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# TB Control in the South-East Asia Region

*Report of the Meeting of  
National TB Programme Managers  
Bali, Indonesia, 10-12 November 2003*

WHO Project: ICP TUB 001



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## 1. INTRODUCTION

Tuberculosis is a major public health problem in the South-East Asia Region of WHO. Of the 20 million people suffering from active TB globally, 8 million are in this Region. Five of the countries with the highest TB burden globally, namely, Bangladesh, India Indonesia, Myanmar and Thailand belong to this Region and together, account for 95% of the three million new cases of TB and the nearly three-quarter of a million deaths that occur every year in the Region. At the same time, the Region is home to nearly 6 million or nearly 18% of people living with HIV/AIDS, the largest proportion following sub-Saharan Africa, making it the second highest Region affected by HIV in the world. TB is the commonest life-threatening opportunistic infection among the HIV- infected in this Region and it is estimated that over 2.5 million people in the Region are co-infected with both HIV and TB. That the incidence of both diseases is the highest in the economically productive age groups between 15-54 years, poses significant threats not only to health; but also to social and economic development in the Region. In order to review the current situation and prioritize issues to be addressed at Regional and Country Level, a meeting of national TB programme Managers was convened in Bali Indonesia from 10-12 November 2003.

The specific objectives of the meeting were as follows:

- (1) To assess progress made with TB control at regional and country levels, including new initiatives in resource mobilization, intersectoral collaboration, capacity building and monitoring and evaluation;
- (2) To identify possible solutions to current concerns and actions to be undertaken at regional and country levels, and
- (3) To outline country-specific plans for DOTS implementation in 2004, towards achieving the 2005 targets for DOTS in the SEA Region, particularly with respect to case detection.

## **2. INAUGURAL SESSION**

The meeting was inaugurated by His Excellency Dr Kandun Neoman, Special Adviser to the Minister for Health, Govt. of Indonesia. Dr Frits De Haan, acting WR Indonesia, read out the inaugural address of the Regional Director, WHO South-East Asia Regional Office. Dr N Kumara Rai, Director, Department of Communicable Diseases, WHO/SEARO, welcomed the participants while Dr Jai P Narain, Coordinator, HIV/AIDS and TB WHO/SEARO briefed them on the meeting objectives. National TB (NTP) managers from all SEAR Member Countries (with the exception of the programme managers from India and Nepal), regional experts in the field of TB, communications and industrial health, and WHO country, Regional and HQ staff working on TB attended the meeting. Following the introductions, Dr Rosmini Day, National TB Programme Manager, Indonesia was nominated Chair person, Dr Jalal Uddin Ahmed, Deputy Director, Communicable Disease Control, Bangladesh, Co-chair person and Dr Daw Hla Kyin, Assistant Director, Department of Health, Myanmar, the Rapporteur, for the meeting.

During the inaugural session, several speakers noted that tuberculosis continued to be a major public health problem in the South-East Asia Region of WHO. At the same time, they recognized that Member Countries were making unstinting efforts to control TB in the face of a heavy burden of disease. They noted that national TB control programmes had made much progress with DOTS expansion, making these services accessible now to nearly 80 percent of the population in the Region, while continuing to maintain excellent overall treatment success rates close to the 85 percent target. Case detection rates had also doubled in the past two years. However, these figures still represented the detection of only a third of TB cases estimated in the Region. Several challenges remained to be met in order that countries in the Region achieved the targets set for TB control in 2005 and the Millennium Development Goals thereafter.

It was recognized that health systems in the Region were already overstretched and that several Member Countries were undertaking the difficult task of reforming their national health sectors in order to address this. However, inadequate preparation for the reforms, inadequate commitment at the level of local government, and the lack of technical capacity at peripheral levels had raised new challenges for TB control during the transition. National TB programmes had long recognized that public health systems alone could deliver DOTS to all those who needed these services. Several initiatives had

been taken around the Region to build partnerships with other sectors - the private health sector, NGOs, business and industry, medical schools, the media and communities to widen the resource base and reach of DOTS. At the same time, there was a need to continue to strengthen the capacity of national programmes for DOTS implementation within the context of health sector reform, improve community awareness and utilization of DOTS through effective IEC and social marketing, and develop comprehensive and feasible approaches to tackle HIV-related TB and anti-TB drug resistance.

It is encouraging that financial limitations that hampered the scaling up of DOTS are no longer valid in the new international environment of increased funding for health. Much of this has resulted from advocacy for TB control at various international forums. National TB programmes in Member Countries in the Region must make the most of the opportunities presented by recently established international initiatives such as the Global Fund to Fight AIDS, TB and Malaria to accelerate and intensify DOTS in order to reach the targets set for TB control in 2005.

### **3. TB CONTROL IN THE REGION**

#### **3.1 Progress with DOTS in the Region**

Good progress has been made with DOTS expansion in the Region; 78% of the Region's population now lives within access of DOTS diagnostic and treatment facilities. Many Member Countries, particularly Myanmar and India, among the high burden countries in this Region, have shown a steep rise in case detection - India alone contributed 67% of the increase in new cases detected globally in 2002. Treatment success rates have been maintained at an overall 84.5% in the Region in 2002.

Commitment to TB control at the national level continues to be high. NTPs in Member Countries have continued to expand DOTS, focusing on building capacity in terms of infrastructure and human resources, securing commitment for sustained resources, building partnerships with health providers in other sectors and increasing community awareness to improve utilization of available DOTS services. A network of laboratories for quality-assured smear microscopy services is being established and expanded in all Member Countries. Mechanisms to ensure external quality assurance systems

and drug resistance surveillance, coordinated by the designated supra-national reference laboratories such as the Tuberculosis Research Centre at Chennai, India, the designated reference laboratory in this Region, are also being established. Many innovative approaches have been initiated to increase the reach, acceptance and cost effectiveness of DOTS, particularly in countries where health sector reform is being implemented. Plans are underway to introduce DOTS at the workplace, targeting the health facilities and providers in large employment sectors. Countries are also making efforts to meet emerging challenges posed by HIV related TB and anti-TB drug resistance. However, in order to reach the targets set for 2005, these efforts need to be rapidly scaled up and sustained.

External resources available for TB control have increased significantly in the past two years. Applications for additional support for TB control from all eight countries in the Region who applied to GFATM have been approved for a total of US\$ 208 million over a period of five years. Assistance has been secured from the Global Drug Facility (GDF) for the procurement of anti-TB drugs in Bangladesh, DPR Korea, India, Indonesia and Myanmar. Additional technical and financial support is also available through bilateral agreements signed between donor agencies and national governments in several countries and this has resulted in an overall resource gap of under 10% of the total funding requirements for national TB control programmes in the region.

WHO support in the Region will continue to include technical assistance for planning, implementing and evaluating TB control through DOTS, promoting collaborative efforts, building national capacities for programme management, including for the development of information, education and communication (IEC) and social mobilization approaches. WHO will also continue to assist in mobilizing resources through global and, regional partnerships and through advocacy at national and international levels.

### **3.2 Progress with DOTS in Member Countries**

Progress as described in the Region as a whole, is a reflection of the considerable progress that has been made with DOTS since this strategy for TB control was introduced in all Member Countries in the Region between 1993-1994.

## **Bangladesh**

The DOTS strategy introduced in 1993 now covers 98% of the country's population. A major sector-wide approach to health reform under the Health and Population Sector Programme (HPSP) integrated the national TB programme into the Essential Services Package in 1998. NGOs already provide DOTS services to over 60% of the population in the country under memoranda of understanding with the Government of Bangladesh, and it is expected that their contribution will further increase in the future. Treatment success rates under DOTS have been consistently high (84% in DOTS areas in 2001). Case detection however, needs to be increased from the current 32% in DOTS areas. Under Health Sector Reform (HSR), plans have been made to forge partnerships with health providers in the private sector and medical teaching institutions both to improve access and ensure that standardized diagnosis and treatment under DOTS are followed throughout the country.

The key challenges facing the national programme in Bangladesh are to sustain the priority for TB control services under the HPSP and secure commitment for long-term funding in order to ensure adequate technical and managerial capacity to provide quality services, particularly laboratory services. The constraints facing the NTP need to be more effectively addressed by the National TB Steering Committee. Procurement and distribution systems under the HPSP have adversely affected timely procurement of drugs and laboratory supplies and this needs to be improved through improved collaboration with the medical supplies department and through improvements in logistics. The NTP also needs to build effective partnerships with private providers, academic institutes, further expand DOTS coverage to reach the more remote areas and implement a national communications campaign for behavioural change to improve utilization of services. The application for additional funding support to the NTP in Bangladesh was recently approved by the Board of the GFATM and will meet the current and medium term requirements of the NTP.

## **Bhutan**

Countrywide coverage with DOTS was achieved by 1997. The treatment success rate in 2001 was 86%; the detection rate among new sputum smear-positive cases is still low at 31%. Because of its hilly terrain, most smear-positive patients are admitted in the district hospitals for the initial two months

and anti-TB drugs are then provided through the Basic Health Units in the respective districts during the continuation phase. Diagnostic facilities, excepting culture, have been established at all district hospitals. There is a relatively high proportion of smear negative and extra pulmonary cases among new cases notified each year.

While treatment success rates have been consistently high, cure rates have been relatively low (71% in 2001 cohort) primarily because follow-up smear examinations were not uniformly undertaken and reporting from the districts remained incomplete. The challenges posed by the terrain are reflected in difficulties to coordinate efforts at the district level. Sustaining resources for TB control in the long-term also remains a major concern. Due to the growing economy, Bhutan attracts many workers from neighbouring countries; management of cross-border migrants is crucial to the success of the DOTS programme in the country. The priorities for NTP in Bhutan are to secure sustained financial resources for TB control; provide sufficient microscopes and supplies to all peripheral units; build technical capacity, particularly for data management; ensure quality-assured laboratory services, and undertake IEC and social mobilization campaigns to improve community awareness regarding TB.

### ***DPR Korea***

DPR Korea has a strong health infrastructure, and accords high priority to TB control. DOTS services have been expanded to cover the entire population in 2003. Excellent treatment success rates in excess of 90% and high case detection rates (84%) have been achieved in the areas under DOTS.

Frequent delays in the past in the supply of anti-TB drugs were addressed through external support from the GDF and by streamlining procurement procedures. Extensive training of professional health care workers, doctors, laboratory technicians and allied health staff was undertaken to ensure that technical capacity was built simultaneously with the rapid expansion of DOTS services. Major priorities are to strengthen the technical and management capacity for data management, IEC, supervision, logistics, and quality control of microscopy services. These have been planned for and will be undertaken utilizing the additional support becoming available through the grant agreement with the GFATM.

## **India**

Through the Revised National Tuberculosis Control Programme (RNTCP) introduced in 1993, DOTS services have been rapidly expanded to reach 741 million people or 69% of the population by August 2003, making it the second largest DOTS programme in the world. The annualized case detection rate following reports for the first two quarters of 2003 are 58% and 66% respectively. Consistently high treatment success rates under DOTS (85% in 2001 cohort) have been maintained. The RNTCP has focused on building capacity and effectively monitoring of the programme. To increase the reach of DOTS, guidelines have been established for the involvement of the private sector and NGOs. The RNTCP has also moved forward on working with medical colleges and nongovernmental organizations. Over 130 medical colleges are participating in the programme in a variety of ways (e.g., joining RNTCP-Medical Colleges state task force, advocacy, establishing DOT and microscopy centres, etc.) The Global Fund (GFATM) has signed grant agreements in support of the RNTCP in the previous rounds of applications to the fund. India is already receiving support from the Global Drug Facility. Additional donor support for DOTS expansion activities is being sought.

India faces considerable challenges in the following year. These challenges involve expanding DOTS to cover the entire country while maintaining quality, mobilizing long-term financial resources for sustaining the programme, ensuring uninterrupted supply of drugs, scaling up partnerships with other sectors to implement DOTS to improve quality and reach of DOTS, particularly in the urban areas, and building the capacity of states for decentralized management of the programme.

## **Indonesia**

DOTS was adopted in 1994 and has been rapidly expanded to allow access to over 98% of the country's population. Treatment success rates have remained high at over 85%. The landmark creation of the GERDUNAS TB Movement has led to the formation of a national alliance of partners to mobilize local resources in the long-term, and to help expand effective nation-wide TB control. The National TB Steering Committee and its national expert committee are elements of this multisectoral movement. Excellent examples of collaboration with NGOs and private health providers have

emerged. Although DOTS services have been made widely available, the case detection rate remains below 30% in 2002.

Additional resources have been made available through the GFATM and through bilateral agreements with donors. One of the major challenges facing the programme are weak management capacity and insufficient commitment at provincial and district levels affecting progress with TB control efforts under the decentralized health services. Attention is, therefore, being focused simultaneously on effectively decentralizing services to the provincial level; on improving the quality of implementation through training and attention to improving the laboratory network and quality assurance mechanisms; and on involving health providers in all sectors including the public sector lung clinics and hospitals and the private sector in order to improve the number of cases of TB being detected and treated successfully under DOTS. The need to improve community awareness through IEC campaigns has been recognized and is also being addressed.

### ***Maldives***

Priority has been accorded to improve accessibility, affordability and quality of care, and meet the increasing demand for health services by the rapidly growing population. The TB Control programme established in 1976, adopted the DOTS strategy in 1994 and achieved 100% population coverage in 1996. Maldives was the first country in the Region to reach global targets. Treatment success rates have been sustained at well over 95%, while case detection targets were reached in 1996. Facilities to perform mycobacterial cultures were made available at Indira Gandhi Memorial Hospital in 1997 and microscopy centres have been established at all regional hospitals. No case of drug resistance has been reported since 1997. The private sector has been well integrated with the TB Control programme.

The main thrusts of the TB control programme in the next five-year plan will be infrastructure and human resource development for intensified case-finding, early case detection, strengthening the microscopy network at island level so as to improve access to diagnostic services, and the development of a social mobilization and communications campaign for increased community involvement and utilization of available services.

## **Myanmar**

DOTS was expanded rapidly to cover 89% of the population in 2002. The NTP achieved a treatment success rate of 81% for cases notified in DOTS areas in 2001 and a case-detection rate of 68% under DOTS in 2002, close to the global targets set for 2005. The NTP in Myanmar has developed strong links with community workers at grass-roots level, such as the Myanmar Maternal and Child Welfare Association, the Myanmar Scouts and Guides, with professional associations, such as the Myanmar Medical Association, and with other sectors such as the railways. The implementation of DOTS in cross-border areas has been initiated with Thailand under a cross-border disease control programme. The main challenges facing the NTP are rising trends of HIV among injecting drug users in some parts of the country, continuing shortages in the number of trained staff available to implement the programme and weak infrastructure. Attention is being focused on strengthening programme and data management skills. Resources obtained so far through bilateral agreements from a few international partners have been effectively utilized. With additional support forthcoming through the GFATM and the global drug facility, Myanmar could well be expected to become the first high-burden country in the SEA Region to achieve global targets.

## **Nepal**

Following a review of the national tuberculosis programme in 1994, DOTS demonstration sites were established in April 1996. Impressive achievements have been made since then. DOTS coverage is now 91%, with both case-finding and treatment success targets under DOTS having been achieved. A strong community base for DOTS has been achieved through the establishment of district and village DOTS committees that have been set up involving people outside the health sector. Links with the private sector in the Kathmandu valley has led to upto 15% of all TB cases notified being referred from private practitioners and private clinics. A technical task force comprising the MOH, other governmental and nongovernmental sectors and medical associations, has been created to develop policy, assist with logistics and coordinate between partners. A cross-border disease control programme with India, is being initiated. Collaborative HIV-TB interventions will be initiated jointly by the national TB and HIV/AIDS programmes.

Further expansion of the programme to cover the more inaccessible mountainous areas poses a challenge. The NTP relies heavily on donor support both for implementation of the programme and for drugs. Although the national budget has increased over the years, the sustainability of current efforts will continue to depend on securing adequate external resources.

### ***Sri Lanka***

Sri Lanka has made considerable progress with DOTS expansion since 1995. DOTS services are now available to 95% of the population and is still largely practised through hospitalization during the initial intensive phase. Ambulatory DOTS was introduced in 1998 and presently covers 13 districts. Plans have been drawn up to extend this in a phased manner to the rest of the country in the next four years. Case detection has steadily increased to over 70%. The treatment success rate reported for smear-positive cases notified in DOTS areas in 2001 was 73% with a default rate of 13%.

With the devolution of health services to the district level in 1989, TB control activities were adversely affected for several reasons. The major constraints facing the NTP in Sri Lanka are: inadequate political commitment for TB control; shortage of technical staff at both central and district levels, and weak infrastructure in several districts. Infrastructure development, strengthening of the staffing pattern and technical capacity at the central unit and the district chest clinics, achieving full coverage with ambulatory DOTS, ensuring completeness of reporting and improving late patient tracing among internally displaced and urban populations particularly in the city of Colombo, have been planned. Sri Lanka could be expected to achieve programme targets within the next 2 years, given the additional inputs and financing support now available through the World Bank and GFATM.

### ***Thailand***

DOTS was adopted as the core strategy for TB control in Thailand in 1994, and full population coverage was achieved in 2003. Treatment success reported for cases notified under DOTS in 2001 was 77%. Cure rates have been low at around 70% largely due to the high death rate among patients co-infected with HIV. Default rates have been high in urban areas such as Bangkok which attract a large migrant workforce, leading to difficulties with ensuring adherence to treatment observation. There continue to be delays in

reporting from provincial and district levels. The introduction of improved software for evaluation of cohort outcomes in all districts is expected to improve the completeness of reporting.

Major challenges to successful TB control include the growing number of TB cases attributable to HIV and increasing anti-TB drug resistance in areas with high HIV prevalence. The NTP has been actively extending DOTS services including to people living with HIV/AIDS in collaboration with the national AIDS control programme. Preventive therapy for TB and the use of antiretrovirals for HIV prevention and care have been implemented in Thailand. The NTP has successfully implemented DOTS in prisons throughout the country. DOTS expansion in large urban areas remains a priority. The number of DOTS treatment centres have been doubled in Bangkok through active collaboration with the Bangkok Metropolitan Authority. Urban TB control in Bangkok is being promoted through innovative approaches for collaboration with teaching universities, large private hospitals, and private practitioners. A programme to address disease control including TB, in cross-border areas, has been established at the Thai-Myanmar border. While the 30 Baht-s policy aimed at providing universal access to health services to all, has increased the utilization of public health services, inadequate preparation for the decentralized management of health care and low commitment for TB control at the level of provincial governments, pose challenges in sustaining progress with implementing DOTS, as resources have to be shared among competing health priorities. There is a need to identify, through the national task force, mechanisms to effectively manage, implement and monitor TB control activities in the context of health services reform, particularly during the transition period, in order to meet the 2005 targets.

### ***Timor-Leste***

The national TB programme in Timor-Leste was formally established in 2000 following the declaration of Timor-Leste as an independent state. The NTP, with substantial support from Caritas Norway, has established full DOTS coverage in five districts in the country. The remaining eight districts are provided TB services through Catholic churches; coverage in these districts is as yet incomplete. The current treatment success rate is 81% and the cure rate 58% in 2002 (cases enrolled in 2001). The estimated case detection rate was 58% in 2002. With the planned extension of DOTS services to the sub-district and village levels, it is expected that TB case notifications will progressively

increase towards the global target of 70% by 2007 and also begin to better reflect the trend of TB incidence in the country in the long term. There is no national data available on drug resistance, as TB culture and sensitivity testing facilities are not available within the country. Data on HIV/TB co-infection is similarly lacking.

The newly established NTP has drafted a five-year plan and now needs to identify resources and develop the capacity to implement, monitor and evaluate a nation-wide DOTS programme. Increased national ownership, securing commitment for long-term resources, strengthening of the central unit, building capacity within the general health services to undertake DOTS, extending DOTS services down to the community level and increasing community awareness are the key activities that need to be undertaken. The excellent cooperation between Caritas, churches and the MOH which have contributed to current progress with DOTS. Forthcoming assistance through the GFATM will be utilized to build on current activities to achieve equitable and accessible services of high quality throughout the country.

#### **4. THE GLOBAL FUND TO FIGHT AIDS, TUBERCULOSIS AND MALARIA: AN UPDATE**

The Global Fund to Fight Against AIDS, TB and Malaria (GFATM) was set up to attract, manage and disburse additional resources through a new public-private partnership. It is a financial instrument based on the principles of mobilizing additional resources through country-led formulation of proposals, an independent review of these to ensure an interventional and regional balance, and rapid disbursement with a focus on performance. US \$ 4.7 billion have been pledged so far, but additional resources are required to sustain this initiative in the long run. Of the grants approved during the three rounds of proposals submitted so far, the allocation of resources has been as follows:

Region-wise: 60% for Africa, 20% for Asia, Middle East and North Africa, 11% for Latin America and the Caribbean, and 9% for Eastern Europe;

By disease: 60% for AIDS, 23% for malaria and 17% for tuberculosis.

By recipient: 50% to governments and 29% to nongovernmental and community based organizations and others. The majority of funds (>60%) have been allocated for drugs and commodities globally. A total of US\$ 709 million has been allocated to countries in the SEA Region over the next five years, of which 60% is for AIDS, 27% for TB and 13% for malaria. Bhutan and Maldives are the only two countries in the Region who do not yet have grant agreement with the GFATM. The priority now is to secure GF support for countries without approved proposals.

While the GFATM presents an unprecedented opportunity to mobilize resources, the process has been difficult (short deadlines, complicated and very exhaustive forms). Many issues regarding the Global Fund still need to be resolved including the choice of Local Fund Agent (LFA). Funding support has been more application-based, not always "need-based". The delays in grant negotiations and disbursement, and systems used for procurement, monitoring and evaluation have caused concern among recipient countries. The choice of the LFA is of particular concern in view of the lack of national ownership, costs for their services, and questions regarding their capacity to effectively report on progress. During the fourth meeting of the GF Board meeting, a panel of qualified LFAs will be contracted, based on a competitive process. Project implementation, monitoring and evaluation are more challenging aspects, placing increasing demands on national programmes in terms of implementing activities, managing and disbursing these substantial resources and reporting on the financial and programmatic aspects.

In this regard, WHO support provided so far has been greatly appreciated by countries as well as by the GF Board and Secretariat. WHO country offices and the Regional office have provided support through:

- Active membership of CCM in all countries; briefing of health ministers, CCPDM and national programme managers;
- Providing information on call for proposals, guidelines, forms;
- In-country technical support for proposal development, and
- Undertaking a WHO/UNAIDS regional review or "Mock TRP" and providing feedback on proposals prior to their submission.

However, it was noted that WHO regional and country office participation in GF-related activities had often been at the expense of other

planned activities and that there was a need therefore to strengthen WHO capacity at regional and national levels to cope with this demand, particularly in view of the greater partnership role of WHO in the future in the preparation and review of future proposals and in programme implementation, monitoring and evaluation.

## **5. THE "3 BY 5" INITIATIVE AND TB CONTROL**

The "3 by 5" initiative announced by the Director General of WHO in 2003, aims to address the global health emergency resulting from the AIDS treatment gap in concert with UNAIDS and other partners. It aims to reach anti-retroviral therapy (ART) to 3 million people living with HIV/AIDS in the 34 worst affected countries by 2005. This interim target of reaching 3 million by 2005 represents 50% of the estimated 5-6 million people needing ART worldwide, of whom only 300 000 currently benefit from these life-saving drugs in resource limited settings. In Asia, only 4% of the 1 million people requiring ART, receive it today. Rapidly scaling access to ART is therefore imperative. The key elements of the "3 by 5" initiative are: (1) mobilizing political commitment; (2) ensuring uninterrupted supplies of anti-retroviral drugs; (3) building the capacity of health systems to deliver ART; (4) simplifying diagnosis, treatment and ensuring treatment adherence; (5) effective monitoring and evaluation, and (6) promotion of operational research. Recognizing the strong links between HIV and TB, the "3 by 5" initiative will address the strengthening of joint TB/HIV initiatives in order to provide better diagnostic and treatment modalities for both TB and AIDS patients, while at the same time addressing TB prevention among those living with HIV/AIDS.

The key challenges are that drug prices remain too high, with the cheapest WHO-approved combination treatment costing US \$300 per annum, when overall public health expenditure ranges from US\$10 - US\$200 in most affected countries; health services are weak and are required well functioning health systems to deliver ART successfully; denial, stigma and discrimination are still in force, and most do not want to know their HIV status; and sufficient resources have not yet been mobilized.

The immediate next steps are: making available emergency response teams to countries; developing simplified treatment guidelines; publishing

uniform standards and simplified tools to track the progress and impact; start training and capacity development for all cadres of health professionals immediately; establishing an AIDS medicines facility to assist countries to procure best priced quality drugs, and advocating for the mobilization of sufficient resources.

Good progress has been made in SEAR in coordination and strategy development, capacity building and resource mobilization. A Regional Core Group on '3 x 5', and networking with UN Cosponsors has been established. Simplified treatment guidelines and ART fact sheets have been developed, and intercountry courses on the management of HIV/AIDS held. Approved Global Fund proposals from India, Thailand, Myanmar, Indonesia include ART, while operational research on introducing ART has been initiated in many countries. The next steps to be undertaken in the SEA Region are the organization of a regional core group meeting, drafting of a regional strategy for "3 by 5" in the Region, finalization of a resource mobilization proposal covering intercountry and country activities, fielding country missions to assist planning and implementation and moving rapidly to close treatment gap, i.e., scaling up ART access from 40 000 to 400 000 people with HIV/AIDS by 2005.

## **6. PARTNERSHIPS FOR DOTS**

### **6.1 Public-Private Partnerships**

In many high TB-burden countries, a substantial proportion of TB suspects and patients seek care from private and nongovernmental providers. Building partnerships with all such providers is, therefore, essential for strengthening TB control. Many countries in the SEA Region have taken a lead in developing such public-private partnerships. The Stop TB Partnership's Subgroup on Public-Private Mix for DOTS expansion (PPM DOTS) has facilitated documentation of these local initiatives among countries in our Region and others. These initiatives demonstrate the feasibility of engaging in a productive collaboration for DOTS implementation with private providers.

The evidence base emerging from 20 projects across eight countries has shown the benefits of public-private partnerships for DOTS. So far, around 8 000 patients have been treated under these initiatives with high treatment

success rates of over 85%. Among countries in the SEA Region, these initiatives achieved a significant increase in TB case detection ranging from 15% in Kannur, India, where the focus was on engaging microscopy services based at private hospitals, to 300% in Yogyakarta, Indonesia, where the involvement of public and private hospitals have yielded impressive results. Economic evaluations of projects in Delhi and Hyderabad in India have also demonstrated the cost-effectiveness of such collaboration.

Some common determinants of success have also emerged from a detailed cross-site analysis of PPM DOTS projects in Asia and Africa. All these collaborations have flourished within the DOTS framework. Willingness and commitment on the part of the NTP is essential. Successful partnerships have begun with a genuine dialogue. Incentives to providers include free provision of quality microscopy services as well as anti-TB drugs for their patients. A strengthened referral and feedback system coupled with regular supervision to offer support (rather than exercise control) remain at the heart of a sustainable collaboration. In many places, local NGOs or medical associations have been able to provide a "middle ground" to help build the partnership.

Most countries in the SEA Region now have some experience of working productively with private providers. Efforts now need to be directed at scaling-up successful initiatives without diluting the benefits accrued from the small-scale projects.

## **6.2 DOTS in the Workplace**

Established in 1988, Youngone Industries Ltd, a company of the Republic of Korea, is the largest employer in the Chittagong Export Processing Zone in Bangladesh with about 22 000 employees, 85% of whom are women between 18 to 30 years of age.

In 1996, the Chief Medical Officer identified TB as a serious problem affecting the health of the workers. Consequently, an MOU was signed between the Youngone Industries and the National TB Programme of Bangladesh and a programme designed to introduce DOTS into Youngone. A team of 10 doctors, 15 nurses and 40 health counsellors received training in the detection and management of TB. Counsellors encouraged workers who had a cough of more than three weeks' duration and loss of appetite to come

forward for TB screening. They were then referred to the local government hospital for diagnosis. A laboratory for sputum collection and microscopy was also established. A health education programme was developed to address the issues of fear, stigmatization and discrimination in addition to other aspects of TB prevention and control. Through home visits, counsellors motivated patients to continue their treatment. They also began to refer suspected cases of TB among patients' families to nearby government facilities.

Diagnostic algorithms and treatment regimens adopted by Youngone's DOTS programme are consistent with those of the Bangladesh National TB Programme. Anti-TB drugs are supplied by the national programme free of charge to patients attending the Youngone medical centres. Records of each patient are maintained and quarterly cohort reports indicating the number of cases registered and treated, sent to the national TB Programme regularly. All TB patients are given direct observation treatment at the company's medical centre and there has been no case of interrupted therapy. Employees were allowed to return to work in two to three weeks after the initiation of therapy or when their sputum becomes negative. In the year 2002, a hundred TB cases were diagnosed. Of these, 35 were sputum smear positive cases. All converted to sputum smear negative cases by the end of two months, and an impressive treatment success rate of 88% was recorded for this first group of patients.

What is unique about this initiative is that not only is there a company policy clearly stating that no employee can be dismissed from service on account of TB but also, sustained commitment from management to provide access to DOTS services at the workplace.

### **6.3 Urban TB Control**

It has been recognized that the prevalence of TB is usually higher in urban settings around the Region due to several factors, among them overcrowding, the presence of a significant population of seasonal migrants, and larger numbers of poor people who are either homeless or live in slums and shanty towns with little access to healthcare. While there are a number of health facilities, both public and private, ensuring equitable access to services is a challenge. Introducing DOTS in the urban setting requires that NTPs approach several different types of health providers and facilities. There is often little or no coordination even between the different public sector health facilities in

cities and in addition, public urban health care systems have remained poorly resourced.

Recognizing the need for a tailored approach to DOTS in the urban setting, a pilot project was set up involving the health service centres, a few large hospitals under the Ministry of Public Health (MoPH) and one large hospital under the Bangkok Metropolitan Administration (BMA) in the city of Bangkok in 1997. In 1999, this pilot project was expanded to include the Chulalongkorn medical school and additional hospitals under the MoPH and the BMA. In 2001, three private hospitals were added in Bangkok and some neighbouring provinces. Under the terms of agreement between the NTP and the hospitals, the NTP provided training for health staff, drugs, standard recording and reporting forms and assistance with developing systems for treatment observation in the hospital setting, quality control, recording and reporting, patient referral, late patient tracing and supervision and monitoring. The principles of this collaboration were equal commitment and sharing of mutual resources, effective networking between the different facilities and agreement on adherence to national guidelines for TB control.

The challenges that needed to be overcome were: establishing a single point for patient registration in the large multi-speciality hospitals; coordinating between the different service departments; ensuring adherence to the key components of DOTS in a clinical setting and tracing patients following initial registration for TB treatment, since a large proportion of them were seasonal migrants or actually lived in other parts of the country. This led to the development of a "one stop service" in some hospitals in the form of DOTS corners in some hospitals.

In terms of outcomes, the smear conversion rates were close to 80% while cure rates achieved were around 70%. The future success of the urban DOTS initiative will depend on continued technical and logistics support from the NTP, establishing good networking between public and private sector health facilities and improving the system for referral and transfer of patients both within the city and back to their home provinces.

#### **6.4 Cross-border Disease Control**

Myanmar and Thailand initiated a cross-border disease control programme for AIDS, TB, and malaria in bordering townships in 2000. The general objective was to strengthen collaboration between Myanmar and Thailand in improving

the health of people living in the border areas through collaborative action, information exchange, and developing new interventions to facilitate border health development.

Since the initial emphasis of the programme was on reducing morbidity and mortality due to tuberculosis, the strategies used were health education relating to TB, DOTS implementation for early detection and treatment of TB cases, regular monitoring and supervision, partnership building, and promotion of operational research. Both sides agreed to joint policy formulation and programme planning, coordinated implementation, monitoring, supervision, evaluation and surveillance, resource mobilization, information exchange and the development of a network for laboratory quality control. Border hospitals were upgraded. Mechanisms for the procurement of drugs and equipment, use of treatment cards/booklets that could be exchanged at the borders for follow-up, development and distribution of IEC materials in ethnic languages, training of health staff on both sides and enhancing the involvement of communities and NGOs, were developed jointly.

The major constraints are the difficult geographic terrain, language barriers, and lack of transport for supervision. Mechanisms for information exchange and cross-border referral remain weak, resulting in overall low cure rates and high default rates. Other drawbacks are the significant proportion of patients co-infected with HIV and the availability of anti-TB drugs of indeterminate quality in border areas raising concerns regarding potential drug resistance.

Priority areas for the future are to improve the quality of services to increase cure rates, reduce defaults and deaths, strengthen systems for referral, establish effective networking and strengthen community involvement on both sides of the border. Intercountry exchange of information and technical seminars are expected to improve this collaboration.

## **6.5 The Role of Media in Combating TB**

The media does not merely heighten public awareness about TB through publications and news broadcasts, but can also contribute significantly to advocacy and social mobilization critical to building the political will necessary for governments to sustain effective TB control activities. The print

and audiovisual media can also mobilize a demand from the community for TB services.

Forging partnerships with the media is easier today than ever before. The media has changed its image. With rising 'health literacy', the media is beginning to respond to the peoples' demand for more and more information on health matters and is beginning to look more critically at the multidimensional determinants of health in the world today. In addition, in less than a decade, there has been a revolution in media technology. While the print media continues to set the agenda for media coverage, commercial radio and television broadcasts together reach a significant population in any country. Television is no longer considered a medium to reach only the rich. The media today offers some of the most cost-effective ways to advocate to policy-makers and other stakeholders to make DOTS available and communicate to people that it is in their best interests to help people with TB. In this new environment, national TB control programmes need to spur the media to make TB more visible in the eyes of the government and the people.

Recognizing the potential contribution of the media, national TB programmes in the Region must explore means to sustain interest beyond World TB Days as is traditionally being done in order to keep TB at the forefront of consciousness of the public and policy-makers'.

This requires that NTPs build media interest and capacity to caution the general public on the dangers of ignoring the worsening epidemic, highlight the efforts being made to overcome the biggest public health challenge of this century, report on TB on an issue-based manner focusing on human interest stories, successes with innovative approaches, provide expert testimonies, opinions and debates on providing equitable access to all, especially those most vulnerable and least able to pay.

However, the challenge to NTPs is that using the mass media to transmit messages however useful, may be expensive, and engaging media interest in the long-term, requires persistence. Therefore, engaging media agencies with an interest in highlighting health issues would be a useful step. Besides funding articles and publications on TB, NTPs could provide resource materials to such agencies, engage in media seminars, offer fellowships and first-hand experience of TB control efforts to journalists, and help develop operational research protocols for the media to probe means of improving the interest of civil society in TB control.

## **7. GROUP WORK**

Following the plenary presentations and discussions, participants addressed the next steps towards achieving national targets set for TB control in two groups.

### **7.1 High TB Burden Countries**

Participants from the high burden countries reviewed the current status and key activities that contributed to progress in 2003 and deliberated on what further could be done to improve case detection, how additional resources could be obtained and sustained at national and sub-national levels, and what the major needs to reach the 2005 targets were in their own countries.

**Factors that had contributed to progress in 2003:** The conclusions from the group discussions among the high-burden countries were that the key factors were: the high political commitment shown by national governments; intensive capacity building of health staff through training for improving the quality of laboratory services and supervision; improvements in logistics; the initiatives taken to build partnerships, and the efforts undertaken to increase community awareness.

**Measures to be undertaken to further increase case detection:** These were considered to be further enhancement of political commitment particularly at the level of local government; strengthening skills for programme management; improving technical capacity especially for surveillance and data management; strengthening national laboratory networks and quality assurance mechanisms; scaling up public-private and public-public partnerships for DOTS, involving local NGOs and extending DOTS into special settings, e.g. workplaces, prisons, refugee encampments etc, increasing community awareness and improving contact tracing measures.

**Steps identified as being necessary to increase funding:** These were advocacy to policy-makers both at central and peripheral levels; ensuring and demonstrating good performance to donors and developing comprehensive result-oriented proposals to attract greater investment. Recognizing that NTPs were chronically short-staffed, it was proposed that they should undertake a comprehensive assessment of their human resources requirement, develop long term human resource development plans and explore alternatives to

employ additional staff or contract out specific tasks to nongovernmental agencies.

**Key future steps identified towards reaching the 2005 targets:** These were ensuring a high level of commitment from all stake holders; increasing national budgetary allocations and improving the disbursement procedures; building capacity and motivation of staff; ensuring job satisfaction, encouraging greater involvement of other providers through public recognition, and accreditation and improving the capacity of NTPs to undertake IEC activities better.

## **7.2 Low and Intermediate Burden Countries**

Participants from the low and intermediate burden countries reviewed their current status with respect to the global targets and the key activities that had contributed to progress in 2003; and deliberated on how data management and quality control of laboratory services could be improved, what their major needs to reach the 2005 targets were, and how resources could be further increased and sustained for TB control.

They first reviewed progress on the recommendations of the previous NTP managers' meeting. Good progress has been made with DOTS expansion. Medical schools, NGOs, health facilities under public and privately owned tea estates, the army/police and in the private sector have been involved. DOTS has been introduced into prisons, linkages with high-risk HIV groups established through NGOs and screening for TB among migrant workers initiated. Efforts to improve community awareness through media, churches, and national IEC campaigns have been carried out. Some studies on consumer satisfaction have also been undertaken. Nepal has established a TB HIV stakeholders' group; however, no district pilots have been initiated to undertake TB/HIV interventions in any of the intermediate/low burden countries.

**Key activities that contributed to progress in 2003:** These were continued DOTS expansion; initiation of public-private and public-public partnerships for DOTS and increasing involvement of NGOs; advocacy for increased resource allocation; IEC campaigns to increase community awareness; improvements in recording reporting (particularly in Bhutan);

training of staff, and regulation to ban sale of TB drugs in private pharmacies (Bhutan and Maldives).

**To improve data management:** It is necessary to provide comprehensive training to staff; computerize data management at central/regional levels in some countries; improve the speed of data handling and feedback to the periphery and develop a Region-wide compatible system for data management;

**To improve laboratory services and quality assurance of services:** It is necessary to ensure that all laboratory personnel at national and sub-national levels are properly trained and effectively supervised by the national reference laboratories through quality assurance and feedback systems; and that functional microscopes are available and repairs and maintenance regularly carried out.

**Major needs to reach 2005 targets:** These are human resource development through proper comprehensive planning to build and sustain adequate technical capacity to implement DOTS; and further increasing and maintaining resource allocations in the medium and long-term. This requires persistent advocacy for sustained commitment from national governments, the obtaining of additional external funding through submission of result-oriented proposals; documenting and disseminating the good progress made in utilizing available resources to promote greater commitment from all partners and stakeholders, including communities through effective IEC; expediting Global Fund grant disbursement procedures at the national level; and providing support to the countries applying for assistance to the Global Fund in the next round.

## **8. CONCLUSIONS AND RECOMMENDATIONS**

Though progress with DOTS expansion in all Member Countries has been good, case detection under DOTS remains low at an overall 27% in the Region. This is a cause for grave concern as it means that a large majority of those most in need of DOTS services are not benefiting from these. It is therefore, necessary not only to further expand DOTS but also to improve the reach and quality of implementation in order to increase case detection, so

that increasing numbers of those suffering from TB are successfully treated and cured.

Continuing constraints for national TB programmes in the Region are (i) lack of sustained commitment to TB control particularly in countries where health care has been decentralized to the level of local governments; (ii) a continuing lack of adequate technical and managerial expertise within programmes to sustain and improve of the core functions of DOTS; (iii) transitional difficulties in the implementation of DOTS programmes during the process of health sector reform; (iv) yet insufficient involvement of other health sectors in DOTS implementation; (v) low community awareness leading to poor utilization of available services, and (vi) the need to meet emerging challenges such as HIV associated TB and MDR-TB. Advocacy and resource mobilization efforts should be continued to ensure commitment at the level of national and local governments for sustaining the current momentum for TB control and to secure additional external resources in the long-term. Improving the technical and managerial capacity within national TB programmes and national systems providing TB control services in an integrated manner is of paramount importance. Stricter supervision and monitoring of programme performance and surveillance to monitor impact have to be established. While initial successes have been achieved in forging partnerships with other sectors, these now have to be rapidly scaled up. IEC campaigns to improve community awareness and operational research to identify locally appropriate mechanisms to reach all TB patients, particularly the most vulnerable and least able to pay, need to be undertaken to increase the reach and utilization of DOTS. Given the new funding now becoming available to national TB control programmes in the Region through multilateral and bilateral agreements, and provided the above identified priorities are given due attention, current progress in all Member Countries could well be sustained and accelerated towards the global targets set for 2005 and the millennium development goals set for 2015.

**Recommendations:**

***For Member Countries***

- (1) National capacity should be strengthened by sustaining and increasing commitment, ensuring adequate financial resources and building sufficient human resources at all programme levels.

- (2) National and sub-national partnerships should be enhanced with all stakeholders encompassing the private sector, NGOs, medical schools, business and industry, other government departments and health related sectors.
- (3) Resources should be augmented and effective mechanisms established to coordinate the activities of multiple providers to strengthen DOTS implementation in urban areas.
- (4) Effective information, education and communication campaigns should be undertaken in collaboration with other partners, to improve community awareness and involvement in national TB control efforts.
- (5) Collaborative approaches to HIV associated TB should be developed and scaled up, building on lessons learnt from pilot projects.
- (6) Operational research should be undertaken to further improve the quality, acceptance and utilization of DOTS services.
- (7) Collaboration for DOTS implementation should be initiated at the operational level in cross-border areas and the needs of mobile populations addressed, particularly those who are socially and economically disadvantaged.
- (8) TB surveillance should be strengthened and established with an emphasis on case notification and data analysis as well as surveillance for anti-TB drug resistance and HIV-TB.
- (9) The inclusion of TB control should be ensured in poverty reduction strategies and sector-wide approaches in line with the report of the Commission on Macroeconomics and Health.
- (10) Regional and national plans for TB control beyond 2005, towards reaching the Millennium Development Goals set for 2015 should be prepared, reviewed, and revised.

***For WHO***

- (1) Technical assistance in the areas of disease surveillance, data management, improving quality of DOTS implementation and resource mobilization to support interventions and activities to stop

TB through existing mechanisms and new initiatives should be enhanced.

- (2) Capacity strengthening at regional and country levels should be undertaken to enhance technical assistance within the Region in light of increasing resources and new initiatives.
- (3) WHO should focus on providing assistance to improve TB surveillance and particularly data management to better measure progress towards set targets and the MDGs set for 2015.
- (4) Assistance at the operational level should be provided to facilitate integrated disease control including DOTS implementation, in pilot project districts in border areas.

***For Development Partners***

- (1) Assistance should be provided in strengthening technical capacity for DOTS at regional and national levels.
- (2) Assistance with enhancing commitment and mobilizing and sustaining resources for TB control in Member Countries in the Region should be given.
- (3) Development of interagency coordinating committees or similar mechanisms at national and regional levels should be promoted and supported.
- (4) Consensus on common mechanisms to conduct programme reviews and reporting on project activities should be developed.

## **Annex 1**

### **PROGRAMME**

#### **Monday, 10 November 2003**

- 09.00-12.30 hrs
- Registration
  - Inauguration
  - TB Control in SEA: An update  
– Dr N Nair, WHO/SEARO
- 14.00-17.00 hrs
- Country Presentations on progress with DOTS  
(Status of programme, Plan for 2004, constraints, gaps, resources needed, special initiatives) 5 minutes each followed by discussion – Country Programme Managers
  - The GFATM – An Update  
– Dr Jai P Narain, WHO/SEARO

#### **Tuesday, 11 November 2003**

- 09.00-12.30 hrs PLENARY
- Partnerships for DOTS
- Public-private partnerships for DOTS –  
Dr M Uplekar, WHO/HQ
  - DOTS in the workplace – Dr N K Baruah, Bangladesh
  - Urban TB control – Dr P Rattanadillo, Thailand
  - Cross-border Disease control –  
Dr Daw Hla Kyin, Myanmar
  - The Role of the Media in combating TB –  
Ms Anushree Mishra, Nepal
  - “3 by 5” and TB control - Dr Jai P Narain, WHO/SEARO

(5-10 mins' presentation each followed by discussions)

14.00-17.00 hrs GROUP WORK

Next steps towards achieving targets in the SEA Region

- High burden countries
- Low/intermediate burden countries

Presentation of Group Work

**Wednesday, 12 November 2003**

- 09.00-12.30 hrs
- Major conclusions and recommendations
  - Closing

## **Annex 2**

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