

Protecting Your Workforce from Tuberculosis



A Toolkit for an Integrated Approach to TB and HIV for Businesses in South Africa

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Global Health Initiative
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Preface

This toolkit addressing tuberculosis (TB) and TB/HIV co-infections has been developed by the Global Health Initiative of the World Economic Forum with support from the Lilly MDR-TB Partnership and inputs from other partners. The toolkit is especially designed to support South African companies who are starting to implement workplace and community-based TB control programmes and those with existing activities. It encourages companies to adopt an integrated approach to manage TB/HIV co-infections.

Everyone is vulnerable to TB. HIV/AIDS infection substantially increases the risk of progression from TB infection to active disease, thereby increasing the number of TB cases and potentially accelerating the spread of the disease. Conversely, TB in HIV-infected individuals may result in more rapid progression of HIV. For both diseases, deaths occur mostly among adults in their productive prime between the ages of 15 and 54. Yet TB can be prevented, treated and cured, even in HIV/AIDS-infected persons.

In 2006, South Africa was ranked ninth out of the top 22 TB high-burden countries, fourth in the Africa region, and has the greatest burden of HIV in the world. It is estimated that approximately 70% of TB patients in South Africa are HIV positive. The increase in TB rates in sub-Saharan Africa is driven largely by the HIV epidemic. Although available information suggests that the rate of multi-drug resistant tuberculosis (MDR-TB) is relatively low in South Africa (less than 2% of new cases), this translates into a large absolute number of TB cases adding to the burden of TB disease. Extremely (or extensively) drug-resistant tuberculosis (XDR-TB) has been reported from all provinces in South Africa; the most number reported from KwaZulu-Natal. XDR-TB has also been reported from some mines.

The impact of TB on businesses is not well described. However, the risk of TB and HIV in the workforce is determined by many factors and is likely to mirror that of the surrounding or labour sending communities. The South African Business Coalition on HIV /AIDS (SABCOAH) estimates that between 10-40 % of workforces are likely to be HIV infected, resulting in lower productivity. TB rates in some South African businesses exceed 3,000 per 100,000 of the population (or 3%) per year.

The World Health Organization's Stop TB programme recommends an expanded framework for TB control in addition to a quality directly observed therapy (DOT), short-term chemotherapy programme that includes collaborative TB/HIV activities. Encouragingly, businesses in South Africa have begun implementing TB and HIV control activities in their workplaces and few have extended their interventions beyond the workplace into the community. According to the World Economic Forum's report, *Tackling Tuberculosis: The Business Response* (<http://www.weforum.org/pdf/GHI/TB.pdf>), 85% of companies responding to the Forum's Executive Opinion Survey expressed concern over the impact of TB on their businesses.

This toolkit aims to provide guidance to companies on how to design and implement TB activities appropriate to their workplace, in partnership with employees and government, and how to integrate workplace TB and HIV activities.

The toolkit is meant for:

- Managers who aim to implement TB workplace interventions and integrate with HIV activities
- Occupational and healthcare professionals including physicians, nurses and allied health professionals
- Employees and employee representative bodies

The toolkit deals with:

- Putting in place a TB workplace policy and determining its key elements
- Integrating TB and HIV activities
- Recognizing symptoms and diagnosing TB
- Ensuring regimens that should be followed for successful treatment
- Defining DOTs and implementing it in the workplace
- Defining and managing MDR-TB
- Engaging employees in TB care and making it an easy topic to deal with in the workplace

Things to remember

TB

- TB is preventable and curable
- A person with TB needs care and support in order to complete months of TB treatment
- Treatment makes most people with TB non-infectious within approximately two weeks
- TB patients can return to work as soon as they feel well enough and are no longer infectious
- Workplace TB care is simple, low cost and highly cost-effective
- Drug resistant TB can be prevented by ensuring that TB patients complete their treatment and are cured

HIV

- HIV is preventable and treatable
- People living with HIV have a greatly increased risk of developing TB
- TB is curable for people living with HIV
- It is possible and preferable to treat both HIV and TB together (TB treatment may be started even before antiretroviral therapy)
- It is possible to prevent TB in people living with HIV
- Integrating workplace TB and HIV prevention, treatment and care programmes ensures a healthy and productive workforce and safe working environment

Inside the toolkit you will find:

- An introduction to TB and the business case for managing TB/HIV
- Guiding principles for starting a TB/HIV care and control programme
- A series of fact sheets for healthcare professionals
- A fact sheet on TB and HIV-related stigma and discrimination
- Posters and leaflets for management and employee education

Materials in the toolkit can help you:

- Raise and maintain employee awareness of TB, its symptoms and the link to HIV
- Increase opportunities for better prevention, diagnosis and treatment of TB and HIV in the workplace
- Support TB patients and people living with HIV and/or TB Address stigma and discrimination
- Provide information on TB, TB/HIV, drug-resistant TB and related programme activities to human resources departments, healthcare professionals and other care and support staff
- Identify resource materials and partners to assist you in implementing TB/HIV programmes

Note: This toolkit is not intended to provide technical detail for managing TB or HIV

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Introduction to TB for Businesses

The rationale for TB management by businesses

Businesses have long-term interests in ensuring the national development of human capital to drive economic and market growth. Tuberculosis (TB) has the capacity to undermine all of this.

TB poses a growing global threat

There were 9.2 million new TB cases worldwide in 2006. Unless properly treated, each infectious pulmonary TB patient can infect up to 10-15 other people every year.

The emergence of multi-drug resistant tuberculosis (MDR-TB) – TB that is resistant to at least two of the most important anti-TB drugs – may aggravate the situation. The World Health Organization (WHO) estimates that the average person with MDR-TB infects up to 20 other people in his or her lifetime. MDR-TB takes longer to diagnose and requires longer periods of treatment with more costly, second-line drugs that have more side effects and less chance of treatment success. Of great concern, new strains of the disease resistant to all major anti-TB drugs have emerged – extensively (or extremely) drug-resistant tuberculosis (XDR-TB) – which have a very poor outcome with a high mortality rate in HIV-infected individuals.

TB poses a challenge to South Africa's productivity and future growth

TB and HIV affect predominantly those in their most productive years and are major contributors to ill health and poverty in the community. Businesses may be indirectly affected as the success of a business is closely linked to the health and prosperity of the surrounding and labour sending communities. Furthermore, illness due to TB and HIV among family members may also lead to days off work for employees that have to provide care and support.

Workers are vulnerable to TB and HIV. A sick worker could mean disrupted workflow, reduced productivity, absenteeism, direct and indirect costs for the employer, increased medical and healthcare costs, recruitment and training costs, reduced productivity and increased accident rates.

The national response to TB and HIV

South Africa's Department of Health is committed to TB control through its National TB Programme (NTP), based on the WHO's recommended directly observed therapy (DOT) strategy. Further strategies are being planned and implemented with regard to MDR-TB and XDR-TB. The national government has also implemented a national antiretroviral therapy (ART) roll-out plan as part of the HIV/AIDS and STI programme to provide treatment and care for those that are HIV infected and is planning to include screening for TB in all HIV patients.

The South African government has recognized that a multistakeholder approach is needed to achieve its TB case detection and treatment targets, and to increase access to voluntary counselling and testing (VCT) services so that individuals are aware of their status and can access treatment. This is why the government is seeking the engagement of the business sector in their efforts to control TB and HIV.

TB management is an economic issue

TB is preventable, treatable and curable, even if someone is infected with HIV. Yet it continues to cause devastating consequences for individuals, businesses, communities and nations. Most deaths occur among adults in their productive prime between the ages of 15 and 54. Everyone loses:

- **Businesses lose.** Workers are as vulnerable to TB as anyone else. A sick worker means disrupted workflow, reduced productivity, weeks or sometimes months of absenteeism, direct costs of treatment and indirect costs of new recruitment and training. All this adds up to substantial costs to companies, individual workers and their families.
- **Businesses and communities lose.** TB is a major contributor to ill health and poverty in the community. The success of a business is closely linked to the health and prosperity of the community. The community is a source of workers, services, contractors and consumers; it is a key part of the overall business environment.

- **Businesses, communities and countries lose.**

The macroeconomic impact of TB should be considered not only in terms of a country's per capita GDP, but also in lost lifespan and lifetime earnings. For example, on the global level, TB leads to a decline in worker productivity to the order of US\$ 12 billion annually. Workers infected with TB may lose on average three to four months of work time. HIV/AIDS causes between 12-35% GNP loss each year in sub-Saharan Africa. However, the implementation of TB/HIV programmes in the workplace that include awareness campaigns, prevention, treatment, care and support will improve the health of the workforce and the productivity of the business. This leads to net cost savings.

Manage TB at the workplace in conjunction with HIV – it makes good business sense

Companies in South Africa have a unique role to play in the control of TB. They have strong management skills, existing health infrastructures, and sometimes large workforces among which many may be individuals suffering from TB and/or TB/HIV co-infections. These strengths, combined with the technical expertise and resources available under the NTP and the National AIDS Control Programme (NACP), can provide a critical mass of resources for successful TB control.

The workplace is a win-win setting for TB management – as more people are cured, the cycle of transmission is broken and fewer people are infected.

- **For the worker**, the workplace is ideal to gain awareness and receive treatment for TB and TB/HIV co-infections. Importantly, good workplace activities can significantly help to minimize the stigma of TB and HIV among employees.
- **For the company**, TB management can save costs by reducing absenteeism and staff turnover – through prompt diagnosis and effective treatment – and by reducing transmission to other workers with attendant costs. TB management in

the workplace is also an opportunity for businesses to concretely demonstrate their social commitment as part of a “local license to operate”.

- **For communities**, as more people are cured, the cycle of transmission is broken and fewer people are infected. Ultimately, this leads to fewer cases of active TB. TB management cures people and returns them to an active, productive life, which in turn benefits their children and other dependants.

As TB and HIV in the workforce are likely to mirror that seen in surrounding communities and nationally, businesses should assess the extent of the TB and HIV problem in these areas to better understand the associated risks in the workforce. Relevant TB and HIV information should be obtained from local, national and international sources. The risk of TB and HIV in the workforce is likely to be greater where the work environment is conducive to HIV transmission (e.g. employment of migrant workers or truck drivers) and TB (e.g. cramped working conditions with poor ventilation).

Establish a mechanism of collaboration between TB and HIV programmes

It is estimated that 50-60% of people living with HIV/AIDS will develop TB in their lifetime. That is why managing TB as part of an HIV programme is important. Increasingly, African business leaders recognize the impact of HIV/AIDS. Good corporate responses protect workers, families and even surrounding communities by raising awareness, spreading prevention and behavioural change messages, and providing treatment and care. Often, however, programmes do not adequately address TB and are therefore less effective for HIV control. Businesses should first determine the likely impact of TB and HIV on their operations by doing a risk assessment, which should be tailored to the size and scope of the business – the larger the number of employees with TB and HIV, the greater the risk to business. Businesses that are already addressing HIV/AIDS should therefore consider implementing additional TB policies and treatment activities, and vice versa.

In small and medium size businesses, elements of both the TB and HIV programmes are often outsourced to non-governmental organizations (NGOs), the public sector or managed through a medical scheme. But in some large businesses, such as certain mining companies, HIV and TB control programmes are run by the company, with cross referrals between separate HIV and TB clinics. Where TB/HIV activities are outsourced, due to segmentation of the programmes, it is more difficult yet achievable to develop collaboration through adequate referral and monitoring systems.

Regardless of the size of the business and the mechanism for delivering TB/HIV services, a coordinating body for TB/HIV activities should be established. A joint TB/HIV plan should be developed that integrates human resources, training, awareness campaigns and monitoring and evaluation. Employees with TB and living with HIV/AIDS should be included in the planning, delivery and monitoring of TB/HIV activities.

Synergies through effective partnerships

Partnering with the government: By establishing partnerships with the government, businesses can gain assistance for their programmes and contribute to the national effort to control TB and HIV; thereby contributing to the productivity and economics of the nation. Effective partnerships between private and public sectors will ensure a coherent response and facilitate patient and programme management.

Partnering with other businesses: South African business leaders are becoming increasingly aware of the impact of TB and HIV/AIDS. The Global Health Initiative of the World Economic Forum launched the India Business Alliance and the China Business

Alliance to stimulate business involvement in TB control in India and China. These partnership models may be replicated in South Africa to create a networking platform for private sector companies to join hands and work in collaboration with the NTP, the WHO and the Stop TB Partnership. In addition, members of existing organizations, such as the South African Business Coalition on HIV/AIDS (SABCOHA) and the Global Business Coalition (GBC), may be encouraged to integrate TB into their existing HIV programmes.

A number of case studies are available illustrating how companies have successfully tackled TB. You can learn from important case studies such as the ones available at:

www.weforum.org/globalhealth/cases

Partnering with other organizations: Key partners of the Lilly MDR-TB Partnership work on TB care and control in South Africa, namely the Democratic Nurses Organization of South Africa (DENOSA), South African Nursery Association (SANA) International Hospital Federation (IHF) and the South African Red Cross Society, may be contacted to benefit from the skills that these partners have to offer, including health personnel training, treatment and surveillance.

Partnering with the community: The community is an important source of workers, contractors, consumers and services, and forms a key component of the overall business environment. The cost of partnering with communities outweighs the small marginal cost to companies and makes good business sense to engage the community in company initiatives.

What Can the Business and Public Employment Sectors Do Overall?

Roadmap for integrated TB and HIV activities for businesses*

On the right road	On the wrong road	Changing direction
Health in the workplace is important for business	Work place initiatives are just about safety and do not include health	Ensure health is given equal priority to safety in the workplace
TB and HIV epidemics are closely linked	TB is independent of HIV	Acknowledge that TB and HIV are inextricably linked
TB and HIV are serious, interlinked problems faced by businesses	TB and HIV do not pose a serious risk to businesses	Acknowledge that TB and HIV are major interlinked contributors to lost productivity
Joint management of TB and HIV in the workplace requires dedicated funds and resources	This is not our problem and it is up to governments to sort this out	Acknowledge that TB and HIV are everyone's business
Proactively managing TB and HIV in the workplace is cost-effective and contributes to productivity	TB and HIV are adequately dealt with by the company's existing or external health services	Tackle TB and HIV together in the workplace as this makes good business sense
Partnering with national TB and HIV programmes is important	Partnering with national programmes will be of no benefit	Partner with national programmes to ensure that the TB and HIV epidemics are dealt with effectively in the workplace and nationally
Partnering with communities on joint TB and HIV activities makes good business sense	TB and HIV in communities are not our problem and business will not benefit from such a partnership	Establish sustainable partnerships with communities for joint TB and HIV activities to ensure benefits for workplaces and communities
It is important to monitor and report on TB and HIV activities	As long as business is implementing TB and HIV activities, it does not matter what the results are	Introduce monitoring to achieve a quality, cost-effective joint TB and HIV programme

*Adapted from *Ogilvy HIV/TB Thought Mapping*, 9 December 2006

There are many ways in which the employment sector can contribute to TB care and control:

- Provide services in kind – core business and implementation skills (e.g. marketing and distribution) for management of TB control activities
- Assist with the management of TB (and HIV) in smaller companies that are contracted to supply services or goods
- Reach TB patients that are not easily covered by the public health system – potential TB patients among employees and their families, communities surrounding large businesses and industrial units, particularly when located in remote or rural environments
- Contribute in reducing the stigma attached to the disease and discrimination suffered by patients by ensuring that they do not lose their jobs, and publicly promoting and enabling TB care for those who suffer from the disease within the workplace and associated communities
- Make joint TB and HIV prevention, diagnostic and treatment services in the workplace more accessible to the workforce without having to rely on public sector facilities, which often only operate during business hours and are difficult for working adults to visit – this will help alleviate the patient load on public sector clinics
- Screen People living with HIV/AIDS (PLWHA) regularly for active TB and offer TB preventive

therapy to those that do not have active TB, and provide comprehensive HIV/AIDS care and support to HIV-infected TB patients, including access to antiretroviral therapy

- Implement TB infection control in healthcare facilities and settings, such as hostels, in order to reduce the risk of exposure, particularly to PLWHA who are at high risk of developing TB if exposed and infected
- Support existing activities of the public sector and/or NGOs through in-kind product donations (e.g. drugs, diagnostics, food support, IT equipment and other commodities) and direct funding for TB control activities; if a diagnostic and pharmaceutical company, invest more in research and development of new vaccines, diagnostics and drugs

Employment organizations can provide the synergy necessary to run TB control programmes integrated with HIV activities.

Starting a TB Workplace Programme: Principles

Ten key principles should guide a workplace TB policy and programme

The overriding principle is the joint management of TB and HIV in a complementary and integrated way.

1. Recognize that TB and HIV are workplace issues

TB affects workers and enterprises by increasing labour costs and reducing productivity. Start by implementing a workplace policy that is appropriate to the size and nature of the business and the likely impact of TB and HIV on the business. Try to institutionalize the right level of concern for TB and TB/HIV co-infections by ensuring:

- management is able to support TB patients, even those that are HIV infected
- clear guidelines for sick leave, fitness to return to work and medical incapacitation are in place
- methods of planning are proactive and resources are deployed
- processes for championing TB work through advocacy and communication are in place
- mechanisms to review programmes exist

Case studies¹ show that treating TB makes business sense, and the workplace is often the ideal place to identify cases and administer treatment. Including employee representatives from the planning stage through to execution and maintenance of TB and HIV activities, will ensure support for and greater effectiveness of the programmes. TB initiatives should then also be integrated with relevant community programmes.

2. Integrate TB and HIV activities in the workplace and community programmes

Joint TB and HIV activities enable integration of human resources, training, awareness campaigns, and monitoring and evaluation. Access to good quality TB diagnostic services, particularly sputum smear microscopy, ensures early detection of infectious cases, thereby preventing further spread of TB. On site access to voluntary HIV testing and counselling services facilitates uptake of HIV testing and treatment. Providing access to TB and HIV treatment, care and support makes business sense by reducing absenteeism and staff turnover, ensuring cure of TB patients and preventing the emergence of drug resistance and keeping employees living with HIV healthy and productive.

3. Create awareness

Businesses should educate general employees and train company healthcare professionals (physicians, nurses and paramedical staff) on TB epidemiology, diagnosis, transmission, prevention and treatment of TB and TB/HIV co-infection. Education campaigns should be based on toolkits such as this and adapted for individual companies' cultures with help from healthcare staff and worker representatives. Only by creating a positive awareness and understanding of TB and HIV among employees can the stigma be reduced or prevented. The employees can then be encouraged to identify symptoms and seek treatment, not only for themselves but also for the people they are in contact with at home.

4. Ensure non-discrimination and respect confidentiality

Individuals should not be discriminated against because of their real or perceived TB or drug resistance or HIV status. Discrimination and stigmatization of people with TB causes delay in diagnosis and makes it more difficult to cure patients. Pre-employment screening is not necessary and is illegal in South Africa. Certain working environments necessitate screening, but positive results should not be a reason for discrimination. Within the first 2-4 weeks of TB treatment, drug susceptible patients are normally no longer infectious and can be reintegrated into the workplace. The use of antiretrovirals will result in clinical improvement with time. TB and HIV workplace policies should include non-discrimination principles and be an integral part of employee policies. Reducing the stigma and discrimination of people with TB and/or HIV may shorten the delay in diagnosis, facilitate access to treatment care and support and improve treatment outcomes.

5. Work with the national TB and AIDS control programmes

National and regional programme managers have a mandate to work with potential partners, including business, to implement TB and TB/HIV management activities. WHO-ILO guidelines encourage national and regional TB programmes to form partnerships with employers and develop TB workplace activities, including diagnosis and treatment of TB patients. Any business can approach the NTP for

technical expertise, the supply of standard drug regimens and the development of mutually beneficial activities based on NTP policies and guidelines.² It is advisable to link your workplace and/or community TB control activities including existing health facilities with the NTP. The same holds true for national HIV programmes that are integrated with TB programmes and can assist with the development of HIV workplace policies.

6. Implement DOT

The internationally recommended strategy for TB management is directly observed therapy (DOT). DOT requires supporting patients beyond mere observation of treatment, and has been shown to prevent the emergence of MDR-TB. The World Bank ranked treatment of TB with short-course therapy as one of the most cost-effective health interventions. TB cure rate, well over 85%, can be achieved with DOTs under proper supervision and quality assurance, even in resource poor environments.

7. Supervision and quality assurance

Supportive supervision and quality assurance is important to ensure proper management of TB. Quality assurance in diagnosis and monitoring of treatment outcomes is important to ensure the proper management of TB and the assessment of a programme against objectives. For quality assurance in diagnosis, laboratories conducting sputum microscopy need to participate in the NTP quality assurance protocol and healthcare professionals need to adhere to standard diagnostic algorithms. Diagnosis of pulmonary TB should be based on sputum microscopy as the primary tool and the diagnosis of MDR-TB should be based on results of culture and drug susceptibility testing conducted in a quality assured accredited laboratory, in HIV-positive and HIV-negative individuals.

8. Monitor and report results

Monitoring treatment outcomes and reporting results to the National Tuberculosis Control Programme (NTCP) allows for the comparison of company success rates against WHO targets and the national average. This helps in improving and reviewing workplace and national outcomes. Results of the workplace TB programme and

collaborative TB/HIV activities should be shared with the NTCP. Although this is a legal requirement in South Africa it also helps build a strong partnership and helps the government achieve its TB-related objectives.

9. Implement environmental controls

An infection control policy that includes how to deal with TB (administrative and environmental controls) and blood exposures (e.g. while assisting accident victims) should be in place. The spread of TB can be minimized by ensuring the flow of fresh air through proper ventilation and sunlight illumination of workplaces, hospitals and residential areas. Installation of air disinfection and filtering devices, if feasible, may further help, especially in special settings like hospitals that take care of TB patients. These are aimed at preventing or reducing airborne transmission from unsuspected cases of TB (and other airborne diseases) to non-infected employees. The spread of TB in the workplace can be reduced by simple measures, such as ensuring proper ventilation and referring employees with chronic cough for TB tests. Exposure to HIV in the workplace can be prevented by ensuring a safe working environment, education and making available rubber gloves to staff working with injured patients.

10. Develop a sustainable network of TB programme partners.

There are many partners that can help start a workplace programme as well as provide resources in the long term. These can include NGOs, professional health associations and private sector organizations that specialize in TB management. Establishing sustainable partnerships between communities and business to strengthen TB and HIV programmes in the community will contribute to protecting the health of communities, a benefit that should extend into the workplace.

¹ Case studies can be found on the website of the World Economic Forum's Global Health Initiative: www.weforum.org/globalhealth

² Guidelines can be found on the website of South Africa's Department of Health: www.doh.gov.za/tb/index.htm



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