and accessibility of health care services at workplaces**: According to the rapid assessment conducted in 2011 in 38 workplaces, the majority of the formal sector workplaces have functional health care structures in place. These serve as the health care delivery points for employees and their dependents. There are also functional referral mechanisms for those workplaces without health facilities.

5. **TB screening for health care workers at workplaces**: Anecdotal evidence indicates that partners implementing TB care and prevention activities have enabled TB screening among health care workers.

3.2 Weaknesses

Weaknesses of the current TB care and prevention practices at workplaces include the following:

1. **Inadequate TB care and prevention services at workplaces**: Baseline assessment findings from 38 workplaces show that, the majority did not have TB care and prevention services in place. In addition, employers were unawareness of the referral system for TB care and treatment.

2. **Limited knowledge and information on TB disease among employers, employees, and their representatives**: According to the assessment done in 2011, among employers and employees the results showed there was lack of knowledge regarding TB symptoms, diagnosis, and treatment.

3. **Stigma and discrimination of people infected with TB and HIV**: Since the onset of HIV in the general community, there has been a prevailing misconception that every person with TB has also contracted HIV; this has contributed to stigma and discrimination against those affected with TB. This, in turn, has resulted in delays in seeking diagnosis, care, and treatment services as well as loss of follow-up.

3.3 Opportunities

Opportunities for TB care and prevention practices at workplaces include the following:

1. **Willingness of stakeholders from both public and private sectors to participate and implement the TB workplace policy**: The analysis of current TB care and prevention practices conducted in 38 workplaces revealed that most employers and employees were ready to engage and contribute to the TB care and prevention services.

2. **Presence of wide range of stakeholders in the country affiliated with labour sector serve as platform for expanding TB care and prevention services beyond health care settings**:

   There is evidence of existence of implementing partners (NGOs, CBOs, CSOs, Private sector, ATE, TPSF, Trade Unions) with interest in TB workplaces initiatives .

3.4 Challenges

Challenges to implementing TB care and prevention practice at workplaces include the following:

1. **Low awareness and knowledge among employers, employees, and their representatives on TB workplace policy guidelines.** The 2013 TB work place policy guidelines was not disseminated to majority of the stakeholders largely due to insufficient resources

2. **Resources constraints**: Limited resources including finance, personnel and materials to support the policy implementation pose a significant challenge for TB care and prevention services

3. **Reluctance of some employers** to implement TB control workplace policy guidelines among those who were aware, as they focus on production and profit making

Chapter 4
Strategies for implementing TB care and prevention activities at the workplace

Persons with infectious TB may be found in any workplace setting, and it is likely that they may infect others. However, instituting several infection control interventions can significantly reduce this risk: These interventions include; administrative control measures, environmental control measures, and personal protection measures.

4.1 Administrative control measures

Administrative control measures have the greatest impact on preventing TB transmission at the workplace. These measures are also, in some cases, the cheapest measures to be implemented and serve as the first line of defense for preventing the spread of TB at workplaces. Administrative control measures shall take priority over all other interventions to reduce transmission of TB at workplaces. Without effective administrative control measures, other measures are of limited value.

Administrative control measures are the first level of intervention because they include a variety of activities to identify, isolate, and appropriately treat persons confirmed as having TB disease.

4.1.1 Workplaces develop TB Infection Prevention and Control plan (IPC plan)

To prevent employers' and employees' exposure to TB, workplace managements shall develop an IPC plan. Guiding statements for the IPC are as follows:

1. Each workplace shall incorporate TB care and prevention activities into its occupational health policy or any other health-related policies at workplace.

2. Each workplace shall develop and integrate a tuberculosis infection prevention and control (TB-IPC) plan into its existing occupational health plan.

3. Each workplace shall link with health facilities for management and referral of presumptive TB cases or patients. Every attempt shall be made to expedite referral as further delays in diagnosis and treatment increase the risk of exposing others to TB infection.

4.1.2 Set up or integrate workplace TB-IPC committee into the existing structure

A TB-IPC committee consisting of representatives of the employer and employees will strengthen the effectiveness of TB prevention and control at workplace. Thus, it is important for each workplace to have a functioning health committee for TB-IPC. Guiding statements for the health and safety committee are as follows:

1. Each workplace shall have a functional multidisciplinary health and safety committee that includes TB-IPC.

2. In workplaces with a health facility, the officer in charge of IPC at the clinic will be a member of the health and safety committee.

3. In workplaces without a health facility, the council health management team (CHMT) will identify a focal person to be a member of the health and safety committee responsible for IPC.

4.1.3 Raising TB awareness and training

IPC is effective only if all staff working in an institution understand the importance of the IPC policies and their role in implementing them. Guiding statements for raising awareness are as follows:

1. Employers shall collaborate with the CHMT or implementing partners to educate their staff about TB, the importance of seeking health care if they have TB symptoms, and the importance of adhering to treatment when diagnosed with TB.
2. The PORALG in collaboration with the PMO-LEYD and MOHCDGEC shall provide guidance and coordination regarding awareness-raising and training in support of the TB workplace program.
3. Every employer shall provide job category–specific instructions concerning TB-IPC to all employees.

4.1.4 Workplace TB screening and confidentiality

Workplace TB screening can reduce the spread of infection by ensuring rapid and recommended investigations and treatment for employers and employees with presumptive or confirmed TB disease. Guiding statements for TB screening are as follows:

1. All employees shall be screened for TB at entry and every six months thereafter as well as at exit
2. Confidential information about an employee diagnosed with TB will be handled according to the laws and regulations that prevail at that time.

4.1.5 Management of TB patients at workplace

Workplace TB care and prevention is based on early identification of infection and ensuring that employees and employers who have active TB disease adhere to treatment according to the treatment guidelines. Guiding statements for the management of TB patients at work place are as follows:

1. Employees and employers who are smear-positive TB patients shall be exempted from duty for the initial two weeks while on treatment with effective anti-TB drugs.
2. Smear-positive TB patients shall be educated about the risk of spreading TB infection to others.
3. Employers shall assist employees to access DOTS in the workplace or at an appropriate nearby health care facility.
4. Employers shall ensure that employees who are on TB treatment receive appropriate support, including transportation to a health care facility, psychosocial and nutrition support.

4.1.6 TB risk assessment at workplace

TB risk assessment is an essential measure of TB prevention at workplaces. The assessment shall cover ventilation, overcrowding, presence of TB presumptive cases, dust generated from the workplace or coming in from outside, and adequate sunlight. Guiding statements for TB risk assessment are as follows:

1. Each employer, in collaboration with the CHMT or partners, shall conduct a basic risk assessment for TB prevention every six months in the workplace with a focus on ventilation, sunlight, overcrowding, and presence of foreign dust.
2. The employer, in collaboration with the CHMT and partners, shall prioritize TB risk assessments in workplaces with reported presumptive TB cases and or patients.

4.2 Environmental control measures

Environmental control measures are intended to reduce the concentration of TB bacteria in the surrounding air. This is achieved by enhancing air exchange through natural or mechanical ventilation. Environmental controls are used to prevent the spread and reduce the concentration of infectious droplet nuclei.

It is important to note that without strong administrative controls, environmental controls are ineffective because cases would not be recognized or managed properly. Guiding statements for environmental control measures are as follows:

1. Employers shall ensure adequate airflow and sunlight in the workplace to minimize the risk of TB infection.
2. To help reduce the spread of TB, working areas shall not be overcrowded.
3. Employers shall ensure minimal exposure of employees to foreign dust. The definition of foreign dust differs by industry.

4.3 Personal protection measures

Although administrative and environmental control measures are most effective in controlling the spread of TB, they do not eliminate the risk of transmission entirely. Therefore, personal protection measures become the third level of infection control and are also used in higher-risk settings.

Uninfected workers do not need to put on surgical masks, as this will not protect them from receiving infectious air droplets. Bacille Calmette-Guérin (BCG) vaccination does not provide protection against tuberculosis in adult populations. However, employees exposed to foreign dust in the work environment are required to use masks.[10] Guiding statements for personal protection are as follows:

1. Cough hygiene shall be observed by all employees to minimize TB infection at workplace.
2. An employee working in an environment with high risk of TB infection shall wear protective equipment, i.e. respirators (e.g., an N95 mask).

4.4 Monitoring and evaluation (M&E)

Monitoring and evaluation conducted by employers implementing TB-IPC interventions is an important aspect of measuring progress made toward reducing the burden of TB at workplace. Guiding statements for monitoring and evaluation are as follows:

1. The MOHCDGEC will develop an M&E plan and tools to capture information on the implementation of the TB-IPC guidelines.
2. The MOHCDGEC in collaboration with other stakeholders will monitor and evaluate the implementation status of these policy guidelines in the public, private, and informal sectors.
3. The existing TB/HIV coordinating committees shall conduct joint -annual supportive supervision and mentorship visits with PORALG, MOHCDGEC, OSHA, PMO-LEYD at the district level, and other stakeholders.
4. The TB/HIV coordinating committees, together with PORALG, MOHCDGEC, OSHA and PMO-LEYD, shall train health and safety committees at workplaces on the use of recording and reporting tools.
5. The TB/HIV coordinating committees, together with POLARG, MOHCDGEC, OSHA and PMO-LEYD, shall distribute recording and reporting tools, including presumptive TB registers , screening questionnaires, and referral forms.
6. Health and safety committees at workplaces shall record and report on TB screening at workplaces according to the M&E framework as appears in the policy guidelines.

[10]Ministry of Labour, Employment, and Youth Development. National Occupational Health and Safety Policy. 2009.

Chapter 5
Stakeholders' responsibilities

Implementation of TB control interventions at workplaces is not the sole responsibility of the government. A wide range of stakeholders, including employers, nongovernmental organizations, workers in both the public and private sectors, health care providers, TB patients, and communities are all responsible for preventing and controlling TB infection. These stakeholders' duties and responsibilities should be reflected in the key components of a framework for TB care and prevention at workplace to ensure that the policy is operational. The framework should also detail a policy statement that includes an expression of commitment, a communications and implementation strategies.

5.1 Responsibilities of the government and its competent authorities

5.1.1 PORALG

Responsibilities of the President's Office Regional Administration and Local Government include the following:

1. Collaborate with the MOHCDGEC and other stakeholders to ensure smooth implementation of TB workplace policy guidelines at all levels.

2. Provide stewardship and guidance to the Regional Health Management Teams (RHMT), Council Health Management Teams (CHMT), health and safety committee, and stakeholders on the ground to ensure an effective TB control program in the workplace.

5.1.2 MOHCDGEC

Responsibilities of the MOHCDGEC include the following:

1. Oversee the TB workplace policy and its implementation.

2. Ensure multisectoral participation that involves all public competent authorities and agencies, including the private sector, workers, and employers' organizations, to mobilize and support a broad partnership with the mandate to protect workers and prevent TB infection at workplace.

3. Coordinate all interventions at the national level that provide an enabling environment for workplace interventions and capitalize on the presence of all relevant stakeholders. Coordination should build on preexisting measures and support services.

4. Advocate and partner with other stakeholders to promote awareness and prevention of TB at workplace. Ensure access to TB care and prevention in collaboration with partners. Promote care and support for employees with TB through the public health care program and social security systems. Ensure that TB treatment follows the standard guidelines for TB diagnosis and treatment.

5. Conduct joint supervision and monitoring of TB services provided at workplaces in collaboration with POLARG, PMO-LEYD and other partners.

6. Develop M&E plan and tools to capture information on implementation of IB-IPC guidelines.

5.1.3 PMO-LEYD

Responsibilities of the PMO-LEYD include the following:

1. Provide the relevant regulatory framework and, where necessary, revise labor laws and other legislation in order to eliminate workplace discrimination and ensure workplace care and prevention programs and social protection. This shall be done through agencies such as OSHA, the Workers' Compensation Fund, and other social security funds.
2. Provide technical information and advice to employers and employees on the most effective ways of complying with legislation and regulations applicable to TB at workplace.
3. Strengthen enforcement structures and procedures such as factory/labor inspectorates, reconciliation boards, and the industrial court of Tanzania.
4. Identify groups of workers who are vulnerable to TB infection and adopt strategies to overcome the factors that make these workers susceptible.
5. Conduct joint (OSHA, PORALG, MOHCDGEC) annual supportive supervision and mentorship visits
6. Train health and safety committees at workplaces on the use of recording and reporting tools, and distribute them. These include: register books screening questionnaires and referral forms.

5.2. Responsibilities of employers, employees, and their organizations

5.2.1 Employers

Employers are responsible for TB care, prevention, and support at workplace. Responsibilities include the following:

1. Implement a TB workplace policy designed to prevent the spread of TB and protect workers from discrimination related to the disease in line with the guiding statements elaborated above.
2. Carry out education and training program on TB prevention, care, and support, including measures to reduce discrimination against workers with TB disease, and provide specific workers' benefits and entitlements.
3. Collaborate with workers and their representatives to develop strategies to assess and appropriately respond to the economic impact of TB at workplaces.
4. Conduct risk assessments to identify occupational hazards related to TB present at workplace and act accordingly.
5. Institute grievance and dispute resolutions with any employee who discriminates against a colleague with TB disease or violates the workplace TB policy.
6. Advocate to other employers to establish a TB workplace policy and contribute to the prevention of TB in their workplace and create awareness about TB among the surrounding communities (for example, by participating in the commemoration of World TB Day).
7. Carry out statutory pre-employment and periodic medical examinations for employees, support any employee found to have TB to receive treatment, and maintain the employee's employment.
8. Support establishment of Health and safety committees at workplaces including addressing TB care and prevention measures
9. Record and Report TB cases to the relevant authorities

5.2.2 Employees and their unions

Responsibilities of employees and their unions include the following:

1. Provide information and education about TB at workplace and develop educational materials and activities appropriate for workers and their families, including regularly updated information on workers' rights to compensation and benefits related to TB disease.
2. Collaborate with employers to develop appropriate strategies to assess and appropriately respond to the economic impact of TB in their workplace and sector.
3. Raise awareness of TB care, prevention, and management.
4. Support and encourage employers to create and implement personnel policies and practices that do not discriminate against workers with TB disease.
5. Advocate for and cooperate with employers to maintain safe and healthy working environments, including the supplies, correct application, and maintenance of personal protective equipment and first aid.
6. Ensure factors that increase the risk of TB infection among groups of workers are addressed in consultation with employers.
7. Participate in the functions of occupational health and safety committees and report risky and hazardous environments

5.3 Civil society organizations and non-governmental organizations

Responsibilities of civil society organizations and non-governmental organizations include the following:

1. Collaborate with various institutions to promote awareness and implementation of the TB workplace policy guidelines among employers, employees, and their unions.
2. Solicit funds and other resources for the implementation of the TB workplace policy guidelines.
3. Build the capacity of human resources to implement the TB workplace policy guidelines.
4. Facilitate linkages between workplaces and the community.

Annex 1. Industries and institutions visited in five regions in 2011

Arusha

i. Arusha Meat Co. Ltd
ii. A-Z Textile Mills Ltd, Kisongo
iii. Fibre Boards Africa Ltd
iv. Jumbo Mills (T) Ltd
v. Megatrade Investment Ltd
vi. Mount Meru Millers Ltd, Sinaloa
vii. Pepsi Company (SBC Tanzania Limited)
viii. Sun Flag Limited
ix. Tanelec Limited
x. Trishala Rolling Mills Ltd

Dodoma

i. Cetawico Ltd
ii. Dear Mama Hotel
iii. Modern Mattress Manufacturers Ltd
iv. New Dodoma Hotel
v. Saint Gaspar Hotel & Conference Centre
vi. Shabiby African Line Transporters
vii. Sinohydro Corporation Ltd
viii. St. Gemma Hospital
ix. Tanzania Meat Company Limited
x. The Village of Hope

Tanga

i. Afritex Ltd
ii. Amani Chai Tanga
iii. ARM Cement, Tanga
iv. Lal Garage
v. Tanga Beach Resort & Spa
vi. Tanga Cement PLC
vii. Tanga Fresh
viii. Tanga Pharmaceutical & Plastics LTD

Mwanza

i. Mwatex (2001) Ltd
ii. Aspen Hotel
iii. Mwananchi Hospital
iv. Malaika Beach Resort
v. Nyakato Steel Mills Ltd
vi. Nile Perch Industry
vii. Nyanza Road Works Ltd
viii. Mwaloni Ibanda Fish Dealers
ix. Vrajlal's (Agencies) Ltd
x. Tanzania Breweries Ltd

Dar es Salaam

i. Chemi & Cotex Industries Ltd
ii. Sayona Drinks Limited
iii. IMM Steel LTD
iv. Tanzania Occupational Health Service—Dar Group
v. Dar-es-Salaam Textile Mills Limited
vi. Serengeti Breweries Ltd
vii. Sadolin Paints (T) Ltd
viii. OK Plast Ltd
ix. Metro Steel Mills Limited
x. Kariakoo Market

xi. Glossary

adherence to treatment	Patient and provider following National Tuberculosis and Leprosy Programme guidelines for prescribing treatment and patient completing a course of anti-tuberculosis medication.
chemotherapy	Treatment with drugs (e.g., “anti-TB chemotherapy” means treatment with anti-tuberculosis drugs).
co-infection	Infection with different pathogens at the same time (e.g., tuberculosis and human immunodeficiency virus).
contacts	People close to a tuberculosis patient and at risk of infection.
loss to follow-up	Patient stopping treatment before completion.
drug-resistant TB	Infection with tuberculosis bacilli resistant to one or more anti-tuberculosis drugs.
extrapulmonary TB	Tuberculosis in organs other than the lungs.
haemoptysis	The coughing up of blood-stained sputum.
latent TB	The presence of mycobacterium tuberculosis in the tissue with no disease.
morbidity	Ill health resulting from disease or injury.
mortality	Death.
multidrug-resistant TB	Tuberculosis resistant to at least isoniazid and rifampicin (the two most essential anti-tuberculosis drugs).
opportunistic infection	An infection that “takes the opportunity” to cause disease when a person’s immune system is weakened.
presumptive TB case	A patient with symptoms and signs suggestive of tuberculosis.
relapse cured.	Tuberculosis disease starting again after a patient was declared
sputum smear–negative	Absence of acid-fast bacilli on sputum microscopy.
sputum smear–positive	Presence of acid-fast bacilli on sputum microscopy.
stigma	A mark of disgrace/shame associated with a defect or disease.
TB/HIV patient	Human immunodeficiency virus–infected tuberculosis patients.
tuberculin	A protein extracted from tubercle bacilli.

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