

NGOs & TB Control

Principles and Examples for Organizations
joining the fight against TB



World Health Organization
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NGOs & TB Control

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Foreword

TB is a devastating disease, killing over a million people a year in the region, and infecting over a third of the population

We live in a changing world. Relationships and roles are being redefined, as barriers are being broken down, and we are discovering new ways of working together. We now understand that vertical approaches to service delivery are inefficient, that selfish competitiveness must be replaced by a rational and equitable distribution of resources, and that collaboration creates synergism – multiplying the positive impact of our endeavours.

The previous distinctions that separated government from nongovernment, and public from private, are disappearing as we learn to work together, and value each other's contributions. This is seen clearly in partnerships that are developing between governmental and non governmental organizations (NGOs) to fight communicable diseases. Within the South-East Asia Region, NGOs are making a vital contribution to disease control that is increasingly being recognized by governments as well as by international donors and development partners.

TB control provides an excellent illustration of the value of these partnerships. TB is a devastating disease, killing over a million people a year in the Region, and infecting over a third of the population. Fortunately, we have an effective strategy to control TB in DOTS. Across the Region, NGOs and governments have joined together to control TB, and have developed a diverse array of innovative approaches to implement DOTS in response to the TB epidemic.

These are exciting times to be involved in TB control. The impact of DOTS is clear, and cure rates are increasing. But it will be many years before the fight against TB is won, as we also face several other growing threats, particularly the spread of HIV, and multidrug-resistant TB. Governments alone cannot defeat TB. We must mobilize all the resources available to us. There is a growing need for even more coalitions and partnerships with communities, NGOs and the private sector.

NGOs make a vital contribution to disease control that is increasingly recognized by governments and international development partners

This booklet provides examples of the important contributions NGOs are making to TB control in the Region, and provides guidelines for NGOs wishing to get involved in the fight against TB.

This is not only a record of success, but also a call for action - a plea for more and more agencies to collaborate and develop partnerships with national TB programmes. And the plea goes out to all organizations - not only those with a historical interest in TB. All organizations - including those working in community development, advocacy, human rights, education - have a role. TB affects us all in one way or another - directly through its impact on the lives of friends and colleagues who have TB, and indirectly through the impoverishment of families and communities. All of us can be, and should be, involved.

**Dr Uton Muchtar Rafei
Regional Director**

Acknowledgments

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The current TB epidemic is a global disaster on an unprecedented scale

1. Introduction

TB kills. TB destroys families and devastates communities. The current TB epidemic is a global disaster on an unprecedented scale. A third of the world's population is infected with TB, 8 million become sick with TB every year, and more than 2 million people die. And things are getting worse, due to poor control programmes, HIV, population growth and poverty.

This situation demands an urgent response from all sectors of society. Governments are increasing their efforts to fight TB, and many NGOs have also joined the battle. Some are involved through TB control programmes, but many more NGOs are indirectly active in controlling TB through socio-economic development and prevention of HIV/AIDS.

All these are vitally important, but there are great possibilities for increasing the effectiveness of these contributions. Perhaps you are with an NGO that already works in TB control but you want to improve the effectiveness of your programme. Or perhaps you want to become involved in this important work but are not sure what steps to take. This booklet is designed to help you and give you some ideas.

This booklet has three parts. The first part is a brief introduction to TB and the measures effective in controlling it. Part two describes different models for NGO involvement in TB control, taking examples from organizations and countries in South East Asia. Finally, part three examines factors that are important in ensuring success.

Imagine we could rid the world of TB today. Two billion people would no longer be living with the fear of developing TB. Three million would no longer fear imminent death, and nearly 30 million lives would be saved over the next 10 years. Sadly, we can't get rid of TB in one day. Controlling this disease won't be achieved with a short-term effort. It demands long term commitment, sustained action, and hard work. However, the rewards are great – lives saved, disease prevented, and hardship reduced. Join the fight to STOP TB!

2. TB and DOTS

2.1 Why TB is a priority problem

If you lined up every person with active TB in the world – all 8 million people – every third person would be from South East Asia

Tuberculosis poses a major threat to the health of people living in South East Asia. At least 1 in 3 people living in this part of the world are infected with TB. If you lined up every person with active TB in the world – all 8 million people – every third person would be from South East Asia. Every year one million people die from TB in our region – it's the most important cause of death in the economically active population. If you laid these people end to end, the line of bodies would stretch from Kathmandu to Bangkok. Although TB is often regarded as a disease of the poor – and it's true that TB has a much greater impact in the poor and disadvantaged – anyone can get it.

A tiny germ called *Mycobacterium tuberculosis* causes TB. The germ spreads through the air when someone with infectious TB in his lungs coughs, talks or sneezes. Tiny droplets containing a few germs – too small to see with the naked eye – float in the air until someone else breathes them in. The germs are carried into the lungs where they lodge and begin to grow. The disease has spread. And every second, someone, somewhere, is infected with TB in South East Asia. If you have lived in South East Asia for most of your life, you have probably been infected with TB.

Following infection, your immune system springs into action and attempts to kill the invading germs. About 90% of the time the immune system wins, and the germs are either killed

or imprisoned. But in 10% of people – usually those who have a weakened immune system due to malnutrition or other disease – the germ wins, and continues to spread through the lungs, or to other parts of the body, causing disease. Cough, fever, loss of weight, and eventually chest pain and coughing up blood – these are the symptoms of TB disease in the lungs. Just 100 years ago TB was a death sentence and millions of people were dying in America, Europe, Asia and Africa.

And then 50 years ago came good news. Scientists discovered drugs that can cure nearly 100% of people with TB. Millions of people have been treated for TB and cured since then, and the disease virtually disappeared from many countries in America and Europe. But it never disappeared from Africa and Asia. And a few years ago, TB re-emerged in many developed countries. If TB can be cured, why is it still such a huge problem? Why didn't it decline in developing countries, and why has it reappeared in the West?

Why is TB still a problem?

- Inadequate TB control programmes
- Poverty
- Population growth
- HIV

There are four main reasons. First, TB control programmes have been poorly organized. Many patients start treatment but never finish it. These people still have TB, and can continue to infect other people. Worse still, their strains of TB develop resistance to the drugs used to treat TB. Multi-drug resistant TB (commonly known as MDR-TB) is a serious problem in poor TB control programmes.

The second reason for the rise in TB is the global HIV epidemic. HIV and TB go hand in hand. When HIV increases, so does TB. The reason is that HIV attacks the immune system. A person who has both HIV and TB infections has a risk of developing TB of about 10% every year – compared with 10% per lifetime for someone infected with TB but not HIV. This means that countries where HIV is common have also seen a massive increase in the number of people with TB. Thailand, India and Myanmar have been particularly hard hit by HIV in South East Asia, but other countries are also facing the dual threat of HIV and TB.

Thirdly, the number of cases continues to rise because populations are still growing. And even if we could break the chain of transmission right now, people would develop TB for many more years to come because they were infected in the past. About half of the people who get active TB disease following infection do so within a couple of years, but there are some who develop the disease much later; after 10, 20, 30, even 50 years or more. That's why TB control requires a long-term commitment.

Control of communicable diseases like tuberculosis is the responsibility of the government and requires a strong, sustained and coordinated effort

Finally, the TB epidemic in South East Asia reflect the poor socio-economic conditions affecting the majority of the population in this region. Poverty, overcrowding and poor nutrition combine to create conditions that favour the spread of TB. People living in urban slums, prisoners and refugees are particularly affected. But it's not just the poor – anyone can get TB, and it's a very common disease.

Now there's more good news. TB is again under attack, and there is a highly effective strategy to defeat it. This strategy is known as DOTS and it's simple. It means diagnosing people who have infectious TB and curing them so that they don't spread the disease to other people. It has two main objectives – cure 85% and detect 70% of people who develop infectious TB.

2.2 What is DOTS?

DOTS has five main components, which can be summarized as government support, microscopes, observers, medicines, and records.

Government Support

Control of communicable diseases like tuberculosis is the responsibility of the government and requires a strong, sustained and coordinated effort. Political commitment is therefore essential for TB control, and the best evidence of this is adequate funding. Without money, a TB programme cannot buy microscopes to diagnose people with TB and medicines to cure them. Sufficient staffing of the TB programme and administrative support at central and regional levels are also essential.

Microscopes

The best way to diagnose people with infectious TB is to examine their sputum by microscope. People with TB germs in their sputum (known as smear-positive) are at least ten times more likely to spread the disease than those who have TB of the lungs but don't have the germs in their sputum (known as smear-negative). Smear-positive people are also more likely to die from their disease if not treated. So identifying the infectious or sputum positive cases is the highest priority for TB control programmes.

Medicines

Taking a full course of treatment is the key to TB control. This means that the TB control programme must guarantee a continuous and uninterrupted supply of high quality TB medicines to the patient.

Observers

Simply diagnosing people with TB is doesn't ensure that they are cured. TB treatment generally consists of a combination of four drugs given for 2 months followed by two drugs given for a further 4 to 6 months, making a total of 6 to 8 months treatment. There are two important principles. First, everyone with TB must be treated in the same way. This means that the regimens for treating TB must be standardized across the country. Second, patients must be given the best possible opportunity to complete their treatment. The best way of doing so is to provide a treatment observer to help them take their medicines. The treatment observer watches them take their medicines for at least the first two months of treatment, until they become non-infectious. Without a treatment observer, at least 30% of patients will fail to complete their treatment. With an observer to help them, the number of people stopping treatment is 5% or even less. Direct observation has become the standard of care for TB treatment.

Records

A good monitoring system is necessary to make sure that patients are being cured. Individual records for patients on treatment, a register of all patients treated at a health unit, and a regular report on the outcome of patients registered for treatment is the basic system needed. The standardized system for recording and reporting recommended by WHO and IUATLD is an excellent tool for monitoring TB control programmes, and is now used in all countries of the South East Asia Region. Regular supervision is also important to make sure that the TB control programme policies are being followed and that the reporting system is being used correctly.

DOTS has been introduced into each of the ten countries of South East Asia, with remarkable success. The main target of curing 85% of patients has been achieved in pilot projects in many countries, and some have now managed to expand DOTS to cover most of the population. Bangladesh has provided DOTS for the most people, and Maldives has had the greatest success – achieving a cure rate of 97%!

Case Study: DOTS in Bangladesh – a success story

Tuberculosis is one of the most significant health problems facing Bangladesh, infecting more than 60% of the adult population. Every year 290,000 people develop active TB; nearly 50% of them have infectious pulmonary disease and can spread the infection to others. Introduction of treatment has already reduced the numbers of deaths, but more than 50,000 people continue to die every year from this disease.

Bangladesh has achieved remarkable success with the DOTS strategy. In 1993 the Mycobacterial Disease Control Project introduced DOTS, with funding from the World Bank and Government of Netherlands. Implementation of the DOTS strategy was initiated in several thana health complexes, covering a population of one million people. A cure rate of 78% was achieved in the initial cohort of new smear-positive patients. By June 1998, the project had expanded DOTS to cover 460 thanas, reaching 90% of the population. NGOs provide services in about 40% of thanas, under contractual agreements with the government of Bangladesh. More than 200,000 people with tuberculosis have been diagnosed and treated since the programme began, with treatment success rates of around 80%. Effective TB control encompasses a wide range of activities, and strengthening these activities has a beneficial effect on the functioning of health services. Experience with DOTS in the NTP has been of help in development of logistics, health management information systems, training and supervision, laboratory services and community involvement in health programmes.

NGOs have played a vital role in this success, assisting in service delivery, management support, education, research and social mobilisation.

The cost effectiveness of TB control – both for governments and for communities – combined with the heavy burden of morbidity and mortality caused by TB, justifies the high priority given to TB control by the government of Bangladesh. However, the nature of TB is such that it will take many years of sustained effective control measures before an impact on the incidence of the disease becomes apparent.

3. NGOs and DOTS Strategy

3.1 Why should NGOs be concerned about TB?

It is not surprising that many NGOs have taken up the cause of TB control and are developing effective programmes to combat this disease. There are several important reasons why NGOs should get involved in the fight against TB:

1. ***TB causes a huge burden of disease, suffering and death.*** Many NGOs have a mandate to address health problems, and TB is one of the most serious threats to the health of people of South East Asia.
2. ***DOTS is cost effective.*** This one of the conclusions of the World Bank Report "Investing In Health" in 1993. If resources are limited and priorities have to be made, TB control comes top of the list of interventions in primary health care. Effective TB treatment costs only \$3- \$7 for every healthy year of life gained.
3. ***TB affects men, women and children.*** All are vulnerable to TB. However, fewer women are registered for TB treatment than men, and one of the reasons is that women have less access to health care services. TB in men also has a profound effect on the well being of women and families. TB is the single biggest killer of young women. Children get TB, but also suffer when their parents fall ill and die from TB. TB may create more orphans than any other infectious disease.

4. ***TB accentuates poverty.*** The effects of TB are felt most seriously by the poor and the poor get TB more than the rich. DOTS can contribute to economic development. A recent study from Indonesia showed that every dollar invested in TB control gives a 'return' of \$ 55 to the community over a 20 year period. Moreover, The effect of TB is disproportionately great on people who are marginalized or who have been deprived of some of their basic rights.
5. ***DOTS can be an entry point for improving the overall quality of health services.*** DOTS is an integrated approach to TB control at the district level of the health service. Introducing DOTS leads to improvements in laboratory services, logistics, health management information systems, training and supervision.
6. ***The government alone cannot defeat TB.*** Other sectors such as NGOs and the private sector have a vital role. In many countries, less than 50% of TB patients are diagnosed in government health services.
7. ***NGOs make a unique contribution at the community level.*** NGOs are well-suited to participate in the national effort because of their:
 - credibility
 - access to communities
 - access to vulnerable populations
 - greater flexibility of work.

3.2 Principles of NGO involvement

Four Principles:

- Government Responsibility
- Facilitate
- Build on Your Strengths
- Integrate DOTS in ongoing programmes

There are many ways that NGOs can be come involved in TB control, but three basic principles underline the best strategy for involvement.

First Principle: Government's responsibility

Governments have the primary responsibility for maintaining and improving public health. Effective TB control demands a coordinated approach with standardized diagnostic, treatment, and information systems. The government must therefore take a lead in developing and maintaining these systems. NGOs, along with the government and other agencies, become part of the national TB control programme, and all follow the same policies.

Second Principle: NGO role is to facilitate and support community action

The nature of many NGOs has changed in recent years. Many organizations have recognized that their primary role is to facilitate and support – to help build capacity of individuals, communities and governments. This is particularly important when it comes to TB control. TB will not be controlled in 5 years or even 10 years – it will probably take at least 20 or maybe even 50 years. Few NGOs can be committed to providing services for that period of time. NGOs now recognize that they must support and help communities and governments develop and maintain the services that are essential for TB control.

Third Principle: Building on existing strengths

There is no ideal model for NGO involvement in TB control. There are many alternative approaches, and the most suitable

one will depend on the nature of your organization. So build on your strengths – your skills and experience. If you have experience running hospitals or clinics, then you will probably want to include effective TB diagnosis and treatment services. Alternatively, if you are involved in providing community based care for people with HIV/AIDS, you will probably want to incorporate community DOTS. Different approaches are not mutually exclusive, and a combination will often be required – for example advocacy, health education and community-based care.

Fourth Principle: Integrating DOTS in ongoing programme activities

Many NGOs are active in health areas. They should explore the possibility of integrating TB control in their ongoing programmes. For example, NGOs working on HIV/AIDS can integrate DOTS as part of care activities. Particularly because TB is closely linked to HIV. People who are infected with both TB and HIV have a very high risk of developing active TB disease – about 10% a year. In many countries of South East Asia, over 50% of people with AIDS develop active TB.

Treating people with TB and HIV prolongs their life, reduces suffering, and prevents the spread of TB to other people. If HIV increases, then the number of people with TB also rises, so preventing the spread of HIV helps to stop TB.

Organizations involved in HIV/AIDS prevention and care may not be fully aware of the close links between TB and HIV, and may not have experience in supporting people with TB. However, the close relationship between the two infections means it is important that HIV/AIDS organizations learn about TB and find ways of integrating TB control activities into their work.

Organizations involved in prevention of spread of HIV can develop educational approaches to help increase awareness of the links between HIV and TB. However, it is important that such educational approaches do not use fear to influence people. Creating fear may have a limited effect in the short term, but in the long term can create stigma and make life even harder for people with HIV and TB.

Some NGOs provide counselling and HIV testing services. These can be linked to TB screening services.

NGOs involved in care of people with HIV/AIDS need to learn about NTP diagnostic and treatment policies.

4. Role of NGOs in TB Control

4.1 Providing TB treatment services

The traditional model for NGO involvement in TB control has been service delivery through TB clinics and hospitals. Many NGOs in South East Asia and continue to make important contributions to TB care.

In a service delivery approach, the NGO is responsible for diagnosing and treating people with TB. Treatment services may be specifically for TB patients, for example a TB clinic or a TB hospital. Alternatively, services may be provided as part of general health services, for example, in a hospital or health centre.

NGOs may have the facilities and resources to provide second line treatment (so called “Category IV”) for people with MDR-TB. These medicines must only be given in specialized centres, because of the high risk of adverse effects from the medicines, and to ensure that patients take medicines under very close supervision. Most NTPs cannot afford to provide this treatment, which costs at least 100 times as much as a normal course of treatment.

Advantages

- NGO health services are often of high quality, and popular with patients
- Service delivery through community clinics often achieves good cure rates

Disadvantages

- Requires long term – even permanent – commitment to providing services
- General hospitals often have few or no community based staff and cannot do defaulter tracing. Cure rates in general hospitals are often poor.
- Service delivery is expensive because of the need to employ large numbers of staff
- Many hospitals charge fees for services, for example smear microscopy, but most NTPs have a policy of free diagnosis and treatment for TB patients
- Strong NGO health services sometimes have an adverse effect on the capacity of government health services
- Service delivery is unpopular with donors and may be difficult to sustain

Possibilities

- Suitable for NGOs that run hospitals or clinics.

Delivery Case Study (1): GENETUP

GENETUP is the German Nepal TB Project, and was established in 1985 with technical and financial support from Kuratorium Tuberkulose in der Welte, Germany. The project began with a small TB clinic in Kathmandu, attached to the central offices of the Nepal Anti TB Association. GENETUP was one of the first projects in South East Asia to use DOTS. Most of the patients come from the Kathmandu valley. All patients are treated with fully supervised intermittent short course chemotherapy. The project treats about 400 patients every year, and has consistently achieved treatment success rates of 85% or higher. A doctor diagnoses the patients, and a health worker at the clinic observes their treatment every day for the full course of treatment. If a patient is late, a health worker visits them at home to make sure they come back on to treatment. Even though many of the patients have social problems the project has managed to maintain excellent treatment success rates. Rates of drug resistance in new patients have also fallen since the project began, from 44% in 1988-1992 to 19% in 1993-1997, demonstrating the effectiveness of DOTS. The project emphasises high quality laboratory services, and has been involved in several studies of drug resistance.

For more information:

GENETUP, PO Box 1494, Kathmandu, Nepal
Tel: 00977 1 270483, Fax: 00977 1 270019,
Email: nata@genetup.wlink.com.np

Reference:

Neher A, Breyer G, Shrestha B, Feldmann K. Directly observed intermittent short-course chemotherapy in the Kathmandu valley. *Tubercle and Lung Disease* 1996; 77: 302-07

**Service Delivery Case Study (2):
Britain Nepal Medical Trust**

The Britain Nepal Medical Trust (BNMT) is the oldest TB project in Nepal and first began in 1968. BNMT works in 8 hill and 6 terai (plains) districts in East Nepal, covering a population of about 6 million people. In each of the hill districts BNMT runs a district TB clinic, several of which are run in collaboration with the government district health office.

Dhankuta district is a national demonstration district for DOTS in Nepal. This hilly district has a population of about 160,000. BNMT runs the TB clinic in the town where most patients are diagnosed. The clinic has two staff who do sputum smear microscopy and see the patients. TB patients can choose from two alternatives for DOTS. They can take their medicines daily from the district TB clinic or from one of 12 government health posts in the district. Alternatively, they can be admitted to a small hostel attached to the TB clinic. The hostel provides free meals, so many patients are willing to be admitted for the two months of the intensive phase of treatment. They take the remaining 6 months of treatment at home.

This approach has been remarkably successful; the cure rate in Dhankuta in 1996/97 was 89%, and the number of new infectious cases diagnosed increased from 28 in 1996-97 to 62 in 1997/98.

BNMT has adopted a health service management support approach in the 6 terai districts, and supports the government health services through training, assistance with supervision, monitoring and quality control of sputum smear microscopy. BNMT has also done research in SCC regimens and case finding.

For more information:

The TB Programme Co-ordinator, BNMT, PO Box 9, Biratnagar, Nepal
Tel: 00977 21 25871, Fax: 00977 21 25232,
Email: tbpbmnt@mos.com.np

References:

Jochem K, Fryatt RJ, Harper I, White A, Luitel H, Dahal R. Tuberculosis control in remote districts of Nepal comparing patient-responsible short-course chemotherapy with long course treatment. *International Journal of Tuberculosis and Lung Diseases* 1997; 1: 502-08

Harper I, Fryatt R, White A. Tuberculosis case finding in remote mountainous areas - are microscopy camps of any value? Experience from Nepal. *Tubercle and Lung Disease*. 1996; 77: 384-88

4.2 Supporting Existing Health Services for TB Control

Some NGOs prefer to avoid service delivery, but want to support the development of effective government health services. They recognize that successful TB control programmes depend on good management, particularly for laboratory services, logistics and monitoring. These organizations help government staff carry out the management aspects of TB control, for example, needs assessment, planning, training, supervision, drug supplies, quality control of sputum smear examination, and reporting. This support is in the form of skills development for government staff and systems development to improve the efficiency and effectiveness of government services. NGOs can also provide support in terms of infrastructure for local TB programmes. Many NGOs have become involved in strengthening government health services at the district or community level. This approach is particularly suitable for organizations which already have this involvement, and can be a highly cost effective means of supporting TB control. It is important to develop a close working relationship with government health services based on mutual trust and support.

Advantages

- Less costly than service delivery
- Does not require long term commitment
- Capacity building; enables staff of the government health service to improve the quality of their work

Disadvantages

- Depends on the government infrastructure – if government services are weak or non-existent then may not be successful
- Difficult if government health workers are frequently transferred
- Government health workers may not welcome the involvement of NGO workers

Possibilities

- Organizations working to strengthen district health services

**Health Service Management Case Study:
Netherlands Leprosy Relief Association**

The Netherlands Leprosy Relief Association (NSL) runs a combined TB Leprosy project in the Far West Region of Nepal, covering a population of 2 million in 9 districts. Seven of these are remote hill districts, and two are large terai (plains) districts. Leprosy services began in 1991, and the project added TB control support in 1995 at the request of the government of Nepal. Integration of support for TB and leprosy services means that NSL has a low cost, but highly effective, programme. NSL staff members work in close collaboration with the regional health services director for the Far West region.

One of the first centres to introduce DOTS in Nepal was Dhangadhi hospital, in Kailali (one of the terai districts), in 1996. NSL staff assisted the district health office with training, supervision, logistics, and monitoring. DOTS has been highly successful in Dhangadhi, and has now expanded to 3 more treatment centres in the terai, and 2 hill districts. Despite the geographical isolation and poverty of most districts of the Far West, DOTS has been most successful. The treatment success rate in the DOTS centres was 83.1% in 1996/97.

NSL has also constructed a laboratory and training quality control centre for the Far West Region, in collaboration with the government regional health training centre.

For more information:

Project Director, NSL Far West Project, PO Box 35, Dhangadhi, Kailali District, Nepal

Tel: 00977 91 22374, Fax: 00977 91 21927

Email: NSL-west@npl.healthnet.org

4.3 Educating community about TB treatment

Health education, information and communication (HIEC) is an important strategy in TB control. Many people with TB lack awareness of the basic symptoms of TB. Even if they do know about the symptoms, they often do not know that diagnosis and treatment is freely available through government or NGO health services or that tuberculosis can be cured.

However, education of the community about TB treatment may have a negative impact if treatment services are not widely available or are of poor quality. Provision of DOTS must go hand in hand with an education programme.

There are many different ways of communicating messages about TB, for example, mass media (TV and radio), printed materials (poster and pamphlets), and drama (puppet shows, street theatre). One of the most important ways is by word of mouth. Health workers can play an important role in sharing information about TB during conversations with patients and people in the community.

Advantages

- Low cost

Disadvantages

- Only appropriate if treatment services are available and good cure rates have been achieved

Possibilities

- Organizations working in health education

Education Case Study: ACTIONAID India

ACTIONAID is an international development organization dedicated to helping children families and communities overcome poverty through its work at grass roots level, as well as by influencing policies and practices affecting the poor at national and international levels. ACTIONAID India commenced its activities in 1972. It works primarily in partnership with about 275 local NGOs throughout the country, and is concentrated in 138 of the most backward districts of the country.

ACTIONAID India has recently developed educational materials about TB. A study carried out in 1988 showed that only 15% of local leaders in Gujarat, 17% in Tamil Nadu, and 30% in West Bengal were aware of the duration of anti TB treatment. Studies carried out in Maharashtra, Orissa and Rajasthan showed that radio and printed educational materials reached less than 10% of leaders. Interpersonal communication by word of mouth seems to be the most effective medium for sharing information. ACTIONAID India has therefore developed a booklet about TB to help community level health workers and decision makers communicate the main messages about TB more effectively.

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Email: co.blr@actionaid.sprintprg.ems.vsnl.net.in

Reference:

Chakraborty A, Choudhury S. *National TB Programme. Stopping the Killer.*
ACTIONAID India, Bangalore 1997

4.4 Providing Community-based Care

People with TB live in families and communities. These communities, in villages, towns, cities, slums, and factories provide valuable social support to the members of the community. A basic principle of TB control is provision of care as close as possible to the patient's home. This may be in the community to which the patient belongs. Community volunteers, local leaders, civil service organizations, colleagues in the work place, religious leaders, shop keepers, teachers and many others can be actively and usefully involved in helping cure TB.

Many NGOs are committed to a community based approach, in which members of the community themselves take responsibility for identifying their own needs, planning interventions, implementing activities, and monitoring and evaluating outcomes. Community based care of people with illness has become popular, as communities recognize that health services provided by institutions such as health posts and hospitals are limited in their capacity to provide adequate support within the home or local community. Relatives and neighbors already provide the majority of care; community based care is a means of facilitating this existing system, and providing support to care givers.

There are two types of community based care. The first type is care by outreach workers from the health services, or from NGOs. These are often salaried health workers or social workers, and may have been recruited from within the community. The second method is by volunteers from within the community (often as part of an NGO initiative). Community based care workers provide social support, observation of treatment, nursing care, and education.

Community based care has grown in recent years as a result of the HIV epidemic. Many people with AIDS also have TB. NGOs working in community based care for people with AIDS have discovered that they need to know as much about TB as HIV/AIDS. TB is a treatable condition, and treating an AIDS patient for TB can make a very significant contribution to their life expectancy and quality of life.

Advantages

- Provides care close the patient's home
- Can be integrated with other care and development activities
- Responds to community needs and priorities
- Encourages local involvement and ownership

Disadvantages

- Requires extensive network of community level workers

Possibilities

- Organizations involved in community based care of people with HIV/AIDS
- Organizations working in community based health development

There has been a rapid growth in self-help groups and patient's organizations in the last few years, particularly for people with HIV/AIDS and other chronic illnesses. Such groups have many benefits and provide a social network for patients and their families, information and education about specific conditions, and advocate on behalf of people affected by a disease of disability. Organizations specifically for TB patients are rare. This is perhaps because:

- TB is not a chronic disease so patients will not stay long in the group
- Stigma may discourage people from identifying themselves as having TB
- Relatively few people with active TB live in the same geographic location (except in some urban areas)
- Disadvantaged groups in society often have less experience in advocating on behalf of themselves.

The potential for involving people with TB in existing self-help groups is great. These include micro-credit groups, adult literacy groups, and organizations for people affected by HIV/AIDS.

Advantages

- Directly benefits those most affected by TB

Disadvantages

- TB specific self-help organizations may be difficult to form and maintain

Possibilities

- Patients organizations for people with HIV
- Chest and heart associations
- Women's groups
- Income generation and micro-finance groups

Community-Based Care Case Study: BRAC

For the past 25 years, BRAC, an indigenous non-governmental organization in Bangladesh, has been working toward poverty alleviation and community empowerment for the rural landless poor, focusing specifically on women and children. Development programs implemented by BRAC focus on areas such as education, micro-credit loans, employment, training, and health. One of the primary focuses of the health program is disease control, including the Tuberculosis Control Program.

In response to the steadily growing numbers of TB cases in Bangladesh, BRAC initiated a community-based TB control pilot project in Manikonj thana (sub-district) in 1984. Each thana is an administrative unit which has 200-250 villages and a population of approximately 0.2-0.25 million. This single pilot project has evolved into BRAC's TB Control Programme, which is currently collaborating with the NTP in 60 thanas, covering a population of 13-14 million.

The nucleus of the BRAC TB Control Program is the utilization of community based voluntary health workers, called Shastho Shebikas. These are local women, averaging 25-35 years of age, most of whom have no formal education but who are trained by BRAC on essential health activities including TB control. Their responsibilities in relation to TB control are: to disseminate information about TB to the community; to identify suspected patients and refer them to diagnostic centers for a sputum smear; to ensure directly observed treatment; to dispense medication during the initial and continuation phases; and to follow up on TB patients during and after treatment has been completed.

An individual who is identified as having TB signs a contract with BRAC, witnessed by two community members including Shastho Shebikas, and pays a bond of agreement of taka 200 (US\$5), to ensure that they complete the treatment. This amount is returned to the patients if they complete their prescribed treatment regimen and they pay 125 taka to the Shastho Shebikas for her work in identifying patients and ensuring that the patients take their medication daily. Ultimately, the Shastho Shebikas are the primary link between the community members and the BRAC health services.

For more information:

BRAC Centre, 75, Mohakhali, Dhaka, Bangladesh
Fax: 00880-2-883542 Tel: 00880-2-884180-7 Email: hpd@bdmail.net

Reference:

Chowdhury AM, Chowdhury S, Islam MN, Islam A, Vaughan JP. Control of tuberculosis by community health workers in Bangladesh. *Lancet* 1997; 350:169-72

**HIV/AIDS Organization Case Study: The Naz Foundation (India)
& Lala Ram Sarup Institute for TB and Allied Diseases**

The Naz Foundation (India) Trust opened its doors in India in 1994, and has become established as a leading community-based organization in the battle against HIV disease in Delhi. A major focus of the NAZ strategy is exploring general sexual health and sexuality. Naz believes that awareness raising on these fundamental areas enables people to become more conscious and hence empowered when comes to decision making on sexual behaviour.

The Lala Ram Sarup (LRS) Institute for TB and Allied Diseases provides extensive in and out patient facilities to South Delhi. The hospital has 520 beds, including an intensive care unit. The out patient department provides services to over 60,000 people annually, with nine outreach clinics meeting the needs of another 28,000. The OPD sees about 150 patients daily for medicines and checkups and diagnoses about 7,500 TB patients every year.

In February 1997, Naz began work with the LRS Institute, and provides:

- Pre and post HIV test counselling
- General counselling to promote health seeking behaviour
- Free confirmatory HIV testing
- Training to medical and para-medical staff on HIV and universal precautions
- Informal education in the children's ward
- Outreach services such as home visits to HIV positive patients and their families after discharge from hospital

Naz has built a good working relationship with many of the hospital staff, many of whom refer patients thought to be at risk for HIV, or having symptoms of AIDS. Naz is currently exploring the possibility of locating an HIV counselling centre at the hospital for people attending the OPD.

For more information:

The Naz Foundation, PO Box 3910, Andrews Gunj,
New Delhi, 110 049, India

Tel: 0091 11 1970 Fax: 0091 11 685 9113

Email: info@naz.unv.ernet.in

**HIV/AIDS Organization Case Study:
Northern Thailand Community-based Care Project**

Thailand's AIDS epidemic is the most advanced in Asia, with around 900,000 people infected with HIV. Over 80,000 people have been reported with full-blown AIDS, though the real figure is at least three times higher. The annual number of new cases of AIDS will continue to grow sharply over the next few years, even if the incidence of new cases of HIV is dramatically reduced. By the year 2000, a cumulative total of 350,000 to 650,000 people will have developed AIDS, and 50,000 to 100,000 new cases will occur each year. Thailand's epidemic has been most severe in the north, the six provinces in the government's Communicable Disease Control Region 10 (CDC 10) - Chiangmai, Chiangrai, Phayao, Lampang, Lamphun and Mae Hong Son-and around half the national reported cases of AIDS have been in this region.

Most of the care of AIDS patients is presently handled by government and university hospitals, though with only around 100,000 hospital beds in the country, the country's health services threaten to be overwhelmed. One approach to ease this impending crisis is to shift the burden of care from hospitals to the community and home. The first successful community-based prevention and care programme was started in 1992 by CDC10, in the village of Ban Dong Luang of Lamphun province. Having established links between the staff of the local health centres and the village community, the project trained 15 peer leaders as village care providers, five of whom were also trained as counsellors. The health staff strongly encouraged acceptance of people with HIV/AIDS in the village, and cases of discrimination decreased.

Ban Dong Luang became the first community in the north to form an anti-AIDS association, raising money for people with HIV and AIDS. Several NGOs in the north have become active in community-based care over the past few years, including North Net and New Life Friends. There has also been support from religious groups, such as the Buddhist monks of Doi Saket and Prapong Thep.

The latest development in the north has been a project to develop a district model for comprehensive care. This started in March 1995, with the support of CDC 10 and WHO, in collaboration with CARE International. This model project is one of comprehensive care, providing medical treatment and nursing care, as well as counselling and other social and psychological support for people with HIV and AIDS, their families and dependants.

The model also provides a continuum of care - which means that it seeks to provide for any individual with HIV or AIDS appropriate services in the home, in community centres and in hospitals. For example, someone being treated in their home can quickly and efficiently be moved to a hospital if the need arises, or from a hospital to a community centre. In such a model, hospitals will usually provide diagnosis, clinical management and treatment of acute conditions, while care for chronic conditions will be given in the home and in community settings.

Drawing on the strong family links that exist traditionally in the northern provinces, care initiatives in the region are trying to extend these links into the community, and to health facilities at all levels. By involving communities, and making them a part of the daily struggles and anguishes of the epidemic, it is hoped that the quality of life for people living with AIDS - and for their families and dependants - can be substantially raised.

Reference:

SEARO publication: Planning and implementing HIV/AIDS care programmes: A step-by-step approach, 1999

4.5 Advocating for and mobilizing enhanced TB control effort

The role of advocacy is to draw the attention of policy makers, donors and the media to the magnitude of the TB epidemic, and to the benefits of effective TB control. Many organizations have been most effective in advocating on behalf of groups in society who are disadvantaged due to social status, disease, gender, age, race etc. Recently, these organizations have recognized that people affected by TB are often the most disadvantaged in society, and that advocacy on their behalf is vital in order to develop and maintain effective TB control programmes. There are generally few advocates for TB patients.

World TB Day (March 24th) provides a great opportunity to advocate on behalf of and with patients and programmes to raise awareness and increase commitment to DOTS. All over the world, organizations and individuals organize events to commemorate the anniversary of the discovery of the TB germ by Dr Robert Koch in 1892. The main focus of activities is to get the message STOP TB across to politicians, leaders and the media – to encourage them to take the TB epidemic seriously, and take urgent action to STOP TB with DOTS.

Advantages

- Essential for introducing and sustaining DOTS
- Everyone can get involved –including people with TB

Disadvantages

- Difficult to measure the effectiveness of advocacy

Possibilities

- Human rights organizations
- Development organizations
- Women's organizations
- Child development organizations

4.6 Conducting and supporting operational research

The DOTS strategy was first developed by an NGO – the International Union Against Tuberculosis and Lung Disease (IUATLD). Their commitment to research has enabled many NTPs around the world to develop excellent TB control programmes in their own countries. NGOs often have a greater capacity for innovation and flexibility, and may have more resources than government health services. This means they have the opportunity to conduct research. However, there is often a conflict between the need for standardization - to ensure that everyone follows national policies - and the need for innovation to improve the way TB control services are organized. Any deviation from NTP policy should be agreed beforehand with the national authorities. It must be part of a well-run research programme designed to find solutions to important problems in the TB programme. Research must be relevant to the needs of the NTP and must be scientifically rigorous. It must not hamper programmes by diverting attention and resources away from the primary purpose of introducing and maintaining excellent TB control services.

TB research does not have to be expensive. Important information can be gained simply and quickly by analyzing information in the routine recording and reporting system.

Advantages

- Can be added to existing programmes

Disadvantages

- May need additional resources and technical assistance
- Poor research is a waste of time and resources
- Poor research may be misleading

Possibilities

- Research organizations
- NGOs involved in TB control

**Research Case Study: Foundation for Research
in Community Health, Bombay**

The Foundation for Research in Community Health, based in Pune and Mumbai, was established in 1975 with the aim of studying health problems, with special attention to the underprivileged majority who live in rural India and urban slums. Its initial ten-year community-based health care project at Mandwa in rural Maharashtra revealed the great potential of semi-literate women who could optimally combine knowledge and technology with the practical wisdom of the people in achieving results which the government hoped to achieve by 2000 AD.

In the past 5 years, FRCH has undertaken a series of studies examining social and operational aspects of the long-neglected problem of tuberculosis. The aim of these studies is not just to facilitate organised efforts to control TB. The studies draw attention to the glaring weaknesses within the general health care services upon which the success of any TB control program depends.

FRCH is a research NGO and uses research as a tool to help inform both communities and policy makers in tackling complex health and development issues. A study in Western India of private sector involvement in TB control documented for the first time their uneven tuberculosis management practices and initiated a debate on the strengths and weaknesses of private providers in delivering care to TB patients and on ways to involve them in TB control.

FRCH, with the support of WHO, conducted a survey of NGOs in Western India engaged in providing TB care and in-depth evaluations of their TB programmes. The study identifies some excellent examples of community based TB care in rural areas and urban slums, and demonstrated the great contribution NGOs could make in several areas. These include creating awareness among people about TB and the revised national TB control programme (RNTCP), developing locally appropriate models of TB care based on national guidelines, and acting as an interface between the private providers and the NTP.

FRCH studies on TB show that meaningful and effective involvement of non-governmental providers – for profit or non-profit – is possible only through a strong NTP that enjoys support of the community in general and TB patients in particular.

For more information:

FRCH, 84-A, RG Thadani Marg, Worli, Mumbai 400018, India
Tel: 0091 22 493 4989, Email: frchbom@bom2.vsnl.in

Reference:

Uplekar MW, Rangan S. Private doctors and tuberculosis control in India. *Tubercle and Lung Disease*. 1993; 74: 332-337

5. Involving NGOs in TB Control: Some essential steps

There are several steps that an organization must take as it develops an appropriate response to the TB epidemic. These are described below. To help you work through them, try answering the questions in each section.

Questions

- (a) *What are the main strengths of your staff and organization?*
- (b) *What are your main areas of experience?*
- (c) *What are the main resources that you can bring to TB control?*

1. Identify your potential involvement

NGOs can support national efforts to control TB in many different ways, for example, service delivery, education, advocacy, or community-based care. Choosing the most appropriate approach depends on the purpose and nature of your organization, your current resources and your experience. It may be unwise to attempt a new approach if you have no previous experience with it.

Questions

- (a) *What level of government do you relate to – community, district, state or national?*
- (b) *What are the existing mechanisms for co-ordinating with the government and other organizations?*

2. Link up to the National TB Programme

TB control is a joint activity that requires communication, cooperation, coordination and collaboration. It is most important that you develop a close working relationship with the level of government responsible for TB control in your area. The level of government that you relate to depends on the size, nature and geographical impact area of your organization. Most NGOs have a limited geographical area of activity, and will therefore relate to the level of government responsible for that area. Some NGOs cover much of the country, and will therefore relate directly to the central unit of

the NTP. Others work at the community level, and will relate to the district health office or equivalent.

Questions

- (a) *What are the local needs?*
- (b) *What will your responsibilities be?*
- (c) *What do you expect to receive from the NTP?*
- (d) *What can you provide for TB patients and TB control programmes?*

Questions

- (a) *Who has the authority to prepare and sign such an agreement?*
- (b) *Are there existing examples of agreements that you could use for a model?*

Questions

- (a) *How long can you commit yourself to this work?*
- (b) *What additional funding will you require?*
- (c) *From where will this funding come?*

3. Identify the needs, gaps and opportunities

The appropriate approach for your organization will also depend on the local needs. To determine the local needs, you may need to conduct a needs assessment, in collaboration with the local government and community. Find out what services are already locally available, and what TB control services the government plans to introduce. Determine local expectations and priorities.

4. Agree on involvement

A clear written memorandum of understanding between your organization and the government, describing your relationship and responsibilities, will help prevent misunderstandings and disagreements from occurring in the future. The document should describe the time period of the agreement, the respective responsibilities of the partners, reporting procedures, grievance procedures and the mechanism for renewal.

5. Develop a plan and budget

Involvement in TB control may necessitate expansion of your existing activities, with additional resource requirements. You will need to prepare a medium term plan and budget.

6. Follow NTP Policies

Always implement your TB control programme strictly in accordance with NTP policies. This is particularly important for diagnostic, treatment and reporting policies. The only situation in which it may be appropriate for you to deviate from national policies is when you are involved in operational research. However, this should always be done in agreement with the NTP.

7. Co-ordinate with the NTP

Once you have established your programme, you will need to maintain close links with the appropriate level of the NTP and with other NGOs working in TB control in your area. You will need to arrange and attend the regular coordination meetings.

6. Key elements of a successful NGO involvement

Collaboration

Collaboration is essential to TB control. There are many existing and potential partners working in TB control. Coordination – keeping each other informed - is important to avoid duplication of effort. Collaboration – working together – is an effective way of strengthening partnerships, reducing costs, sharing resources and skills, and maximizing the value of the contributions of different agencies. Collaboration in advocacy, education and research initiatives is of particular value.

Information

A successful programme relies on a steady flow of information. The successful programme will generate information that it can share with others. Equally, a good programme needs information to ensure that it is up to date with current developments in TB control. Sources of information include newsletters, journals, books, conferences, meetings, training courses, and the World Wide Web. A list of useful resources is given in the annex.

Innovation versus Standardization

Successful DOTS relies on a standardized approach to diagnosis, treatment, logistics, and reporting. Significant deviations from national standards lead to treatment chaos

and seriously hinder programme monitoring. However, innovation is necessary to maximize the potential of DOTS and to find the most effective and efficient implementation methods in different populations and health service environments. There is therefore potential tension between the need to standardize and the need to innovate. NGOs have tended to emphasize the need for innovation, whereas NTPs emphasize the need for standardization. Fruitful innovations can be creatively fostered through close co-ordination between the NTP and NGOs involved in research, with agreement on deviations from national policy only authorized as part of a rigorous research programme.

Sustainability

Even if we were able to stop the spread of TB today, there would be new cases of TB for decades to come because people who have already been infected remain at risk of developing active TB for the rest of their lives. DOTS is the most effective control strategy available to us, but it will take many years before we achieve our goal of eliminating TB as a public health problem. This illustrates the need for long term commitment to sustainable TB control. Organizations should therefore avoid unsustainable activities and those that create dependence, for example additional payments to health workers that are not sanctioned by the government.

Community Participation

It is communities that are most affected by the TB epidemic, and it is communities that have most to gain from effective TB control measures. Involvement of the community is a key principle of TB control, because communities are most aware of local needs and circumstances and most able to identify effective ways of delivering DOTS. Every community has strengths and these strengths can be enlisted to ensure proper DOTS implementation. Communities can identify local solutions to local problems, such as means of organizing

observation of treatment. NGOs can make an important contribution by facilitating links between government health services and local communities. Some countries have established district DOTS committees to facilitate the introduction and local supervision of DOTS. TB control can also be linked with other community development activities, such as community based care, income generation, literacy, and micro credit.

Networks

Networks are groups of individuals and organizations that meet and communicate together. Most networks have formed to share information, co-ordinate activities, and advocate for action. Learning organizations are always keen to listen to others, to find out what works, and to share failures as well as successes. The rapid increase in the number of NGOs working in TB control, and the growth of information technology, has resulted in a profound change in the way information is shared. Many local and national TB networks have developed in recent years, such as the leprosy coordinating committee (LCC) in Bangladesh, and the TB Control Network (TBCN) in Nepal.

Keys to successful networking

- Shared ownership
- Consensus
- Openness
- Transparency
- Communication

Networks can be helpful at each level. In the community, networks of patients in self-help groups can offer mutual support to one another. At the district level, groups of NGOs can coordinate activities. At the national level, networks can share information and resources, and coordinate research, education and advocacy activities.

There are some basic principles for successful networking. Shared ownership is important to prevent one organization dominating, or setting the agenda for the other organizations. A written constitution defining the structure, organization and ground rules of the network may help to prevent this. Rotating the chairperson and secretary and changing the venue of meetings can also help to prevent the emergence of dominant organizations or factions.

Because most networks exist to coordinate and share, decision making is usually by consensus, though voting may be needed at times. Networks also have to define their membership. This will usually be open, with few restrictions or pre-qualifications, other than interest or involvement in TB control. Prior agreement on the scope of discussions within the network will help to prevent meetings from deviating from the main purpose.

Appointment of a secretary responsible for arranging meetings, preparing and distributing the agenda, and keeping minutes of discussions, will help to increase the effectiveness of meetings.

Networking case study: tb.net

tb.net is a global network of organisations and individuals interested in TB control, and is based in Kathmandu, Nepal. Many tb.net partners are from developing countries in South Asia, but others are based in other parts of Asia, Africa, Europe and America. The purpose of tb.net is to promote communication between people involved in TB control, with the overall goal of improving TB control activities throughout the world. tb.net was formed in 1997 and has four main activities:

- development of a global TB control resource centre on the Internet
- an email discussion group
- development of resource materials
- an annual conference on NGOs and TB control

To access the tb.net website, go to <http://www.south-asia.com/ngo-tb>

To join the email discussion list, send an email to majordomo@mos.com.np, with the following text in the body of the message: subscribe tbnet

For more information:

tb.net manager, PO Box 126, Kathmandu, Nepal

Tel: 00977 1 613048, Fax: 00977 1 225559,

Email: tb@mos.com.np

7. Private Sector involvement in TB control

In many countries of South East Asia, the majority of people with TB are initially diagnosed and treated by doctors working in the private sector. This can cause serious problems for the national TB control programme, as poorly treated patients are a source of infection in the community, and may develop multi-drug resistant TB. Characteristics of poor management of TB patients in the private sector include:

- Diagnosis by X ray, without smear examination, leading to over-diagnosis of smear negative TB and under-diagnosis of smear positive TB
- Over-use of unnecessary, expensive and unproved tests
- Under-treatment; too few drugs, short duration, inadequate doses
- Over-treatment – prolonged duration
- No supervision of treatment
- No follow up of late patients
- Inappropriate monitoring of treatment by X ray
- Inadequate treatment records
- No reporting

Governments have three alternatives for improving the care of patients in the private sector. These are education, collaboration and legislation. NGOs have an important role to play in establishing links between the public and private

sectors in the first two of these approaches. NGOs can educate private practitioners to adopt NTP diagnostic and treatment policies, and encourage them to refer patients for DOTS. In addition, NGOs may be able to provide diagnostic and treatment services to which private practitioners can refer patients. NGOs can also provide outreach workers in the community for follow up of late patients, and may be able to assist with recording and reporting of patients managed in the private sector.

Links with national and local branches of medical associations, with chest physicians, para-medical workers, pharmacists and other associations may be possible. NGOs can also help to facilitate the development of networks of private practitioners, and act as the interface between the public and private sectors.

Private Sector Case Study: Mahavir Trust Hospital and Sivananda Leprosy NGO, Hyderabad, India

It is widely recognized that the private sector is the first point of contact for most TB patients in India, but there is a lack of effective models for involving this sector in DOTS. The Mahavir trust hospital, a non-profit specialty institution, in conjunction with Sivananda Rehabilitation Home, an NGO with extensive experience in leprosy control, undertook to implement DOTS in a population of 100,000 on behalf of, and in close coordination with, government authorities. The government provided training, policy direction, drugs, and other logistics. Local physicians were educated about DOTS and provided a mechanism for referral of patients, with the assurance that they would continue to be the patients' primary caretaker.

From 1995-1998, more than 300 patients were placed on DOTS. Of these, 190 were referred from private physicians; this proportion increased from 40% to 70% of patients put on treatment between 1995/6 and 1997/8. 74% of pulmonary patients had positive AFB smears. Sputum conversion and cure rates were more than 85%. Females accounted for nearly half of all smear-positive patients, compared with about one third of such patients in other DOTS areas.

The Mahavir project has shown that it is possible to involve private physicians in the referral of patients with suspected tuberculosis. Women appear to have better acceptance of public-private DOTS services. In 1998, the project is being scaled up to serve a population of 500,000.

For more information:

Mahavir Trust Hospital, Bhagwan Mahavir Marg, Hyderabad, 500 004 India. Tel: 0091 40 3316057, 3316058, 3393067, 3393134 Fax: 0091 40 3329032.

Sivananda Rehabilitation Home, Kukatpally, Hyderabad, 500 072 India. Tel: 0091 40 887679, 887904.

Reference:

Murthy KJR, Almeida JA, Ramana GVR, Ishweriah B. Public-private mix – A new approach to DOTS. International Journal of Tuberculosis and Lung Diseases 1998; 2(S2)[abstract].

Sources of Information

The following list of resources provides examples of the many different types TB-related materials that are now available. Listing of a resource does not imply official recognition or approval by WHO.

Newsletters

➤ AIDSwatch

This quarterly newsletter from WHO South-East Asia Regional Office provides programmatic experiences and updates on HIV/AIDS and TB in the Region. For copies, send an email to: narainj@whosea.org.

➤ TB Treatment Observer

This free newsletter is produced four times a year by WHO. For copies, send an email to: fightTB@who.ch or visit the WHO TB website at <http://www.who.int/gtb/programme/mailing.htm>

Journals

➤ International Journal of Tuberculosis and Lung Diseases

This professional journal is published monthly by the IUATLD. For subscription information contact: IUATLD, 68 boulevard Saint Michel, 75006 Paris, France. Tel: 0033 1 44320360 Fax: 0033 1 43299087

Books

There has been a rapid increase in recent years in the number and quality of books on TB. The following selection has been chosen because they are the cheap (in some cases free) and up to date:

- ***Treatment of Tuberculosis. Guidelines for National Programmes.*** Maher D, Chaulet P, Spinaci S, Harries A. (Second edition 1997) Published by WHO. Available from WHO regional and country offices. Available in Adobe Acrobat format on the Internet from: <http://www.who.int/gtb/publications/ttgnp/index>
- ***TB: A Clinical Manual.*** Published by WHO. Available from WHO regional and country offices. Available in Adobe Acrobat format on the Internet from: http://www.who.int/gtb/publications/tb_hiv/index
- ***Clinical Tuberculosis.*** Crofton J, Horne N and Miller F. Published by Macmillan. Available from TALC, PO Box 49, St Albans, Herts, AL1 4AX, UK
- ***Tuberculosis and HIV/AIDS: Questions and Answers*** This WHO/SEARO document is in press and will be available soon. For free copies, write to Tuberculosis Unit, WHO South-East Regional Office, World Health House, Indraprastha Estate, New Delhi 110 002
- ***Tuberculosis Case Finding and Chemotherapy. Questions and Answers.*** Toman K. Published by WHO. Available from WHO regional and country offices. This book was first published in 1979, but remains a very valuable reference guide to the principles of TB control.

An excellent resources on community based care for people with HIV includes:
- ***Planning and Implementing HIV/AIDS Care Programmes: A Step-by-step Approach.*** Available from the STD/AIDS Unit, WHO South-East Regional Office, World Health House, Indraprastha Estate, New Delhi 110 002.

Websites

tb.net: <http://www.south-asia.com/ngo-tb>

WHO TB programme: <http://www.who.int/gtb/>

IUATLD: <http://www.iuatld.org/>

Email discussion lists

tbnet is a free email discussion list on TB. To subscribe to tbnet, send an email to majordomo@mos.com.np with the following words in the body of the message: subscribe tbnet

List of Organizations

GLOBAL

World Health Organization

WHO, 20, Avenue Appia,
CH-1211 Geneva 27,
Switzerland
Tel: 0041 22 791 2963
Fax: 0041 22 791 4199
Email: fighttb@who.ch

International Union Against Tuberculosis and Lung Diseases

IUATLD,
68 Boulevard St Michel,
75006, Paris,
France
Tel: 0033 1 44320360
Fax: 0033 1 43299087
Email: IUATLDParis@compuserve.com

REGIONAL

WHO South-East Asia Regional Office

Regional Adviser,
STD/AIDS & TB,
World Health House,
Indraprastha Estate,
New Delhi 110002,
India
Tel: 0091 11 3317804-23
Fax: 0091 11 331 8412
Email: narainj@whosea.org

BANGLADESH

WHO

WHO, Road #7, House # 12,
Dhanmondi, Dhaka,
Bangladesh
Tel: 00880 2 864653-55
Fax: 00880 2 863247
Email: decolomb@bangla.net

NTP

Deputy Programme Manager, TB,
Leprosy Hospital Compound,
Mohakhali,
Dhaka 1212,
Bangladesh
Tel: 00880 2 9884567

BHUTAN

WHO

Social Ministry Secretariat
Above Telephone Exchange
Thimphu, Bhutan
Tel: 00-975-2-22864, 22940
Fax: 00-975-23319
Email: wrbhu@wrbhu.hk.super.net

Programme Manager
TB and STD/AIDS
Health Division
Ministry of Health & Education
Thimphu, Bhutan
Tel: 00- 975-2 25984,22602,23454
Fax:00-975-2 24649,23527

DPR KOREA

NTP

The Ministry of Public Health
Democratic People's Republic of Korea
Pyongyang, DPR Korea
Tel: 00-850-2-3817914
Fax: 00-850-2-3824077

INDIA

WHO

Rooms 533-35, 'A' Wing,
Nirman Bhawan
New Delhi 110 011, India
Tel: 00-91-11-3017993, 3018955,
3792179
Fax: 00-91-11-3012450
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NTP

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