50 YEARS: COMMEMORATIVE SERIES-4

# TUBERCULOSIS

# IN THE SOUTH-EAST ASIA REGION


WORLD HEALTH ORGANIZATION

HEALTH FOR ALL- ALL FOR HEALTH

50 YEARS: COMMEMORATIVE SERIES-4

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1948
1998

WORLD HEALTH ORGANIZATION

HEALTH FOR ALL- ALL FOR HEALTH

Regional Office for South-East Asia
New Delhi
1998

## Message

Tuberculosis, amongst the infectious diseases, ranks as the number one killer of adults globally and in the South-East Asia Region. The problem is aggravated by the increasing density of population, rapid, uncontrolled urbanization, overcrowding, poverty, malnutrition and illiteracy.

The alarming news is that there has been no decline in the number of new TB cases despite national TB Control Programmes. Multidrug-resistant TB is on the rise; and co-infections with HIV are contributing to the growing burden of tuberculosis in the developing world.

The good news is that since its introduction and adoption in the Region in 1994, the Directly Observed Treatment, Short-course (DOTS) strategy has demonstrated its effectiveness in curing up to 85% of tuberculosis cases in pilot projects throughout the Region.

There is reason for optimism as all countries have accepted DOTS as the national policy and each is in the process of expanding it with commitment of additional resources and reinforced endeavours to implement revised national TB programmes. DOTS is not only successful in curing tuberculosis but it is also one of the most cost-effective interventions.

However, there is need for greater political will and advocacy to support the expansion of DOTS, and for improved programme management. This is no doubt a challenge for the governments and the health sectors. It is also a challenge for individuals and communities to address. What is needed is partnerships that go beyond the health sector to effectively tackle the situation.

It is time to renew our pledge to stop the spread of TB. Only by mobilizing inter-sectoral partnerships to focus on curing the largest number of patients can we prevent multidrug-resistant TB. Only by promoting standardized, directly observed, short-course chemotherapy regimens can we hope to contain this frightening global epidemic.

**Dr Uton Muchtar Rafei**
Regional Director

# TAKE TB SERIOUSLY

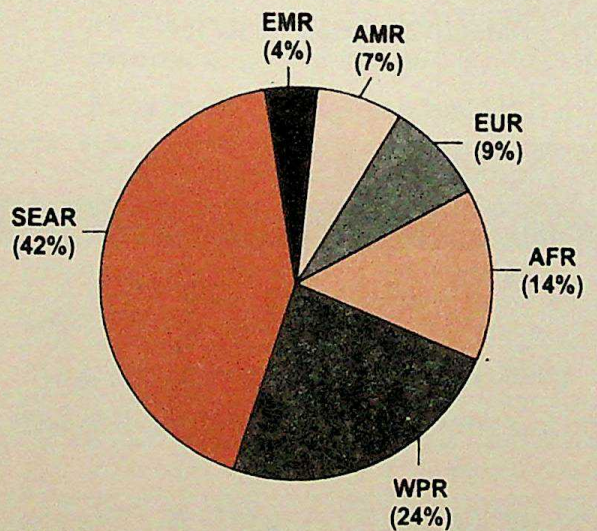
## CURE TB WITH DOTS. STOP ITS SPREAD

### A major public health problem

Tuberculosis is an ancient disease which continues to pose a major public health challenge to developing countries. Though it is now possible to cure and control TB, it still affects and kills millions of people every year. While industrialized countries have managed to control TB, the picture in Asia and Africa is grim. Each year, 8 million people are estimated to develop TB globally. Of 3.3 million cases reported to WHO, 42% are reported from our Region. One million deaths - one third of global deaths - occur in this Region. This is mainly because of the increasing number of young adults in the population - the age group at highest risk; increasing migration of populations due to economic and political reasons; the rapid spread of the HIV epidemic, and the inadequate efforts toward tuberculosis control in the Region.

With the emergence of multidrug-resistant strains tuberculosis may become an epidemic out of our control.

**Tuberculosis Cases Notified by WHO Regions, 1996**




***Total: 3.3 million cases***

### Tuberculosis -the cause

TB is a bacterial disease caused by *Myobacterium tuberculosis* (and occasionally by *Mycobacterium bovis* and *Mycobacterium africanum*) sometimes called tubercle bacilli, or acid fast bacilli (AFB). Tubercle bacilli can remain dormant in tissues and persist for many years.

## Transmission of TB Infection

Transmission of tuberculosis occurs by airborne spread of infectious droplets. The source of infection is a person with TB of the lung (pulmonary TB) who is coughing. A single cough can produce thousands of tiny infectious droplets, which can stay in the air for several hours, particularly in locations without ventilation or direct sunlight. Two factors determine an individual's risk of exposure: the concentration of droplet nuclei in the contaminated air and the length of time that the person breathes that air.

The susceptibility of an individual increases with close, prolonged, indoor exposure to a person with untreated, sputum smear-positive TB. The risk of transmission from a person with sputum smear-negative TB is low, and with extra-pulmonary TB the risk is even lower. Within a few days or weeks of beginning the right treatment, patients become non-infectious.

## Tuberculosis - occurrence and trends

*M. tuberculosis* infects a third of the world's population. In 1997, there were about 8 million new cases of TB with 2-3 million deaths worldwide. These deaths comprise 26% of all avoidable adult deaths in developing countries. Nearly 95% of TB cases and 98% of TB deaths are in developing countries with 75% of TB cases in the age group of 15-54 years. Tuberculosis predominantly affects young adults - the most economically productive section of society.

**South-East Asia Region - Number of TB Cases Notified**

| Country | 1980 | 1985 | 1990 | 1995 |
|---|---|---|---|---|
| Bangladesh | 39,774 | 48,802 | 48,673 | 42,610 |
| Bhutan | 1,539 | 1,073 | 1,154 | 1,299 |
| India | 705,600 | 1,168,804 | 1,159,182 | 1,214,876 |
| Indonesia | 25,235 | 17,681 | 74,470 | 31,908 |
| Maldives | 73 | 91 | 152 | 231 |
| Myanmar | 12,744 | 10,506 | 12,416 | 18,229 |
| Nepal | 1,020 | 52 | 10,142 | 19,804 |
| Sri Lanka | 6,212 | 5,889 | 6,666 | 5,956 |
| Thailand | 45,704 | 77,611 | 46,510 | 45,428 |
| Total | 837,901 | 1,323,509 | 1,719,365 | 1,380,341 |

In 1995, the South-East Asia Region accounted for 1.3 million notified tuberculosis cases - 42% of the global total. India, Indonesia and Bangladesh, three of the most populous countries, are major contributors. Reported rates are higher in males than in females, but tuberculosis kills more women than all causes of maternal mortality combined.

## The burden in SEAR countries

Tuberculosis is the biggest killer among adults in South-East Asia. Nearly 3 million cases of TB and 1 million deaths occur each year in the Region. Five countries, namely Bangladesh, India, Indonesia, Myanmar and Thailand account for more than 95% of cases in the Region. Every day more than 1,500 people in the Region die from tuberculosis. Poor socio-economic conditions and inadequate TB control measures form a vicious circle, one accentuating the other.

The situation is expected to worsen with the emergence of multidrug-resistant TB and HIV-TB co-infection unless effective action is taken now.

### *The burden of drug-resistant tuberculosis*

Often a patient feels so much better after a few weeks of treatment that the symptoms disappear. The patient becomes complacent and discontinues the treatment regimen. The remaining bacilli in the body then multiply and the person falls sick again. This time the bacilli may become drug-resistant and fail to respond to treatment.

Emergence of drug-resistant TB is a serious concern for countries in the Region because multidrug-resistant tuberculosis is a virtual death sentence. Inappropriate control measures in the past have resulted in a high number of treatment failures as well as chronic cases with multidrug resistance.

### *The spectre of HIV-TB co-infection:*

Tuberculosis is one of the most important life-threatening opportunistic infections associated with HIV in many parts of the world including our Region. HIV and TB are a deadly duo - each speeding up the progress of the other.

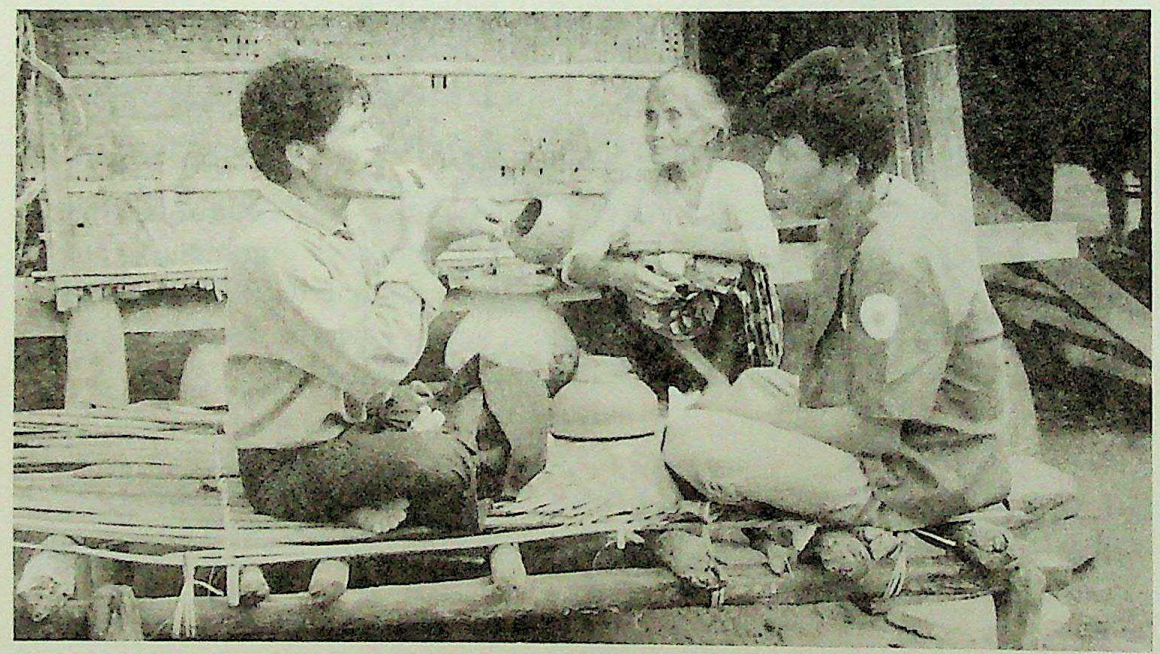
- Of the 31 million people worldwide who were HIV-positive in 1997, about one third were believed to be infected also with TB.
- One-third of the increase in the incidence of TB since 1993 can be attributed to HIV. WHO estimates that by 2000, HIV infection will

annually cause at least 1.4 million active cases of TB that would not otherwise have occurred.

- Between 56% and 80% of AIDS cases diagnosed in Thailand, India, Nepal and Myanmar had TB.
- TB accounts for at least one-third of AIDS deaths worldwide; and 40% of deaths in Asia.

## DOTS Strategy to combat TB

DOTS - Directly Observed Treatment, Short-course is the popular acronym given to WHO's global TB control strategy which emphasizes adequate and efficient diagnosis and treatment, i.e. short course chemotherapy given under direct observation to at least all smear-positive TB cases identified.



Globally, the DOTS strategy has been recognized as the best approach to tuberculosis control and to achieve a decrease in disease burden and reduce spread of infection. On a progressive basis, DOTS is the only means by which a cure can also be ensured. There are also strong economic benefits of the DOTS strategy. This TB control strategy is among the most cost-effective interventions in health care, with enormous societal benefits as well.

***The success of DOTS depends on five components :***

- Political commitment to nationwide coverage combined with effective leadership and an efficiently managed TB control programme as an integrated activity within the health care infrastructure.
- Diagnosis by sputum microscopy of patients presenting themselves at health facilities.
- Standardized short-course chemotherapy, to at least all confirmed sputum smear-positive cases of TB.
- Establishment of a system of regular supply of standardized short course chemotherapy drugs.
- Establishment and maintenance of a monitoring system to be used both for programme supervision and evaluation.

***Global targets and time frame :***

The challenge is to expand the coverage of DOTS so that most patients get effective diagnosis and treatment. The target is successful treatment or cure of 85% of new sputum-positive cases, and detection of 70% of such cases by the year 2000.

## Progress in DOTS implementation

Member States have demonstrated that DOTS can work well in the Region. In all the projects diagnostic quality is good and the proportion of patients who have been successfully treated is 80% - more than double.

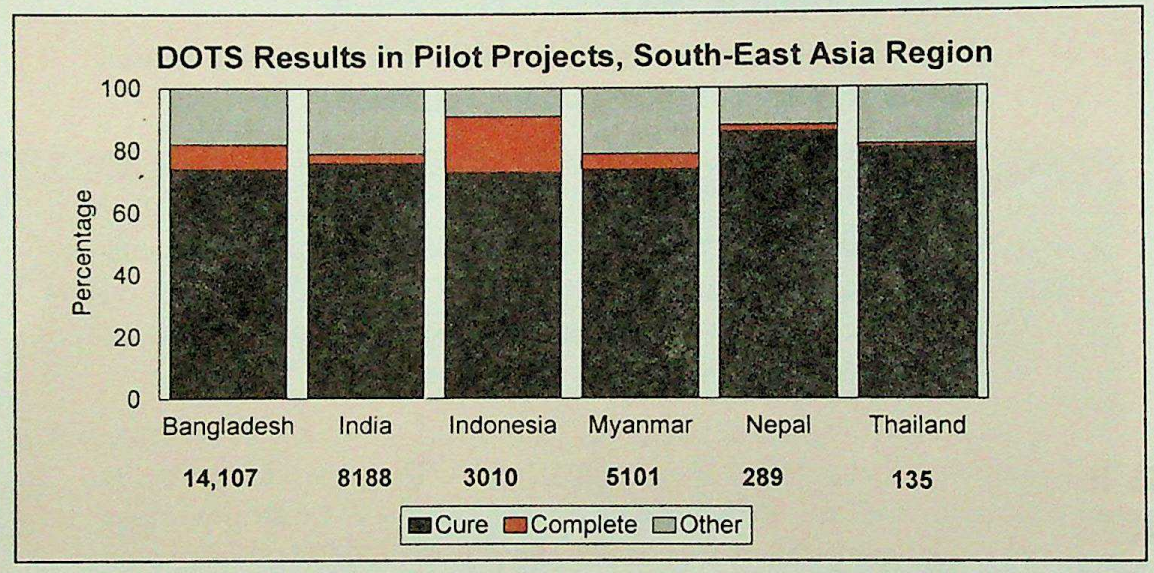
However, judging from the current rate of programme implementation, it appears that only Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka will be able to achieve global targets by the year 2000; Myanmar and Thailand may achieve their targets by the year 2005; while larger countries like India and Indonesia would be able to do so only by 2010.

## Bangladesh

DOTS was introduced in 1993 and has now expanded to cover 75% of the population with a treatment success rate of nearly 80%. More than 143,000 patients have been treated. There is excellent cooperation with NGOs which provide TB control services in about one-third of the country.

**Bhutan** Bhutan, because of its hilly terrain, has utilized a strategy of hospitalization throughout the intensive phase of treatment using DOTS. In recent years, an increasing proportion of smear-positive cases have been diagnosed, and cure rates have been improving consistently with a success rate of more than 9 out of 10 cases.

**DPR Korea** DPRK has a well organised health care infrastructure with integrated TB control activities. However, following recent natural disasters , there has been a reported increase in tuberculosis cases. WHO has been working with the government to introduce and implement pilot projects using the DOTS strategy, and is ensuring an adequate supply of drugs.




**India** India, with 25% of the global burden of TB, was in fact, the country that first established many of the principles of DOTS. Currently DOTS covers a population of 18 million (i.e. 2% of the population) with a success rate of nearly 80%. The national programme plans for a coverage of 271 million by the year 2000, by which time most parts of the country will be prepared for DOTS implementation.

**Indonesia** DOTS was introduced in 1994 and by 1996-97 had covered 23% of the population. During 1998-99, DOTS coverage is expected to reach 39%. The country has demonstrated political commitment and effective involvement of NGOs and a large cadre of voluntary personnel that play the role of "observers".

**Maldives** The Maldives introduced DOTS in 1994. The country's commitment to the DOTS strategy which has been rigorously applied, has led to impressive and consistent cure rates in excess of 85%. The Maldives

now has a well-developed health-care infrastructure, free supply of anti-TB medicines and commitment of health workers and officials to implement effective and standardized TB control measures.

**Myanmar** Myanmar is witnessing an increase of TB, with a rising case notification rate, a shift to younger age groups, a growing problem of HIV and injecting drug use, and also resistance to antimicrobial drugs. However, DOTS now covers 153 townships with 42% of the population and a cure rate of 74%.

**Nepal** DOTS was adopted in Nepal in 1995 and the first demonstration sites were established in early 1996. DOTS now covers 16% of the population. Cure rates with DOTS have been consistent at 85% compared with the national cure rate of 60%.

**Sri Lanka** Sri Lanka has an estimated 9,000 cases of TB each year contributing to a cumulative prevalence of 12,000 cases. An estimated 1,000 TB-related deaths occur annually. DOTS is not being strictly implemented in about 1/3 of the total cases. As a result the pool of infectious cases continues to transmit the disease. Cure rates are around 64%.

**Thailand** The DOTS strategy was first implemented in the country in 1996. Results in the first eight months were encouraging with 82% cure rates. Plans have been made to expand DOTS to every province by the end of 1998.

## Challenges to be overcome

Ever since the declaration of TB by WHO as a Global emergency in 1993, the Region has made considerable progress toward achieving the global targets. In spite of significant achievements, however, the DOTS coverage in the Region has currently reached only about 12% of the population. The limited coverage achieved so far is attributed primarily to lack of priority and the difficulties in expanding DOTS coverage.

***Major constraints include :***

- Lack of political commitment.
- Weak managerial capacities at national, state/provincial levels and a functionally weak primary health care system in some areas.
- Lack of trained human resources, and poor quality control of laboratory diagnostic services.
- Inadequate monitoring and supervision, and poor logistics of drug supply and distribution.

***Priority interventions needed:***

- Continuous, improved advocacy efforts to increase political commitment at all levels.
- Human resource development, with special emphasis on strengthening managerial capacity at national and intermediate levels.
- Improving Primary Health Care and integration of tuberculosis programme activities.
- Enhancing collaboration with academicians, NGOs and the private sector.
- Enhancing and sustaining financial resources, both from within the country and from international agencies.

## WHO - Role and Contributions

WHO considers TB a priority and is committed to assist countries in the formulation and strengthening of national tuberculosis control programmes adapted to national conditions. To do so, technical support is available at global, regional and national levels.

**Some areas where WHO has assisted Member States recently include**:

- Joint programme reviews leading to the development of revised national plans.
- Advocacy for greater political commitment and mobilizing increased resources from international donors and agencies.
- Project formulation and implementation in pilot districts in many Member countries.
- Technical support for World Bank-assisted TB control projects in Bangladesh and India.
- Technical and financial support for tuberculosis control activities, including training in all countries; and operational research in Nepal and India.
- Provision of supplies for diagnosis to Myanmar, India and Sri Lanka and of anti-TB drugs to DPRK, Maldives and Myanmar.
- Collaboration with SAARC and ASEAN in advocacy and mobilizing support for national TB programmes.

## Advocacy Role of different groups

Until the middle of this century TB was considered an incurable scourge. Those suffering from TB were sent off to sanatoriums so that they would not infect others. They lost their jobs and often received no family or community support. The situation has changed since the adoption of the DOTS strategy in 1994. TB can be cured through DOTS and the TB epidemic can be controlled.

To ensure that governments commit themselves to TB control programmes with adequate resources, to influence policies, to convince patients to sustain the treatment and to bring about change in social attitudes will require effective advocacy efforts :

**Policy Makers & Politicians:**
They must be motivated to support DOTS in response to the demand for good treatment services. For this they must be convinced that TB is a serious disease, and that the state would pay a high price for neglecting it in human and economic terms.

**Health Practitioners:**
Health workers play the most important role, especially in providing and monitoring DOTS treatment. The medical profession can be provided technical data on the effectiveness of DOTS.

**The role of the Media:**
The Media can be most useful in highlighting the dangers of TB outbreaks and the economic benefits of DOTS. They can provide greater impetus to DOTS programmes through articles, unbiased newsreports, and documentation of successful treatment programmes.

**Corporations & Industry :**
Advocacy efforts must promote heightened awareness of how the burden of TB is weakening economies and affecting productivity by afflicting the most productive age groups.

**The role of NGOs :**
NGOs and the private sector must be involved in DOTS implementation. They can be motivated to organize training, workshops, health education and advocacy campaigns and support drug procurement and service delivery. NGOs could also assist TB programmes as observers and support patients taking DOTS treatment.

**Communities & Individuals:**
Individuals should be informed of the potential risk to themselves and their families; they must be aware about the early signs of tuberculosis and seek medical treatment. Communities must be empowered with full knowledge of TB and be convinced that TB can be cured if complete treatment is taken. Advocacy must demystify the disease so that persons undergoing treatment and the cured are accepted and can continue to lead productive lives.

## Symptoms of tuberculosis

Everyone needs to know what to do if they get TB. And everyone needs to know how to recognize the onset of TB in its early stages to facilitate a quick and complete recovery and prevent its spread.

**Prominent symptoms of Pulmonary TB are:**

- Cough for over three weeks, with sputum production,
- weight loss,
- chest pain and breathlessness,
- fever/nightsweats,
- tiredness, and
- loss of appetite.

All persons with cough for three weeks or more should undergo three sputum examinations for acid fast bacilli. There are other categories of tuberculosis which can affect other parts of the body. These need medical examinations and clinical tests in order to be diagnosed.

## Curing TB is Preventing TB

**Remember, TB is a serious disease with fatal consequences if neglected. But TB can be cured with DOTS. TB can be stopped at the source.**

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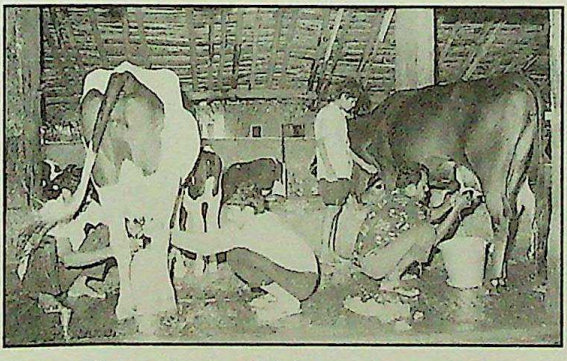
# SOULABYA

**The Educational and Training Institution of Shree Ramana Maharishi Academy for the Blind.**

Soulabya aims at rehabilitation of visually impaired children from rural and semi-urban areas, by providing them free education and vocational training from nursery to class X with English medium. Two separate hostels for girls and boys have 300 visually impaired children from Karnataka and neighbouring states.

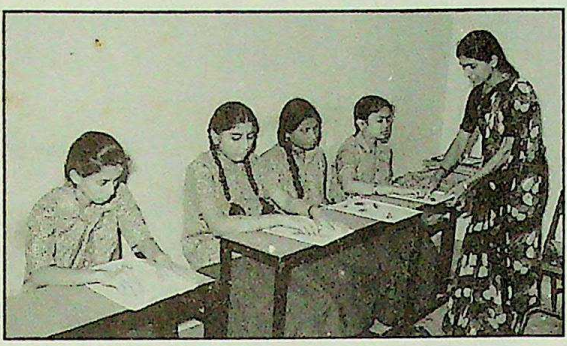
The vocational training programmes are interesting and comprise of :

- Computer Training which is also open to physically disabled persons and lower socioeconomic groups of society.
- Full fledged Industrial Training in the manufacture of packing material.
- Dairy Management.
- Horticulture Training and Nursery Development.



**Earn while you learn : A dairy acts as a good classroom.**

"Earn While You Learn" is a scheme that generates enthusiasm and motivation under the vocational rehabilitation programme, where the student earns some money as he learns the trade. A certain percentage of the earnings from the sale of boxes, milk and saplings grown by the children are deposited in their savings accounts. On graduating from the Academy, most of them earn enough finances to continue their studies or to set up a small enterprise with some aid.



**Educating visually impaired children.**

Soulabya lays emphasis on cultural and extra curricular activities:

- Physical Education: Games and sports.
- Music: Vocal / Instrumental.
- Dance: Bharatnatyam, Kuchhi Pudi and Folk dance.
- Drama: Street play and Theatre.

The Academy's dance troupe has performed in major towns and cities of India and abroad. Prizes and medals have been regularly won at state and national level sports meets for the disabled people.

Free admissions are open to visually impaired boys and girls in the age group of 4-22 years.

**Children acquire skills at the plant nursery as part of vocational training.**

For further details contact :

# SOULABYA

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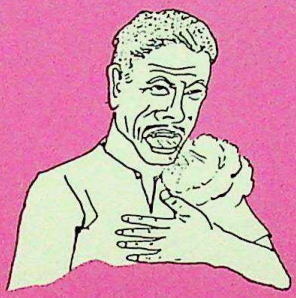
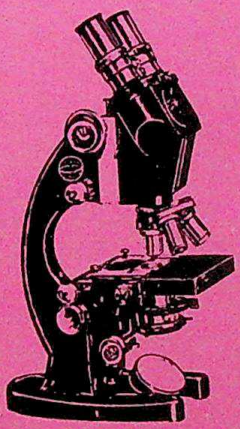
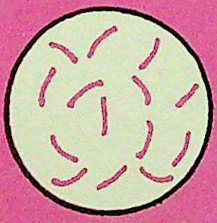
# WHAT YOU SHOULD KNOW ABOUT TUBERCULOSIS, ITS DIAGNOSIS, TREATMENT AND PREVENTION







GOVERNMENT OF INDIA
NATIONAL TUBERCULOSIS INSTITUTE
(Directorate General of Health Services)
Ministry of Health and Family Welfare
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OCTOBER 1995

# WHAT YOU SHOULD KNOW ABOUT TUBERCULOSIS, ITS DIAGNOSIS, TREATMENT AND PREVENTION

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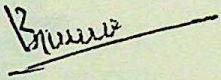
# FOREWORD

The publication of this booklet has been a long felt necessity. There is a growing demand by the community to know about the disease, facilities available for its detection and treatment.

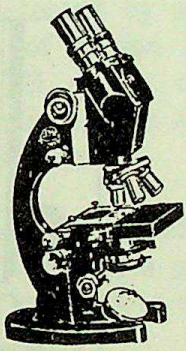
It is observed that a good majority of tuberculosis patients do not complete the treatment because of wrong notions and beliefs. This booklet gives an insight into all these aspects. It can be used not only as a consumer awareness booklet but also a guiding material by the non-governmental organisations working in the field of tuberculosis.



(B.T.Uke)
Director

Bangalore
October 1995

Tuberculosis is one of the major killers, with one person dying of tuberculosis every minute, in our country. This causes enormous suffering to the patients, their family and the community at large. Every one should help in fighting this major killer, by knowing the facts about the disease, its detection treatment and prevention.



Tuberculosis can occur in any part of the body, but most commonly it affects the lungs.

**TUBERCULOSIS IS NOT HEREDITARY**

## HOW DOES TB SPREAD ?

A person suffering from tuberculosis of lungs can spread the disease to others.

When a patient suffering from lung tuberculosis coughs, sneezes or spits indiscriminately TB germs are thrown in the atmosphere in the form of small droplets.

When a healthy person inhales these droplets, TB germs get into the lungs. The disease may not occur immediately but may develop at any time later in life. When the body resistance is weak, the disease may set in. The risk of developing tuberculosis is more in persons who are also infected with Human Immunodeficiency Virus (HIV) infection.

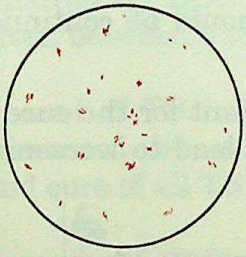
**As the persons with lung tuberculosis spread the disease, it is important to detect and treat them early**

## SYMPTOMS OF TUBERCULOSIS

The most important symptoms are persistent cough of 15 days duration with or without fever, chest pain & spitting of blood.

The other symptoms are weakness, loss of weight & appetite.

## HOW TUBERCULOSIS IS DETECTED ?



***Sputum Examination*** It is the most reliable method for detection of lung tuberculosis. It can be detected by sputum examination of person having symptoms. TB germs can be seen by examining the sputum under the microscope.

The patients detected by sputum examination as having tuberculosis, must be treated on a priority basis as they are infectious and spread the disease in the community.

***X-ray Examination*** The patients whose sputum does not contain TB germs or there are very few germs and cannot be detected under a microscope, but have symptoms, can be detected by taking an X-ray of chest.

Tuberculosis is curable provided patients take **full course of treatment regularly** as advised by the doctor. Treatment is for a duration of 6 to 12 months depending upon the drugs used. **Tuberculosis is treated by giving two or more drugs and never with single drug.**

Almost all patients of tuberculosis can be treated at home, patients need not be isolated or hospitalised. Only those patients who are very sick may need hospitalisation for a few weeks.

Symptoms of tuberculosis may disappear after 1 to 2 months of treatment but this does not mean that the patients are cured. Treatment should be continued as per the advice of the doctor.

Regular intake of drugs is important for the cure of disease. Irregular treatment can lead to worsening of the disease or even death.

There is no restriction on diet. Patients can take what they can afford.

Tonics, nutritious diet & injections are not always necessary. Only very sick tuberculosis patients require bed rest.

**TUBERCULOSIS IS 100% CURABLE IF TREATMENT IS TAKEN REGULARLY**

## FACILITIES AVAILABLE FOR DETECTION AND TREATMENT

TB patients can use facility available at all Government Hospitals/ PHCs/ Dispensaries and TB centers for detection and treatment in all the rural and urban areas. The diagnostic and treatment facilities are available free of cost to tuberculosis patients in all these centers. Persons having cough for two weeks or more should visit the nearest facility.

## PREVENTION OF TUBERCULOSIS

Serious forms of tuberculosis can be prevented in children by BCG Vaccination. BCG Vaccination is given between 0 to 1 year of age.

Spread of TB infection is best prevented by early detection and cure of all TB patients.

Spread of infection can be prevented to some extent by covering the mouth while coughing and sneezing and by avoiding spitting any where and every where.

*Let us all join to fight*
*Tuberculosis, a Major Killer*

***Regular treatment for the prescribed period by the doctor = full treatment = full cure***

***What you can do if you happen to come across a tuberculosis patient?***

a. **Reassure him that it is curable if he takes regular and complete treatment.**

b. **Disappearance of symptoms does not mean cure, drugs should be continued for the full course as prescribed by the doctor.**

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**You have an important role to play as a messenger in prevention and control of tuberculosis**

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# MAGNITUDE OF TB PROBLEM IN INDIA

About 3 Million Infectious TB patients are spreading the disease in the community.

0.5 Million TB patients die every year. Thus one person die of TB every minute.

## TB & HIV

Adults in the age group 15-49 years infected with HIV have a high risk of developing the tuberculosis disease.

* * *

TB in HIV infected persons can be cured.

* * *

Nursing HIV infected persons does not transmit HIV to others

ICAAC
New Orleans

# TUBERCULOSIS UPDATE

Highlights of
- 17th Eastern Regional Conference on Tuberculosis and Respiratory Diseases
- 33rd Interscience Conference on Antimicrobial Agents and Chemotherapy





*Athough it is over 100 years since Robert Koch discovered the tubercle bacillus, the control and possible cure of tuberculosis (Tb) remains a formidable medical challenge. Prevalence figures reveal that the magnitude of the problem of Tb mangement in some parts of the world is almost beyond comprehension.*

*The 17th Eastern Regional Conference on Tuberculosis, held in Bangkok, Thailand, November 1-4, 1993, and the 33rd Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), New Orleans, USA, October 17-20, 1993, brought together specialists and physicians with an interest in the disease. They provided opportunities for participants to update their knowledge of Tb, in the context of recent developments such as the impact of human immunodeficiency virus (HIV) infection. Highlights of the plenary sessions and symposia are presented in the following pages.*





## Impact of HIV Infection on Tuberculosis

***A. Kochi***
*Tuberculosis Programme, WHO, Geneva, Switzerland*

The association between Tb and HIV poses a serious public health and socioeconomic threat in developing countries, according to Dr Kochi. The WHO estimates that 1.4 million HIV-associated Tb cases will occur in the year 2000, compared with 300,000 in 1990. During the last decade of this century, about 8 million such cases will occur, the majority in developing countries of Africa and South East Asia.

Asia is sitting on a time bomb of HIV and Tb epidemics, with the situation — particularly in South East Asia — being similar to that in Africa 5 to 7 years ago, Dr Kochi said. If current epidemiological patterns continue, Tb cases will increase to 10.2 million by the year 2000 (table 1). HIV-associated Tb will account for approximately 14%.

The proportion of acquired immunodeficiency syndrome (AIDS) patients with Tb is about 20 to 50% in many developing countries. Its prevalence in industrialised countries is generally 3 to 5%, but higher among certain high-risk groups. In Africa, more than 50% of people aged between 15 and 50, the high-risk age range for AIDS, are already infected with Tb. Studies in 1990 suggested that up to 80% of Tb patients in Africa were also HIV infected. The figure for Thailand was about 15% but this, along with figures for India and Burma, is likely to increase.

In African countries where the AIDS epidemic has already spread very quickly, there has been a tremendous increase in reported Tb cases in recent years. In Zambia the prevalence has increased about 3-fold, in Malawi it has doubled, while Tanzania has seen a 60% increase and Burundi a

Table 1. WHO estimates of Tb prevalence

| Year | Total Tb cases | Tb cases attributable to HIV (%) |
|---|---|---|
| 1990 | 7.5 million | 315,000 (4.2) |
| 1995 | 8.8 million | 738,000 (8.4) |
| 2000 | 10.2 million | 1,410,000 (13.8) |



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40% increase. *"The numbers of Tb patients have increased and that has meant tremendous burdens for the health service and for Tb control services which were already suffering and in most of the cases are over-stretched. It has increased demands for drugs and for the supply of materials, and also for hospital beds."*

A good example of the problems facing African countries can be found in Tanzania, which has a well supported Tb control programme. About 7 years ago the annual cost of anti-Tb drugs was US$250,000 to $300,000; it is now estimated at about $1 million. This cost is a tremendous problem for Governments and, in the case of African countries, donor organisations.

HIV infection impacts significantly on Tb control programmes. HIV-positive patients with Tb have an atypical presentation, making diagnosis of Tb difficult. Doctors and health care workers have to think about the possibility of Tb in HIV-positive patients even if it is not apparent. Another important consequence of HIV infection for Tb treatment is the increased probability of drug reactions, particularly to the drug thiacetazone which can cause the often fatal Stevens-Johnson Syndrome.

Studies in Zambia found that almost 30% of HIV-positive Tb cases died within 1 year of diagnosis, compared with 4 to 5% of HIV-negative Tb patients. In Tanzania, the HIV epidemic saw the Tb case mortality (in regions with a Tb programme) increase from 4 to 5% to more than 10%. *"So because of the HIV epidemic your Tb patient is supposed to die, but not necessarily from Tb — this is really undermining Tb control programmes as well,"* Dr Kochi said.

There has been no increase in drug resistance in Tanzania, suggesting that if a Tb control programme is effective and producing high cure rates there is no problem with drug resistance despite a high prevalence of HIV.

Dr Kochi considered the differences between the situation in Asia today and Africa 7 years ago. Firstly, both scientific and medical knowledge about Tb and HIV has increased in recent years, and secondly Asia has a fast growing economy with larger monetary and staffing resources. Effectively using the knowledge already gained is the challenge for everyone interested in HIV and Tb, he concluded.

## Recommendations to Governments

*The 17th Eastern Regional Conference on Tuberculosis and Respiratory Diseases recom-mended that member associations in the region should encourage governments to:*

*a) Identify Tb as a priority in national plans and budgets and international collaborative activities.*

*b) Ensure that national Tb programmes comply with the new global Tb control strategy developed by the International Union Against Tuberculosis and Lung Disease and adopted by the World Health Organisation (WHO), through the introduction of short-course chemotherapy as a prime objective of all tuberculosis control programmes.*

*c) Implement this strategy taking into consideration the existing health services system. Once an 85% cure rate is achieved, the programme should start to expand case -finding activities to detect and treat more cases.*

*d) Continue bacille Calmette-Guérin (BCG) vaccination of the newborn, unless the infants have AIDS-related symptoms.*

# Treatment of Multiple-drug-resistant Tuberculosis

***T. Shimao***
*Anti-tuberculosis Association, Japan*

The prevalence of multiple-drug-resistant Tb (MDRTb) has been increasing alongside its inappropriate management. Variable compliance with treatment is one of the major obstacles to the national Tb programmes of several countries, according to Dr Shimao.

A high cure rate of newly found Tb patients and a good Tb programme is indispensable in order to prevent the emergence of MDRTb. Short-course chemotherapy together with measures to ensure regular drug taking should be introduced into the national Tb programmes of all developing countries before the prevalence of resistance to isoniazid and rifampicin becomes higher, reducing the impact of short-course therapy, he said. As there are few Tb specialists in most developing countries, the WHO recommends a standardised

Table 2. Classification of anti-Tb drugs

| Class | Characteristics | Examples |
|---|---|---|
| A | Bactericidal drugs; least toxic | Rifampicin or its derivatives such as rifabutin; isoniazid; pyrazinamide; streptomycin |
| B | Bacteriostatic; relatively low toxicity | Ethambutol; capreomycin; vancomycin |
| C | Reduced therapeutic ratio; may be of value in combating MDRTb in combination with class A or B drugs | Thioacetazone; ethionamide; prothionamide; cycloserine |
| D | Experimental | KRM1468 (rifampicin derivative); quinolones, macrolides |

regimen of chemotherapy both for original Tb cases and for relapsed and treatment failure cases.

Much drug-resistant Tb involves cases showing resistance both to isoniazid and rifampicin with possible resistance to other drugs. Chemotherapy should start with a combination of 4 or 5 sensitive drugs and chest surgery should always be considered if facilities are available in patients showing a poor response to chemotherapy.

The classes of anti-Tb agents are summarised in table 2. If isolates are sensitive to class A drugs a good outcome is expected although the efficacy of treatment may differ according to the number of active class A drugs. If both streptomycin and pyrazinamide are sensitive or previously unused, good results are expected. If no class A drug is active, a combination of 3 or 4 class B or C drugs should be used. A certain number of cases will convert to negative with this treatment but the conversion rate is lower than for infections sensitive to class A drugs. Chest surgery should always be considered for these cases.

If some sensitive drugs are available and negative samples are achieved, even temporarily, then the outcome of surgery is improved considerably. However, there are certain constraints in Japan and Britain on conducting chest surgery for Tb — a shortage of experienced chest surgeons and restrictions on which institutions can legally perform chest surgery for pulmonary Tb.

In order to improve the management of MDRTb, there is an urgent need to develop new methods of treatment. New drugs under investigation which have given some promising results are the rifampicin derivative KRM1848 (benzoxazino-rifamycin); quinolone compounds such as sparfloxacin, ciprofloxacin, and ofloxacin; macrolides such as clarithromycin; and immunostimulating substances. Combinations including these new drugs are promising not only against *Mycobacterium tuberculosis* but also against *M. avium*, which causes an intractable infection and is particularly problematic in immunocompromised persons.

Major measures to improve adherence to treatment such as supervision of treatment and intensive health education to ensure regular drug taking are needed, particularly in the initial part of treatment. Efforts must also be directed towards preventing infection by drug-resistant Tb strains in health workers. Most health workers in developing countries are already infected with and immunised against Tb before they start to work in Tb wards. Several studies in the US have shown that the best way to prevent the spread of MDRTb is to isolate infected patients in negative-pressure, well ventilated rooms; UV irradiation is an effective mode of disinfection.

MDRTb is the outcome of poorly implemented Tb control programmes, Dr Shimao said. *"I would like to emphasise the importance of improving patient adherence to treatment and that prevention is much superior to treatment"*.

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## Identification of MDRTb

***Source:*** *Juzar A. Current problems in the management of tuberculosis.* Mediguide to Infectious Diseases *1993;13:1-5.*

*The emergence of MDRTb has sounded the alarm among all segments of the health care community and has emphasised the need for urgent re-evaluation of present Tb control programmes. Effective control of MDRTb requires prompt reporting, immediate isolation, strict ventilatory controls and aggressive treatment. The identification of a patient with MDRTb is based upon the following factors:*

- *Foreign birth in an area with a high rate of resistance (Asia, Africa, Latin America);*
- *Residence in geographic areas in the US with a high prevalence of drug resistance;*
- *A history of erratic or incomplete treatment;*
- *Persistently positive bacteriology following 3 months of therapy; and*
- *Contact with persons with known drug resistance.*

# Management of Pulmonary Tuberculosis in HIV-infected Patients

***M. C. Raviglione***
*Tuberculosis Programme, WHO, Geneva, Switzerland*

Three million deaths worldwide from HIV-associated Tb are predicted for the last decade of the century, making it vital that health care providers understand well the problem of Tb associated with HIV, Dr Raviglione said.

The diagnosis of HIV-associated Tb can differ depending on the stage of the HIV infection. While typical post-primary Tb may be seen in the early stages of HIV infection, the clinical features of HIV-associated pulmonary Tb in adults are frequently atypical, particularly in the late stages of HIV infection.

In HIV-infected patients, the sputum smear examination may be negative more often than in HIV-negative individuals. HIV infection may also suppress the tuberculin skin test response, particularly if the person has advanced to AIDS. Sputum culture, when available, is the 'gold standard' for diagnosis, Dr Raviglione said.

Recent WHO guidelines recommend a 6-month short course of chemotherapy with isoniazid, rifampicin, pyrazinamide and ethambutol given daily for 2 months, followed by isoniazid and rifampicin daily or thrice weekly for the 4-month continuation phase (table 3). Alternatively, a 6-month continuation phase can consist of isoniazid and ethambutol.

Standard chemotherapy, a regimen usually containing isoniazid and rifampicin for 12 months supplemented by streptomycin for the first 1 to 2 months, has been shown not to be very effective in patients with HIV infection. However, a review of study abstracts shows that short-course chemotherapy containing rifampicin throughout and varying in length between 6 and 9 months produced an acceptable relapse rate and an acceptable failure rate, although mortality remained high.

The high mortality with short-course chemotherapy is mainly due to other HIV-related opportunistic diseases. The mortality from Tb in patients who have converted to sputum-negative is very low. Based on these observations, Dr Raviglione

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## Can We Control Tuberculosis by the Year 2000? — USA Perspective

***L.B. Reichman***
*University of Medicine and Dentistry of New Jersey, New Jersey Medical School, USA*

*Tuberculosis is a major and growing problem in the USA, Dr Reichman informed delegates. In 1991 there were 26,246 cases, a rise of 18% since 1988. There were 50,000 cases by the end of 1992, a greater number than expected based on earlier trends.*

*Ten million Americans are infected with the tubercle bacillus. Coinfection with HIV is a major problem.*

*In 1988, the US adopted a national plan for the elimination of Tb by 2010 with an interim target of 3.5 cases/1000 population by 2000. This strategy included:*

1. *Better use of existing Tb control methods;*
2. *Development of new technologies; and*
3. *Transfer of these new technologies into general use.*

*Tb control has been neglected and thus new technologies are sorely needed, but Dr Reichman emphasised that better use of existing Tb control methods will go a long way towards solving the problem.*

*A major thrust in the USA has been directed towards this goal. This has involved directly observed therapy utilising the best regimens with fixed-dose combination formulations of demonstrated bioavailability and preventative therapy for infected people at risk of Tb. The price of this programme has been estimated at $515 million annually. As recently as 1988, the yearly estimate was 36 million, indicating the exponential increase in the scale of the problem.*

Table 3. Treatment of Tb in HIV-positive patients

| Newly diagnosed Tb | 6-month regimen | 8-month regimen |
|---|---|---|
| Initial phase | HRZE daily for 2 months | HRZE daily for 2 months |
| Continuation | HR daily or 3x/week for 4 months | HE daily for 6 months |
| Re-treatment | | |
| Initial phase | HRZES for 2 months followed by HRZE for 1 month | |
| Continuation | HRE 3x/week for 5 months | |

*Abbreviations: H = isoniazid; R = rifampicin; Z = pyrazinamide; E = ethambutol; S = streptomycin.*

recommended all smear-positive cases and the most severe forms of Tb in HIV infected individuals receive short-course chemotherapy.

It is important to monitor adverse reactions and patient compliance. Although well known in HIV–negative patients, adverse reactions such as minor rash, gastrointestinal distress and hepatitis may be more frequent in HIV-positive patients. Stevens-Johnson Syndrome due to thiacetazone is one of the major considerations in the treatment of HIV-positive Tb patients and studies revealing high mortality from this and other severe skin reactions have led to the recommendation that thiacetazone be avoided wherever possible in HIV-positive patients.

There are various recommendations concerning patient monitoring, Dr Raviglione continued. At the beginning of treatment a sputum smear and, if possible, a sputum culture should be done and at 2 months a smear and culture are recommended. A smear should be taken at 4 months with the 6-month regimen, and at 5 months with the 8-month regimen. At the end of treatment a smear, culture and an X-ray should be taken.

Many important questions remained unanswered, Dr Raviglione said. Does preventive therapy lead to drug resistance? It should not, but if one is unable to screen for HIV and someone who is developing AIDS is given the wrong therapy, this can cause problems. What is the optimum duration for treatment — 6 months, 9 month, 12 months? Treatment is essentially life long, as in many other opportunistic infections seen in AIDS.

*"We are going to have a major increase in HIV-associated Tb. We have the drugs to treat HIV-associated Tb and we can ensure that short-course chemotherapy leads to a high cure rate. However, the most difficult part is to think about Tb whenever you see a patient with a pulmonary infection who is HIV-positive or suspected to be HIV-positive."*

# Overview of the Prevention of Tuberculosis

***E. S. Hershfield***
*Departments of Medicine and Community Health Sciences, University of Manitoba, Canada*

Breaking the chain of transmission is vital if deaths from Tb worldwide are to be reduced, according to Dr Hershfield.

The WHO has estimated that 1,700 million (33 to 35%) of the world's population are infected with Tb bacillus; 60% live in South East Asia and the Western Pacific. In developing countries, those infected are mainly under the age of 50 (75%), but in developed countries it is mainly a disease of the elderly (80% are over 50). Worldwide, there are 8 to 10 million new cases annually, and there are 3 million deaths annually, two thirds of which occur in Asia. However, these numbers are a gross under-estimate of the level of the disease in the world, Dr Hershfield said. Most countries don't have proper reporting systems and usually only infectious cases are reported, since laboratory facilities for culture of mycobacterium do not exist.

*"A lot of the problem in prevention of Tb lies in the various delays before diagnosis is made and individuals placed on treatment."* There is the delay in patients seeking medical care and the delay when doctors and health care workers fail to recognise the symptoms of Tb immediately. Although a diagnosis of Tb may be made or suspected, there can be further delays getting samples to a laboratory, having a microscopist who recognises the Tb bacillus, getting the results relayed back to the physician and then instituting medication. *"Once the patient is placed on adequate treatment and the treatment is taken until cure, the transmission can be broken and the number of deaths reduced."*

Preventive therapy can be used

to prevent individuals developing from non-infectious to infectious Tb. However, there is some doubt as to whether prophylaxis can actually prevent the individual exposed from developing sub-clinical infection; the exact role of BCG vaccination in prevention of disease is still not clear. There are a number of points where the Tb cycle can be interrupted, reducing the pool of individuals exposed in order to reduce the number of cases and deaths (figure 1).

In 1991 the WHO developed a strategy for Tb control consisting of case finding and case treatment. It aims to detect 70% of all sputum smear positive cases worldwide by the year 2000, with targets of 60% and 85% for low and intermediate income countries. By the year 2000, the WHO says it is important to cure at least 85% of all sputum smear positive cases detected. In low prevalence countries the target is 95%.

The emphasis is on case finding, because if the cases could be found and treated then the transmission of disease could be prevented, Dr Hershfield said. *"In the case of individuals, we are concerned with smear-negative/culture-positive cases but from the point of view of public health Tb programmes it is the smear-positive cases that should attract our attention."*

It is important to define the high-risk groups who, when infected, run the risk of developing active Tb at some time during their lifetime. This includes those who are recently infected, those with fibrotic lesions, individuals with HIV-infection, diabetes, malignancies and individuals on immuno-suppressive therapy and anti-cancer drugs.

Passive case finding depends on the initiative taken by the patient and is recommended by the WHO over active case finding, which is difficult and expensive, involving mass radiography, tuberculin testing and mass sputum examination. Statistics have shown that the highest yield of infectious patients comes from those who actually have symptoms, rather than by mass radiography and other means. A Japanese study found that in patients having a routine yearly chest X-ray, 60% developed smear-positive Tb between chest X-rays, suggesting no benefit from routine mass radiography.

Case finding requires proper culture of sputum, proper transportation system, an adequate supply of special reagents and workable equipment. The objective of case holding is to keep a patient on treatment until they are cured. It is important to have adequate records in order to evaluate programmes, to get prevalence figures, and to find non-compliant individuals.

The objective of treatment should be to render a patient non-infectious, to prevent the emergence of resistant organisms and to obtain a lifetime cure. Adherence to the WHO recommended treatment regime by individuals whose organisms are fully sensitive will lead to cure.

*"I want to emphasise the best way to prevent Tb is to treat infectious cases adequately until cure, thus breaking the chain of infection"*, according to Dr Hershfield.

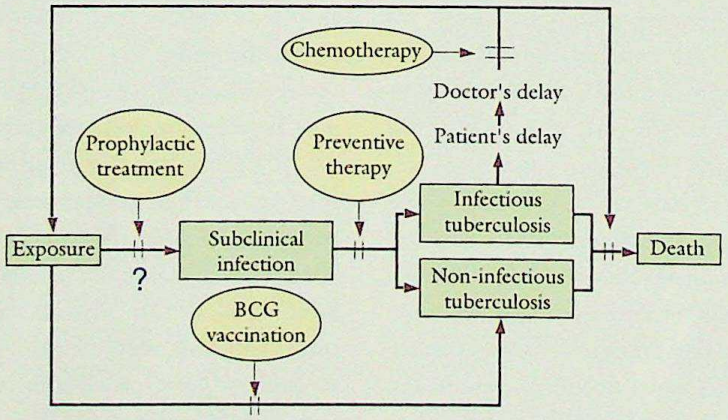


**Figure 1.** Overview of Tb, its progression from infection to disease and possible interventions.

## WHO Recommended 6-month Tb Regimens

***Directly observed therapy***

- *2 months H + R + Z + S or E*
  *Plus*
  *4 months H + R twice weekly.*

***Alternative regimen, not directly observed***

- *9 months H + R (+ Z for first 2 months).*
- *Any regimen that does not have both H and R throughout the course should be continued for at least for one year.*
- *When drug toxicity or drug esistance is encountered, alternative regimens must be designed for each patient.*

*Abbreviations: H = isoniazid; R = rifampicin; Z = pyrazinamide; E = ethambutol; S = streptomycin.*

# Successful Immunotherapy for Drug Susceptible and Drug Resistant Tuberculosis

*J. L. Stanford*
*Departments of Medical Microbiology, University College London Medical School, UK*

Evidence was presented by Prof. Stanford that immunotherapy not only improves cure rate and mortality among Tb patients, but also has far reaching implications for HIV research.

Patients with Tb lack the ability to recognise the important common mycobacterium antigens and this is why immunotherapy should be considered even if excellent chemotherapy is available, Prof. Stanford said.

At diagnosis, the tissue load of live tubercle bacilli is 100%. Following diagnosis a full course of good quality chemotherapy starts and within a few days the bacterial load plunges to less than 5% of the starting level. A full 6 months of treatment is needed to get a high level of cure because of that last 5%. They are bacteria in a special state, persistors. They multiply extremely slowly, metabolise extremely slowly and therefore tend to be unavailable to even the good quality drugs being given.

*"The tragedy of Tb is that our own immune system has been perverted by the organism and one needs to return from the abnormal immunity of disease to that of natural normal protective immunity."* To do so, it is necessary to give immunotherapy that will change the pattern of maturation of T-helper (Th) cells from Th-2 to Th-1, changing the pattern of cytokines released and so changing from the situation where the cell containing the mycobacterium dies to one in which it kills the mycobacterium it contains.

The immunotherapeutic treatment used by Prof. Stanford and colleagues consists of a suspension of killed *Mycobacterium vaccae* of a selected strain which is prepared in borate-buffered saline. The dose consists of 0.1 ml containing 1 mg of bacilli and is given by intradermal injection over the deltoid muscle. It is normally given early in the course of chemotherapy and may be repeated, if necessary, at 2 month intervals.

Data were pooled from 3 randomised and blind studies of patients taking complete courses of chemotherapy along with either immunotherapy or a placebo of saline injection. In the placebo group, 139 out of 187 (74%) were cured and 17 of the 187 (9%) died at the end of chemotherapy. Within the groups receiving immunotherapy, 142 of 164 (87%) were cured, a statistically significant difference from the placebo, and 6 out of 164 (4%) died. Thus, immunotherapy

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## Airborne Transmission of Tb Among Flight Attendants Examined

*A flight attendant with cavitary tuberculosis has apparently infected co-workers on the aircraft with* Mycobacterium tuberculosis, *concluded researchers at the Centers for Disease Control and Prevention.*

*Researchers from the CDC became concerned about the possibility of transmission of* M. tuberculosis *after six or seven household contacts of the flight attendant had positive tuberculin skin tests (TSTs).*

*They conducted TSTs on 263 co-workers (contacts) who flew with the flight attendant symptomatic with cough between May and October 1992. For comparison, they also tested 268 crew members who did not fly with the flight attendant. The significant finding was that contacts exposed between August and October had significant higher rates of positive TSTs (30%; 13/43; p<0.001). The TSTs of two of these contacts converted from negative to positive between September 1992 and February 1993.*

*Co-workers who had worked for the greatest number of hours with the infected person during the time just before diagnosis of the disease in the symptomatic crew member had the greatest risk of infection, said the researchers.*

*Gender, race/ethnicity, and position (flight attendant/pilot) were not associated with TST result. Rates of positive TSTs were higher among foreign born in both the control and the comparison group.*

*The study team could not evaluate the risk of exposure of shorter duration, such as that experienced by passengers, since only two of the crew had less than 11 hours of exposure.*

given to patients who took the full course of chemotherapy was found to improve the cure rate and reduce mortality.

A study of incomplete treatment was carried out by chance in Nigeria because researchers had no idea, how limited the access to effective chemotherapy was. 10 to 12 months after the study started, 34 of 90 people in the immunotherapy group were followed up and all were alive. In the placebo group, 47 of 90 were followed up and 19 were dead.

The increased weight of survivors was on average 7.9 kg in the immunotherapy group and 2 kg in the placebo group. Sputum conversion was only 62% in the immunotherapy group, but when questioned it was found that the average time for which patients had purchased and taken chemotherapy was only 3 months. Those who continued for 6 months or more had generally purchased the cheapest drugs. Even so, a 62% conversion was favourable when compared with the figure of 14% obtained in the group receiving chemotherapy alone. Patients receiving immunotherapy appeared to be clinically much better much faster.

"*This is where I come to the most remarkable result which has been perplexing and interesting people both in America and Europe*", Prof. Stanford said. By chance, 2 out of the 8 HIV-positive patients who received immunotherapy were given follow up tests where serum was taken and checked for HIV. At follow-up they were found to be negative for HIV. Prof. Stanford ruled out the possibility of any confusion in the processing of results.

Immunotherapy works both in the HIV infected and non-HIV infected patient, and there is the surprising and very exciting possibility that it might also influence HIV infection status. An association between the Th cell maturation pathway in HIV and its exact parallel in Tb had been demonstrated and Prof. Stanford believes the Th-1 adjuvant may be prove to be the successful approach to dealing with HIV infection.

# Antimicrobial Prophylaxis in Tuberculosis

***D. Snider***
*Centers for Disease Control, Atlanta, USA*

Dr Snider outlined the historical milestones in the control of tuberculosis: the vaccine first made available in the 1920's, the discovery of antitubercular drugs in the 1940's and more recently chemoprophylaxis.

In the United States Public Health Service trial, daily administration of isoniazid for 12 months afforded long lasting protection. The protection rate was 55 to 83% and persisted over a 10-year follow-up period. The treatment has also proven effective in European trials (figure 2). Commonly encountered problems with isoniazid chemoprophylaxis are non-compliance and hepatotoxicity.

Among the high-risk group of patients benefiting from chemoprophylaxis, he identified HIV-positive patients, close contacts with > 5 mm skin reactions, recent skin test converters, intravenous drug abusers, patients with concomitant diabetes mellitus, steroid users, immunocompromised individuals, and patients with end-stage renal disease.

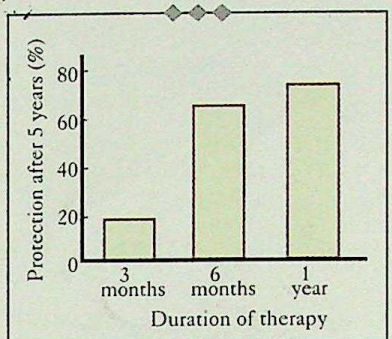


**Figure 2.** Results of 6 large European studies of the protective efficacy of isoniazid against tuberculosis.

Although the optimum duration of chemoprophylaxis is not yet defined, the American Thoracic Association in collaboration with the Infectious Diseases Society of America (IDSA) has recommended a 9-month chemoprophylaxis programme for children. Dr Snider recommended that all patients on isoniazid prophylaxis and over 35 years of age should have clinical and biochemical monitoring at monthly intervals to safeguard against isoniazid hepatotoxicity. This is particularly applicable to Black and Hispanic women.

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P R E S S
WORLD HEALTH ORGANIZATION
OFFICE OF INFORMATION

I copy to all staff

Press Release WHO/63
10 August 1994

Simultaneously released in Geneva and Yokohama, Wednesday, 10 August 1994

# TUBERCULOSIS, HIV ON COLLISION COURSE IN ASIA

## Co-Epidemic to Multiply Seven-Fold

The number of people in Asia who develop tuberculosis because they are infected with both the human immunodeficiency virus (HIV) and the TB bacillus is expected to multiply nearly seven fold this decade, according to the World Health Organization (WHO).

Preliminary figures on HIV/TB co-infection in the region are remarkably high, according to a statement issued by the WHO TB Programme during the 10th International Conference on AIDS in Yokohama, Japan. In several studies, between 52 and 70 percent of AIDS cases in Thailand, India, and Nepal have developed TB.

"TB and HIV are feeding off each other at an alarming rate," said Dr Arata Kochi, Programme Manager of the WHO TB Programme. "When they're together, they multiply each other's impact."

A person with TB/HIV infection is nearly 30 times more likely, in any given year, to become sick with TB than a person infected with just TB. Tuberculosis can also further suppress the immune system of an HIV-infected person and accelerate the occurrence of other opportunistic infections.

With nearly half of all people in Asia already infected by TB, and HIV infection increasing, WHO warned that there is no end in sight to how bad the dual epidemics might get.

## THE SITUATION IN ASIA

| | 1990 | 1995 | 2000 |
|---|---|---|---|
| **Illnesses** (annually) | | | |
| TB cases | 4,945,000 | 5,544,000 | 6,207,000 |
| TB cases among HIV positive people | 85,000 | 282,000 | 639,000 |
| Percent of all TB cases attributable to HIV | 1.7% | 5.1% | 10.3% |
| **Deaths** (annually) | | | |
| TB deaths | 1,731,000 | 1,940,000 | 2,172,000 |
| TB deaths among HIV positive people | 30,000 | 99,000 | 224,000 |
| Percent of all TB deaths attributable to HIV | 1.7% | 5.1% | 10.3% |

(Numbers on Asia include Southeast Asia and Western Pacific)

"In Asia, the number of annual TB deaths in co-infected people is doubling every three years," said Dr Kochi. "We expect Asia to surpass Africa in the number of annual TB/HIV deaths by the year 2000."

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The unfortunate truth is that most Asian governments have yet to respond by putting effective TB programmes in place to stop the co-epidemic's acceleration."

The situation is also deteriorating in other parts of the world. WHO estimates that 5.6 million people worldwide were dually infected with HIV and TB by mid-1994, and that this number will increase to nearly 14 million by the year 2000. HIV-infected people will account for nearly 10 percent of the 30 million people likely to die from TB in the next decade.

**THE GLOBAL SITUATION**

| | 1990 | 1995 | 2000 |
|---|---|---|---|
| **Illnesses** (annually) | | | |
| TB cases | 7,537,000 | 8,768,000 | 10,222,000 |
| TB cases among HIV positive people | 317,000 | 738,000 | 1,410,000 |
| Percent of all TB cases attributable to HIV | 4.2% | 8.4% | 13.8% |
| **Deaths** (annually) | | | |
| TB deaths | 2,530,000 | 2,977,000 | 3,509,000 |
| TB deaths among HIV positive people | 116,000 | 266,000 | 500,000 |
| Percent of all TB deaths attributable to HIV | 4.6% | 8.9% | 14.2% |

"The TB and HIV epidemics are each notorious killers in their own right," said Dr Kochi. "We cannot defeat one without attacking both. While we search for a cure for AIDS, we need to begin now making more extensive use of the effective medicine we already have to cure people who have TB."

Tuberculosis medicines cost as little as US$ 13 in developing countries and are almost completely effective. Currently, one of the most affordable and feasible ways to extend the lives of people with HIV is to treat opportunistic infections such as TB. Likewise, effective HIV/AIDS prevention will ultimately reduce the number of new TB cases and deaths.

Dr Kochi emphasized that although the two epidemics are fuelling each other, they are still very distinct health problems. "Different weapons are needed for fighting each of these diseases," said Dr Kochi. "For AIDS, the emphasis is on changing sexual behaviour and on research to find a vaccine and a cure. For TB, an effective and inexpensive cure already exists, so the emphasis must be on setting up more treatment programmes in more parts of the world. Countries need strong TB programmes as well as strong AIDS programmes."

"In order to control TB, nothing is more important than for governments to begin putting into place effective TB treatment programmes," said Dr Kochi. "We have the medicine and know-how to control TB. Unfortunately, we don't have the magic potion to wake up the world's governments to the seriousness of the TB crisis and get them to take action."

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For further information please contact Mr Kraig Klaudt, WHO Tuberculosis Programme, in Yokohama. Telephone: (+81) 3023 99363; and Mr Richard Bumgarner, WHO Tuberculosis Programme, in Geneva. Telephone: (+4122) 791 2667.

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**24 MARCH 1997**

# World Tuberculosis Day

## Guide to obtaining media coverage



GLOBAL TUBERCULOSIS PROGRAMME
WORLD HEALTH ORGANIZATION

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Original: ENGLISH
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24
MARCH
1997

# World Tuberculosis Day

## Guide to obtaining media coverage

GLOBAL TUBERCULOSIS PROGRAMME
WORLD HEALTH ORGANIZATION
1997

**EDITED BY LAURA NAPOLITANO**
**DESIGNED BY WHO GRAPHICS**

*1st February 1997*

*Dear Colleague,*

*Thank you for your interest in focusing media attention on World TB Day 1997. We are encouraged to learn that you are planning activities to publicize the TB emergency and use of the directly observed treatment, short-course (DOTS).*

*The core theme this year will be* ***Use DOTS More Widely****. While the DOTS strategy is being used successfully in some regions with high burdens of TB, real progress in defeating the TB epidemic will come from introducing DOTS in more countries. This is the only sure means we have today to increase the rate of cure, and thus reduce the spread of infection.*

*Now that we face a looming crisis with HIV/TB and multidrug-resistant tuberculosis, the need for action is urgent. Those who control public health policy and resources must make effective DOTS treatment more widely available, so that it can benefit those who need it the most. There is no justifiable reason to delay, as TB control is highly cost-effective and safe.*

*It is my hope that your activities on World TB Day can help to ignite a renewed spark of interest in TB around the world. Your successful media strategy can play a significant role in reaching those who have the power to reverse the TB epidemic. We are sending you this* ***Guide to Obtaining Media Coverage*** *to help you in planning your own outreach events for World TB Day. I would appreciate receiving copies of any articles appearing as a result of your efforts. This information will help us in planning for future World TB Days.*

*I wish you the best of luck in your efforts, and thank you once again for joining in to make World TB Day 1997 a success.*

*Yours sincerely,*

***Dr Arata Kochi***
*Director, Global Tuberculosis Programme*

# Contents

# How to Use this Guide...

We hope this guide is helpful to you in planning and implementing a creative media event on or before World TB Day, 24 March 1997. Competition for news media attention can be intense. Getting the TB message out to the public demands that you create a newsworthy story or event. To stimulate your ideas, we have tried to provide a number of tools and examples.

The next section describes some of the successful media events that took place in different regions of the world last year on World TB Day. They might be helpful in suggesting ideas about media events you can plan for this year, with the theme, Use DOTS More Widely.

Check the Publicity Tactics section for examples of different media activities you may want to adopt as your own. You'll find examples of varied media tactics, as well as a variety of strategies that have proven successful in spurring press interest in the TB crisis. These range from letters to the editor and opinion–editorials to editorial meetings, press conferences, photo opportunities and brodcast interviews. We have also included background information and data on the TB epidemic you can use to make a "pitch" to journalists, in the section, Information for Journalists. This, of course, is also background information for you to use in any of your media activities.

The Global Tuberculosis Programme at the World Health Organization stands ready to offer any guidance or assistance to help you plan and implement a World TB Day media event in your community. Together, our individual communities make up the world.

**Media Event Questions?**
Contact (in English or French)
Tel: (41 22) 791-2666 • Fax: (41 22) 791 4199 • Email: FightTB@WHO.CH

# Background on World TB Day

## 24 March 1997

World TB Day, falling on 24 March each year, is designed to build public awareness that TB today remains an epidemic out of control in much of the world. Despite the fact that effective cures have been available for decades, TB still causes the death of millions of people each year.

24 March commemorates the day in 1882 when Dr Robert Koch astounded the scientific community by announcing that he had discovered the cause of tuberculosis, the TB bacillus. At the time of Koch's announcement in Berlin, TB was raging through Europe and the Americas, causing the death of one out of every seven people. Koch's discovery opened the way toward diagnosing, curing, and perhaps ultimately even eliminating this fearsome killer.

But progress toward realizing more than a fraction of that promise has come painfully slowly. Effective anti-TB drugs did not first appear until the 1950's, and treatment has not been available in much of the world. TB has sent at least 200 million people to their graves since 1882. Millions more are still added to that grim total each year.

In many ways, the tuberculosis epidemic is worse now than ever before. TB is still the world's leading infectious killer of young people and adults, taking up to 3 million lives each year. Now, the emergence of multidrug-resistant strains of TB threatens to return the epidemic to the pre-antibiotic era. And HIV is causing the disease to spread faster in some communities than ever imagined possible.

In 1982, on the one-hundredth anniversary of Dr Koch's presentation, the International Union Against Tuberculosis and Lung Disease (IUATLD) proposed that 24 March be proclaimed an official World TB Day. However, except for the activities of a handful of organizations, very little has otherwise been done to highlight the occasion since then.

In 1996, with renewed zeal for collaborative public outreach in the fight to control TB, WHO joined with the IUATLD and a wide range of other concerned organizations to increase the impact of this important day. All participants embraced a plan to commemorate World TB Day worldwide, hoping to make a real difference to the millions of people now suffering and dying from TB.

World TB Day is not a celebration. There is yet no victory to applaud. The greatest killer of humans throughout all of history is still at work, in spite of our scientific breakthroughs. World TB Day is a time to mobilize public support for an intensified effort to diagnose and cure TB on a global scale. In the DOTS strategy, we now have effective tools and medicines with the potential to one day virtually wipe out tuberculosis. What we need today is a worldwide commitment to use DOTS more widely.

# World TB Day 1996: Events Around the World

*The success of World TB Day last year in focusing the attention of the world's media on the global TB epidemic owed much to the efforts of organizations and individuals in countries around the world. Some of their successes may suggest ideas and strategies worth considering and adopting in 1997.*

**SOUTH AFRICA** The Western Cape TB Alliance mounted an intensive advertising campaign to alert the public to the soaring incidence of TB in South Africa, and staged a special event featuring Archbishop Desmond Tutu – himself a former TB patient – that resulted in widespread press coverage.

**ZIMBABWE** A press conference in Harare convened by the National TB Programme generated major radio, television and newspaper coverage throughout the country.

**NIGERIA** In the city of Onitsha, the TEEPAC organization held a TB control seminar for doctors and other health care workers, staged a press conference and sponsored rallies throughout the province to create awareness that TB remains a powerful threat – but one that can today be readily cured.

**IRELAND** Trocaire, Ireland's oldest and most influential voluntary charitable organization, mounted a press conference featuring Dr Maire Connolly, an Irish TB expert who has worked in Africa and South Asia. The result was major broadcast news and newspaper coverage throughout the country.

**BELGIUM** The Damien Foundation, named after the famed leper priest, spearheaded World TB Day actitivities throughout the country. With the Belgian TB Federation, the foundation launched a press conference that resulted in French and Flemish language articles nationwide. Just before World TB Day, a 40 minute documentary on TB – reminding Belgians that their country faced a severe TB problem not many years ago – was broadcast on national television.

**SPAIN** National and regional non-governmental organizations such as Prosalus and Sociedad Gallega de Patoloxia Respirata generated widespread media coverage by arranging editorial meetings and broadcast interviews. The results included articles on TB in newspapers and magazines throughout Spain, as well as interviews on radio shows such as España, Onda Cera and Cope.

**LITHUANIA** In Vilnius, the Ministry of Health staged a press conference, and an entire edition of the weekly publication "News for Doctors" was devoted to TB. At the same time, the five regional TB hospitals throughout the country held one-day

seminars for primary care physicians and nurses, and 'open door' days offering information and unlimited consultation to people who suspected they might have or be at risk of TB, and to their families.

**BRAZIL** The National TB Control Progamme mounted a major press conference, with the Minister of Health as the key spokesperson, that was widely covered by TV, radio and newspapers throughout the country. At the same time, the group negotiated free 'air time' with national television and radio networks to broadcast public service announcements encouraging people to identify the signs of TB and to seek treatment.

**PAKISTAN** The centerpiece of four days of public awareness activities staged by the OJHA Institute in Karachi around World TB Day was a visit by the wife of the chief minister of Sind Province to a TB clinic. There she helped treat patients with DOTS medications, and generated wide press coverage.

**INDIA** Newspapers and magazines in Bombay and throughout Gujarat state carried opinion editorials (op–eds) from Dr P.V. Mehta, chairman of Mehta Charitable Trust, on the dangers of the high incidence of TB in India – and the strategies such as DOTS available to combat TB quickly and effectively. Similar strategies to focus attention on TB were mounted successfully by dozens of organizations and individuals throughout India.

**MONGOLIA** The National Center for Tuberculosis orchestrated a major public awareness effort for World TB Day, involving not only a widely-covered press conference, but a prominent and colourful billboard in the center of the capital, Ulan Bator.

# Publicity Tactics

## Letters to the Editor

Letters to the editor take little time, yet they are usually widely read, and an effective way to influence the views of the public and health policy makers at the same time. Local papers often publish about 80 percent of the letters to the editor that they receive.

The examples that follows are a model – brief, concise and to the point. When writing a letter to the editor, you may want to include facts, statistics or examples from the TB Fact Sheet and the current success stories that appear at the end of this guide.

Here are some guidelines that should be helpful in getting your letter published:

- Be concise. Focus on one or two main points and discuss them succinctly. Letters over 500 words are not likely to be published.
- When possible try to write a letter which refers to recently published articles. Stories on AIDS/HIV, refugees, women and children are logical 'triggers' for letters on the TB crisis. These are groups for whom the threat of TB and the promise of DOTS cure are particularly timely concerns.
- Be persuasive. Give statistics from the TB Fact Sheet to make your letter more compelling.
- Close by calling for specific action – such as the expansion of DOTS treatment throughout your country.
- Include your full name, address and telephone numbers so that the newspaper can contact you with any questions. And do not forget to mention the name of your organization and that of WHO.

## Sample Letter to the Editor # 1

Dear _____:

The one experience shared by perhaps every person in recorded history is the risk of tuberculosis. TB killed the pharaohs of Egypt 6000 years ago. Today it is killing more people than ever before. And because it is a disease of the young that strikes in the prime of life, it continues in our time to make orphans of children and to drive families into deep poverty.

Our parents and grandparents recognized TB as a lethal threat to the lives of the young. In our time, too many have forgotten. Many imagine that TB has largely 'disappeared'.

Today, TB is thriving in an environment of neglect. It is resurgent not only here at home, nor just in the developing world, but in major cities of the world. Tuberculosis is a fellow-traveller with AIDS. New multidrug-resitant strains are emerging that are fatal to everyone they infect. The infection pool – and the risk to everyone – is growing.

This does not have to be. Today, we have a breakthrough treatment that can permanently cure TB in six months, without a single day in hospital. It is called DOTS, for "directly observed treatment, short-course". With DOTS, TB patients can usually be treated in the community, under the supervision of a health care worker who ensures that they follow the simple course of medication. For most of the treatment, patients can even continue working and leading normal lives.

DOTS should be used more widely throughout _____, and made accessible to everyone. Its cost is minimal. Its payoff is enormous. But success must begin at home, in the community, here in _____. The time is now.

Sincerely,

your name
your title
your organization

## Sample Letter to the Editor # 2

Dear _____:

When the first antibiotics able to cure TB were introduced in 1952, the world rejoiced. Finally, this ancient killer plague could be contained, and perhaps even eliminated. But once the wealthier countries of the world controlled TB within their borders, their attention turned to other concerns. On March 24, World TB Day reminds us that this neglect has proven a fatal mistake.

One condition shared by all the citizens of the world is that we are all at risk of TB, and there is nowhere to hide. This situation has developed because TB has been allowed to spread, even while effective medicines to cure it sat uselessly on the shelves. TB has long been a leading cause of death in poorer countries. It is now returning to the industrialized world with a vengeance.

Today, tuberculosis still kills millions of people every year. It is the leading single infectious killer of youth and adults in the world today. In many countries, tuberculosis has become so common it seems a fact of life. Almost everyone in Asia and Africa knows someone who has been sick with, or died from, TB.

To make matters worse, TB is still treated incorrectly in many parts of the world, wasting money and resources, and leaving patients uncured and the pool of infectious sources undiminished. Now potentially incurable drug-resistant TB bacteria have begun to appear as a result. The World Health Organization has received frightening reports of these bacteria from South Africa, India, Britain, Thailand, Pakistan, and the United States.

Those who dole out the [dollars, drachmas, etc...*insert local currency name*] must take action against a curable disease which inflicts eight million more people every year. A new effective control strategy, known as directly observed treatment, short-course, or "DOTS" must be put into place throughout our country. If we do not join forces to combat TB now, the epidemic will only grow more sizeable, more expensive, and more deadly by the year.

Sincerely,

your name
your title
your organization

## Message Point Checklist

### When you have a few minutes to make your case to journalists

- Tuberculosis kills more people today than at any time in history
- This year, up to three million people will die of TB. Almost all of those deaths are preventable. TB is now a global epidemic. Three forces are driving this epidemic:

  **NEGLECT.** In many parts of the world, public health authorities have not taken the TB threat seriously enough. Some even imagined until recently that TB was no longer a real threat.

  **AIDS.** TB and AIDS often travel together, spreading and increasing the pool of infection. TB is increasingly common in AIDS patients.

  **MULTIDRUG RESISTANCE.** Incomplete or inadequate treatment has made a growing number of people resistant to all drugs now used to treat TB. This may make TB incurable for them – and for whomever they may infect.
- Tuberculosis is typically a disease that strikes down the young – people in the prime of their lives. As a result, it often leaves in its wake families driven into poverty, and children without parents.
- TB can be readily and inexpensively cured. With DOTS, the cost of the drugs and their administration is very small. Hospitalization is not needed. Patients can soon return to work.
- DOTS is being used with notable success today in many parts of the world. The key to defeating the TB epidemic is using DOTS more widely. Every TB patient cured reduces the pool of contagious infection – and the risk to everyone of contracting TB.
- DOTS is successful only when it is accessible to those with TB. It has to be available in the communities where they live and work.
- DOTS can successfully and permanently cure more than 9 of every 10 TB patients who complete the treatment.
- The total cost of the drugs used in DOTS cost as little as US$11 per patient in some countries.

## Sound Bites

### When you have only a few seconds in front of a microphone

- "There is no where to hide from TB bacilli. Anyone who breathes air is at risk."
- "The world is growing smaller and the TB bacilli are growing stronger."
- "Every country is vulnerable to the poor TB treatment practices of other countries."
- "Fight TB globally before our country becomes the battleground."
- "Our country may be sitting on a multidrug-resistant time bomb."
- "Once multidrug-resistant TB is in the air, no amount of money may be able to put this deadly genie back in the bottle."
- A dual strategy is needed to fight the dual TB/HIV epidemics. A blow against AIDS will help slow the spread of TB. And a blow against TB can add years of life to people facing AIDS and protect their communities from this airborne killer."
- "Some TB control programmes are succeeding only in creating stronger TB germs and weaker patients."
- "If the world had just one dollar to spend, it could spend it on the DOTS strategy and be assured it was likely purchasing a healthy year of life for a family wage-earner."
- "Cure is the best prevention in controlling TB."
- "The DOTS strategy is the only proven, cost-effective way to stop the spread of TB."
- "We need to use DOTS more widely!"

# Opinion–Editorials

*Many newspapers print opinion editorials, or "op–eds", on a daily basis. Op-eds are articles appearing opposite the editorial page. Unlike editorials, which are written by the news editors, op–eds are written by readers and community members. These articles present an issue about which the writer feels strongly, expressing his or her opinion. Op–eds are excellent ways to indicate concern about TB to health policymakers, and to inform communities about why they should care about TB control.*

*The guidelines for placing an op-ed are similar to those for placing a Letter to the Editor. Op–eds are longer: usually 600-900 words. You should take additional care to call and let the Editorial Page Editor of the paper know that you are sending an op–ed. Mention that it would be especially timely to print your article on, or immediately prior to, World TB Day, 24 March. Ask the Editorial Page Editor for any suggestions as to how you can write your article to improve its chances of being printed. Follow-up with a telephone call within a week or two after submitting your article to ensure that the paper has received it, and to answer any questions that the staff might have.*

## Sample Op–Ed

**The Silent Killer**
**by (your name)**

The cure for tuberculosis was discovered more than four decades ago. Since then, more than 120 million people have died of TB, and nearly three million more will die this year.

How can people still be dying from a disease for which there is a proven cure ? Sadly, in many parts of the world the cure is not being used. The reasons for this strange paradox lie in the nature of tuberculosis itself, and the fact that it is a silent killer that does its deadly work without attracting attention.

Today TB – a disease many imagine no longer exists – is a global epidemic. And the epidemic is spreading, due in no small way to the fact that tuberculosis is out of fashion. The eyes of the world's news media are focused on AIDS. News teams rush to cover outbreaks of the dreaded Ebola virus. But few notice TB, though for every life lost to Ebola, TB takes hundreds and even thousands.

In many advanced economies, TB came to be widely viewed in the 1970's as having been 'wiped out'. The small number of cases that occurred were almost always among the "others" – the very poor, alcoholics and drug addicts, refugees from afflicted countries. Many physicians could no longer even recognize its symptoms. Now tuberculosis is resurgent in the U.S. and in many countries throughout Europe, often in the multidrug-resistant form that cannot be cured.

In developing countries, TB is sometimes so common and widespread that it also attracts too little attention. But the reality of the today's global economy is that TB travels everywhere – on airplanes, and through the increasing movement of peo-

ple around the world. No place is safe from the risk of TB infection, as serious recent outbreaks in New York and Milan remind us.

*(Insert information on local or national TB experience in your region or country.)*

In too many countries, including _____, TB has been a low priority. Even though we now have a breakthrough treatment that can cure TB – easily, permanently and inexpensively – the treatment is still too little used. The result is a mounting epidemic, and a growing infectious pool of people carrying multidrug-resistant tuberculosis bacilli.

This treatment is called DOTS, for Directly Observed Treatment, Short-course. It is a simple regimen of drugs given several times weekly for just six months, under direct observation to ensure that each patient takes the drugs and completes the treatment. DOTS can cure 95 percent of all TB patients. The six-month supply of drugs costs as little as US$11 per patient.

Where DOTS has been adopted on a region or country-wide basis, as it has been in China and Tanzania, the results have been extraordinary. Many more patients are cured permanently – typically twice as many as before DOTS – and many more cases are detected and treated . The result is a rapidly shrinking pool of people who are infectious, and a much reduced risk of contracting TB for everyone.

How can we as a nation stand on the threshold of the next century and let ourselves be defeated by one of mankind's oldest diseases? How can we stand idle in the face of a terrible disease that strikes down our people in the prime of their youth, leaving orphans and ruined families in its wake?

If our government and our public health officials will take the bold step now of implementing DOTS as the standard TB treatment throughout _____, they will discover many allies at home and abroad. DOTS is a strategy the World Health Organization will back. And it is one that (organizations such as this one) and communities will support.

Defeating TB is not a dream or a distant hope. Today it can be done, and thus it must be done. We have the resources to do it ourselves, for ourselves and for our children, and for the world we share.

## Editorial Meetings

*One powerful way to reach policymakers through the press is by gaining the editorial support of your newspaper. An editorial meeting provides the chance to present your ideas in person, to important journalists at the paper. The hoped for result – a comprehensive article written by the editors of the newspaper specifically on TB – is definitely worth the effort. And at a minimum, you'll succeed in awakening your local press to the threat of TB, and in opening up an ongoing channel of communication.*

**MOST EDITORS WILL WELCOME YOUR VISIT.** It is likely that you know more about TB than most people in your community, including the editorial writers of your paper. Reporters and their editors are usually eager to identify dependable, trustworthy contacts who can speak knowledgeably about important issues. For this reason, most editorial writers will welcome the opportunity to talk with informed members of the community. Don't forget that you are making the editors' work easier. They must write five to 30 opinions on different issues each week and are often eager for new material and story ideas.

**OBSERVE THE KINDS OF EDITORIALS APPEARING IN YOUR PAPER.** Do the pieces always address local issues? Do they discuss domestic or international news items? Note the editorial positions your paper has taken in the past on issues related to TB control and health care in general.

**THINK ABOUT YOUR MESSAGE.** Your message should be timely, and relevant to current events. An upcoming event such as World TB Day, 24 March, is what news people call a "peg" – something that will happen on a specific day, about which an article could appear in the paper on that day. When you sit down with the editors, you will encourage them to print an editorial about World TB Day on 24 March. Therefore, the best time to meet with the editorial staff would be at least one week prior to World TB Day, to give them time to write a comprehensive article.

Issues of local interest, with a "local angle" (somehow affecting people in your community) are always more likely to be published. For this reason, try to provide solid facts about TB in your community, and country. The message must be exciting and relevant to the newspaper's readership. The key is for you to be ready with a good answer when the editor asks, "Why would *our* readers be interested?"

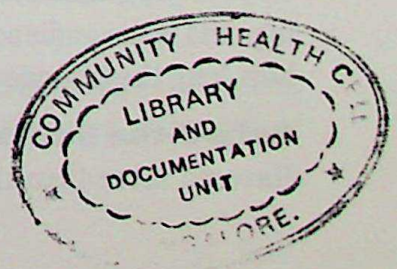
**CALL THE PAPER.** Telephone your paper. Ask if there is a specific editor who writes about health, medical, or foreign issues on the editorial page of the paper. Then speak to that person and explain briefly your interest in an article on TB, and ask if you could meet with him/her to discuss the importance of the subject. Encourage him/her to invite other journalists and editors on the paper to attend the meeting.

**PREPARE FOR YOUR MEETING.** Know which important facts about TB you will want to get across. Read the information provided in this packet, then write out your

main points and the most compelling figures on a sheet of paper. Anticipate questions. Practice by speaking with someone, explaining the issues and giving concise, informative answers to questions. Have one, clearly defined message you want to convey to the journalist (for instance, "TB is a huge epidemic worldwide, and we have seen 40 cases in this town alone just this year. Health officials in our country must begin using the DOTS TB control strategy that has been so successful in other parts of the world").

**THE ACTUAL MEETING.** Bring fact sheets and other relevant information to give to the editors. You may meet with several people, or just one editor who is assigned to this issue. To begin your meeting, take five minutes to state your case, after which you can expect questions. Don't be surprised if editors seem sceptical, and ask many questions. It is their job to "get to the heart" of any issue. During the meeting, it is NOT your role to argue, to have the answers to every question, or to beg for an editorial. You are there to state your case persuasively, to provide facts and information, to answer questions, and to be courteous by respecting the opinions and constraints of the journalists.

**FOLLOW-UP.** If an editorial is printed, please send a copy to the attention of Robert McDermott at The World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland. Whether or not an editorial is printed after your meeting, do send a note of thanks to the editors for taking the time to meet with you, and promise to keep them informed of significant developments related to TB.



# Radio and Television Talk Shows

*Talk radio" and "Talk TV" are popular in many parts of the world. And talk show producers are endlessly searching for fresh faces and new guests who can speak knowledgeably and authoritatively to issues that matter to their viewers and listeners. The majority of talk show hosts are approachable individuals who do not want to interrogate you, but simply want to hold informed discussions on interesting subjects that will engage their audience. As a guest on one of these programmes, you can educate listeners on the need for increased focus on global TB control. Remember that it is likely you already know more about TB than most people. These guidelines may be useful in helping you to prepare for interviews:*

## Step 1: Tactics for scheduling TV and radio programmes

**Identify TV & radio programmes.** Figure out which shows in your area might be interested in hosting a discussion on the TB epidemic. Familiarize yourself with the format, host or hostess, and the ways in which issues are addressed.

**Make a "pitch."** Send a letter to the producer of each programme that interests you, stating the newsworthiness of the issue and presenting it in a compelling way. Think of yourself as a salesperson. These producers want to know why this topic is of interest to their listeners. Perhaps suggest a lineup of guests to sit on a panel with you, such as local TB programme managers, clinic directors or former TB patients; or, provide some thought-provoking questions you think such a programme should address.

Alternatively, you can always call the producer and explain the above over the telephone. This tactic saves time, and makes valuable personal contacts, BUT: be prepared for the producer to say "Hmm...sounds interesting...please send me some information about this," in which case you will need the above letter anyway, to send with other TB related material.

In either case, once the material has been sent to the producer, ALWAYS follow up with a phone call to ensure that they received the material, to answer any questions, and to enquire about scheduling a date for an interview.

## Step 2: How to prepare for a a great interview

**Be informed about the show.** Watch and listen to the show if possible. Learn the name of the host, the show, the station, and the names of other guests appearing on your programme. Ask whether the interview will be "live", or taped for later airing, and if the audience will be "calling-in" to participate by asking questions. Know how long the interview will be, and when it will be broadcast.

**Before the interview.** Review the information provided in this media packet. Have no more than three main points you want to get across (such as 1. TB is a

global emergency, 2. TB effects us locally because.... , and 3. DOTS is the solution to the TB epidemic). Write out the important points, and figure out how to express them succinctly and memorably. Anticipate questions you might be asked, and figure out how you will answer those questions. Practising with an objective listener can also be very useful. Commit important information to memory; reading written notes during a television interview is very distracting to the viewer.

**The 'Sound Bite'.** Practice expressing your key message as a simple statement that you can make in a short sentence, such as "TB is a global epidemic, and today that epidemic has come to (name of city)."This is called a 'sound bite.' Broadcast producers can't resist them, and listeners and viewers remember them. The sound bite should capture and communicate the one key idea you want to leave with the audience, if they remember nothing else. Try to repeat the sound bite at least once during a broadcast. (For examples, look closely at any successful politician.)

## Step 3: Make a good impression during the interview

**Television.** If doing a television interview, dress professionally. Wear comfortable clothing, but avoid solid white, solid red, solid light blue, or intricate designs (these garments sometime shimmer on TV, or match the background and make you look like a disembodied head). Men wearing suits need to make sure their jackets don't ride up.

Look at the host, not at the camera. Try to appear as relaxed as possible, avoiding nervous gestures. Sit up straight, and lean slightly forward. Feel free to smile—engage the audience, draw them in! Often, people remember not what a person says in a television interview, but whether or not they looked like they cared about the issue.

**Radio.** One advantage to a radio interview is that you may keep written notes in front of you. Another advantage is that you can wear less formal clothing if you'd like. HINT: try to keep a glass of water nearby in case your voice becomes hoarse.

**Both.** Plan to arrive at least 15 minutes early. For both radio and TV, speak in a natural, conversational manner. Answer questions concisely, by stating your main point first, then supporting points. Always show real enthusiasm and energy about your subject (if it appears to bore YOU, it will bore others even more – they know less about it). Remember that many people know nothing about TB, and it is your job to inform them... so keep it simple, non-technical, and straightforward. If you do not know the answer to a question, say so – but supplement the answer with pertinent information if you can. And finally, always be polite and professional. It does no good to be defensive or argumentative with the host!

**After the interview.** Following the interview, send a note of thanks to the host or producer of the programme. You can also request a tape or written transcript of the programme for your files.

# Press Conferences

## Step-by-step: holding a press conference for World TB Day

*World TB Day, or the few days beforehand, would be a great occasion to hold a press conference that highlights the problem of TB in your country. In a press conference, one or more speakers will speak to an audience of journalists about TB, in the hopes that the journalists will then write articles about the epidemic. However, before embarking on the significant task of holding a press conference, recognize that these events are more time-intensive than most other strategies. They require real thought, planning, and effort to be run successfully. Please read this section carefully before you begin.*

### Strategizing

First, figure out the "who, what, where, and when" of your event. Decide who should speak at it, what issues he/she/they will discuss with the press, where the event will be held, what day and time, etc. Consider whether or not you will want a moderator to introduce the speaker and to close the event. Suggestions:

**Who.** Good speakers could include the director of a local TB clinic, well-known physicians in your area, the director of your organization, even a TB patient successfully cured by the DOTS strategy. Ideally the speakers at your news conference will be passionate, articulate communicators, well-informed about the TB epidemic, and well-known in your community.

**What.** This press event will inform journalists about the extent of the TB epidemic and that DOTS is the solution to the problem. It will provide local examples of TB's spread and illness, and individual stories of successful TB treatment. It will focus on a call to action.

**Where.** There are many possible locations for press events. Check and see if your local TB clinic or nearby hospital has a conference room which you could use. If you have press associations in your area, this may be a good place to hold media events.

**When.** Since World TB Day falls on a Monday, press conferences should be held either on that day or on the days preceeding it. If in your country people work on Sunday, then by all means hold the press conference on the 23rd so that the news stories will appear in the papers on World TB Day. But in many countries the work week ends on Friday, so Friday (21 March) before World TB Day may be the ideal day to hold your press event.

### Planning the press conference.

**Guests.** Put together a list of journalists to invite to the event. Notify as many journalists as possible, including anyone who writes about health, science, government spending on these issues, international affairs, etc. Wherever bureaus exist, include the newswire services, such as Associated Press, Reuters, Agence France Presse, Jiji Tsushin-sha, Xinhua, etc. These agencies place their stories in a wide range of newspapers. Keep in mind that even if you invite large numbers of journalists, you may only get a small audience. This is common, so invite many reporters.

**Invitation.** Prepare a one-page "Media Advisory" or "Media Alert" to mail to all journal-

ists you will invite. This advisory will serve as an invitation. The title should grab journalists' attention (Such as: "World TB Day 1997: TB Kills 50,000 People Every Week"). The advisory should mention World TB Day and its importance, then give the basic facts: who will speak at the press conference, and what are the date, place, and time of the event. Mail out these invitations so that they reach journalists approximately 7 days in advance of the event. Follow up before the event with phone calls.

**Materials.** You will need to prepare materials to give to each journalist who attends the press event. These are possibly the most important elements of any press conference, since journalists will refer to these materials when they sit down to write their articles. They should include:

- a press release; take great care writing the title and the first paragraph so they contain information that is attention-getting and newsworthy.
- written statements for each speaker (summarizing each presentation in one page)
- fact sheets on TB (the fact sheet in this packet provides global figures; perhaps you could hand it out with another fact sheet that provides information specific to your country).
- information about your organization, including contact names and telephone numbers.

**Speeches.** Prepare the speeches, making them informative, interesting, oriented to the local TB situation and local media, and most importantly, BRIEF! Each speech should be about five minutes long, and absolutely no longer than ten minutes. The last thing you want to do is put your audience to sleep!

### Running the press conference

**Prior to the event.** On the day of the event, make sure to have enough copies of all the materials, with some extras just in case extra journalists show up unexpectedly. Put a packet of materials on each chair so that the journalists can come in, pick up all of the materials, and sit down. If television journalists will be present, make sure there is enough space at the back of the room for tripods and cameras. If radio journalists will be there, reserve for them the seats closest to the speakers.

**Format.** If you have a moderator, this individual should open the conference with a welcoming speech and introduction of the speaker(s). The speaker should then make a brief presentation. If you have multiple speakers, keep each presentation to a maximum of five minutes, and limit the number of speakers to no more than 4 or 5. Then open up the conference to questions from the press. Keep answers short and direct, to make it easier for journalists to quote the speaker. The speakers should not ramble, and should not speak about minutia and technicalities. Instead, speakers should be engaging, authoritative, and clear, remembering that they are speaking to non-technical people.

**Following the Event.** After the question and answer session is over, the speaker (or moderator) should thank everyone for coming and let them know that the speakers will be available for further questions if anyone wants to conduct a lengthier interview. You may wish to deliver or fax information from the news conference to any key journalists who failed to attend.

# Photo Opportunities

## Visual promotion of TB treatment

From the perspective of a journalist, it is very useful to have a photograph of something interesting or newsworthy to use with a story. To promote World TB Day, you might consider planning a "photo opportunity" for journalists.

For example, you could obtain the support of a "local celebrity" (for example, a politician, an artist, a television personality, sports figure...anyone well-known in your community). This person could be photographed giving TB drugs to a patient, with a caption such as "TB treatment: so simple even ____ can help cure TB." A longer caption could also be used, such as:

> *"The best way to control TB is a strategy called "DOTS" (directly observed treatment, short-course). DOTS ensures that a health worker watches TB patients take their medication, because if patients forget, they might not be cured and can continue to infect others in the community. Here, [name] volunteers to make certain a TB patient takes his/her medicine and is cured."*

Once you have obtained the support of a local figure to act as a spokesperson, you can invite journalists to a place where TB treatment is administered in your community to photograph the celebrity handing TB medicines to a TB patient to swallow. Or, you can take the photos yourself in advance of World TB Day, and then send the photo to select journalists along with a fact sheet on TB on which they can base their story.

# Information for Journalists

## Success Stories

### "DOTS" TB control works!

*It is often useful to refer to TB control "success stories" in articles and discussions with journalists. Examples of TB being treated successfully in your region of the world provide a positive "spin" to your story. While the TB epidemic is frightening, it is also important to communicate that TB the epidemic can be controlled by funding the right strategies. The following are some examples of successful TB control projects. Please feel free to use them in conjunction with your own stories.*

**MEXICO.** The diversity of health care delivery systems in Mexico and the lack of coordination among them concealed a persistent and serious TB problem. Even more worrysome was the high incidence of infection among poor rural migrant workers who travelled and spread the disease through Mexico and the United States. In the mid-Nineties, the Secretariat of Health recognized that TB in the country was not so much a medical problem – care and medicines were available – but a management problem. Moving aggressively to coordinate the different health services, centralize reporting and monitoring of treatment, the secretariat now will be able to ensure that TB care is available at the easiest point of delivery for each patient, no matter what health service they 'belong' to. The DOTS strategy is also beginning to be deployed throughout Mexico.

**PERU.** In the 1980s, TB posed a huge problem in Peru. Thousands of sick patients could not get well because drug supplies were constantly disrupted by administrative problems and lack of funding. The Peruvian government, newly committed to TB control, worked with WHO and devised a plan. Soon, Peru was curing many more patients, and actually reducing the number of new TB cases in the country.

**BANGLADESH.** In 1993, the government of Bangladesh adopted WHO's strategy to cure its widespread TB cases. A revised National TB Programme was initiated, providing staff training and more diagnostic and treatment centres. By 1995, as many as 80 percent of the TB patients treated were being completely cured in the parts of the country using the DOTS strategy.

**CHINA.** TB is still common throughout China. Two main factors have been impeding cure: patients were not supervised to ensure that they finished their treatment, and poverty prevented patients from affording medications. A pilot project for a new TB

Control Programme was created in 1991, with astounding success, using the DOTS strategy. TB medicines were provided to patients free-of-charge in about half of the country. Cure rates reached 90 percent, among the best in the world. The challenge is now to cover the rest of China.

**NEW YORK CITY.** By the end of the 1980s, the number of TB cases in New York City had more than doubled from the decade before. The city's health services fought back by making the cure of contagious patients the top priority. The city instituted the DOTS strategy with the help of dedicated health care staff. Now the rise of TB in New York City has been reversed, and the numbers of TB cases are declining.

**GUINEA.** The TB Programme in Guinea was in disarray for decades. Many health centres lacked the correct tools to diagnose TB, and TB treatment took 12 months to complete. Incomplete treatment created chronic TB cases, which allowed increased transmission of TB to others. WHO worked with the Ministry of Health to develop a TB control plan, preparing a manual of TB treatment guidelines based on DOTS for all health workers. By 1995, each of the 34 districts in Guinea had a centre for TB diagnosis, and 346 health centres were helping to identify potential TB patients. Now Guinea has raised its TB cure rates to over 80 percent.

**INDONESIA.** Until recently, there was no dedicated TB control programe in Indonesia. Despite the fact that TB was the leading infectious disease in the nation – and cost 175,000 lives each year – treatment was provided through local general health centers with little capability to diagnose or treat tuberculosis. Today, the picture is much brighter. The DOTS strategy was tested in Sulawesi, and achieved cure rates of 90 percent. Now DOTS will become national policy, backed by a profound government commitment. In 1996, the national budget for TB control was increased by a factor of 10X. The new commitment and strategy will help Indonesia face the looming crisis of AIDS, and its frequent coinfection with TB.

# TB Fact Sheet

## TB: A global emergency

### TB will kill 30 million people this decade

Tuberculosis is the leading infectious killer of youth and adults.

TB causes 26 percent of avoidable youth and adult deaths in the developing world.

### Someone is infected with TB every second

One third of the world's population is already infected with TB bacilli.

Left untreated, one person with active TB will infect 10 to 15 people in a year's time.

Like the common cold, TB spreads through the air and by relatively casual contact.

Over 300 million additional people will become infected with TB in the next 10 years.

### TB drugs may become useless

TB threatens to become incurable.

More than 50 million people may already be infected with drug-resistant TB bacteria.

Poorly-managed TB control projects are the primary source of multidrug-resistant TB.

The costing of treating a TB patient in the US is usually around $2,000 for outpatient treatment. However, it jumps to as high as $250,000 when the patient has multidrug-resistant TB.

### TB: A low priority

For every $10 spent on health care in poor countries, only $0.02 goes for TB control.

In 1990, only $16 million in foreign aid was provided for TB control in developing countries.

While infectious diseases cause nearly 30 percent of deaths in poor countries, they receive only 1.5 percent of foreign aid.

## We are all at risk

### Women

TB is the leading single infectious cause of female deaths killing nearly 1 million women every year. TB may kill more women every year than all causes of maternal mortality combined. Women often find it more difficult than men to access health care services.

TB in women has major implications for child survival, economic productivity, and family welfare.

### Children

Children bear the brunt of their parents' TB.

It is likely that no other infectious disease creates as many orphans as TB.

Children are themselves usually not infectious but almost always are infected by an adult, probably one whom they are close to.

### HIV-positive people

More HIV-infected individuals die from TB than from any other single cause.

TB is the cause of death in one out of every three people who die because of AIDS.

In the next four years the spread of HIV will cause more than three million new TB cases.

It is estimated that 266,000 HIV-positive people will die from TB this year.

TB is the only HIV-associated opportunistic infection which can spread through the air to HIV-negative people.

### Refugees

Up to half of the world's refugees may be infected with TB.

Conditions in refugee camps and shelters are often ripe for TB's spread.

Controlling TB presents a challenge among refugees and displaced people, because they are usually mobile populations without access to health services.

### Travellers

Migration, international travel and tourism are helping TB to spread.

In many industrialised countries one half or more TB cases are found in foreign-born individuals. Every country is threatened by the poor TB treatment practices of other countries. While international travel has accelerated dramatically, the world has been slow to recognize the implications for public health.

## DOTS (Directly Observed Treatment, Short-course) is the solution

### The DOTS strategy has five main elements:

1. The first priority for every TB programme must be to **direct** attention toward identifying sick, infectious TB cases, so they can be cured.
2. The patients must be **observed** and recorded swallowing each dose of their medicines by a health worker.
3. TB patients must be provided **treatment** within a system that ensures they are being cured.
4. The correct dosage of anti-TB medicines – known as **short-course** chemotherapy – must be used for the right length of time.

5. Governments must support the DOTS strategy emphatically and make TB control a high political priority.

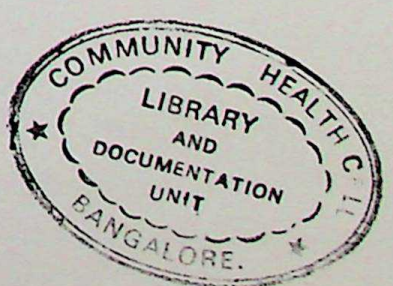
### A cost-effective TB cure exists

TB medicines can cost as little as $11 and are more than 95 percent effective.

Countries that follow WHO's recommended DOTS strategy, such as Tanzania and China, have discovered that they can cure nearly twice as many TB patients as before.

The World Bank ranks DOTS as "amongst the most cost-effective of all interventions" in fighting sickness and disease in the Third World.

The DOTS strategy protects the economically-productive segments of society.



## Let us hear about your success!

Please drop us a note after
World TB Day and let us know about the
activities you conducted and
the media coverage you obtained.
Be sure to send us a copy of any newspaper
articles that were written on TB, so we can use
them to demonstrate the interest and concern
about TB that exists in your country.

Please send newspaper articles to:

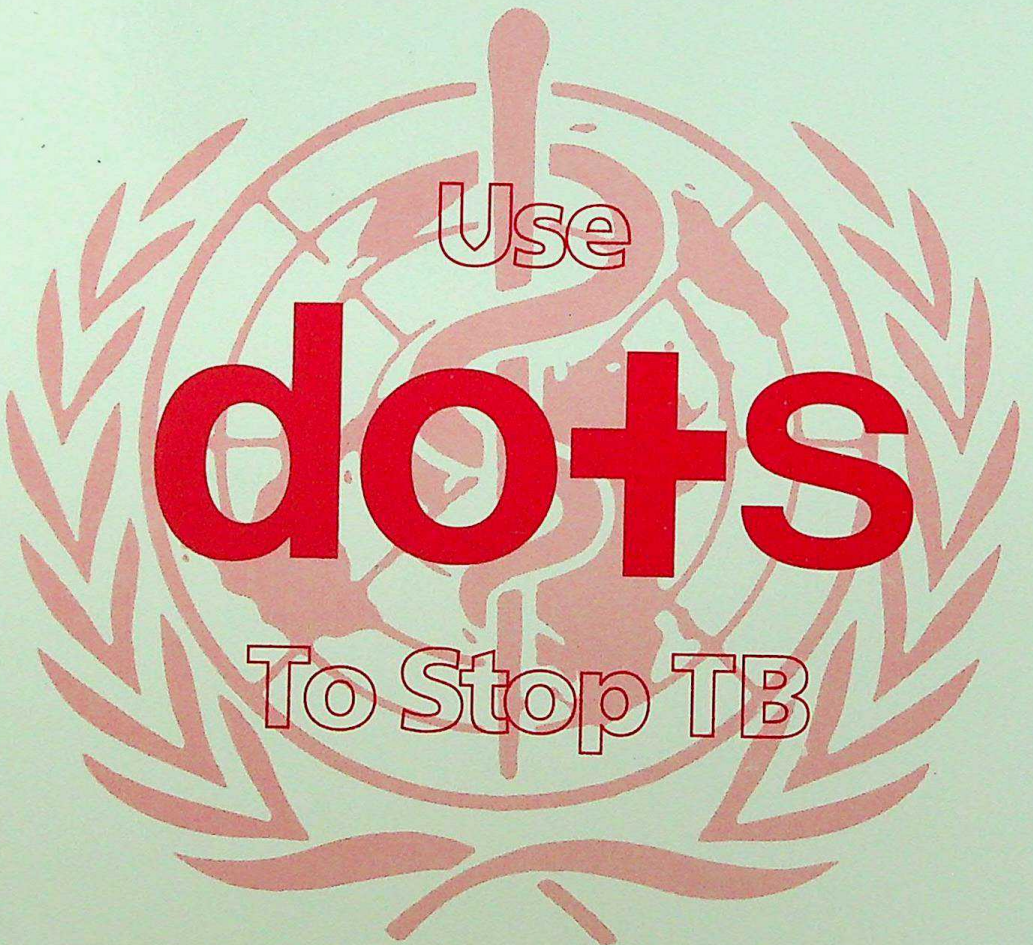
Robert McDermott
Global TB Programme
World Health Organization
20 Avenue Appia
CH-1211 Geneva 27
Switzerland

**Global Tuberculosis Programme**
World Health Organization
20, Avenue Appia
CH – Geneva 27
Switzerland

Telephone: 41 22 791 2666 ■ Facsimile: 41 22 791 4199
Internet: Http://www.who.ch/programmes/gtb/GTB_Homepage.html
E-mail: FightTB@WHO.CH

# World TB Day

## Stop TB, Use dots




World Health Organization
Regional Office for South-East Asia
New Delhi

# Spreading the message


**To educate and inform people in your community or country, first determine the best idea for promoting your message to help raise TB awareness.**

To promote the **stop TB** message in as many places as possible, here are some ideas :

1. Make a banner and colour in a logo.
2. Print the **stop TB** logo on balloons and kites.
3. Print the logo on T-shirts.
4. Print leaflets with the **stop TB** logo.
5. Draw and colour the **stop TB** logo on placards.
6. Make stickers and badges.
7. Have a poster competition using the **stop TB** logo.
8. Have a competition for the most creative and visible use of the **stop TB** logo.

WORLD HEALTH ORGANIZATION

REGIONAL OFFICE FOR SOUTH - EAST ASIA

# TB Facts and figures

March 1999

## Global

1. Every year 8 million people world-wide develop tuberculosis and 2-3 million die; 90% of these are in the developing countries of Asia, Africa and Latin America.

2. The disease, although preventable and treatable, has been grossly neglected; in 1993 WHO declared TB to be a global emergency that could claim over 30 million lives in the next decade unless immediate action was taken.

3. The deadly link between tuberculosis and HIV (the virus which causes AIDS) is a major factor which can contribute to the spread of tuberculosis. During the 1990s, an additional 7 million cases of TB are predicted because of dual HIV/TB association.

## Regional

4. The South-East Asia Region suffers from a heavy burden of TB; nearly 40% of global TB cases and deaths are in the Region.

5. 95% of the tuberculosis cases are reported from Bangladesh, India, Indonesia, Myanmar and Thailand; in many of these countries, TB has been identified as one of the topmost public health problems.

6. The situation is likely to be further complicated with the rapid spread of HIV and emergence of drug-resistant strains in the Region. Nearly 60% of AIDS cases develop TB indicating that the latter is the most common life-threatening opportunistic infection associated with HIV.

## TB Control : A major priority

7. The World Health Assembly in 1993 urged Member States to give high priority to tuberculosis control within primary health care and called upon WHO to intensify collaboration with countries on treatment, case-finding and research in order to attain a global target of curing 85% of new sputum positive patients and detecting 70% of such cases by the year 2000.

   WHO Director-General, Dr Gro Harlem Brundtland in September 1998, identified tuberculosis as one of the four priority health problems to be tackled in the South-East Asia Region.

8. The WHO - recommended DOTS strategy - Directly Observed Treatment, Short-course, using short course of drugs [most commonly isoniazid, rifampicin, pyrazinamide, streptomycin and ethambutol] includes the elements of political commitment, regular drug supplies and monitoring systems.

9. The DOTS strategy is accepted and used in all Member Countries in the WHO South-East Asia Region, although coverage which varies from country to country still remains unacceptably low.

10. DOTS has proven to be successful wherever it has been tried. The hallmark of this strategy is that it uses standardized treatment regimens and ensures that the patient completes the treatment. The DOTS strategy ensures that all sputum smear positive patients (who are infectious) put on treatment successfully complete their treatment, get cured and therefore no longer spread TB to others in the community.

11. There are many DOTS success stories the world over, including many in our Region, including Bangladesh, Maldives and Nepal. India, with the maximum TB burden, now has the world's largest DOTS programme after China.

World TB Day

Stop TB, Use dots

World Health Organization

# DOTS Success Stories

## Bangladesh

In 1993, the government of Bangladesh adopted WHO's DOTS strategy to cure its widespread problem of TB. A revised National TB Programme was initiated, staff training was provided, and more diagnostic and treatment centres set up. Currently, over 75% of the country is implementing the DOTS strategy. By 1995, as many as 80% of the patients receiving treatment were cured in the parts of the country using DOTS strategy. In 1997, WHO described Bangladesh's TB control programme as a "model for the entire world".

## Maldives

Tuberculosis has been a significant public health problem in the Maldives. Significant strides have, however, been made recently in reducing the TB burden : there is a well developed health-care infrastructure, free supply of anti-TB medicines and commitment of health workers and officials to implement effective and standardized TB control measures. Particularly praiseworthy is the commitment to the DOTS strategy which has been rigorously applied since 1994 and has led to impressive and consistent cure rates in excess of 85%. This country could well boast of being a "TB-free" nation in the not too distant future.

## Nepal

Overall cure rate were less than 50% across Nepal before the government adopted the DOTS strategy. Poor cure rates combined with the short-course treatment were responsible for an increase in the epidemic and the rise of multidrug-resistant TB. DOTS was introduced in 1995. In DOTS demonstration sites, more than 85% of patients have been cured. By the end of 1998, nearly 40% of the population will be covered by DOTS.

## China

In about half of China where it is strictly implemented, DOTS has had astounding success. TB drugs are provided to patients free of charge, and cure rates are more than 90% - among the best in the world. In the other half of the country, two main factors impede cure : patients are not supervised to ensure that they finish their treatment, or are too poor to afford medication.

## Vietnam

The country became the first in Asia to adopt the DOTS strategy. Funded solely by NGOs at the outset, the programme soon attracted money from bilateral and multilateral agencies. In 1994, DOTS was expanded to cover 50% of the country's TB patients. Today, the national programme has treated nearly half a million patients and nine out of ten patients treated with DOTS have been cured.

**Stop TB**

**Use dots**

Directly Observed Treatment, Short-course.

# TUBERCULOSIS : What it is ?

## What is tuberculosis and how does it spread?

Tuberculosis (TB) is an illness which mainly affects the lungs, but it can also affect other parts of the body, such as brain, bones, glands, etc. TB should be suspected if a person has cough for three weeks or more. TB is caused by the germs which spread through the air when the infected persons cough or sneeze.

## What are the other symptoms of TB?

Besides coughing, the other symptoms of TB are:

- fever, especially rising in the evening
- pain in the chest
- loss of weight
- loss of appetite
- coughing up of blood.

## How the suspected person should be treated?

First, before giving any drugs, the suspected person should be evaluated to confirm whether she or he has TB. The best way to diagnose lung TB is by examining the sputum under a microscope. Germs of TB can be seen with a microscope. Three samples of sputum should be examined for accurate diagnosis. Remember that for TB diagnosis X-ray is more expensive and less accurate than sputum examination. X-ray may be necessary in the case of some patients.

## What should the patients pay attention to?

- TB can be fully cured if the full course of the prescribed drugs are taken regularly, and without interruption. This is crucial.
- TB germs are very stubborn; so drugs must be taken for at least six months.
- If the full course of medicines is not taken regularly as prescribed, the bacteria will develop resistance to the TB drugs or a serious form of TB may develop.
- Cough, fever and chest pain will go away quickly by taking TB medicines but TB is not cured yet. The patient should continue taking medicines as prescribed.
- Follow-up sputum examinations are important and must be done to check progress.

## Why should all be concerned about TB?

- TB is a killer. TB kills more than 2000 people every day in the South-East Asia Region.
- Any person with cough for three weeks or more should be taken to a health centre promptly and sputum examination of three different samples done for detecting TB germs.
- Diagnosis and treatment of TB are free of cost at government health centres.

## What services are provided to cure TB?

- The only effective way to cure TB is through Directly Observed Treatment, Short-course (DOTS). DOTS ensures that TB patients take the full course of the prescribed TB medicines. Drugs should be taken under the observation of a health worker or a caretaker who is not a family member
- Throughout the world DOTS has become the standard of care for TB because it is a very successful approach.


# TUBERCULOSIS - A GLOBAL EMERGENCY

- More people are dying of TB today than ever before.
- TB kills 8,000 people a day—that is 2-3 million people each year. It kills more people that either AIDS or malaria. In fact TB is the biggest killer of young people and adults in the world today.
- One third of the world's population is infected with TB. If you are sick with TB. You are likely to infect another 10 to 15 people in just one year.

## TB and HIV

- TB accounts for one third of AIDS deaths worldwide. It is the biggest killer of people who are HIV-positive.
- If you are HIV-positive, you are 30 times more likely to get sick with TB once infected.

## TB and women

- TB is the single biggest killer of young women.
- Over one million women will die needlessly from TB this year. They are breadwinners, mothers, daughters and wives.

## TB and children

- Over 100,000 children will die needlessly from TB this year.
- Hundreds of thousands of children will become TB orphans this year.

## TB and refugees

- As many as half of the world's refugees may be infected with TB. Each year, over 17,000 refugees get sick with the disease.

## MDR-TB (Multidrug-resistant TB)

- Drug-resistance can develop when patients get the wrong drugs, drug supply is unreliable or patients stop taking their medicines because they feel better.
- In countries that are poor, MDR-TB that cannot be treated with standard medicines can be a death sentence.
- MDR-TB is at least 100 times more expensive to cure.
- In some former Soviet Union countries a quarter of TB patients are MDR-TB.

## Cost of TB

- Eighty percent of TB victims are in the most economically productive years of their lives.
- TB sends many self-sustaining families into poverty. If the breadwinner of a family is not properly diagnosed or treated, he or she will lose, on average, a full year of work.

e problem... the problem... the problem... the problem...

# World TB Day

## Stop TB, USE dots

World Health Organization

## Message from the Regional Director

Globally, TB is the biggest killer of young people and adults in the world today. It is estimated that, unless TB control is improved, the disease would kill 30 million people this decade. Of these deaths, 80 per cent will occur in the most productive age-group of 15-59 years.

According to available figures, it is estimated that one-third of the world's population is infected with TB. Thousands of patients with active TB have developed multidrug-resistant strains. These persons may die or infect many others. Now, there is the growing threat of co-infection with HIV/AIDS. Persons infected both with TB and HIV are as much as 30 times more likely to become sick with TB than those infected with only TB.

The South-East Asia Region accounts for every 4 out of 10 cases of tuberculosis, in the world. Five countries, namely Bangladesh, India, Indonesia, Myanmar and Thailand contribute more than 95 per cent of the regional cases. Every day, more than 1,500 people die of tuberculosis in our region.

The resurgence of tuberculosis poses a major threat to public health today. Unless immediate steps are taken to address the challenge, the epidemic will continue to grow. DOTS-Directly Observed Treatment, short-course, is recommended by WHO as a global strategy for effective TB control. Since 1994, 500,000 TB patients have been treated with DOTS in the Region. As a result, more than 50,000 lives have been saved, more than 2 million TB infections prevented, and more than $100 million saved.

The theme of this year's World TB Day "Stop TB Use Dots" is most relevant to our region. The success of the DOTS strategy, requires a strong political commitment, effective diagnosis, directly observed therapy, uninterrupted drug supply and systematic monitoring.

Unfortunately, the present coverage with DOTS in our Region is still low, albeit it is increasing. Although recent signs are encouraging, clearly more needs to be done. Let us seize the opportunity before it is too late. Member Countries have made a commitment to achieve the global targets. We urgently need to overcome the constraints before DOTS coverage can be expanded.

At the same time, operational support for the implementation of DOTS should be promoted to ensure quality and the expected outcome. This will need intense advocacy, partnerships, and intersectoral efforts with all concerned to ensure that the renewed attack on tuberculosis stops the menace at the source.

Dr Uton Muchtar Rafei
Regional Director

World Health Organization

*PROVIDE ADEQUATE RESOURCES :* If you are in a position to strengthen the DOTS endeavour, you can do so by mobilizing financial and other resources for the expansion of DOTS throughout your area or region. You can raise money by holding events, by inviting contributions, by seeking donor funds, and by pledging country resources.

*PLAN ACTIVITIES :* You can plan simple events to focus attention on the problem and the solution. Youth can simply pledge support, or can plan debates in schools and colleges. Industry can organize seminars and conferences; NGOs can organize workshops and talks; media can present a platform through newspapers, magazines and TV talk shows; competitions can be arranged. Any activity that catches peoples' attention or gets people talking about, and understanding TB, is desirable.

*PROVIDE LEADERSHIP :* Set an example for others to follow. Teachers, parliamentarians, doctors, community and industry leaders, can all play a part in being role models and showing the way to rid world of TB before the numbers grow to catastrophic levels.

*CREATE OPPORTUNITIES :* Select or create an occasion for advocacy and to highlight the problem. Advocacy works best if the timing is right and there is an event or occasion to help focus peoples' attention. Draw up a calendar of suitable days : Choose **WORLD AIDS DAY** on 1st December to talk about the TB-HIV co-infection. Choose **CHILDREN'S DAY** to remind people that thousands of children need not die of TB every year. Or choose **HUMAN RIGHTS DAY** on 10th December to speak about the rights of the TB afflicted. Use **INTERNATIONAL WOMEN'S DAY** on 8th March to speak about the high mortality among women from TB. And use all religious and national festivals to speak out for TB control.

**Stop TB**

**Use dots**

**Directly Observed Treatment, Short-course.**

**World TB Day**

**Stop TB, Use dots**

World Health Organization

# Things to do TODAY and throughout the year

*On WORLD TB DAY, the world comes together to unite in action to stop the spread of TB. In the South-East Asia Region, which suffers the maximum burden, WHO emphasizes the urgent need to take TB seriously, particularly by policy-makers and health care workers, in both public and private sectors. Indeed, TB can be cured and its spread stopped at the source with the new strategy - Directly Observed Treatment, Short-course (DOTS).*

*TB is one of the major public health problems in our Region. The problem affects us all. And, likewise, the solution lies with us all. Let us all - individuals and communities, students and politicians, industry leaders and workers - promote two simple messages : That* ***TB is a serious disease,*** *and secondly, that the* ***DOTS strategy can cure and control TB,*** *cost-effectively.*

## HERE'S WHAT YOU CAN DO :

*TALK ABOUT TB :* You can share the information you know with others. You can encourage them to spread the messages about the facts about TB : It is serious, but curable. Its spread can be stemmed. That Directly Observed Treatment Short-course (DOTS) is the remedy, but the therapy must be adhered to for the full duration of treatment and not interrupted. You should remind people of the dreadful consequences of getting multidrug-resistant TB if the treatment is not completed as prescribed.

*ASSIST PEOPLE WITH TB :* People who are afflicted with TB are often frightened. They need care and encouragement to seek treatment, to sustain treatment under supervision, and to continue to live productive lives within the mainstream of society. They need the support of family, health workers, the community, society and employers to be able to do this.

*DEMONSTRATE A COMMITMENT TO DOTS :* Be convinced that the solution to TB control is DOTS, and tell everyone about it. Encourage people who are seeking treatment to sustain it and take the full course. Recognise the critical role of health workers who must supervise the treatment regimen and let them know how important their work is. Appreciation is strong motivation.

World Health Organization

*PROVIDE ADEQUATE RESOURCES :* If you are in a position to strengthen the DOTS endeavour, you can do so by mobilizing financial and other resources for the expansion of DOTS throughout your area or region. You can raise money by holding events, by inviting contributions, by seeking donor funds, and by pledging country resources.

*PLAN ACTIVITIES :* You can plan simple events to focus attention on the problem and the solution. Youth can simply pledge support, or can plan debates in schools and colleges. Industry can organize seminars and conferences; NGOs can organize workshops and talks; media can present a platform through newspapers, magazines and TV talk shows; competitions can be arranged. Any activity that catches peoples' attention or gets people talking about, and understanding TB, is desirable.

*PROVIDE LEADERSHIP :* Set an example for others to follow. Teachers, parliamentarians, doctors, community and industry leaders, can all play a part in being role models and showing the way to rid world of TB before the numbers grow to catastrophic levels.

*CREATE OPPORTUNITIES :* Select or create an occasion for advocacy and to highlight the problem. Advocacy works best if the timing is right and there is an event or occasion to help focus peoples' attention. Draw up a calendar of suitable days : Choose **WORLD AIDS DAY** on 1st December to talk about the TB-HIV co-infection. Choose **CHILDREN'S DAY** to remind people that thousands of children need not die of TB every year. Or choose **HUMAN RIGHTS DAY** on 10th December to speak about the rights of the TB afflicted. Use **INTERNATIONAL WOMEN'S DAY** on 8th March to speak about the high mortality among women from TB. And use all religious and national festivals to speak out for TB control.

**Stop TB**

**Use dots**

**Directly Observed Treatment, Short-course.**


## dots - THE BEST WAY TO CONTROL TB

- DOTS is recommended by WHO as the best way to detect and cure infectious TB patients.
- DOTS not only involves direct observation of treatment, it also requires political commitment, microscopy services, reliable drug supply and monitoring systems.
- Patients treated with DOTS do not need to go to hospital. They can stay with their families and go back to work in a few weeks.
- With DOTS, trained health workers and community volunteers can be used to deliver treatment.
- DOTS achieves cure rates as high as 95 percent. Even in economically devastated areas, DOTS works.
- DOTS is one of the most successful health interventions of the 1990s : in the last 3 years one million TB patients have been treated with DOTS.

### dots and HIV

- DOTS is as effective in curing TB in someone who is HIV-positive as in someone who is HIV-negative.
- DOTS is one of the most affordable ways of extending the life of an HIV-positive person.

### dots and women

- DOTS can allow women to be treated successfully near their homes.
- Around the world women are at the forefront of efforts to control TB. In Bangladesh for example, women health providers educate the community about TB, make home visits and ensure that patients take their medicines.

### dots and children

- DOTS not only saves children's lives, it also keeps their families healthy.

### dots and refugees

- DOTS can be adapted to serve even mobile refugee populations.

### dots and MDR - TB

- DOTS helps prevent MDR-TB. In Algeria, Chile, Korea, Tanzania and New York City, good TB control has succeeded in preventing drug resistance.

### Cost effectiveness of dots

- The World Bank considers DOTS to be one of the most cost-effective health strategies.
- A six-month course of drugs for DOTS costs as little as US $11 per patient in some parts of the world.
- DOTS is a sound economic investment for any government. For example, proper use of DOTS is Thailand could save US $2.3 billion over twenty years according to one study.

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# Take TB Seriously

# Stop TB

# Use dots

## Directly Observed Treatment, Short-course

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HEALTH FOR ALL- ALL FOR HEALTH

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# Use DOTS more widely!

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