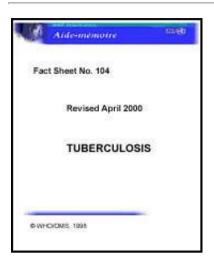
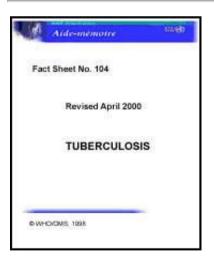
## Home"" """"> ar.cn.de.en.es.fr.id.it.ph.po.ru.sw



- Fact sheet No 104: Tuberculosis Revised April 2000 (WHO, 2000, 3 p.)
  - (introduction...)
  - Infection and Transmission
  - Global and Regional Incidence
  - Factors Contributing to the Rise in TB
  - **Effective TB Control**





- ☐ Fact sheet No 104: Tuberculosis Revised April 2000 (WHO, 2000, 3 p.)
  - **→** (introduction...)
    - Infection and Transmission
    - Global and Regional Incidence
    - Factors Contributing to the Rise in TB
    - Effective TB Control

Revised April 2000

Tuberculosis kills 2 million people each year. The global epidemic is growing and becoming more dangerous. The breakdown in health services, the spread of HIV/AIDS and the emergence of multidrug-resistant TB are contributing to the worsening impact of this disease.

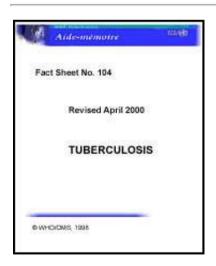
In 1993, the World Health Organization (WHO) took an unprecedented step and declared tuberculosis a global emergency, so great was the concern about the modern TB epidemic.

It is estimated that between 2000 and 2020, nearly one billion people will be newly infected, 200 million people will get sick, and 35 million will die from TB - if control is not further strengthened.





## Home"" """"> ar.cn.de.en.es.fr.id.it.ph.po.ru.sw



- ☐ Fact sheet No 104: Tuberculosis Revised April 2000 (WHO, 2000, 3 p.)
  - (introduction...)
  - **▶** Infection and Transmission
    - Global and Regional Incidence
    - Factors Contributing to the Rise in TB
    - **Effective TB Control**

#### **Infection and Transmission**

TB is a contagious disease. Like the common cold, it spreads through the air. Only people who are sick with pulmonary TB are infectious. When infectious people cough, sneeze, talk or spit, they propel TB germs, known as bacilli, into the air. A person needs only to inhale a small number of these to be infected.

Left untreated, each person with active TB will infect on average between 10 and 15 people every year. But people infected with TB will not necessarily get sick with the disease. The immune system 'walls off' the TB bacilli which, protected by a thick waxy coat, can lie dormant for years. When someone's immune system is weakened, the chances of getting sick are greater.

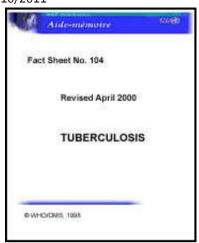
- Someone in the world is newly infected with TB every second.
- Nearly one percent of the world's population is newly infected with TB each year.
- Overall, one-third of the world's population is currently infected with the TB bacillus.
- 5 10 percent of people who are infected with TB become sick or infectious at some time during their life.





Home"" """"> ar.cn.de.en.es.fr.id.it.ph.po.ru.sw

☐ Fact sheet No 104: Tuberculosis - Revised April 2000 (WHO, 2000, 3 p.)





Infection and Transmission



Factors Contributing to the Rise in TB

Effective TB Control

## **Global and Regional Incidence**

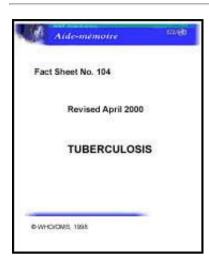
Each year, more people are dying of TB. New outbreaks have occurred in Eastern Europe, where TB deaths are increasing after almost 40 years of steady decline. In terms of numbers of cases, the biggest burden of TB is in south-east Asia.

- TB kills about 2 million people each year.
- Around 8 million people become sick with TB each year.
- Over 1.5 million TB cases per year occur in sub-Saharan Africa. This number is rising rapidly as a result of the HIV/AIDS epidemic.
- Nearly 3 million TB cases per year occur in south-east Asia.
- Over a quarter of a million TB cases per year occur in Eastern Europe.





# Home"" """"> ar.cn.de.en.es.fr.id.it.ph.po.ru.sw



- ☐ Fact sheet No 104: Tuberculosis Revised April 2000 (WHO, 2000, 3 p.)
  - (introduction...)
  - Infection and Transmission
  - Global and Regional Incidence
- **▶** Factors Contributing to the Rise in TB
  - **Effective TB Control**

#### Factors Contributing to the Rise in TB

#### HIV is accelerating the spread of TB

HIV and TB 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. TB is a leading cause of death among people who are HIV-positive. It accounts for about 15% of AIDS deaths worldwide. In Africa, HIV is the single most important factor determining the increased incidence of TB in the last ten years.

Poorly managed TB programmes are threatening to make TB incurable

Until 50 years ago, there were no drugs to cure TB. Now, strains that are resistant to a single drug have been documented in every country surveyed and, what is

more, strains of TB resistant to all major anti-TB drugs have emerged. Drug-resistant TB is caused by inconsistent or partial treatment, when patients do not take all their drugs regularly for the required period because they start to feel better, doctors and health workers prescribe the wrong treatment regimens or the drug supply is unreliable. A particularly dangerous form of drug-resistant TB is multidrug-resistant TB (MDR-TB), which is defined as the disease due to TB bacilli resistant to at least isoniazid and rifampicin---the two most powerful anti-TB drugs. MDR-TB is rising at alarming rates in some countries, especially in the former Soviet Union, and threatens global TB control efforts.

From a public health perspective, poorly supervised or incomplete treatment of TB is worse than no treatment at all. When people fail to complete standard treatment regimens, or are given the wrong treatment regimen, they may remain infectious. The bacilli in their lungs may develop resistance to anti-TB drugs. People they infect will have the same drug-resistant strain. While drug-resistant TB is treatable, it requires extensive chemotherapy (up to two years of treatment) that is often prohibitively expensive (often more than 100 times more expensive than treatment of drug-susceptible TB), and is also more toxic to patients.

WHO and its international partners are have formed the DOTS-Plus Working Group, which is attempting to determine the best possible strategy to manage MDR-TB. One of the goals of DOTS-Plus is to increase access to expensive second-line anti-TB drugs for WHO-approved TB control programmes in low and middle income countries.

Movement of people is helping the spread of TB

Global trade and the number of people travelling in aeroplanes have increased dramatically over the last forty years. In many industrialized countries, at least one-half of TB cases are among foreign-born people. In the US, nearly 40% of TB cases are among foreign-born people.

The number of refugees and displaced people in the world is also increasing. Untreated TB spreads quickly in crowded refugee camps and shelters. It is difficult to treat mobile populations, as treatment takes at least six months. As many as 50 percent of the world's refugees may be infected with TB. As they move, they may spread TB.

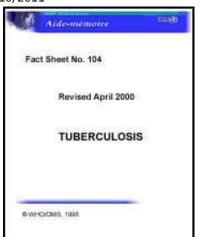
Other displaced people such as homeless people in industrialized countries are at risk. In 1995, approximately 30 percent of San Francisco's homeless population and 25 percent of London's homeless were reported to be infected with TB. These figures compare to overall prevalences of 7 percent in the United States and 13 percent in the United Kingdom. The prevalence of infection in prisons can be even higher.





Home"" """"> ar.cn.de.en.es.fr.id.it.ph.po.ru.sw

- ☐ Fact sheet No 104: Tuberculosis Revised April 2000 (WHO, 2000, 3 p.)
  - (introduction...)
  - Infection and Transmission
  - Global and Regional Incidence





#### **Effective TB Control**

The WHO-recommended treatment strategy for detection and cure of TB is DOTS. DOTS combines five elements: political commitment, microscopy services, drug supplies, surveillance and monitoring systems and use of highly efficacious regimes with direct observation of treatment.

Once patients with infectious TB (bacilli visible in a sputum smear) have been identified using microscopy services, health and community workers and trained volunteers observe and record patients swallowing the full course of the correct dosage of anti-TB medicines (treatment lasts six to eight months). The most common anti-TB drugs are isoniazid, rifampicin, pyrazinamide, streptomycin and ethambutol.

Sputum smear testing is repeated after two months, to check progress, and again at the end of treatment. A recording and reporting system documents patients' progress throughout, and the final outcome of treatment.

- DOTS produces cure rates of up to 95 percent even in the poorest countries.
- DOTS prevents new infections by curing infectious patients.
- DOTS prevents the development of MDR-TB by ensuring the full course of treatment is followed.
- A six-month supply of drugs for DOTS costs US \$11 per patient in some parts of the world. The World Bank has ranked the DOTS strategy as one of the "most cost-effective of all health interventions."

Since DOTS was introduced on a global scale, millions of infectious patients have received effective DOTS treatment. In half of China, cure rates among new cases are 96 percent. In Peru, widespread use of DOTS for more than five years has led to the successful treatment of 91 percent of cases.

By the end of 1998, all 22 of the high burden countries which bear 80% of the estimated incident cases had adopted DOTS. 43 percent of the global population had access to DOTS, double the fraction reported in 1995. In the same year, 21 percent of estimated TB patients received treatment under DOTS, also double the fraction reported in 1995.

WHO targets are to detect 70 percent of new infectious TB cases and to cure 85 percent of those detected. Six countries had achieved these targets in 1998. Governments, non-governmental organizations and civil society must continue to act to improve TB control if we are to reach these targets worldwide.

For further information, journalists can contact the Stop TB Initiative, WHO, Geneva. Telephone (41 22) 791 2675. Fax (41 22) 791 4199. E-mail stoptb@who.ch All WHO Press Releases, Fact Sheets and Features as well as other information on this subject can be obtained on Internet on the WHO home page http://www.who.int

