A Joint Meeting of three Working Groups of the Stop TB Partnership – those on DOTS Expansion, TB/HIV, and DOTS-Plus for MDR-TB – took place in Versailles, France, on 15–17 October 2005. It was attended by almost 400 participants from 65 countries, including Dr Longde Wang, Vice-Minister of Health of China, and Dr Mam Bun Heng, Secretary, Ministry of Health of Cambodia. The meeting ended with a one-day symposium during the 36th Union World Conference in Paris, France, on 18 October 2005. Among the Joint Meeting participants were TB programme managers, technical and financial partners, research scientists, private sector representatives, policy makers, experts in TB and HIV/AIDS, and health activists. The meeting provided an opportunity for exchange of experiences and best practices across the three Working Groups and addressed key strategic issues and directions included in the new Stop TB Strategy and the Global Plan to Stop TB 2006–2015. During plenary and concurrent thematic sessions, discussion on specific cross-cutting areas promoted communication and coordination between the Working Groups.

The meeting was dedicated to the memory of Lisa Véron, who worked in the Stop TB Department of WHO from 2002 until her tragic death at the age of 30 in Harare, Zimbabwe, on 10 January 2005.
Medal awarded to the Stop TB Partnership

The City Council of Versailles awarded the Ville de Versailles Medal to the Stop TB Partnership in recognition of its achievements in global TB control. The Partnership, established in 2000, comprises a network of some 400 members, including international and national organizations and institutions, donor agencies from the public and private sectors, governmental and nongovernmental organizations. It was hailed as a successful partnership, characterized by clear objectives, dynamic spirit and enthusiasm, which is playing a key role in coordinating the global response to the TB epidemic. The Deputy Mayor of Versailles, Mr Stéphane Buffetaut, presented the medal to the Executive Secretary of the Stop TB Partnership, Dr Marcos Espín, during the opening session of the meeting. Dr Espín thanked all members of the Partnership worldwide, the Partnership Secretariat, and many other collaborators, past and present, whose strong commitment to TB control had made this award possible. He said this recognition will further encourage the Stop TB partners to fight the scourge of the epidemic and to achieve the elimination of TB as a public health problem.

DOTS – saving millions of lives

The meeting participants recognized that the DOTS strategy has contributed to remarkable progress in global TB control during the decade since its introduction. In the 182 countries where the DOTS strategy has been applied, some 21 million TB patients have been cured. The strategy has helped several countries to achieve the TB control targets set by the World Health Assembly, even in advance of the target date of 2005. However, the upsurge of the HIV epidemic and the emergence and spread of multidrug resistant tuberculosis (MDR-TB) pose challenges for future success, notably the achievement of the 2015 TB-related Millennium Development Goals (MDG) and the Stop TB Partnership targets. In this context, the participants reviewed and discussed the new Stop TB Strategy and endorsed the Global Plan to Stop TB 2006–2015.

Looking ahead – the new Stop TB Strategy

Dr Mario Raviglione, Director of the WHO Stop TB Department, presented the new Stop TB Strategy. The Strategy addresses TB control comprehensively, building on experience gained from DOTS implementation in diverse country settings, field-tested approaches to tackle current challenges, renewed efforts in developing new tools, and on a strong Stop TB Partnership of

The Stop TB Strategy

1. Pursue high-quality DOTS expansion and enhancement
   — Political commitment with increased and sustained financing
   — Case detection through quality-assured bacteriology
   — Standardized treatment with supervision and patient support
   — An effective drug supply and management system
   — Monitoring and evaluation system, and impact measurement

2. Address TB/HIV, MDR-TB and other challenges
   — Implement collaborative TB/HIV activities
   — Prevent and control multidrug-resistant TB
   — Address prisoners, refugees and other high-risk groups, and special situations

3. Contribute to health system strengthening
   — Actively participate in efforts to improve system-wide policy, human resources, financing, management, service delivery, and information systems
   — Share innovations that strengthen systems, including the Practical Approach to Lung Health
   — Adapt innovations from other fields

4. Engage all care providers
   — Public-Public, and Public-Private Mix approaches
   — International Standards for Tuberculosis Care

5. Empower people with TB and communities
   — Advocacy, communication and social mobilization
   — Community participation in TB care
   — Patients’ Charter for Tuberculosis Care

6. Enable and promote research
   — Programme-based operational research
   — Research to develop new diagnostics, drugs and vaccines.
all stakeholders. It also provides the basis for the Global Plan to Stop TB 2006–2015, which sets out the steps towards achieving the TB-related MDGs and Stop TB Partnership targets, thereby advancing towards the elimination of TB as a public health problem.

The participants gave overall support for the Strategy document and emphasized the need to ensure that all stakeholders at all levels are aware of the strategy and what it entails. Countries should lead the process of implementing the Strategy with a phased approach. It was also noted that the Strategy provides an opportunity to present TB at the highest political level as an important human rights issue. As the new Strategy builds on DOTS, which is a strategy in evolution, it was agreed that it should be subject to ongoing scrutiny and discussion to ensure successful implementation.

**Global Plan to Stop TB – towards the MDGs**

The Global Plan to Stop TB 2006–2015, which succeeds the Global Plan 2000–2005, sets out the achievements which can be reached by the Stop TB Partnership by 2015, provided the necessary resources are mobilized. The Global Plan to Stop TB 2006–2015 will serve to stimulate political commitment, financial support, effective intervention, involvement of patients, community participation, and it will encourage research and development by indicating the potential of the new tools under development to control TB (improved drugs, diagnostics and vaccines). The development of the Global Plan to Stop TB 2006–2015 has incorporated contributions from all of the seven Stop TB Partnership Working Groups (WG) which are (i) DOTS Expansion (ii) TB/HIV (iii) DOTS-Plus for MDR-TB (iv) New Diagnostics (v) New Drugs (vi) New Vaccines (vii) Advocacy, Communications and Social Mobilization. Each WG has developed a strategic plan for its specific activities.

The Global Plan to Stop TB 2006–2015 and the individual strategic plans of the WGs were broadly endorsed during the meeting. During the discussions, revision of parts of the TB/HIV component was proposed, to align it with the aim of scaling upwards towards universal access to HIV prevention, treatment, care and support. The Plan should be disseminated widely and actively, coupled with strategic efforts to enable countries to take the lead. The Global Plan to Stop TB 2006–2015 exploits the various synergies among the seven Working Groups and the different new approaches in a comprehensive and coordinated way. However, it carries an estimated cost of US$ 56 billion over the decade, with a funding gap of US$ 30 billion. The meeting participants called for an unprecedented increase in commitments for national and international funding. Recommendations pertaining to TB that were made during the Gleneagles meeting of the G8 countries in July 2005 need to be pursued. Mechanisms to enable countries to increase their internal financing for TB control need to be devised. The meeting also called for increased engagement of the European Union in the global efforts to control TB. If the Plan is not fully funded, the potential impacts on global TB control should be assessed.

The meeting called for increased engagement of the European Union in the global efforts to control TB and countries to increase their internal financing for TB control.
DOTS Expansion – progress and bottlenecks

Dr Karam Shah, the outgoing Chairperson of the DOTS Expansion WG and National TB Control Programme (NTP) manager of Pakistan, stated that the WG has been very instrumental in ensuring rapid DOTS expansion, particularly in the high TB burden countries (HBC). Since the establishment of the WG in 2000, its four subgroups (on TB and Poverty, Public–Public and Public–Private Mix (PPM)-DOTS, Laboratory Capacity Strengthening, and Childhood TB) have carried out activities that contributed to the overall expansion of DOTS with evidence-based policy and strategic guidance. However, he also noted that progress was hampered by several constraints and obstacles. Lack of expertise and financial resources at both international and national levels for laboratory services and weak health systems were the key bottlenecks. Lack of a clear mechanism of coordination among partners to optimize technical assistance to countries was another handicap. It was agreed that countries should develop national plans to reach the MDGs and the WG will coordinate the technical and financial partners to facilitate the development of these plans. The WG will also become proactively involved in efforts to strengthen health systems. During the meeting, Dr Jeremiah Chakaya, NTP manager of Kenya, was elected as the next Chairperson of the DOTS Expansion WG.

Steps forward for TB/HIV – but a long way to go

Increasing numbers of countries are responding to the problem of TB/HIV. Most of the activities are aimed at creating a favourable policy environment and developing mechanisms for coordination. By the end of 2003, 29 of the 41 high TB/HIV burden countries had prepared a national plan to address their needs in this area. There have been increases in the number of country level activities and in the number of approved Global Fund to Fight AIDS, TB and Malaria (GFATM) grants with TB/HIV components. Dr Gijs Elzinga, who has been Chairperson of the TB/HIV WG since its inception, noted that TB/HIV activities require active support from the TB and HIV stakeholders as well as the general health system, which is often problematic.

However, there are encouraging activities in several countries to improve the quality of life and survival of HIV-infected TB patients. For example, in Malawi 13% of all TB patients registered in the second quarter of 2005 had accessed antiretroviral therapy (ART), comprising 16% of all patients who began ART. More than 90% of HIV-infected TB patients were also given cotrimoxazole preventive therapy. UR Tanzania is preparing to scale up diagnostic HIV counseling and testing, as well as the TB/HIV package for co-infected patients. In Cambodia, 15% of districts are implementing TB/HIV activities. It was agreed that the opportunity provided by the International AIDS Conference in Toronto in August 2006 should be used to boost the engagement of the HIV community, which still poses an enormous challenge for the implementation of TB/HIV activities.

New momentum for DOTS-Plus for MDR-TB

The Green Light Committee (GLC) has approved access to quality-assured second-line anti-TB drugs at reduced cost for MDR-TB patients in almost 30 countries since 2000. The number of countries applying to the GLC has increased dramatically, mainly as a result of additional funding for MDR-TB control from the GFATM. The last five years have been crucial for developing the foundation for practical approaches to manage MDR-TB in resource-limited countries. The next decade will be critical for launching large scale MDR-TB treatment programmes in accordance with the Global Plan to Stop TB 2006–2015 and the aim of the new Stop TB Strategy to ensure access to treatment to all TB patients as a human right.

The pilot testing of DOTS-Plus for MDR-TB has been successfully accomplished and there is evidence that MDR-TB management is both feasible and cost-effective in resource-limited settings. Based on this evidence, WHO guidelines...
for the programmatic management of drug-resistant TB have been prepared (WHO/HTM/TB/2006.361). The guidelines provide a framework approach which can be tailored to country-specific situations and they outline the essential conditions for integrating MDR-TB management into TB control programmes. Dr Thelma Tupasi, from the Tropical Disease Foundation, the Philippines, who was confirmed as Chairperson of the Working Group, stated that these guidelines will be instrumental in assisting the implementation of the new Stop TB Strategy. The vision of the strategic plan of the WG is to integrate the surveillance of drug resistance and the management of MDR-TB as routine components of TB control, providing access to diagnosis and treatment for all TB patients and by all health care providers. However, several challenges lie ahead. A weak laboratory system is the crucial impediment, needing much better coordination and much more human and financial resources. Another constraint is the lack of second-line anti-TB drugs approved through the WHO prequalification process, as manufacturers are not ready to invest in these drugs on a larger scale.

**Advocacy for TB control – enlightened self-interest**

In his concluding remarks, Dr Anarfi Asamoa-Baah, WHO Assistant Director-General, emphasized TB as a global problem which invariably requires a coordinated response and innovative approaches. He commended the role of the Stop TB Partnership in this regard, while emphasizing the need for more extensive and effective engagement of broad-based health systems partners and others working on related areas such as HIV/AIDS in the Partnership. He pointed out the importance of gearing advocacy activities towards generating compelling self-interest among the different stakeholders rather than trying to win their commitment solely through a compassionate altruistic approach. Underlining the importance of advocacy to enhance the visibility of TB in the political agenda, he said "as equally important as putting TB on the political agenda is bringing politics into the TB agenda". While global advocacy for TB control has improved, it was recognized that TB is not yet prominent in the global health arena. Much more work is needed to include TB in political, human rights and social justice agendas. The meeting noted that effective communication between the recently-established WG on Advocacy, Communication and Social Mobilization (ACSM) and the other WGs is essential, and this could be facilitated by designating an advocacy focal point in each. Countries should develop national ACSM plans with a budget allocation and appointment of responsible staff in order to increase country level activities.

**Supporting the Stop TB Strategy will be in the self-interest of industrialized countries, as elimination of TB in their respective countries will not succeed without effective global TB control efforts.**

It was pointed out that linking the terms advocacy, communication and social mobilization requires clear definition of these terms and the provision of explicit guidance, particularly for country level implementation.

### The urgent need for new TB diagnostics

Smear microscopy, which was introduced almost a century ago, is still the mainstay for the TB diagnosis in many parts of the world. It was recognized that the emphasis given to the development of new diagnostics for TB has been unacceptably low. Dr Giorgio Roscigno, Chairperson of the WG on New Diagnostics, said the aim of the WG is to deliver simple, rapid diagnostic tools for the early detection of active, latent and drug-resistant disease. The global plan of the WG also aims to expand rapid culture for case detection and drug susceptibility testing as well as improved microscopy by 2006, with point-of-care tests to be introduced by 2011.

Tests measuring release of interferon-gamma (IFN-γ), based on the fact that T-cells from persons previously sensitized to *M. tuberculosis* antigens will produce high levels of...
IFN-γ when re-exposed to the same antigens in vitro, have been developed recently and one commercial product has been approved for use in the USA. The wider public health potential of IFN-γ release assays needs to be assessed.

The introduction of new diagnostic tools will be accompanied by policy dialogue to facilitate rapid mainstreaming. Ensuring access to the new tools through inclusion in the Global Drug Facility or other procurement mechanisms, and developing external quality assurance will also be priorities. The meeting called for massive scale up of basic science research on new diagnostic tools by involving multiple stakeholders including the private sector. Drawing on lessons from the HIV community’s success in providing simple, effective and rapid diagnostic tests is crucial. In parallel with the search for new diagnostic tools, the improvement of existing tools and policies to ensure speedier diagnosis, particularly of smear-negative TB cases in high HIV prevalence settings, is also essential. In this context, increased involvement with the WGs on TB/HIV and DOTS Expansion was proposed.

Laboratory services – the weakest link

The new Stop TB Strategy offers a valuable opportunity to revitalise the approach to TB laboratory services, aligning them with the overall improvement of general health systems. Quality sputum smear microscopy remains the cornerstone of TB case detection. Consequently, improving the performance of smear microscopy and ensuring well functioning external quality assurance (EQA) systems are the first priorities. Strengthening of sputum culture for case detection and drug susceptibility testing (DST) services, especially in settings of high HIV and MDR-TB prevalence, is also a top priority. It was noted that the scale-up of culture should be stepwise and responsive to the epidemiology of the TB epidemic in the country.

The meeting identified the following activities needed for laboratory strengthening: situation-specific training and technical assistance; vigorous advocacy for earmarked funding for laboratory services including from GFATM; developing or updating guidelines on microscopy methods (e.g. fluorescence microscopy); policy development for sputum culture, drug susceptibility testing and new diagnostic tests; and approaches to improve the diagnosis of smear-negative cases. It was also agreed that culture and DST should be expanded in countries which have adequately implemented EQA systems for microscopy. Improvement of transport of specimens for culture and DST also needs to be addressed.

New TB vaccines – candidates on the way

The WG on New Vaccines has brought four candidate vaccines into phase I clinical trials. To increase the chances of success, several different approaches or vaccine “classes” were chosen: two protein subunit vaccines, one genetically modified BCG vaccine and one virus-vectored vaccine based on the vaccinia (smallpox) vaccine basic structure.

The latter vaccine has been shown to boost immune responses even decades after an initial BCG vaccination. This progress, reported by Dr Uli Fruth, Secretary of the WG, inspires the Global Plan to Stop TB 2006–2015 which aims to develop a safe, effective and reasonably priced vaccine for newborn infants available by 2015 and a vaccine for adolescents and adults by 2018. Wide availability of these vaccines is envisaged around 2020. To reach these targets, there are several prerequisites: the development of animal models to test specific safety aspects; establishment of a regulatory framework for TB vaccine evaluation and licensure; and provision of data on impact and cost effectiveness. Most importantly, new funding mechanisms will be needed for vaccine purchase, to avoid the long delays in transition from rich markets to low income countries that have occurred with other new vaccines (e.g. hepatitis B vaccine) in the past.
The quest for new anti-TB drugs

The objective of the WG on New Drugs is to shorten and simplify the current 6-month treatment for drug-susceptible TB. Dr Maria Freire, Chairperson of the WG, reported that the WG aims to reduce the duration of treatment from 6 to 1–2 months and to reduce the number of drug doses to 10. The current drug development portfolio includes 16 candidate compounds at the initial discovery phase, 5 candidate compounds in pre-clinical testing and 6 in clinical trial. The introduction of a shorter (3–4 month) regimen using Gatifloxacin® and Moxifloxacin® is expected by 2010 and possibly a breakthrough regimen (1–2 month) in clinical trials by 2015. It is projected that by 2015 there should be a sustainable pipeline and regular delivery of new drugs for use in combination.

Investing in young professionals

The importance of investing in young professionals for TB control, both in research and programme management, was highlighted during the opening session of the meeting by Dr Lieve Fransen, Head of the Human and Social Development Unit at the Directorate-General for Development of the European Commission (EC). She explained that the EC has a strong interest in supporting young people, particularly for TB research. The development of schemes to nurture future TB leaders and young TB researchers, particularly for basic research in diagnostics, drugs and vaccines, was urged by the participants. The value of investing in young professionals to ensure the future of global TB control was echoed by Dr Asamo-Baah in his concluding remarks to the meeting.

Robust monitoring and evaluation are crucial

The meeting participants hailed the global TB monitoring and evaluation system, which has been in place since the introduction of DOTS, as a key element in the success of global TB control efforts. Several countries are revising their recording and reporting system to meet their country-specific needs, particularly to capture emerging activities such as TB/HIV and MDR-TB. During the meeting, participants from Kenya, India and Estonia shared their experiences with the revision of the recording and reporting system, which served as a catalyst for the discussions on the newly developed recording and reporting formats. India is in the process of moving to electronic reporting and more than 90% of the reports received at national level are now sent electronically. The country experiences showed that the changes in the system result in transient delays and inaccurate reporting and that they require appropriate training of the relevant staff at all levels. For the collection of HIV-related data, the associated stigma and the need to maintain confidentiality are key constraints. The meeting agreed to the implementation of the newly developed recording and reporting formats at country level, provided due consideration is given to country specific factors and the need to focus on collection of a minimal set of data.

GFATM success needs coordinated technical assistance

GFATM supports 95 programmes in 72 countries with a total of US$ 1.6 billion and is the largest funding agency for TB control globally. Of the 22 HBCs, 21 have benefited from the GFATM. In an analysis carried out for 11 HBCs, which account for a third of the global TB burden, the GFATM support resulted in an additional case detection rate increment of 12% and 21% in 2003 and 2004 respectively. But several obstacles impede the progress of implementation and hence financial disbursement and utilization, notably lack of technical assistance and poor coordination in Romania WHO offered free-of-charge technical assistance in the inception, design and implementation of all components of the GFATM-funded TB programme. WHO has also brokered and assisted the identification of other partners to provide technical assistance.
It was unanimously agreed that timely and coordinated technical assistance is critical for the success of GFATM-funded programmes.

The need for capacity building in several areas was stressed. These include organization and management, the process for procurement and supply management, monitoring and evaluation, and supervision. All stakeholders in a country (partners, principal recipient, sub-recipients) should develop an initial monitoring and evaluation plan with a realistic timeline and appropriate indicators, so that the country is evaluated against achievable objectives for phase two grant renewal. This plan could also serve as a basis for effective technical assistance.

DOT – under a spotlight

The opponents and proponents of direct observation of treatment (DOT) debated the weight of evidence behind DOT and its role in TB control throughout the course of the meeting. The proponents of DOT claimed that it is a key element which has boosted the global TB control efforts and prevents the emergence of drug resistance by ensuring adherence to treatment, and that there is no evidence against DOT. The opponents claimed that there is little clinical trial evidence to support its application and that it erodes the basic rights of patients. It was also argued that there are other evidence-based ways to ensure treatment adherence. There was agreement that the primary aim of treatment supervision should be to support patients to complete their treatment without infringing their privacy and basic rights. The importance of DOT in specific settings such as prisons was reiterated. It was argued that abandoning DOT could have grave consequences in some settings.

Community involvement – what does it mean?

Experiences in community care from Burkina Faso, Nicaragua, South Africa, and Uganda, were presented during the meeting. These showed that scaling up community care depends on the local context and procedures and on the specific intervention involved. The meeting participants therefore agreed that "one size fits all" scaling-up approaches should be avoided.

Debate surfaced during the meeting on the common understanding and definition of the term "community involvement". This stemmed from the broader and more inclusive definition used by the HIV/AIDS stakeholders in contrast to the conventional definition of the TB stakeholders, which focuses on provision of care and treatment support. There was also lively discussion on the appropriate use of "TB patients" or "people affected by TB".

The meeting agreed that communities at all levels can play a crucial role in placing TB high on the political and the social justice agendas, as has been done for HIV/AIDS. There is great potential for the HIV and TB communities to learn from each other. Patients and communities should be involved in all levels of services delivery, i.e. planning, implementation and evaluation. Communities should be part of a solution to the on-going health workforce crisis. Creation of an environment conducive to community participation and which nurtures partnerships requires reorientation of the formal health systems and health workers. It was agreed that operational research

The success of implementation of the first round GFATM TB grant in Indonesia was attributed to strong local partnership among the different partners working in the country and effective and transparent communication, as well as partnership among the principal recipient, local funding agency and fund portfolio manager at the Secretariat. Disbursement of funding and monitoring of expenditures was facilitated by the creation of programme management units at the central and provincial levels. Flexibility by the fund portfolio manager and local funding agency has allowed reprogramming of funds to address other crucial activities such as a national prevalence survey and expansion of support to NGOs and other partners.

TB is not just a disease. It is a political, social justice and human rights issue: no one should die of a curable disease!

Ezio Santos Filipo, an activist from Brazil speaking at the closure of the meeting
should be carried out to identify optimal involvement of patients and communities in TB care and control.

**TB patients as partners in TB control**

In Nicaragua, organizing TB patients on treatment in TB clubs has enhanced the self-esteem of patients and created an atmosphere of solidarity to cope with stigma. Likewise, in Burkina Faso, former TB patients were organized into associations which were useful to sensitize the community about early symptoms of TB, referral of cases and defaulter tracing. In both countries this partnership with TB patients resulted in significant improvement of TB case detection and case holding.

**TB/HIV and MDR-TB are no longer optional**

The meeting recognized that TB/HIV and MDR-TB must become integral components of national TB control programmes and that the rate of scale-up must be accelerated, wherever the need exists. Better collaboration between TB and HIV programmes and integration of TB and HIV services at service delivery level are essential. Discussions of TB/HIV and MDR-TB should be included in DOTS Expansion WG meetings as well as those of their specific WGs. Technical assistance and human resources at country level need to be increased and strategies for more rapid scale-up developed. HIV prevalence and TB drug resistance surveillance must be developed and better integration of strategies at service delivery level should be emphasized.

Routine diagnostic HIV testing for all TB patients using the opt-out model, is being implemented in many high HIV prevalence settings with high rates of uptake. Data from this exercise can provide important information for the surveillance of HIV among TB patients provided that this information is captured in the routine recording and reporting system. Country experiences of linking drug resistance surveillance with HIV surveillance by using rapid HIV tests on sputum were presented from Botswana, Ukraine and Vietnam. Although this approach offers some synergies, there were inherent problems and challenges. The target populations for drug resistance surveillance under the current guideline are smear-positive and retreatment cases. This excludes the smear-negative and extrapulmonary cases which are most likely to be HIV-positive. Furthermore, performing the HIV test on sputum specimens anonymously involves ethical implications as well as several logistic challenges. The different experiences from these countries demonstrated that the degree of synergy between the two surveillance systems is determined by country-specific factors. It was considered important to explore further the potential for synergies by closely examining country experiences, taking account of the epidemiology of HIV and anti-TB drug resistance and methodological issues.

**Strong health systems: the backbone for TB control**

Health system strengthening, as a key aspect of the new strategy, was a major item of discussion. While successful TB control programmes need strong general health systems, it is imperative that

**Laboratory services in the context of health systems**

In Ntcheu district hospital laboratory of Malawi, more than 31,000 tests were performed in one year. Most of the tests were for blood transfusion (26%) followed by smear microscopy for AFB (23%) and blood film for malaria (21%). These tests account for 70% of all tests by the laboratory for the year and indicate the need for a more collaborative and integrated approach among the HIV, TB and malaria programmes and stakeholders to address the appalling state of laboratory services in most resource-constrained settings.
TB control programmes contribute towards strengthening the health system. Adequate numbers of well-qualified, well-paid and motivated staff, functional laboratory services, and better infrastructure, are among the crucial requirements. It was agreed that a broader and integrated approach needs to be applied. TB control programmes should proactively engage in these efforts and they should design, adapt and share innovative implementation strategies which contribute to health system strengthening.

**International Standards for TB Care**

The International Standards for TB Care (ISTC), coordinated by the American Thoracic Society, describe a widely accepted and endorsed level of care which all practitioners, public and private, should follow in managing patients who have or are suspected of having tuberculosis. The standards provide a platform on which tuberculosis care can be based. The document was endorsed by participants. It was also proposed that UNAIDS and the WHO HIV/AIDS Department should be encouraged to endorse the ISTC.

**Human resources – the life blood of health systems**

One participant likened the importance of efficient and adequate human resources to that of the coronary arteries which pump blood to the heart muscle. Without sufficient human resources, the health services in general, and TB control in particular, cannot survive. Obviously NTPs alone cannot address the entire human resource problem. It was therefore suggested that they should develop broad strategic and operational plans for human resource development in partnership with the health systems and other stakeholders. Strong advocacy targeted at increasing funding for human resources and improving working conditions and salaries of health workers was also urged.

**PPM beyond DOTS – opportunity at hand**

Participants discussed the role of PPM-DOTS for TB/HIV and MDR-TB. Country experiences from Kenya and the Philippines were shared. The meeting recognized that there is a huge untapped opportunity to engage private practitioners in TB/HIV and MDR-TB care – but implementation of all the elements of the basic DOTS programme is a prerequisite. Pilot testing DOTS-Plus for MDR-TB in a variety of settings (district, prisons, etc) is essential before developing the policy. The role of professional societies and associations, and teaching institutions in PPM-DOTS-Plus should be defined and exploited. It was noted that DOTS-Plus for MDR-TB can be seen as an incentive by private providers and could help to strengthen their partnership with the NTPs. The participants emphasized the need to define the essential package of TB/HIV activities for both the public and private sectors.

**Principles for country implementation of PPM-DOTS-Plus for MDR-TB**

- Build on sufficiently mature DOTS programmes in the country
- Ensure involved non-NTP providers have capacity for DOTS
- Define DOTS-Plus tasks for different providers
- Link national guidelines for DOTS-Plus and PPM-DOTS
- Involve professional societies and health teaching institutions
- Start with pilot sites, evaluate, scale up and monitor

**PAL for better respiratory care**

Emerging evidence indicates that the Practical Approach to Lung Health (PAL) improves the quality of TB care, decreases stigma and increases the credibility of services through standardisation and rationalisation of respiratory care. It has been particularly useful in high HIV prevalence settings to improve TB case detection and the quality of TB diagnosis, particularly for smear-negative pulmonary cases. It has assisted in the identification of HIV-positive cases among respiratory patients, thereby serving as an entry point for AIDS care. But
human resource constraints and limited access to drugs for inhalation pose great challenges for wide-spread implementation of PAL.

**The Stop TB Strategy: country perspectives**

National TB control programme managers from selected countries reported on progress in TB control in their respective countries and discussed the implications of the new Stop TB Strategy.

**BRAZIL**

Having 70% of its TB burden in 315 municipalities (out of 5570), Brazil recognizes the new Strategy as an opportunity to foster its TB control activities. TB is back on the political agenda and a National Stop TB Partnership involving over 50 civil society organizations has been established. Speeding up the decentralization of TB services into primary health care units, enhancing TB/HIV activities to cover high risk groups and strengthening laboratory services will be priority activities.

**CAMBODIA**

All 70 referral hospitals and 942 health centres of Cambodia have adopted the DOTS strategy. Some components of the Strategy including TB/HIV, PPM-DOTS and community TB care, are being implemented. Strong political commitment and the existence of strong TB leadership and networking offer good opportunities for the implementation of the Strategy. However, the need for more resources and strong health systems, particularly laboratory capacity, will pose continuing challenges.

**CHINA**

China accounts for 15% of the global burden of TB with 1.33 million estimated new TB cases in 2003. Chinese Vice-Minister of Health Longde Wang reported that the progress of his country to meet the 2005 targets of 70% case detection and 85% treatment success is steady. He noted that funding from central government increased from US$ 4.8 million in 2001 to US$ 38 million in 2004 and funding from local governments has also been on the increase. Introducing and strengthening TB control activities among migrants, TB/HIV and MDR-TB cases and enhancing the human resources for TB control will be priority activities.

**ETHIOPIA**

Ethiopia with a population of 71 million is expanding and decentralizing its health services with the health service extension programme. This programme, which trains 25,000 health extension workers to be deployed in 12,000 villages, will serve to expand TB control. The recent declaration of TB as a regional emergency by Ministers of Health of Africa also offers an opportunity to mobilize resources for the implementation of the Strategy. However, inadequate human resources, poor laboratory network and poor capacity in operational research will impede implementation.

**INDONESIA**

Having started TB control in 1969 and adopted DOTS in 1995, Indonesia is now implementing most of the components of the Strategy, which offers a good basis for scale-up. These include implementation of TB/HIV activities at national level and in the four high HIV prevalence provinces, drug resistance surveil-
mntation is crucial. The priority areas are improving case detection and cure of patients, strengthening the recording and reporting system and laboratory services and the quality assurance system, expansion of TB/HIV and DOTS-Plus activities and improving the involvement of primary health care in TB control.

UNITED REPUBLIC OF TANZANIA

For UR Tanzania, a country dually affected by TB and HIV epidemics, the Strategy will offer an opportunity to improve the quality of TB care for both HIV-infected and non-infected patients. The priority activities include scaling up TB/HIV activities, enhancing the involvement of community members and strengthening the monitoring and evaluation system. However, weak laboratory services and inadequate human resources are challenges for progressive implementation of the Strategy. Coordination with partners, particularly at country level, and resource mobilization of unprecedented amounts are needed.

The Stop TB Strategy: partner perspectives

Representatives from key partner organizations working on TB shared their perspective on the implications of the Strategy in their organization’s work.

THE INTERNATIONAL UNION AGAINST TUBERCULOSIS AND LUNG DISEASE (THE UNION)

It is important to make sure all stakeholders at all levels are aware of the strategy and countries are in the driving seat for its implementation. Strong advocacy for adequate numbers of qualified and well paid health care staff to implement the strategy is also essential. The Union will support its member countries to implement the strategy through technical assistance, research and advocacy.

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

USAID fully endorses the Stop TB Strategy which is consistent with its own TB control strategy. Currently 75% of USAID’s budget for TB control is used at country level and this will facilitate the implementation of the Strategy. Emphasis should be on rapid scale up of the activities, and development and rapid implementation of new tools.

KNCD TUBERCULOSIS FOUNDATION:

There is full support for the Strategy from KNCD as it is consistent with its own strategic plan. Mobilization of adequate resources for the implementation is vital.

TREATMENT ACTION GROUP

The implementation of the Strategy should ensure the involvement of people living with TB and HIV in TB control activities at all levels. This includes support for TB education in communities and patient involvement in planning, implementation, evaluation of services and policy.

UNITED STATES CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)

The Stop TB Strategy provides key guidance to contribute towards global TB control, in the best interest of TB control in the US and CDC clearly reaffirms its ongoing efforts. However, sustaining and strengthening efforts to support the Strategy and to collaborate with all partners to successfully integrate all elements of the strategy will be challenging.

UNITED KINGDOM DEPARTMENT FOR INTERNATIONAL DEVELOPMENT (DFID)

Strengthening health systems and assisting countries to be in the driving seat is essential for the successful implementation of the Strategy. More resources and coordination are needed for technical assistance, and its impact in improving programme implementation assessed. More public-private partnership is needed to advance market development for TB diagnostics, which is crucial for the success of the Strategy.
Key Conclusions and Recommendations

Stop TB Strategy and Global Plan to Stop TB 2006–2015

- There must be a sound advocacy plan for the launch of the Stop TB Strategy and for its dissemination in countries not only to NTPs but also to other higher level stakeholders within the Ministries of Health (e.g. Ministers of Health and Permanent Secretaries), donors and technical agencies.
- Existing technical guidelines at global level should be revised urgently in accordance to the Strategy to facilitate revision at country level.
- Countries should develop plans and funding proposals that are consistent with the Stop TB Strategy and the Global Plan to Stop TB 2006–2015, including an advocacy plan to garner support for the Strategy.
- Advocacy for the Stop TB Strategy and the Global Plan to Stop TB 2006–2015 in donor countries should capitalize on human rights concerns and national self-interest such as the emergence of TB in foreign-born citizens.
- The best mechanism for coordination, particularly among the WGs on DOTS Expansion, TB/HIV and DOTS-Plus for MDR-TB, should be defined urgently for the successful implementation of the strategy.
- The recommendations pertaining to TB in the Gleneagles meeting of the G8 countries in July 2005 need to be pursued and mechanisms to enable countries to increase their internal financing for TB control need to be devised.

Pursuing quality DOTS services

- The primary aim of DOT should be to support patients to complete their treatment without offending their privacy and basic human rights. Its application in the context of the Strategy needs scrutiny and discussion.
- Countries not using fixed-dose combination drugs or rifampicin plus isoniazid in the continuation phase of treatment should revise their national policies. Country level advocacy activities to hasten the policy changes are needed.

Diagnosis and new diagnostic tools

- The diagnostic process for TB, including all laboratory tests, should be free of charge.
- The diagnosis of smear-negative pulmonary and extrapulmonary TB should be expedited particularly in HIV prevalent settings. The timing and role of chest radiography need to be re-evaluated, methods standardized and quality assured. Operational guidance (e.g. guidelines and manuals) for the use of fluorescence microscopy should be addressed.
- Clear policies for decentralization of culture and DST should be developed based on country situations and priorities. Countries should establish effective systems to transport specimens for culture.

Laboratory services

- Countries should prioritize the inclusion of laboratory service components in their GFATM grant applications.
- Budget provision to strengthen TB laboratory services should be earmarked at all levels.
- Collaboration and partnership should be explored with academic and other institutions, to address short and long term laboratory training needs in countries.
- The Laboratory Capacity Strengthening sub-group of the DOTS Expansion WG should include clinicians and public health practitioners with experience in resource-constrained settings to expand its scope.

Technical assistance and coordination

- Information guidelines that clarify the processes and timeline for preparation of GFATM grant agreements should be produced for use by countries with approved grants.
- The DOTS Expansion WG Secretariat should develop a database of competent TB experts and work with the GFATM Secretariat to cre-
ate a mechanism of coordination between Stop TB partners and the GFATM, to ensure the provision of high quality and well financed technical assistance to countries.

- A technical assistance plan should be prepared by the Stop TB partner agencies to assist countries to develop plans and funding proposals in line with the Stop TB Strategy and the Global Plan to Stop TB 2006–2015.

Human resources development and health systems

- The recruitment ceiling in the public sector recommended by donors and international agencies should be relaxed.

- Remuneration and retention strategies for health workers, particularly for nurses and other middle level health workers, need to be designed. Supporting career development and creating conducive working environments (e.g. improved housing and reduced occupational hazard) need to be prioritised.

Community involvement

- Stakeholders’ consultation is needed to clarify, reach consensus and to harmonise the use of the term “community” among the different partners and constituencies.

TB/HIV and drug resistance

- The TB/HIV WG should seize the opportunity of the International AIDS Conference in Toronto in August 2006 to advocate for more engagement of the HIV community in TB/HIV activities.

- An expert consultation is needed to explore the linking of anti-TB drug resistance surveillance with HIV surveillance among TB patients.

- UNAIDS and the WHO HIV/AIDS Department should endorse the International Standards for TB Care.

Involving all care providers

- More operational research is needed to expand DOTS-Plus for MDR-TB activities among private and public practitioners. To facilitate this, current initiatives in different countries should be evaluated and the use of second-line drugs mapped.

Research

- Mechanisms to enhance the operational research capacity of NTPs need to be defined through close collaboration of all WGs.

- All WGs need to identify their priority research questions and develop implementation plans.

- Basic research in TB should be encouraged and funded. Advocacy is needed to increase the visibility of TB research and solicit funding.

- Prevalence surveys are important to determine the magnitude of the problem and should be encouraged and included in GFATM applications.

- Operational research activities to examine optimal mechanisms for the involvement of patients and communities in TB control activities should be prioritized.
Acknowledgements

OVERALL ORGANIZATION OF THE MEETING
Amy Piatek with contributions from Léopold Blanc, Haileyesus Getahun, Malgosia Grzemska, Raphael Lopez, Eva Nathanson, Paul Nunn.

ADMINISTRATIVE AND SECRETARIAL SUPPORT
Amina Amir, Leslie Angeles, Nora El Segelaby, Dorris Ortega, Lynne Harrop, Caroline Sorel.


CHAIRPERSONS, MODERATORS AND RAPPORTEURS

PRESENTERS AND SPEAKERS

WRITING TEAM
Written by Haileyesus Getahun with contributions from Eva Nathanson and Amy Piatek.

Photographs by David Cohn, Malgosia Grzemska, Lynne Harrop, Dorris Ortega, Amy Piatek, Caroline Sorel, Glenn Thomas.

This meeting was supported financially by the Global Bureau for Population, Health and Nutrition, US Agency for International Development, the International Union Against Tuberculosis and Lung Disease, the Stop TB Partnership and WHO.

More information about the Joint Meeting of the DOTS Expansion, TB/HIV and DOTS-Plus for MDR-TB Working Groups can be found at www.stoptb.org
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