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24-26 March 2004

Report on the Second Stop TB Partners' Forum

World Health Organization

Stop TB Partnership

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Contents

Abbreviations

AIDS	acquired immunodeficiency syndrome
BRAC	Bangladesh Rural Advancement Committee
DOTS	the internationally recommended tuberculosis control strategy
FIND	Foundation for Innovative New Diagnostics
GDF	Global Drug Facility
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
ISAC	Intensified Support and Action in Countries
ISDEN	Instituto de Salud MSC, Cristoforis Deneke
MDGs	Millennium Development Goals
MDR-TB	multidrug-resistant tuberculosis
NGO	nongovernmental organization
TB	tuberculosis
TDR	United Nations Children's Fund/United Nations Development Programme/ World Bank/WHO Special Programme for Research and Training in Tropical Diseases
WHO	World Health Organization

Summary

The delegations to the Second Stop TB Partners' Forum, held in New Delhi, India, on 24–26 March 2004, affirmed their commitment to intensifying their efforts and accelerating action to attain the global targets for the control of tuberculosis (TB) set for 2005, to expanding the outreach activities of the Global Partnership to Stop TB, with the aim of involving new partners, and to mobilizing more resources to facilitate the achievement of those targets. The delegations thus reaffirmed the commitments already made by the international TB community.

The Forum was held in New Delhi, India – a country with one of the highest TB burdens in the world. At an impressive inaugural ceremony, the Prime Minister of India, His Excellency Mr Atal Bihari Vajpayee, expressed his commitment to stop TB in his personal and professional capacity.

To mark World TB Day, which is celebrated on 24 March, the report of the World Health Organization on global TB control[1] was presented at the opening ceremony. The report showed that progress had been made in several countries; however, it emphasized that there was an urgency to reach the global targets for controlling the disease. The commendable progress of the Global Partnership was highlighted in the *Progress report on the Global Plan to Stop TB*[2].

The first six countries (Cuba, Maldives, Morocco, Peru, Tunisia and Viet Nam) to have reached the global TB targets and to have sustained those for 4 years were presented with awards. Their achievement was an inspiration to other high TB-burden countries.

Several countries which accounted for the highest global burden of TB presented the problems that they experienced in controlling the disease, illustrating overall challenges and putting forward recommendations[3]. Animated discussions, during which participants tried to find solutions, followed the presentations.

"Keeping the pledge" to Stop TB – the theme of World TB Day in 2004 – was endorsed following intensive consultations between ministerial delegations, representatives of the private sector, civil society, nongovernmental organizations and other members of the Global Partnership to Stop TB.

Several satellite constituency events and bilateral meetings were held, underlining the fact that the Forum is functioning as a platform for discussion among Stop TB Partners.

In videotaped messages, prominent world leaders such as Kofi Annan, Desmond Tutu, Bill Clinton and Mikhail Gorbachev emphasized their commitment to join the fight against TB. Videotaped messages from cured patients were inspiring.

The extensive media coverage by the Indian and international press enhanced the Forum's visibility and provided it with transparency. Daily reports were also posted on the Internet.

1 - *Global tuberculosis control: surveillance, planning, financing. WHO Report 2004*. Geneva, World Health Organization, 2004 (WHO/HTM/TB/2004.331).

2 - Stop TB Partnership. *Progress report on the Global Plan to Stop TB*. Geneva, World Health Organization, 2004 (WHO/HTM/STB/2004.29).

3 - *Report on the meeting of the Second Ad Hoc Committee on the TB Epidemic. Recommendations to Stop TB Partners. Montreux, Switzerland, 18–19 September 2003*. Geneva, World Health Organization, 2004 (WHO/HTM/STB/2004.28).

Background

The Second Global Stop TB Partners' Forum aimed to highlight the urgent need for accelerated action towards reaching the targets set for stopping the spread of tuberculosis (TB). The Global Partnership to Stop TB faces major challenges that require the engagement of entities outside the regular TB community, to ensure adequate human resources and social mobilization for health, primary care services, sustainable finances, and the involvement of the private and corporate sectors.

The Global Partnership to Stop TB consists of an inclusive consultative meeting of representatives of all the partners. In response to a growing global TB emergency, the World Health Organization (WHO) launched, in 1998, the Stop TB Initiative, which aimed to engage a larger network of multisectoral stakeholders in the fight against TB. The Stop TB Initiative succeeded in bringing together, at the Ministerial Conference on Tuberculosis and Sustainable Development held in Amsterdam, the Netherlands, in March 2000, ministerial delegations from 20 of the countries accounting for the highest burden of TB and representatives of international partners. In the resulting Amsterdam Declaration to Stop TB, which was subsequently endorsed by the World Health Assembly, the high-burden countries called for better coordinated support for the planning, the human and financial resources and the drugs that would be required in order to attain the global TB control targets. The international community organized itself rapidly in response in 2001: an interim Coordinating Board to Stop TB met in February, the Global Drug Facility (GDF) was launched in March, and the First Stop TB Partners' Forum was held from 22 to 23 October in Washington, DC, United States of America[4]. Attended by the representatives of 75 organizations and countries, the Forum launched the Global Plan to Stop TB and endorsed a structural framework for the Global Partnership to Stop TB, which included the establishment of six working groups (DOTS[5] Expansion; TB/HIV; DOTS-Plus[6] MDR-TB; TB Drug Development; New TB Diagnostics; and New TB Vaccines). In addition, the expansion of the Global Partnership to Stop TB, from 75 members in 2000 to over 300 in the early part of 2004, reflects the growing interest in and commitment to global TB control.

India: the host country

India is one of the countries with the highest burden of TB, and it is also one of the countries making the most rapid progress in expanding the coverage of DOTS. At its current rate of progress, India will reach the global TB control targets by 2005. India is an example for many other countries struggling with TB, for, despite the challenges that all developing countries face, it is succeeding in building the services required to provide treatment to its TB patients.

The new approaches that are being undertaken in India, such as collaboration between the private and public sectors, industry involved and private practitioners engaged, serve as models for other countries. Holding the Second Stop TB Partners' Forum in India presents an opportunity to highlight such approaches (e.g. public–private collaboration, TB control activities in the workplace, and community mobilization) to the challenge of stopping TB.

4 - *Highlights: First Stop TB Partners' Forum. 22–23 October 2001, Washington, DC*. Geneva, World Health Organization, 2001 (WHO/CDS/STB/2001.14b).

5 - The internationally recommended TB control strategy.

6 - The WHO-recommended strategy for control and management of multidrug-resistant TB (MDR-TB).

Reaching the objectives[7]

The Global Plan and the Global Partnership to Stop TB are *working*

The Global Plan to Stop TB is a coherent strategy that has been put into effective operation by the Partnership and is achieving real progress with measurable results, as shown by the increase in the number of countries adopting DOTS, the establishment of the GDF and the Green Light Committee of the Working Group for DOTS-Plus,MDR-TB as well as other initiatives. The governance and mechanisms of the Global Partnership to Stop TB serve as a model for fighting other diseases and addressing public health issues.

Funding TB control has a definite return on investment. It helps to fight human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS), reduces poverty, improves public health systems, and is promoting the development of urgently needed new diagnostics and drugs.

Progress in controlling TB may be reversed, however, if we as Stop TB partners do not shore up national TB control programmes and invest in new approaches. The continued, rapid spread of TB infection, drug-resistant TB and the overlapping epidemics of TB and HIV could overwhelm efforts to control the disease in the next few years and, in doing so, put development gains in many countries at risk. National TB control programmes and public health systems must be rapidly strengthened, and governments in endemic countries must increase their political commitment and operational support of TB control. Greater investment is needed in innovative ways to accelerate the expansion of DOTS programmes, including collaboration between public–private health-care providers, mobilization of the civil and community sectors, and research into new diagnostics, drugs and vaccines.

Without better tools, TB will become more deadly and will never be defeated. Only by developing new drugs, diagnostics and vaccines can progress against TB be rapidly accelerated and the disease eliminated as a global public health problem.

We in the Global Partnership to Stop TB need *you*. Stopping TB is much more than just a medical challenge. It requires cooperation across a broad range of partners in the private and civil sectors – businesses, religious groups, nongovernmental organizations (NGOs) and others – to achieve universal DOTS coverage, accelerate case detection, and promote the development of essential new tools.

7 - The role and objectives of the Stop TB Partners' Forum as the main coordinating body of the Global Partnership to Stop TB are: (a) to consolidate and increase support for and commitment to the work of the Partnership; (b) to review and comment on the overall progress of the Partnership; and (c) to serve as a forum of information exchange on progress, problems and challenges in relation to the work of the Partnership.

Theme: Keeping the pledge

As the TB epidemic continues to worsen, the commitments already made by the TB community to accelerate progress towards the attainment of the global targets for TB control by 2005 are important, "now more than ever". The commitments made by donors in Washington and Amsterdam are still not being met with regard to some elements of the Global Plan to Stop TB, especially those relating to the funding of research into and the development of new tools, and of the highly successful GDF. The theme "Keeping the Pledge" will highlight the positive performance of the Global Partnership to Stop TB and the growing threat of TB/HIV and other factors, in order to stress the need for renewed commitment to already existing targets and plans. The Forum constitutes the first step in building momentum towards accelerated action and intensified efforts to reach the targets set for 2005 and, beyond those, the United Nations Millennium Development Goals (MDGs) set for 2015, thus ensuring reduced TB prevalence and mortality.

Opening ceremony

The Second Stop TB Partners' Forum got off to a promising start on 24 March 2004 in the Vigyan Bhawan conference centre, New Delhi, when the Prime Minister of India, His Excellency Mr Atal Behari Vajpayee, lit a lamp at the opening ceremony.

In a video message, the Secretary-General of the United Nations, Mr **Kofi Annan**, said that the Forum offered a great opportunity to strengthen the world's commitment to reach the global targets for TB control by 2005 and the MDGs by 2015. TB was an avoidable disease that killed more than two million every year, almost all of them in the developing world. He said that the DOTS strategy for controlling TB had proved to be the most powerful weapon as well as the most cost-effective public health intervention. Although resources in the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) were increasing, much more needed to be done and investments would have to be made in new diagnostics and drugs, and new vaccines developed to eliminate TB. "We must spare no effort to meet the targets of 2005 to halt and reverse the spread of TB and stop it by 2015. This Forum is a great opportunity to strengthen the resolve," he said.

This message was followed by a video clip of a cured patient, Mr **Naveen Bhai**, from Gujarat, India, who made an impassioned appeal on behalf of DOTS and said that if it could cure him - an old man - it was the answer for all patients with TB.

Mrs Sushma Swaraj, Minister of Health and Family Welfare, India
In her welcome speech, Mrs Swaraj reiterated her government's commitment to cure every TB patient because "every breath counts". She drew attention to three basic issues in the chain to ensure result-oriented action. The first was the link between poverty and TB. The second was the need for collaboration and cooperation among various stakeholders. All stakeholders should assess realistically how to reach the targets by 2005. The third was to establish linkages between various disease control programmes to avoid duplication of effort. Synergies must also be developed between national and international programmes.

Dr Jong-wook Lee, Director-General, WHO, Geneva, Switzerland
In his keynote speech, Dr Lee said, "there are nine million reasons for being here today". During the past

10 years, there had been great progress towards reaching the global targets, but "we have to do much more if we are to reach them". That is why the theme of the present Partners' Forum was "Keeping the pledge". The targets for 2005 had been endorsed by the World Health Assembly, and those for 2015 had been endorsed as part of the United Nations Millennium Declaration. At the First Partners' Forum, in 2001, "we committed ourselves to achieving them. Our task at this second Partners' Forum is to see how far we have come and decide on the way forward to making good on that commitment". Tremendous and innovative efforts were needed in the coming 21 months to increase case detection from the present level of 37% to the target level of 70%. Preventing the spread of HIV was crucial for the success of TB control. The DOTS strategy provided many valuable lessons and methods for the treatment of HIV/AIDS. The best way for both those strategies to succeed was for them to work synergistically. The partners must build on the many successes of the Global Partnership to Stop TB.

Dr Praful Patel, Regional Vice President (South Asia), World Bank
Dr Patel outlined the health MDGs in his keynote speech. He acknowledged the global leadership provided by WHO in the fight against TB and outlined three main concerns: (i) the sheer scale of preventable deaths and curable ill health in developing countries; (ii) those suffering the most were among the world's poorest, with the least voice; and (iii) the impact of the disease on economic and human development. Most low-income countries were moving far too slowly. He reiterated the World Bank's commitment to support national goals and programmes, and to global collaboration to stop TB. He said, "Good performance is an energizer. There is no justification for the 5500 deaths per day, of which 1000 are in India".

Mr Atal Behari Vajpayee, Prime Minister, India
In the inaugural address, the Prime Minister reaffirmed the political commitment of his government by declaring that he himself was a partner with the delegates of the Forum in the war on TB – both as an individual and as Prime Minister. He said that mass education was necessary, which required a sensitive, plural and imaginative approach. His Government's vision was to reach all sections of society. He asked the delegates to take the TB control programme beyond ministries and government agencies, to involve private partners, NGOs and more people from sports, films and industry in the Global Partnership. He thanked the donor agencies, especially the World Bank, the United Kingdom Department for International Development, the Danish International Development Agency and WHO for providing strong technical support to India in its fight against TB.

Prime Minister Vajpayee and the Director-General of WHO then presented the Stop TB awards to the representatives of the six countries that had reached and maintained the global targets for tuberculosis control for the preceding 4 years. Those countries were: Cuba, Maldives, Morocco, Peru, Tunisia and Viet Nam.

Mr A.R. Rahman, first Global Ambassador to the Global Partnership to Stop TB
The noted music director had personally supervised DOTS treatment being given to Munni (from Delhi), the three millionth TB patient.

Dr J.V.R. Prasada Rao, Secretary for Health, Ministry of Health and Family Welfare, New Delhi, India
Dr Prasada Rao concluded the opening ceremony with a vote of thanks.

Session 1. Global Partnership progress

Chair: Mr Phil Hay

Keynote: Progress of the Global Partnership to Stop TB

Dr Marcos Espinal, Executive Secretary, Stop TB Partnership Secretariat
Dr Espinal gave an overview of the progress achieved by the Global Partnership and said that it had become a model for public health partnerships. Six working groups had made progress on the Global Plan to Stop TB. The working groups were: DOTS Expansion; TB/HIV; DOTS-Plus MDR-TB; New Diagnostics; TB Drug Development; and New TB Vaccines. Those new initiatives and the increased funding had helped to accelerate the fight against TB. "We have made a great start but the clock is ticking… and there is no time for complacency," he said. He repeated the pledge made at the High-Level Forum on the Health Millennium Development Goals, held in January 2004 in Geneva, Switzerland: "We don't need more promises; we need to deliver on those already made," he said. He described the help received from GDF as a "jewel in the Stop TB crown". He presented the Partnership's "report card", which was the first independent external evaluation of the group[8]. The Partnership had been awarded "extremely high" marks, but much more was required to win the "case race". The Second Global Plan to Stop TB needed to be aligned with the MDGs.

Access to high-quality TB drugs: Democratic Republic of the Congo

Dr Jean Yagi Stolo, Minister of Public Health, Democratic Republic of the Congo
The Democratic Republic of the Congo was one of the 22 countries with the world's highest burden of TB. Dr Stolo explained that it was the lack of buffer stock and shortage of drugs to treat TB patients that had made his country approach the GDF. The Global Partnership to Stop TB had offered assistance worth US$ 1.5 million, which had provided TB drugs for 63 000 patients for 2 years. The provision of four fixed-dose combination drugs by the GDF had made it possible to improve the drug management skills of personnel involved in TB control programmes and primary health-care workers who were responsible for the diagnosis and treatment of TB. He hoped to receive a regular supply of TB drugs from the GDF for all 11 provinces of the Democratic Republic of the Congo. The country planned to achieve 90% DOTS coverage by the end of 2004.

8 - Independent external evaluation of the Global Stop TB Partnership (Executive Summary). London, Institute for Health Sector Development, December 2003.

Rapid expansion towards the TB targets: India

Dr J.V.R. Prasada Rao, Secretary for Health, Ministry of Health and Social Welfare, New Delhi, India
Dr Prasada Rao gave details of the progress of India's Revised National Tuberculosis Control Programme, which covered a population of nearly 829 million. TB in India accounted for one third of the global TB burden and killed more adults than any other infectious disease. Rapid progress had been made towards the target of 70% case detection. He said that the Joint Monitoring Mission sponsored by WHO in 2003 had found that India's Revised National Tuberculosis Control Programme was highly economical, costing less than US$ 0.05 per capita, and that over 500 000 lives had been saved. The challenges before India were to maintain quality while expanding the Programme and to ensure long-term funding for sustainability. The main issues that needed to be addressed were those of human resource development, TB/HIV and drug resistance.

Session 2. Global challenges and intensified action

Co-Chair: Dr Mario Raviglione, Director, Stop TB Department, WHO, Geneva, Switzerland
Co-Chair: Dr Syed Karam Shah, National Tuberculosis Control Programme Manager, Ministry of Health, Rawalpindi, Pakistan
Dr Raviglione said that substantial progress had been made during the preceding decade in achieving the 2005 targets set by the World Health Assembly, but more needed to be done to reverse the epidemic of TB. "We are nearly there with cure rates of 82% but far behind with case-detection rates of 37%," he said. Governments in endemic countries must increase their political commitment and operational support to TB control linked to poverty reduction. There must be renewed commitment of support from all donors and partners to strengthen national TB control programmes and public health systems. DOTS must be expanded and promoted as a universal standard of care by all. Action needed to be taken both in the short term – by implementing national TB plans aimed at reaching the 2005 targets with the support of the strategy of the Intensified Support and Action in Countries (ISAC) Initiative – and in the long term – by aiming to achieve the MDGs set for 2015.

Dr Syed Karam Shah observed that the ISAC Initiative was one of the options by which "we look forward to intensified support to countries. We are looking to develop more country partnerships".

Success and challenges in South-East Asia

Dr Samlee Plianbangchang, Regional Director, WHO Regional Office for South-East Asia, New Delhi, India
Dr Plianbangchang said that over one billion people in the South-East Asia Region were covered by DOTS. The rapid expansion in the region had not been at the expense of quality, and global progress was being driven by the progress in the region, particularly in India. India had witnessed the fastest rate of expansion in DOTS coverage in history. In the past 5 years, there had been a 30-fold increase in TB services in India and a 7-fold reduction in the number of deaths associated with TB. Medical schools in Bangladesh, and also in India, were promoting and practising DOTS. Strong relationships had been established with several donor agencies. The GFATM had donated US$ 208 million to eight countries for 5 years.

The challenges yet to be overcome were: to improve primary health-care facilities; to deal with the problems that competed with TB; to initiate health-sector reforms; to obtain the highest priority for TB control so that it could contribute to poverty reduction for sustainability of current achievements; to intensify case-detection efforts; to mobilize the community; and to improve the quality and user-friendliness of the health-care services. The problems caused by TB/HIV needed a comprehensive approach in order to create a "TB-free world".

Success and challenges in the Western Pacific

Dr Shigeru Omi, Regional Director, WHO Regional Office for the Western Pacific, Manila, the Philippines

Dr Omi stated that "our aim is to reduce mortality by half in our fight against TB". TB mortality in rural China was three times that in urban areas. The disease particularly affected people in the most economically active age groups; if breadwinners were laid low by TB, whole families suffered the consequences. The Western Pacific Region bore more than a quarter of the global burden of TB. He said that 8 in 10 people in the region had access to DOTS services, and 9 out of 10 were successfully cured. However, the case-detection rate was less than 50%.

In some high-burden countries, notably Cambodia, the prevalence of HIV had reached alarming levels. He said that in spite of the serious challenges that faced the region, "we have reasons to be optimistic about our progress. We have already been successful in fighting other diseases, such as polio and SARS [severe acute respiratory syndrome], and I see no reason why we cannot add TB to this list". He concluded by saying that the theme of the meeting was "Keeping the pledge". He said, "in WHO's Western Pacific Region we have set the bar high, and it will take considerable effort on all our parts if we are to clear it. I am confident that we will be able to get the job done together".

Challenges, constraints and action in countries: China

Dr Wang Longde, Vice Minister, Ministry of Health, Beijing, China

Dr Longde described TB as a major public health and social problem, affecting 45% of China's population. The number of people suffering from the disease in China was the second largest in the world. He said that, since there were five million cases of TB, of which 1.5 million were smear positive, the progress of TB control in China would affect the realization of the global TB control targets by 2005. In October 2001, China had responded actively to the challenge of TB when the State Council had implemented the 10-year National Tuberculosis Control Programme (2001–2010). Enhanced cooperation with international partners, such as the World Bank, the United Kingdom Department for International Development, Japan, the Canadian International Development Agency, WHO, the Damien Foundation Belgium and the GFATM, had helped in promoting the TB control project in China. In many areas of China, the HIV/AIDS epidemic and MDR-TB were serious problems in migrant populations. China would provide free TB treatment to patients with economic difficulties, enhance cooperation between agencies and use mobile clinics to reach the people. Besides the measures to build institutional and human resource capacities, the amount allocated to the central budget for TB control would increase from US$ 4.8 million to US$ 25–30 million per year.

Challenges, constraints and action in countries: Kenya

Dr James Nyikal, Director of Medical Services, Ministry of Health, Nairobi, Kenya
Dr Nyikal reported that DOTS had been initiated in Kenya in 1993 and had been extended to cover the entire country by 1997 – an average annual increase of 16% since the early 1990s. Poverty was a major constraint to achieving TB control targets in Kenya. Other constraints were: the large HIV disease burden; inadequate general health-care services; lack of human resources for effective DOTS implementation; inadequate funding of proposed DOTS expansion activities; a high proportion of nomadic and semi-nomadic populations out of reach of TB services; a rising urban slum population which strained the capacity of programmes to deliver TB services; lack of knowledge and awareness among health workers; a large private health-care sector that was not involved in DOTS, especially in urban areas; lack of community awareness; and the stigma associated with TB and HIV infection.

The initiatives for DOTS expansion would include: (i) human resource development through the ISAC Initiative; (ii) a communication strategy to influence patient health-seeking behaviour; (iii) community involvement in TB care; (iv) private–public sector collaboration; (v) decentralization of TB control activities; (vi) strengthening collaboration between TB and HIV activities; and (vii) special programmes for improving TB control in specific populations such as those in prisons, and (viii) improving training and supervision of health workers.

Challenges, constraints and action in countries: Pakistan

Mr Mohammad Nasir Khan, Federal Secretary of Health, Ministry of Health, Islamabad, Pakistan
Pakistan ranked sixth among the 22 high-burden countries. Of the population affected, 80% were in the economically productive age group. The DOTS programme had been started in 1995, and the entire country would be covered by 2005. Every year, Pakistan was doubling its achievements in TB control. A major constraint in controlling TB was the problem of mobility of people in the areas bordering Afghanistan. He emphasized that children suffering from TB should be treated and that more women needed to be involved in all health programmes. Support by the ISAC Initiative was much appreciated, but no progress was possible without peace. "World peace is critical for development," he said.

Challenges, constraints and action in countries: Russian Federation

Dr Natalia Antonova, Head, Division for Organization of Medical Care of Infectious Diseases, Ministry of Health, Moscow, Russian Federation
Dr Antonova described the current status of TB control in her country and the achievements of the National Tuberculosis Control Programme. There was strong political commitment to the programme and new guidelines had emerged for detection, chemotherapy, laboratory diagnosis, and TB/HIV linkages. The TB control programme had been implemented countrywide and had been expanded with the help of a World Bank loan project. The Russian Federation had applied for a fourth round of funding from the GFATM. A system for the training of doctors had been devised. At present, there had been a decrease in the incidence of TB and the number of children infected.

Among the constraints, she mentioned an inadequate capacity for management, training, supervision and monitoring. The laboratory system was poor and national guidelines for the management of MDR-TB were lacking; there was also insufficient surveillance (especially for MDR-TB) and coordination among health workers. The challenges included tackling the increase in the number of HIV/AIDS and MDR-TB patients, expanding the revised strategy, improving the outcome of treatment, and sustaining the National Tuberculosis Control Programme. She pointed out that the political system was changing and that stability was required to achieve the targets.

SAHASI, an NGO in Delhi, administers DOTS to several patients infected with TB in the community. About 50 former patients lined the walls of the conference hall, and **Sarla** was their spokesperson. She said that she belonged to the north-west part of Delhi, where most of the half a million people earned their livelihood as rag pickers. A large part of their earnings would be spent on treatment and their children's education.

Sarla said that the DOTS programme had been started in their area about 6 years previously. Since then, many families with TB had been cured. She pointed out that if some of them were cured and some were not, the entire community was at risk. Thus, they wanted DOTS to reach out to all. She ended with a request that DOTS be taken all over the world to save innocent lives.

Session 3. How to speed up progress towards TB control targets

Chair: Dr N. Billo, Executive Director, International Union Against Tuberculosis and Lung Disease , Paris, France

Recommendations of the Second Ad Hoc Committee on the TB Epidemic

Dr Jaap F. Broekmans, Director, Royal Netherlands Tuberculosis Association, The Hague, the Netherlands

"No country can control TB on its own, as the sources of infection are just a few hours away," Dr Broekmans said. He verified the truth of that statement by describing the emergence of TB in the Netherlands – a "no-TB" country. MDR-TB had been diagnosed in a person who had come from eastern Europe. Six others had been infected, and it had cost US$ 0.5 million to treat them.

Dr Broekmans summarized the recommendations resulting from the meeting of the Second Ad Hoc Committee on the TB Epidemic, held in Montreux, Switzerland in September 2003[9]. The Committee's main recommendations to the Stop TB partners were: (i) to consolidate, sustain and advance achievements by demonstrating the effectiveness and added value of the Global Partnership to Stop TB, the GDF, the Green Light Committee and the Partnership's collaboration with the GFATM; (ii) to enhance political commitment by exploring complementary "top-down" (e.g. lobbying by high-level missions, political mapping and analysis) and "bottom-up" (e.g. social mobilization and communications) approaches; (iii) to address the health workforce crisis by developing policies to remove administrative barriers to creating and filling posts; (iv) to strengthen health systems, particularly primary-care delivery, by enabling TB control needs to be reflected in the design and implementation of health reform strategies; (v) to accelerate the response to the TB/HIV emergency by urgently stepping up collaboration with HIV/AIDS partnerships to implement a strategy of expanded scope to control HIV-related TB; (vi) to mobilize communities and the private (and corporate) sector; and (vii) to invest in research and development to shape the future by ensuring the provision of a framework to support interaction between the working groups on TB Drug Development, New TB Diagnostics and New TB Vaccines and on the implementation of TB control programmes strategies.

The Global Partnership to Stop TB needed to reach out to other sectors besides the health sector by enhancing political commitment, expanding the resource base and mobilizing communities. He declared that TB control was now "unstoppable".

Panel with ministerial respondents

Social mobilization and broadening the Partnership

Mr Thomas Scalway, Panos Institute

Mr Scalway suggested that TB was not merely a medical, but also a community challenge. A key challenge in TB communication was to compete with that of HIV, and to integrate it with HIV communication because "AIDS is more a communication challenge". He said that technological

advances had led to a "dynamic, democratic, horizontal, complex, fragmented, commercial, rapidly moving, urban and consumer-oriented media." The need was to move from information to participation by overcoming issues of power, gender and inequality. The challenges of today's complex and uneven communication environment needed to be addressed. The communication environment could provide opportunities by supporting civil society in mobilizing behind the problem of TB and in articulating the agendas of those most affected, and by supporting a media that was informed, critically constructive and that provided space for debate.

Health workforce crisis: United Republic of Tanzania

Ms Anna Margareth Abdallah, Minister of Health, United Republic of Tanzania
Ms Abdallah highlighted some general problems in her country, which were: (i) a shortage of qualified personnel at the central, district and lower levels of the health system; (ii) the attrition of staff through ageing, death, and the internal and external brain drain; (iii) a shortage of skilled staff such as laboratory personnel at the district level; (iv) the urgent need to fill posts: one third of the posts were vacant and more than 22 000 staff were needed; and (v) an insufficient analysis of staff needs and subsequent long-term strategic plans to meet requirements.

She also described some specific problems related to quality faced by the United Republic of Tanzania: (i) an inappropriate skills mix, low productivity, low motivation and morale and inappropriate distribution of resources and staff; (ii) an increased demand for health workers to deal with communicable (including TB, HIV/AIDS and malaria) and non-communicable diseases; (iii) an inadequate knowledge of TB/HIV control strategies among health workers; (iv) ineffective supportive supervision to implement best practices; (v) the need to update the curricula of medical and paramedical schools to deal with TB, HIV/AIDS, malaria, etc.; and (vi) the coordination of stakeholders involved in the recruitment and deployment of health workers. The way forward was to accommodate changing needs by addressing skills requirements, improving working conditions and motivating workers.

Enhancing political commitment and strengthening health systems

Ms Joanne Carter, Legislative Director, Results, USA
Ms Carter said that Results was a grassroots advocacy organization to create the political will to end hunger and the worst aspects of poverty. Tackling TB was a key part of that effort as the disease was a huge global problem that was both a consequence and a cause of poverty. "Every death due to TB is a failure of our collective political will," she said.

Ms Carter voiced three main concerns. She said that although the Second Ad Hoc Committee had recommended that the Global Partnership to Stop TB should advocate for levels of TB funding commensurate with the global burden of TB, the Partnership did not ask for what it really needed to get the job done with regard to TB, especially when it had strategies that worked, had mechanisms to develop desperately needed new tools, and had a Global Plan to Stop TB as well as national-level plans. She strongly urged: (i) that, at the global and country levels, the Partnership produce a realistic financial assessment of what it needed to achieve full DOTS expansion and to tackle TB/HIV and MDR-TB; (ii)

9 - *Report on the meeting of the Second Ad Hoc Committee on the TB Epidemic: recommendations to Stop TB Partners. Montreux, Switzerland, 18–19 September 2003*. Geneva, World Health Organization, 2004 (WHO/HTM/STB/2004.28; http://whqlibdoc.who.int/hq/2004/WHO_HTM_STB_2004.28.pdf).

that it conduct a comprehensive assessment of what all bilateral and multilateral donors were providing for TB; (iii) that the advocacy community use the best Global Plan estimates of the global funding gap for TB, and establish a "global fair-shares framework" for donors as well as for the GDF; (iv) that countries ask for what they needed for TB – from the GFATM, from bilateral sources and from other donors – including expanding the health infrastructure, receiving country-level technical support and TB drugs; and (v) that there should be dedicated items in the budget for TB both in high-burden countries and among donors.

The second point she made was the link between TB and HIV – that treating TB was one of the most important factors in keeping people with AIDS alive. Linking TB and HIV programmes would benefit both programmes enormously.

The third point she stressed was that "people are not going to fund a big solution to a small problem. We must raise alarm bells and call the TB epidemic a crisis. We must do more now to prevent millions of needless deaths. So I support the Ad Hoc Committee's report in saying that we need to call for cutting TB deaths by half by 2015".

Consolidate, sustain and advance achievements: Myanmar

Professor Mya Oo, Deputy Minister of Health, Yangon, Myanmar
Myanmar had ranked nineteenth among the 22 high-burden countries in 2002. Of the population, 1.5% had TB, and between 85 000 and 100 000 developed TB each year. Of those, half were sputum-smear positive and spread the infection. The emergence of drug resistance was an added problem.

Professor Oo said that the TB/HIV collaboration had been strengthened along the Myanmar–Thai border, and operational research was being done in collaboration with United Nations Children's Fund/United Nations Development Programme/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), the Department for Medical Research and the National Tuberculosis Programme in the area of drug-resistant TB. The GFATM would support the National Tuberculosis Programme in Myanmar by providing funding of US$ 17 million for 5 years. Support for vehicles and laboratory equipment was provided by the International Union Against Tuberculosis and Lung Disease, which had led to a strengthening of the national TB reference laboratory and network at various levels.

The main constraints were: (i) a low community awareness of TB and the facilities available for its diagnosis and treatment; (ii) a lack of transport and insufficient skilled staff at all levels for key activities; (iii) drug supplies were only partially secured up to 2010 with the support of the GDF and GFATM; (iv) the availability of low-quality TB drugs leading to MDR-TB; (v) problems with data management; (vi) co-infection with HIV; (vii) weak cooperation with the private sector in case-finding and proper referral; (viii) the lack of access to a floating population; and (ix) the varied geographical terrain and language barriers.

Myanmar's future plans included the training of programme staff and improving the infrastructure at the central and peripheral levels, and ensuring an effective and quality-assured laboratory network.

Primary care and NGOs: Cambodia

Dr Mao Tan Eang, Director, National Centre for Tuberculosis and Leprosy Control (CENAT), Phnom Penh, Cambodia

The TB death rate in Cambodia was 107 per 100 000 population, and the incidence of HIV infection among TB patients was also high, at 12% in 2003. The new health system was based on population and geography. Efforts in TB advocacy had been directed towards policy dissemination and the establishment and functioning of interagency country coordination. About 100 NGOs and international organizations were working in the health sector, and some 15 partners and NGOs were involved in TB control.

Discussion

Initiating the discussion, the Chairperson mentioned the social mobilization aspect in Nigeria and wanted to hear other examples as this topic needed to be tackled urgently.

One participant wanted to know whether in her country's attempt to communicate with the community, it would be wise to work with other health groups, even on development issues, so that the effort of social mobilization became more cost effective. The Chairperson said that using television to communicate information about TB control and other health issues was worthwhile. She agreed that it made sense to use networks and resources synergistically, especially because a huge groundswell of support for TB control had developed.

The adviser on information, education and communication representing the Danish International Development Agency considered that it was important to have a "bottom-up" as well as a "top-down" approach. She reported that only 30% of women were coming forward for treatment. She said that social mobilization was not difficult as her experience showed that people had to be involved in a participative manner through folk media, etc. in their own language so that they considered themselves to be responsible for the change. Also, social mobilization was not costly.

The Chairperson then invited questions on the health workforce crisis. A participant from Kenya observed that the crisis was bigger than most of the other crises that his country had to deal with. Workers were needed at the lower and higher levels. There were programmes for malaria, HIV and TB, but workers were required to implement those programmes, both on the ground and at higher levels in a monitoring capacity. Funds were available from the donor community, but personnel and infrastructure were aspects that were not considered. A lot of resources were mobilized to combat those diseases, but the same set of health personnel were trained again and again. Lobbying on the issue was required on an international scale.

The participant from Nigeria concurred with this view; Nigeria faced the same problem.

A representative from Pakistan pointed out that there was an added problem of migration of trained people from developing countries to developed countries because of the lure of better job markets. Industrialized countries should take a more humane view; they could take some people but also leave

some to work in their own countries. So much time and money were spent on training those workers. WHO should issue guidelines in that regard.

Another participant wanted to know why TB was treated as a vertical programme. He said that convergence was not being discussed. Synergies could be established with other programmes such as those for malaria, diarrhoeal diseases, and maternal and child health, which had huge networks. The Chairperson agreed that there was scope for greater collaboration between various health programmes.

Session 4. Sustainable investment and donor coordination

Chair: Dr J. Baudouy, Director, Health, Nutrition and Population Team, World Bank, Washington, DC, USA

In a brief overview, Dr Baudouy said that for the World Bank, investing in TB control was very important. It was a perfect example of money bringing health. He said that the experiences of Nigeria and East Africa and the economic impact of not controlling TB would highlight the need to mobilize resources.

Professor J. Sachs, Professor of Microeconomics, Columbia University, New York, USA, and Director of the Millennium Project

In a video message, Professor Sachs said that the Global Partnership to Stop TB was a good investment. It was a paradox that, although every aspect of TB was known, and although it was recognized that the benefits of curing TB far exceeded the cost, two million people died from it every year. The problem seemed to be that "we don't know just what to do". In putting forward a persuasive and well-argued case for more efforts on all fronts, he lamented that progress on vaccine development had been far below expectations. A donation of US$ 200 million had been received for TB control in 2002, whereas the requirement was US$ 1.2 billion; clearly, one sixth of the amount needed was not enough. He also stressed that properly designed programmes that could be readily implemented made good economic sense for donor agencies.

Keynote: Sustainable investment – Nigeria

Mrs Nenadi Usman, Minister of State for Finance, Nigeria

Mrs Usman highlighted the following key areas requiring investment: (i) sustainable action to reduce poverty through the National Poverty Eradication Programme; (ii) tracking progress and achievement through a reliable health information system; and (iii) developing and implement-ing DOTS to respond to TB. There was a need to improve the institutional and human resource capacity of the entire health system. External funding alone was not enough; countries needed to allocate adequate budgets for the health sector. She concluded that all develop-ment partners were expected to prioritize support as TB, HIV/AIDS and malaria were threats to survival and to economic development, and that debt reduction or cancellation was required in order to make resources available for health and development programmes.

Keynote: Sustainable investment – USAID

Dr E. Anne Peterson, Assistant Administrator, Bureau for Global Health, USAID, USA

Dr Peterson emphasized that "TB is not going away soon". There were significant developments as well as economic implications of the TB epidemic. There were 2–3 million deaths due to TB each year, of which 98% occurred in the developing world, and TB affected the economically productive population. The interface with other fields such as agriculture and reproductive health should not be lost. She said that, to succeed, the Partnership must identify and use new partners, such as the business sector, and it must reach out in a collective, not a competitive, effort to find new resources. The GFATM had contributed US$ 295 million to 19 high-burden countries – country-level alliances were critical for

Country Coordinating Mechanisms and the GFATM's proposals. The Interagency Coordination Committee must ensure the optimal use of funds. Not only the funding gap, but the technical gap must also be bridged, as well as the workforce gap. Health must be combined with development assistance, and funding for health and education should be seen as an economic investment.

Panel with donor agencies and ministers of finance

Investment and finances: the Philippines

Ms Nieves L. Osorio, Undersecretary, Department of Finance, Manila, the Philippines
Ms Osorio described developments in the Philippines with respect to sustainable investment and coordination among donors in her country's endeavour to reach the global targets to control TB. She said that her government had two strong mechanisms to ensure donor coordination. The first was the Project Assistance to Control TB, which was a statutory body, and the second was the Country Coordinating Mechanism, which had developed from the National Infectious Disease Advisory Council – a multisectoral body with the authority and responsibility to recommend operational strategies and policies to improve the implementation of infectious disease prevention and control programmes at the primary, secondary and tertiary levels of health care.

Sustainable financing in support of the National Tuberculosis Programme was being promoted in the country in two ways. The first was the access to DOTS services through the Philippine Health Insurance Corporation (also known as Philhealth), which was a tax-exempt government corporation mandated to provide accessible, high-quality health-care services to all its members. The second was the securing of drug supplies until 2006. This was being implemented through the GDF, the GFATM, and the World Bank's Second Social Expenditure Management Project.

Investment and finances: Viet Nam

Mr Ho Minh Chien, Director, Department of Labour and Sociocultural Affairs, Ministry of Planning and Investment, Hanoi, Viet Nam
The Government of Viet Nam had declared TB a national priority in 1995, and by 1999 the DOTS strategy had been implemented in all the 628 districts of the country. During 1997–2002, the National Tuberculosis Programme had detected more than half a million TB cases in Viet Nam and had surpassed the WHO target of case-finding by 12%. During the 5-year period, the national TB control programme had treated more than 260 000 infectious cases and cured 9 out of 10 patients. The main reasons for success were the high political commitment at all levels, the support of mass organizations, as well as the women and youth unions at the grassroots level, and the well-developed health-care network. Another reason was the strong partnership supporting the implementation of the DOTS strategy in Viet Nam, which since 1995 had been joined by the Government of the Netherlands, the World Bank, WHO and the United States Centers for Disease Control and Prevention.
Mr Chien said that a major challenge had been posed by the HIV epidemic, which threatened to halt the expected decline of TB as a result of the successful DOTS programme. He said that securing finances for the period 2006–2010 with the support of partners would be essential for consolidating the

national TB control programme and maintaining a sufficient reserve stock of TB drugs. The government also planned to upgrade diagnostic facilities for TB and other respiratory diseases at the provincial level.

Joining forces for resources to fight AIDS, TB and Malaria

Mr Brad Herbert, Senior Director, Strategy, Evaluation and Programme Support, GFATM, Geneva, Switzerland

Mr Herbert said that the GFATM was a public–private partnership, a financing mechanism that relied on its partners for technical support. After nearly 2 years, the GFATM was currently supporting over 200 programmes in 121 countries, with 2-year commitments worth over US$ 2 billion, making the GFATM the largest international donor in TB. Mr Herbert said that the GFATM's guiding principles were: (i) country-driven interventions, i.e. the GFATM did not prescribe; countries proposed their own interventions; (ii) it was a facilitator of technical support, i.e. it built relationships with partners to help countries plan and implement their work; (iii) the GFATM insisted on transparency and inclusion, i.e. proposals were submitted by multisectoral partnerships (Country Coordinating Mechanisms); (iv) the GFATM moved large sums of money quickly and efficiently, i.e. the disbursement was performance based; (v) it provided poverty-based and disease-based support, i.e. eligibility was based on poverty and burden of disease; and (vi) the GFATM financed only technically sound proposals. He said that the ISAC Initiative was a special emergency initiative to accelerate DOTS expansion under the leadership of the DOTS Expansion Working Group in an effort to reach the 2005 targets within the Global Plan to Stop TB and, ultimately, the 2010 targets to reduce mortality and prevalence of the disease and the MDGs set for 2015. He emphasized that a strategic alliance between the GFATM and the ISAC Initiative made sense.

Future plans were: (i) to increase donor support to the ISAC Initiative; (ii) to accelerate the flow of ongoing grants to the Initiative by speeding up the Phase II renewal process, as well as by financing technical support and providing treatment; and (iii) to work through Country Coordinating Mechanisms and other partners to submit technically sound GFATM Round 4 proposals.

Session 5. TB and HIV

Co-Chair: Dr Gijs Elzinga, Chair, TB/HIV Working Group, Deputy Director-General, National Institute for Public Health and the Environment, the Netherlands
Co-Chair: Dr Humberto da Costa, Minister of Health, Brasília, Brazil

Dr Elzinga said that since 1999 there had been a steep increase in the estimated TB incidence per 100 000 population versus HIV prevalence among adults aged 15–49 years. He raised three questions: (i) how seriously did HIV affect the TB epidemic? He answered that it was almost the single determinant, and about 70% of TB in Africa was linked to HIV; (ii) what set of interventions might counter this? Interventions must target both these diseases, and tackling TB alone would not help; and (iii) what did it take to deliver such a package? What it took was to treat all TB patients and also treat them for HIV and vice versa. There must be easy access to health systems, and a complete package provided. He emphasized that it was important to treat patients and not two single diseases.

Perspective of the patient

In a video statement, **Mr Winstone Zulu** said that he knew personally of the deadly combination of HIV/AIDS, TB and poverty. He had been diagnosed to be infected with HIV in 1990, and with TB in 1997, of which he had been cured. Having lost his entire family to AIDS, he had become an activist and worked to raise the consciousness of ordinary citizens and government officials around the world. He was a founding panel member of the Joint United Nations Programme on HIV/AIDS. He cautioned that "if you don't treat TB where it is, it will show up somewhere in the United States or the United Kingdom!"

Country action: a coordinated approach – Uganda

Hon. Brigadier Jim Muhwezi, Minister of Health, Uganda
Brigadier Muhwezi described the coordinated approach that his country had adopted to the dual epidemic of TB/HIV. Uganda was among the 22 high-burden countries. A good proportion of the extra TB caseload was attributable to the concurrent TB and HIV infection among the population. It was estimated that 37% of TB patients also had HIV infection. Centres such as the Mulago National Referral Hospital reported even higher rates. Uganda proposed to tackle the problem through the existing primary health-care system. An effective DOTS programme coupled with an equitable and accessible antiretroviral therapy programme would contain the dual epidemic cost effectively. He said that since 1995, TB notification had been increasing by an average of 10% annually. The prevalence of HIV infection among those attending antenatal clinics was estimated to be 6%–8%. HIV-positive clients had a 10% annual risk of developing active TB.

Uganda was implementing community-based TB care with DOTS in 40 of its 56 districts. That effective, novel approach was to be strengthened and expanded countrywide by the end of 2004. The Ministry of Health, together with development partners, was in the process of expanding voluntary counselling and testing services countrywide. Meetings of national TB stakeholders took place every quarter in which various players were updated on the progress of TB control in the country, and operational constraints were discussed. The mandate of that forum had currently been extended to cater to the dual TB/HIV epidemic. A subcommittee would constitute the TB/HIV coordinating body to oversee the

implementation of TB/HIV activities. A workplan had already been jointly drawn up by the National Tuberculosis and Leprosy Programme and the National AIDS Control Programme. The Ministry of Health was committed to exploring and designing modalities for integrated TB, HIV and AIDS care within the present general health system so as to provide an equitable, acceptable and cost-effective continuum of care countrywide.

The key constraints to achieving the global targets for TB control were: (i) human resource capacity in the general health service: there was a need to expand and support human resources as well as engage other sectors, especially at the community level, to deliver both effective information, education and communication and health-care services; technical assistance would continue to be sought to move results towards the stated targets; (ii) coordination among various stakeholders and implementing organizations: a second 5-year plan (health-sector strategic plan), which would provide guidance to all partners and implementing organizations in focusing on the priority areas for intervention, was currently being drawn up for the country; and (iii) overall health financing: funding needed to be increased for the health sector, particularly for wages, for an infrastructure for extra counselling and laboratory space, and for essential equipment.

3 by 5 Initiative

Dr Jack Chow, Assistant Director-General, HIV/AIDS, Tuberculosis and Malaria, WHO, Geneva, Switzerland
Dr Chow said that "all can make the difference". He explained the five primary components of the 3 by 5 Initiative: (i) advocacy; (ii) standardizing and simplifying treatment regimens (shortlisting 4 out of 35 regimens); (iii) WHO to bolster national efforts (e.g. national TB control programmes); (iv) the setting up of a new AIDS medicines and diagnostic service which would bring together buyers to attain the best value for the buying of medicines; and (v) a strong and robust monitoring and surveillance system (operational lessons).

The 3 by 5 Initiative was a chain of concerted action with three links: (i) financial partners such as the World Bank; (ii) technical partners; and (iii) implementing organizations, such as NGOs, and communities. The success of the Initiative depended on the health infrastructure being strengthened, national health systems being bolstered and delivery systems for suppliers of essential services being created – actions which would be guided by political will and the public health framework. He concluded that at the core of the 3 by 5 Initiative was the spirit of collective action for the affected.

TB/HIV: impact and opportunities

Dr Helene Gayle, Bill & Melinda Gates Foundation
Dr Gayle said that new protocols, new tools, better diagnostics and an effective vaccine needed to be developed. Because of the central role that the immune system played in controlling TB, HIV infection had a profound effect on individuals. The annual risk of TB in HIV-infected people approximated to the lifetime risk of the HIV uninfected. She emphasized that the effects of the interaction between TB and HIV were even more profoundly visible at the population level; for example, in Botswana, DOTS was failing in the context of the HIV epidemic.
She observed that HIV had fundamentally changed the face of TB and that DOTS was essential but insufficient in the context of HIV. Research communities were segregated into those of TB and HIV.

She said that as one step towards devising a coordinated response, the Bill & Melinda Gates Foundation had pledged US$ 49 million to CREATE, the consortium created to respond effectively to the AIDS/TB epidemic. There were two fundamental interventions: (i) isoniazid preventive therapy and (ii) improved case-finding and treatment. Randomized trials had shown that both could have an impact, but at the level of communities the intensity of intervention required was not known.

She recommended the avoidance of the following practices: (i) trials that included evaluating and treating everyone in a very high-risk community with isoniazid preventive therapy; (ii) using HIV clinics to administer isoniazid preventive therapy to all dually infected patients; and (iii) using the households of TB patients to target improved case-finding and isoniazid preventive therapy.

She said that TB/HIV ultimately needed new tools for which funding already existed in the following: (i) the Foundation for Innovative New Diagnostics (FIND and TDR) (US$ 30 million); (ii) the Global Alliance for TB Drug Development (US$ 25 million); and (iii) the Aeras Global TB Vaccine Foundation (US$ 83 million). There was also reason for great hope in the progression from the societal level to the microscopic level. TB research had made the transition from the backwaters of microbiology to the cutting edge of science. Meetings of TB experts that could formerly be held in a minivan currently attracted 600 of the brightest young investigators whose efforts were yielding crucial insights.

Dr Humberto da Costa, Minister of Health, Ministry of Health, Brazil
Dr Da Costa warned that the continued and rapid spread of the TB/HIV joint epidemic could overwhelm control efforts in the next few years in many countries, thereby putting gains at risk. He discussed the achievements of access to antiretrovirals in the context of TB and HIV/AIDS. The policy of antiretroviral therapy during 1996–2002 had affected the trends in morbidity and mortality caused by AIDS: (i) mortality had been reduced by more than 50%, i.e. 90 000 deaths had been avoided; (ii) morbidity had been reduced by more than 70%, which had reduced hospital admissions by more than 80% (358 000 admissions had been avoided); and (iii) the total cost savings had been US$ 2.2 billion. The average cost per patient per year of antiretroviral therapy had decreased by more than half in latter years, despite the proportional increase in the number of patients needing more expensive and complex treatments. That decrease had occurred because of a combination of three concomitant actions. Firstly, investments had been made by his country's Ministry of Health in the setting up of domestic national laboratories; secondly, large quantities of antiretrovirals had been acquired; and, thirdly, drug prices had been effectively negotiated with pharmaceutical drug companies that were exclusive producers of certain anti-AIDS drugs. The price of drugs produced within Brazil had fallen on average by 82% during 1996–2001, while the price of imported drugs had decreased only by 25% during the same period.

In 2000, the TB case-notification rate for Brazil had been 48.4 per 100 000. Among Brazilian states, the highest notification rate had been that of Rio de Janeiro, at 92 per 100 000 and, among Brazilian cities, the highest notification rate had been that of Queimados in the state of Rio de Janeiro, at 241 per 100 000. He said that TB and HIV infection was a main component of the National Plan for Tuberculosis Control in 2004.

Discussion

A participant observed that there was a well-established nexus between HIV and TB. He gave the example of countries such as Pakistan, which was regarded as a low-prevalence but high-risk country for AIDS, and which had a very high burden of TB. The funds available for screening for HIV/AIDS

were being used to screen high-risk groups such as commercial sex workers, truck drivers and medical personnel working in HIV/AIDS. He wanted to know how they could ensure the effectiveness of DOTS if TB patients were not being screened for HIV/AIDS. There were no funds for screening TB patients, and the HIV programme, because of the low prevalence, of HIV infection was not well funded either.

Another participant asked how antiretroviral therapy for the individual patient could be extrapolated to the community? Would there be a problem if communities were provided with antiretroviral therapy for HIV/AIDS in a manner similar to its provision under the DOTS programmes?

The next question was related to the approaches to active case-finding and proactive community-based outreach programmes to increase the demand for care. With regard to social mobilization, a participant observed that the Partnership tended to lose its focus on TB by focusing more on the HIV/AIDS programme. She wanted to know whether the experience of TB over the years could be extrapolated to TB and HIV/AIDS.

A participant from Pakistan observed that there was a misconception that, with the advent of antiretroviral therapy, AIDS could be cured. He said that it was important to emphasize the preventive aspect of AIDS. Although the people who had contracted the disease were treated humanely, prevention remained the key. He suggested that the ministries of health and education should come together to educate schoolchildren and adolescents regarding behaviour-related activities.

The Minister of Health of Brazil said that the problem of social mobilization was very important. People could be mobilized and motivated to discuss AIDS, but TB was a neglected disease. The most important factor was political commitment. In Brazil, the government was prepared to make every effort to confront the problems posed by TB. The new programme to control TB was to be launched by the President, in order to emphasize political involvement and the readiness to put in more money. Civil society must be called upon to face the problem.

The Health Minister of Uganda concurred with the previous speaker and said that deaths from diseases such as TB were preventable and that the situation was shameful. As long as the money was available to buy drugs, the main requirement for success was political will. The President of Uganda was involved in the AIDS programme, which had brought positive results. TB was a disease of poverty, and with political commitment and focus on social mobilization, his country would very rapidly reach the TB control targets.

Dr Gayle said that prevention remained the cornerstone of the partners' efforts. It was not a question of either prevention or treatment. In the efforts to scale up treatment, it was important to remember that it was better that people did not get the infection to begin with. Once antiretroviral therapy was started, the emphasis shifted from prevention to treatment, resulting in an increase in the number of HIV-positive cases.

Dr Chow added that prevention was linked to education, which was in turn linked to awareness and behaviour change. The current policy was to apply suppressive rather than curative therapy. In the long run, prevention was the key for the long-term success of health programmes and the 3 by 5 Initiative, because cutting the number of new infections reduced the burden on health systems and freed up resources for additional health services.

In response to the query regarding areas of low HIV prevalence and high TB prevalence, he said that linking voluntary counselling and testing with DOTS provided an opportunity to educate patients and determine their HIV status.

Dr Elzinga said that there were two sides to the problem of coping with the dual epidemic of HIV and TB. On both sides, cases had to be found. As people with HIV were highly stigmatized, diagnostic procedures had to be done carefully. Those procedures should be more available, so that people come forward for treatment.

Session 6. Investing in new tools

Chair: Dr Kenneth Castro, Director, United States Centers for Disease Control and Prevention, Atlanta, USA
Dr Castro observed that as a community of scientists, we took for granted the scientific underpinnings of the DOTS strategy. While it was effective, it had its limitations, and new tools and diagnostics needed to be developed.

Investing in new tools for TB control: a challenge to the scientific community and funding agencies

Dr Alex Matter, Director, TB Drug Discovery, Novartis Institute for Tropical Diseases Research Centre, Singapore
Dr Matter opened with the remark that "we can do better". The mission of the Novartis Institute for Tropical Diseases Research Centre was to discover novel treatments and prevention methods for major tropical diseases. Initially, dengue fever and TB would be addressed. In developing countries where those diseases were endemic, the Novartis Group intended to make treatments readily available and without profit.

The key problem in TB chemotherapy was MDR-TB, particularly in the treatment of active disease in severely immunocompromised patients; in such patients, prolonged treatment of active disease and latent infection was only partially effective because of poor compliance and implementation problems. He said that new tools were needed which included: (i) new diagnostics that were fast working, reliable and cheap; (ii) biomarkers that were capable of measuring accurately pharmacodynamic end-points in early clinical trials via non-invasive technologies; (iii) new clinical trial methodologies based on state-of-the-art technologies; (iv) new drugs, new drug targets and new modes of action; and (v) vaccines with early and predictive immunological end-points. He said that it was encouraging that biomarkers had revolutionized clinical trial methodology in cancer research. Novartis would take advantage of the availability of the sequence of the TB genome, as target-based drug discovery allowed medicinal chemists to optimize drugs for improved efficacy, safety and pharmacokinetics. The Novartis Institute for Tropical Diseases Research Centre had the following timelines for drug discovery processes: 12 months for preclinical development and 24 months for lead optimization. He questioned the use of animal models for successful drug discovery: (i) did animal models predict human disease? (ii) inappropriate animal models had delayed progress in cancer and asthma research; (iii) in both areas, many drugs that were very effective in mouse models turned out to be useless in humans; (iv) research with animal models was lengthy and difficult to perform; (v) did those models accurately mimic human disease?; (v) if not, they should not be used as decision-making criteria in drug discovery. He reminded the delegates that HIV drugs had been developed without animal models.

He emphasized that the objectives for TB drug development were aligned with those of the Global Alliance for TB Drug Development, which meant the development of oral antimycobacterials with new modes of action that fulfilled at least one of the following criteria: (i) active against MDR-TB; (ii) improved "sterilizing" activity, allowing shorter (2-month) and more effective treatment of active and/or latent TB; and (iii) active in physiologically different subpopulations.

He summarized the progress on various fronts: (i) new initiatives were afoot for the new tools, i.e. new diagnostics that were fast, reliable, and inexpensive (with FIND); (ii) research was yet to be initiated to identify biomarkers that were capable of measuring accurately via non-invasive technologies pharmacodynamic end-points in early clinical trials; (iii) new clinical trial methodologies based on state-of-the-art technologies were yet to be determined; (iv) new drugs, new drug targets and new modes of action were all interesting possibilities based on new concepts and novel drug targets; and (v) new projects for vaccines with early and predictive immunological end-points had been started (with GlaxoSmithKline, Middlesex, England, and the John Radcliffe Hospital, Oxford, England).

Response from a field perspective

Dr Rowan Gillies, President, Médecins Sans Frontières, International Office, Brussels, Belgium
Dr Gillies said that new tools were desperately needed; the pharmaceutical industry was making some effort, but it was a small part of what was required. During the preceding 30 years, TB treatment had been a challenge. There was no doubt that DOTS worked in stable countries with a low prevalence of HIV, but in countries such as Angola and Afghanistan, where the clinical situation was different, DOTS did not work. It was also a difficult decision for patients after they were diagnosed to have TB – should they commit to DOTS and disrupt their work and livelihood or choose to live with untreated TB?

He asked why it was that DOTS was currently the best treatment that the TB community had. It relied on 19th century diagnostic tools. Its use in the treatment of TB/HIV was limited. Medicines worked, but were old; TB required 6 months of treatment, which increased the chance of drug resistance. Vaccines had uncertain efficacy. All that for a disease that killed two million people per year. He agreed that DOTS was holding back the tide, but for how long? DOTS was not the only answer to TB. He said "we at MSF [Médecins Sans Frontières] are concerned about the dangerous asymmetry between the magnitude of the problem and the response to it. We need modern tools, resources and initiatives in resource-poor countries where most patients live. Pharmaceutical companies have not developed new drugs, governments did not insist on new drugs. TB in 2004 is an emergency; it is horrifying to watch people die".

Future of vaccine development

Dr Douglas Young, Centre for Molecular Microbiology and Infection, Imperial College of Science, Technology and Medicine, London
Dr Young, Chair of the Working Group for New TB Vaccines, said that bacille Calmette–Guérin (BCG) provided a useful level of protection against childhood TB, but provided little or no protection against adult pulmonary TB. Therefore, the profile of improved TB vaccines should be (i) to prevent the establishment of initial infection; and (ii) to prevent progression from latent infection to active disease. He informed the delegates that after preclinical screening of 268 TB vaccine candidates, two new TB vaccine candidates were currently in Phase I clinical trials. The Global Partnership to Stop TB was working towards a partially protective vaccine and improved diagnostics as well as new drugs. The activities of the Working Group for New TB Vaccines provided an international forum for discussion of vaccine issues such as the economic case for TB vaccines, standardized regulatory requirements, a trial site directory and immunological assays.

Progress in developing TB vaccines

Dr Jerald C. Sadoff, Aeras Global TB Vaccine Foundation

The mission of Aeras was to develop and ensure the availability of effective new TB vaccines for all people who needed them. Aeras's goals were: (i) to obtain regulatory approval and ensure supply of a new TB vaccine regimen to prevent TB in the next 7–10 years; and (ii) to introduce second-generation vaccines with improved product profiles and efficacy against latent TB in 9–15 years. He said that it made more scientific sense to vaccinate infants and adolescents. Aeras planned: (i) to bring the best current vaccine candidates forward as fast as possible; (ii) to ensure manufacturing and supply at an affordable price; (iii) to eliminate delay between licensing and availability through early factory construction because "every year lost costs two million lives".

Candidate booster vaccines for infants and adolescents were being developed. He said that rBCG30, the first TB vaccine to be tested in 80 years, had been produced to good manufacturing practice standards at the Korean Institute of Tuberculosis, and a modern biofermentation process for its final manufacture was being developed at the Aeras facility at Biovac in South Africa. rBCG30 vaccine had been shown to be safe and well tolerated in volunteers. A Phase I clinical trial was nearing completion for Mtb72f in 30 adult volunteers; that lead booster candidate had been found to be of acceptable safety and tolerability. He said that a live oral vaccine against TB was possible, which would deliver rdsRP by Shigella vectors.

In summary, he said that: (i) a moderately effective vaccine together with drug control could eliminate the TB epidemic; (ii) based on 20 years of research, a prime boost vaccine strategy had great potential; (iii) a new vaccine regimen could be licensed and available within 7–10 years; and (iv) a new vaccine to prevent reactivation was possible within 10–12 years.

Future of drug development – developing a faster cure

Dr Maria C. Freire, Chair, Working Group on TB Drug Development; and Chief Executive Officer, Global Alliance for TB Drug Development, New York, USA

Dr Freire said that the mission of the Working Group on TB Drug Development was to deliver faster and affordable TB medicines that would be the cornerstone of tomorrow's TB control. The new drug profile should simplify or shorten TB treatment to 2 months or less, be effective against MDR-TB, shorten and improve latent TB treatment, and be easily adoptable in the field. No new compounds had been developed for TB for 40 years. She said that there was a huge gap in the drug development pipeline between basic research, which involved registration, and post-clinical technology mapping. The Global Alliance for TB Drug Development bridged the gap between basic research and the availability of drugs. Research and development activities were being scaled up by streamlining development, ensuring prompt registration and field transfer. A new clinical entity was needed for MDR-TB. She explained the drug development outsourcing network for clinical trials of the drug moxifloxacin in their Phase II stage, involving the Johns Hopkins University, Baltimore, USA, and Brazil (Food and Drug Administration Orphan Drug Office), the United States Centers for Disease Control and Prevention Tuberculosis Trials Consortium (Study 27), and the Tuberculosis Research Centre, Chennai, India.

Important aspects of TB medicines were affordability, adoption and access, referred to as the "AAA strategy". Strategic provisions covering intellectual property rights ensured the participation of TB-endemic countries at an early stage, building in provisions for technology transfer and support for production in developing countries. She concluded by saying that there was worldwide participation in the activities of the working groups. New TB drugs would revolutionize DOTS if they ensured sustainability.

Future of TB diagnostics

Dr Mark Perkins, Chief Scientific Officer, FIND, Geneva, Switzerland
Dr Perkins said that expansion of DOTS coverage had not improved the case-detection rates, and that there was a clear need to enhance case detection to attain the global targets for TB control. He cited the example of Zambia, where notification of TB cases had been made compulsory during 1974–2000. The incidence in Lusaka was greater than 900 per 100 000 population; there was a disproportionate increase in smear-negative cases; less than 20% of notified pulmonary TB patients were smear-positive. Currently, 120-year-old tools that were difficult to implement were used for TB diagnostics, and, as a result, less than 20% of all cases were detected with microscopy and notified. There were long queues and few resources; that situation led to empirical treatment, which caused morbidity and transmission of the infection. There had been much overtreatment and undertreatment in HIV-prevalent areas. Resistance was clinically diagnosed very late because tools to detect latent infection were clumsy and indiscriminate. It was much easier and quicker to develop diagnostics than to develop drugs.

There was a need to improve sputum microscopy. Immunomagnetic separation of mycobacteria from sputum could be done for improved fluorescent microscopy. Culture could be speeded up by colorimetry. There would be a differential impact on well and poorly functioning laboratories by programmatic use of improved microscopy. The sensitivity of microscopy could be improved with a modified membrane filter method to diagnose pulmonary TB. Multicentric evaluation of smear microscopy techniques was required for the detection of acid-fast bacilli in sputum specimens as well as evaluation of sputum concentration methods for the diagnosis of new pulmonary tuberculosis cases by microscopy. The MPT-64 patch test had performed poorly in limited trials.

The antigen detection projects of FIND and TDR aimed: (i) to exploit technology for the public good; (ii) to move from concept to affordable delivery in the health system; and (iii) to provide the benefits of rapid and accurate diagnostics. He reminded participants that the value chain started with improving existing diagnostic services. The first tools would be developed in 18 months' time.

Session 7. Conclusions on the way forward towards a TB-free world

Chair: Dr E. Loevinsohn, Chair, Stop TB Partnership Coordinating Board
Chair: Dr F. Omaswa, Director-General, Health Services, Uganda and Vice Chair, Stop TB Partnership Coordinating Board
The session started with a video film about Dr Annalena Tonelli, which narrated her resolve to work with TB patients in remote and poor parts of Africa. She had left Italy at the age of 25 years and had gone to Kenya. She said, "I wanted to give my life to the most abandoned". The moving film showed her with patients and their families. One of the innovative ways in which she managed to reach patients in nomadic populations was to invite them to stay in tents at the site for the entire duration of treatment. Although she received no salary or other material return, she reiterated how happy she was to be doing the work she was doing. The film is an inspiration to all those working in the field of TB. Dr Tonelli was killed in October 2003 in a senseless act of violence. Following the video film, the delegate from Pakistan suggested that the meeting be dedicated to the memory of Dr Tonelli.

Lessons learnt and the way forward: Nigeria

Professor Eyitayo Lambo, Minister of Health, Federal Ministry of Health, Abuja, Nigeria
Professor Lambo said that TB was a poverty-related disease and therefore TB control should be central to any country's effort to reduce poverty. The provision of TB drugs to patients at no cost or at a highly subsidized price was a good public policy. DOTS was a cost-effective strategy that had reduced the disease burden in most countries in which it has been implemented. He said that less progress had been made in achieving the DOTS case-detection targets in most countries because of limited access to diagnostics, inadequate numbers of staff with relevant skills and ineffective social mobilization strategies. Variations in the degree of success achieved by countries in the progress made towards realization of the DOTS targets reflected, to a large extent, differences in their effectiveness in planning and implementing DOTS, the state of the health system (especially primary health care), the degree of "inclusiveness" of the stakeholders involved, and the extent of political commitment, particularly as evidenced by budgetary allocation to the implementation of the DOTS strategy by national governments. He said that a strong national health system, particularly at the primary health-care level, was a necessary condition for the successful implementation of DOTS.

For the realization of the DOTS targets as well as the MDGs with respect to TB, private-sector health facilities, public hospitals, etc. would need to be closely involved. The country's TB strategic plan should be used as the tool for mobilizing and allocating resources for TB control from both external and national sources. The sources for financing the implementation of DOTS needed to be broadened beyond the currently predominant external sources to include adequate budgetary allocation from the various national governments in order to achieve the DOTS targets and the MDGs in relation to TB. The optimal allocation of financial resources for TB control would involve adequate allocation to strengthening the health system (especially primary health care), human and institutional capacity-building, improved remuneration of health workers, improved diagnostics, better drugs and a more effective vaccine. Health personnel in developing countries were overworked, largely because of their limited number, but also because of the demands made on them by TB and HIV/AIDS control programmes. Lack of human resources currently constituted a big threat to the expansion of the implementation of DOTS (as well as other cost-effective health interventions).

In order to attain the DOTS targets and the MDGs with respect to TB, existing partnerships would have to be extended to include private health providers, civil society, those at risk or already living with HIV/AIDS, TB patients, social mobilization and communication experts, among others. A wider range of interventions than that provided by DOTS programmes would be needed in countries most affected by HIV/AIDS; for such countries, there was an increasing need for greater collaboration between HIV/AIDS and TB control programmes. Effective and innovative advocacy and social mobilization strategies were important for accelerating the realization of the DOTS targets and the MDGs for stopping TB. Peace at the national and international levels was also important for success.

NGO collaboration: lessons learnt and the way forward

Mr Faruque Ahmed, Director, Health and Nutrition Programme, Bangladesh Rural Advancement Committee (BRAC), Dhaka. Bangladesh

Mr Ahmed spoke about BRAC's programmes, which were diverse in terms of their economic, health and education operations. Innovation and scaling up were the two features of BRAC, which had over 30 000 regular staff, 34 000 part-time teachers and 37 000 health volunteers. BRAC's microcredit scheme reached 4.07 million poor people; it provided basic health-care services to over 31 million people, and it brought non-formal primary education to 3.7 million children (70% of whom were girls). He said that there was a strong partnership in the work for TB control between the government and NGOs. The National Tuberculosis Programme in Bangladesh provided policy guidelines and ensured supplies, whereas TB activities were implemented by NGOs. The report of the Programme for 2002 had shown increased case detection and cure rates in areas of NGO collaboration. He said that the BRAC community-based TB Control Programme has been in place since 1984. Health volunteers (Shebikas) provided health services to 300 households, provided education in TB, identified those suspected of having contracted TB, and mobilized community leaders and health providers.

By 2003, collaboration with NGOs had been scaled up: BRAC covered 283 subdistricts and parts of five cities; other NGOs covered 177 subdistricts and parts of four cities. He said that the government and BRAC were partners in the GFATM-approved proposal (US$ 42.4 million) for 5 years.

Regarding the achievements of BRAC, he reported that a case-detection rate of 66% and treatment success rate of 90% had been achieved in 60 subdistricts in which the Programme had been running for 5 years. In comparison, the national case-detection rate was 38% and the treatment success rate 84%. The challenge was to increase the national case-detection rate to 70% and maintain high treatment success rates as well as intensify DOTS services in areas in which NGOs had recently expanded. The expansion of DOTS services to urban areas, hospitals, workplaces, and hard-to-reach areas was another challenge. In conclusion, he said that the commitment of the government and NGOs could be achieved through joint planning, strategy development and performance review. There was a need to build and maintain mutual trust and support among governments, NGOs and donors. Human, technical and financial resources needed to be mobilized. Bangladesh would reach the target, if not by 2005, then soon thereafter, and BRAC, as one of the major NGO partners of the National Tuberculosis Programme, promised to give its full support to that endeavour.

Business alliance: lessons learnt and the way forward

Dr Kate Taylor, Director, Global Health Initiative, World Economic Forum, Cologny/Geneva, Switzerland
Dr Taylor outlined the contribution of the corporate sector to the global effort to Stop TB. The World Economic Forum was an independent, international, non-profit organization; its mission statement was "committed to improving the state of the world". The Forum provided a collaborative framework for world leaders to address global issues, engaging particularly its corporate members (the world's leading 1000 companies) in global citizenship. With the help of WHO and the International Labour Organization, the World Economic Forum had developed guidelines on how to manage TB in the workplace.

The Global Health Initiative had started 3 years previously, and aimed to enhance the quality and quantity of private-sector activity against HIV, TB and malaria. That was because companies could bring their expertise to a wide range of activities such as (i) communications and marketing; (ii) distribution; (iii) project management; and (iv) research and development. They could also reach workers and their families, surrounding communities, suppliers and contractors, and consumers. They had the resources - in kind as well as in products and services.

The best way to engage a non-engaged private sector was to build a partnership over time and have something to offer. She gave the example of the Indian Business Alliance to Stop Tuberculosis, the stated aims of which were to ensure that companies reviewed their workforce practices in order: (i) to formulate policies to include TB control; (ii) to build sustainable workplace programmes to treat TB; and (iii) to integrate TB initiatives into their community activities.

Companies would share programmes in order: (i) to enable recognition; (ii) to facilitate the transfer of good workplace practices; (iii) and to create ongoing transparency (including reporting of detection and treatment rates) within businesses, the government and other partners. Companies would work with key partners from the public sector and civil society, including WHO and the Global Partnership to Stop TB, the Ministry of Health, the Revised National Tuberculosis Control Programme and state programmes, as well as NGOs. Companies would develop a critical mass of targeted efforts: (i) to increase the numbers of companies with policies and programmes; and (ii) to increase the level of participation by Alliance companies.
One of the main challenges was to remove the misconceptions held by businesses concerning the relationship between HIV and TB. Companies that were seriously concerned about TB's impact on their businesses also saw HIV/AIDS as a serious threat. Thus, getting companies to engage in TB control activities was a good entry point for future HIV advocacy, but they needed a better understanding of the links between HIV and TB. Elaborating on the key principles of public–private partnership, Dr Taylor said that the roles of and relationships between businesses and governments were changing, particularly with regard to the provision of public goods. Public–private partnerships did exist and they could have an impact on the ground. However, the chronic lack of understanding and mistrust between the private and the public sectors must be overcome.

Business alliance: lessons learnt and the way forward

Mr Yvan Horna Guevara, Instituto de Salud MSC, Cristoforis Deneke (ISDEN), Lima, Peru
ISDEN comprised a network of cured TB patients. Mr Guevara said that to fight against poverty was to

fight against TB. Peru was in the central part of South America where there was extreme poverty and thus the support of civil society was important. In 2001, there had been 37 000 people with TB. He postulated that TB was a problem with multiple causes which were related to poverty and life conditions. The patient network was developing strategies to sensitize people through educational material, and by treating patients as equals and integrating them as health promoters so that they took an active interest in TB control activities. Sometimes the patient knew more than the health worker. Relationships were being developed to overcome the stigma of TB.

ISDEN, as an NGO, supported TB patients and articulated the experiences of patients, but at the centre was the person affected by TB. The aim was to train the health worker and the community to improve the health sector. There were limitations and challenges because of frequent changes in the ministries, which impeded continuous support.

Mr Case Gordon, Co-President, TBTV.ORG, Viols/Laval, France
Mr Gordon said that he was a patient who had been suffering from MDR-TB for the past 3 years. He had remained undiagnosed for one-and-a-half years. Ill and alone, there had been times when he had thought that death might be a better option. Gradually, he had come to realize that there might be many others in the same boat, and that they needed a platform, a voice. TBTV was that voice. It was an NGO and had a web site. Correspondents would be invited and people would be encouraged to speak out for TB. TBTV would start with some organizing tools. It would have a patients' petition (the draft had been circulated among the delegates). Mr Gordon appealed for help from those present. He asked for their "brains" and resources. He ended by saying that patients deserved a voice and they would like a permanent voice in the Forum.

Closing statements

Video messages from global leaders who could not be present for the closing ceremony were shown. James D. Wolfensohn, President of the World Bank, Mikhail Gorbachev of the Gorbachev Foundation, Jose M. Figueres, co-Chairman of the World Economic Forum, Peter Piot, Executive Director of the Joint United Nations Programme on HIV/AIDS, William Clinton and Desmond Tutu conveyed their concern and encouragement through those messages.

Closing ceremony

Dr Marcos Espinal, in his closing remarks, said that the Global Partnership to Stop TB must clarify the challenges. To reach the targets for TB control by 2005, the number of people being diagnosed and treated must be doubled to six million per year in the next 21 months. That was an immense and complex undertaking. There must be increased investment in the development of new tools, diagnostics and vaccines to achieve the MDGs by 2015. The Partnership must keep the pledge to the nine million TB patients globally. The international community must promote increased advocacy and a greater sense of urgency. Countries must revitalize their political commitment and partnership-building efforts. Donor communities must work in harmony and increase resources. NGOs must step up TB control activities by seeking partnerships and collaborating with national TB control programmes. Advocates, communicators and the media must intensify and sustain media campaigns. Those suffering from TB must speak up and become active participants in the efforts to stop TB at all levels. He said, "I call upon all of us to take this pledge and hold it to heart". He thanked the Government of India and all those who had made the conference possible. "Every breath counts, so let us stop TB now," he concluded.

Mr K.C. Pant, Vice Chairman, Planning Commission of India
Mr Pant said that although the DOTS strategy had been developed in India, and then exported and refined, TB remained an area of concern. The conference had constituted a major step forward through a coordinated and collaborative effort on the part of major stakeholders, facilitators and partners against TB. The Forum had taken stock of the action taken by various countries and highlighted new approaches to achieving the global targets.

Dr J.V.R. Prasada Rao reminded the delegates that the success of the DOTS programme was due to its foot soldiers - the DOTS providers. He proposed a vote of thanks.

Annex

List of participants

GOVERNMENT DELEGATIONS

AFGHANISTAN

Dr Kayhan Natiq, Acting Head, HMIS Department, Ministry of Health and Public Health/World Bank, Kabul

BANGLADESH

Mr Achyutapada Goswami, Joint Secretary, Ministry of Planning, Dhaka
Mr Hemayet Uddin, High Commissioner for Bangladesh, New Delhi
Dr Mohammad Mhabubur Rahman, Director (PHC) and Line Director (ESP), Directorate General of Health Services, Dhaka
Dr Jalal Uddin Ahmed, Deputy Director CDC and National Programme Manager-TB, DGHS, Dhaka
Dr Md Atiqur Rahman, Junior Consultant, Chest Diseases Clinic, Mymensigh

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Dr Humberto da Costa, Minister of Health, Ministry of Health, Brasília
Dr Jarbas Silva Junior, Secretary of Health Surveillance, Ministry of Health, Brasília
Mr Santiago Alcazar, Head, International Affairs Office, Ministry of Health, Brasília
Mr Laercio Delgado, Press Advisor, Ministry of Health, Brasília

CAMBODIA

Dr Chea Chhay, Undersecretary of State, Ministry of Health, Phnom Penh
Mr Leng Sunly, First Deputy Director of Budgeting and Financial Affairs Department, Ministry of Economy and Finance
Dr Mao Tan Eang, Director, National Centre for TB & Leprosy Control (CENAT), Phnom Penh

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Ms Li Qun, Deputy Director, Social Security Department, Ministry of Finance, Beijing
Mr Ren Wei, Deputy Director, Division of Health Security, Department of Social Development, Beijing
Dr Qi Xiaoqiu, Director, Department of Disease Control, Ministry of Health, Beijing
Dr Liu Jian Jun, Director, National Centre for TB Control and Prevention/China CDC, Ministry of Health, Beijing
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Dr Maria Josefa Llanes Cordero, Head of the Cuban TB Program, Havana

Maldives

Mr Ahmed Abdullah, Minister of Health, Ministry of Health, Malé

Mr Ahmed Moosa, Deputy Director, Ministry of Health, Malé

Morocco

Dr Jaouad Mahjour, Director, Ministry of Health, Rabat

Dr Driss Chaoui, Administrator/Director General, Laboratoires Afric-phar, Casablanca

Mr Aiman Lahlou, Representative of the Moroccan Association of Pharmaceutical Industry

Mr Abdellah Filali Lahlou, Moroccan Association of Pharmaceutical Industry

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Dr Robert Canales, National Tuberculosis Programme Manager, Ministry of Health, Lima

Tunisia
Mr Elyes Kasri, Ambassador of Tunisia to India

Viet Nam
(see list of Government delegations)

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