

way to ensure complete and regular treatment.

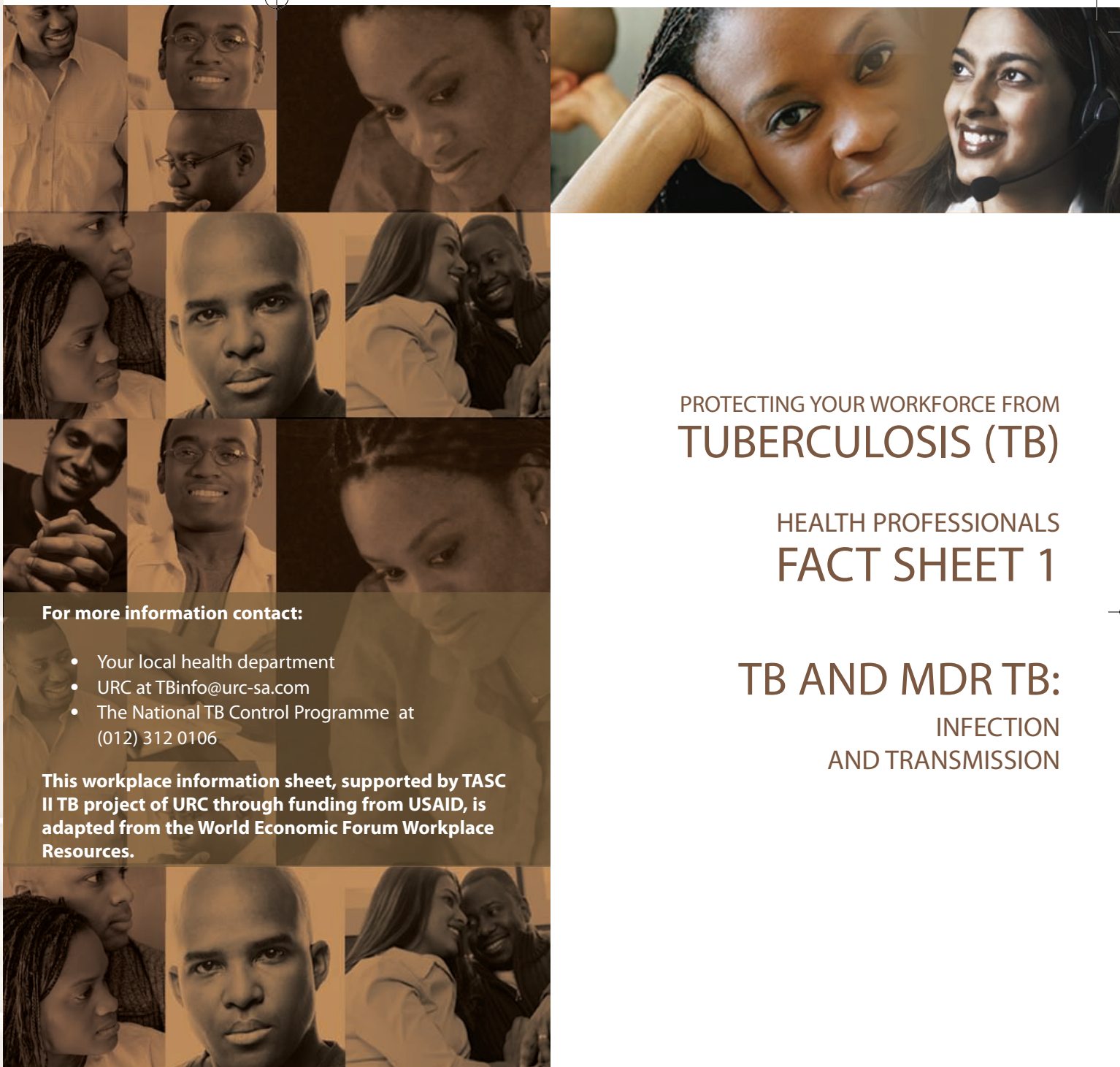
- Close contact with someone on MDR TB treatment

Who is at risk of MDR TB?

- TB patients who have failed to take medications as prescribed
- TB patients who have been prescribed an ineffective treatment regimen
- TB patients who have been on poor quality drugs
- Persons who have been exposed to someone with active MDR TB, especially if their immune system is not functioning normally, e.g. those with HIV and AIDS or blood cancers such as leukemia

What is the association between TB and HIV?

TB and HIV form a lethal combination, each speeding the other's progress. HIV weakens the immune system. Someone who is HIV-positive and infected with TB is many times more likely to become sick with TB than someone infected with TB who is HIV-negative. Untreated TB is a leading cause of death among people who are HIV-positive. It accounts for about 13% of AIDS deaths worldwide.



For more information contact:

- Your local health department
- URC at TBinfo@urc-sa.com
- The National TB Control Programme at (012) 312 0106

This workplace information sheet, supported by TASC II TB project of URC through funding from USAID, is adapted from the World Economic Forum Workplace Resources.

PROTECTING YOUR WORKFORCE FROM TUBERCULOSIS (TB)

HEALTH PROFESSIONALS FACT SHEET 1

TB AND MDR TB: INFECTION AND TRANSMISSION





TB and MDR TB:

INFECTION AND TRANSMISSION

What is TB? How does TB spread?

Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*. Transmission occurs by the airborne spread of infectious droplets. When an infectious person coughs, sneezes, or spits, he/she propels TB germs, known as bacilli, into the air. Left untreated, each person with active TB can infect an average 10-15 people every year.

Exposure to *M. tuberculosis* from an infectious case can lead to infection that is asymptomatic and non-contagious - referred to as latent TB. In some cases, the progression from infection to the development of the disease follows immediately after infection.

In other cases, the development of the disease can occur much later (or sometimes not at all). An individual's latent TB can become active TB, for example, if his or her immune system is weakened.

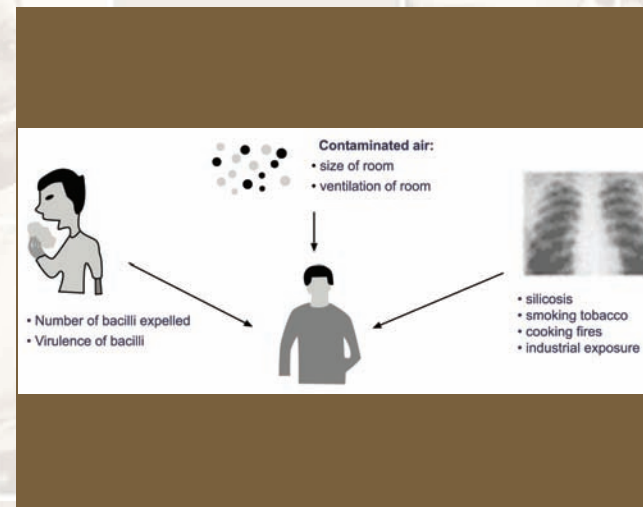
Pulmonary TB is the most common and most contagious form of active TB, representing more than 80% of all cases. However, TB bacilli can infect almost any part of the body, most commonly affecting the lymph glands, joints, bones, meninges, or intestines, when it is referred to as extra-pulmonary TB.

What factors affect TB transmission?

Business with large workforces, such as oil and gas companies, mining companies, as well as health centres,

such as clinics and hospitals, are workplace settings with an increased risk of TB. Transmission generally occurs indoors, where droplet nuclei can stay in the air for a long time due to poor ventilation.

What factors affect TB transmission?



What is drug resistant tuberculosis?

In cases of drug resistant tuberculosis (usually pulmonary), the patient is excreting germs which are resistant to one or more anti-tuberculosis drugs. This bacterial resistance is called primary resistance in those patients who are known to have never have been treated with anti-tuberculosis drugs.

The bacterial resistance is called initial resistance if after clinical assessment it is uncertain whether the patient has

or has not received prior treatment for TB. Initial resistance is a mixture of primary resistance and undisclosed acquired resistance. In patients with a history of previous treatment, the bacterial resistance is called acquired resistance.

What is multi-drug resistant TB?

Multi-drug resistant tuberculosis (MDR TB) is a specific form of drug resistant TB with bacilli resistant to at least Isoniazid and Rifampicin (the two most powerful first-line anti-TB drugs) with or without resistance to other anti-TB drugs.

What are the causes leading to MDR TB?

Drug resistance arises due to the improper use of anti-tuberculosis drugs during the treatment of tuberculosis patients. This improper use includes:

Inadequate treatment regimens administered by various healthcare providers

- Wrong treatment categorization by failing to establish the patient's history of previous anti-TB treatment
- Poor treatment management, including treatment that is not directly observed and the lack of sufficient care, support, and patient involvement in the management of the disease which may lead to poor adherence to treatment
- Insufficient education and transfer of information and knowledge to patients in an understandable