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Stop TB Partnership

HIV and TB in the context of universal access: What is working and what is not?

Report of an international open consultative meeting held in conjunction with the XVI International AIDS Conference, Toronto, Canada, 12–13 August 2006

World Health Organization

Summary

A meeting was co-organized by the World Health Organization (WHO), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the International AIDS Society, the Treatment Action Group and the Forum for Collaborative HIV Research on behalf of the Global TB/HIV Working Group of the Stop TB Partnership in conjunction with the XVI International AIDS Conference in Toronto, Canada, on 12–13 August 2006. The objective of the meeting was to accelerate an effective and joint response to the epidemic of HIV-related tuberculosis (TB) by facilitating the sharing of information and experiences, networking and strengthening the partnership between TB and HIV (human immunodeficiency virus) communities in a forum environment. Lively and interactive discussion was promoted by a very successful marketplace, where participants presented and promoted their experiences, results, views, opinions and country-level findings in poster and display formats. The meeting was attended by almost 300 participants, mainly representing the HIV community, who were also attending the International AIDS Conference. A tribute was paid to Dr Lisa Onyemobi, WHO TB/HIV National Professional Officer in Nigeria, who died suddenly earlier in 2006. The meeting was followed by a TB/HIV satellite symposium on the afternoon of 13 August 2006, which was held as part of the International AIDS Conference. The International AIDS Society, Forum for Collaborative HIV Research, co-organized the satellite symposium with the Stop TB and HIV Departments of WHO.

Achievements applauded but still more to be done

The goals, principles and achievements of the Global TB/HIV Working Group of the Stop TB Partnership since its establishment in 2001 were reviewed by Dr Paul Nunn, Coordinator of the WHO team in the Stop TB Department concerned with TB/HIV and anti-TB drug resistance. The development of TB/HIV policy and implementation tools and the inclusion of TB/HIV in the new Global Plan to Stop TB, the Patients' Charter and Stop TB advocacy activities were highlighted. The Working Group promoted effective and integrated TB and HIV prevention, treatment and care through development of all necessary tools and systems, advocacy and partnership building and technical support to countries. Although, there was a rapid scale-up of activities in some countries, implementation at country level fell far short of planned achievement. Moreover, the limited engagement of the HIV community in the global response to TB/HIV, and in the activities of the Working Group, was repeatedly cited as a key barrier. Dr Kevin De Cock, Director of the HIV Department at WHO, echoed this limited engagement of the HIV community in TB/HIV activities, saying "TB is the single biggest threat to the success of antiretroviral therapy scale up. We [the TB and HIV communities] often take a risk by not talking to each other and not engaging civil society." He affirmed that linking the meeting of the Working Group with the International AIDS Conference provided the opportunity for greater involvement of the HIV

community in TB prevention, diagnosis and treatment, particularly in the wake of the emergence of extensively drug-resistant TB (XDR TB), which had the potential to compromise the gains of antiretroviral therapy programmes in those HIV- and TB-prevalent settings.

A number of challenges for scaling up collaborative TB/HIV activities were acknowledged, including lack of appreciation of the link between TB and HIV, weak health systems to deliver the interventions, limited financial and human resources, difficulties in coordinating or integrating TB and HIV services, cultural differences between the two communities and lack of effective tools to prevent, diagnose and treat TB in people living with HIV. Increased TB/HIV leadership was needed from key HIV stakeholders, including WHO, UNAIDS, the Office of the Global AIDS Coordinator in the United States of America, the International Aids Society and others, to ensure the implementation of collaborative TB/HIV activities and ensure lives are saved. Dr De Cock reiterated the commitment of the WHO HIV Department to those goals by announcing that his department, in close collaboration with the Stop TB Department, would organize in due course a consultation meeting to address and give clear guidance on implementation of the elements of TB/HIV that were primarily the responsibility of the HIV side, notably TB prevention for people living with HIV (isoniazid preventive therapy and TB infection control), intensified TB case finding and delivery of TB prevention, and diagnosis and treatment services within the context of HIV services.

In concluding the meeting, Craig McClure, Executive Director of the International AIDS Society, reinforced the society's commitment to work more closely with the TB/HIV Working Group and to raise the profile of TB in their work and future conferences in order to reduce the impact of TB in people living with HIV. The role that the International AIDS Society played in organizing this preconference and the satellite meetings was greatly appreciated.

Universal access and the Millennium Development Goals

In July 2005, the G8 leaders made a commitment in Gleneagles to achieving universal access to HIV prevention, treatment, care and support for all those who need it by 2010, a target that was further endorsed by the United Nations General Assembly in October 2005. Dr Cate Hankins of UNAIDS presented the universal access concept and its importance and contribution to TB prevention, diagnosis and treatment services.

Rather than setting global targets, UNAIDS had been coordinating regional consultation to enable countries to set their own ambitious and time-bound targets for universal access and to monitor and evaluate their progress through the selection of appropriate key indicators. Although universal access could contribute significantly towards achievement of Millennium Development Goal 6 (to combat HIV/AIDS, malaria and other diseases), many HIV activists and advocates expressed their concern at the lack of ambitious global targets, which would have stimulated countries to quickly set their targets and also held the global community accountable for the achievement of those targets.

The recent African Union Common Position on universal access to HIV/AIDS, TB and malaria services by 2010 was applauded. This included targets of screening for TB 100% of all clients accessing HIV care and support services to ensure early detection and treatment; giving 100% of TB patients access to HIV testing and counselling services; and giving 100% of HIV-positive TB patients access to antiretroviral therapy. The international community must support these ambitious targets as the region bears the brunt of the global TB/HIV burden.

Headlined country stories

Experiences from Kenya, Myanmar and Russia were presented during the plenary session. Kenya had a National Five-Year TB Control Strategic Plan, which intended to test at least 80% of all TB patients for HIV and provide cotrimoxazole preventive therapy and antiretroviral therapy for 80% of those TB patients who were found to be HIV-infected. It had established a comprehensive policy framework, guidelines and tools for TB/HIV control at national, provincial and district levels. The revision of the routine TB recording and reporting form, which now included HIV test results, CD4 cell counts and provision of cotrimoxazole preventive therapy, had been useful to document the range of activities. HIV testing in TB patients increased from 32% to 41% to 50% over three quarters in 2005 and 2006, of whom 56% were HIV-positive in the first quarter of 2006. Cotrimoxazole preventive therapy was provided to 84% of HIV-infected TB patients and antiretroviral therapy to a third of the patients. However, isoniazid preventive therapy had not been widely implemented due to slow progress in the screening of people living with HIV for TB. The experience of Kenya demonstrated that nationwide scale-up of routine HIV testing for TB patients was possible and useful for HIV surveillance in TB patients and was greatly facilitated by a revised TB recording and reporting system.

In Myanmar, another country with a high TB burden, the HIV prevalence among TB patients was estimated at 7%. The response to TB/HIV by the Ministry of Health included development of treatment guidelines for TB/HIV, establishment of coordination group with cross-training of staff of the national TB programme and national AIDS programme, TB/HIV service delivery in five pilot projects and establishment of a TB/HIV sentinel surveillance system. The pilot projects included cross-referral between TB clinics (TB diagnosis), clinics dealing with sexually transmitted infections (HIV testing) and general hospitals (antiretroviral therapy, cotrimoxazole preventive therapy, and treatment for opportunistic infection). The project facilitated an organized system for recording and reporting of TB and HIV without additional infrastructure or manpower support.

Russia was another country with a rapidly spreading HIV epidemic, and a twofold increase in TB incidence and mortality had occurred in the last decade. The specific challenges for scaling up collaborative TB/HIV activities included the vertical and rather isolated TB and HIV control programmes, the tendency for longer inpatient management and weak links between nongovernmental organizations and the public health system. Although HIV testing among TB patients was almost universal, proper counselling was often not conducted, compromising the quality and implementation of collaborative TB/HIV activities.

Civil society engagement for the better

The role of nongovernmental organizations and affected communities was crucial in expanding collaborative TB/HIV activities, particularly through strengthened partnership with the public health system. Experiences of involvement of nongovernmental organizations in TB/HIV were presented. For example, in Myanmar the Union had established a model of integrated HIV care for TB patients, which included routine offers of HIV testing for TB patients and free diagnosis, treatment and prevention

services, including cotrimoxazole preventive therapy and antiretroviral therapy. The model involved standardized HIV treatment and patient follow-up and recording and reporting. The Government of Myanmar was planning to scale up this model, pending the availability of funds. In India the LEPRA Society, a nongovernmental organization that collaborated with the Revised National Tuberculosis Control programme in urban and rural areas, had educated various stakeholders from both the public and private sector in TB/HIV and involved them in related activities. Nongovernmental organizations working on HIV and AIDS needed to include TB as a core consideration and their involvement in national responses to TB/HIV should be strengthened.

In general, it was noted that the involvement at global and national levels of civil society in advocacy and implementation of collaborative TB/HIV activities needed further improvement. Public Health Watch research in five countries found that few mechanisms existed to encourage broad public participation in the development and evaluation of TB and TB/HIV policy at the domestic or international level. The need for succinct and clear advocacy and communication messages to enhance the engagement of civil society in TB/HIV was discussed. Primary messages should be extracted from the key milestones and planned achievements of the Strategic Plan of the Global TB/HIV Working Group (2006–2010) to inform civil society decision-makers on what needed to be achieved and to indicate what was needed from civil society.

Looking beyond the patient

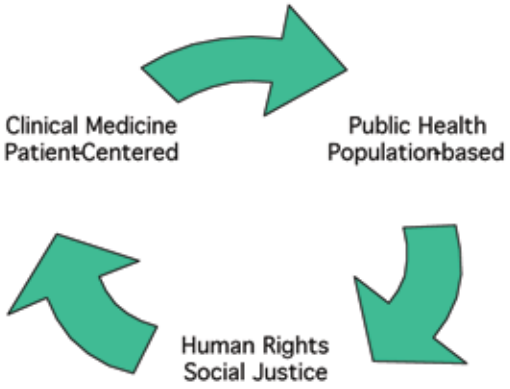
It was noted that expanding the range of TB care beyond the individual patient would help improve the quality of care for HIV-infected TB patients. For example, in Myanmar overall care was shown to be improved by offering HIV testing for partners and family members of TB patients, followed by post-test counselling and home-based care. Similar experience was also documented from Ghana, where an antiretroviral therapy clinic was instrumental in improving the quality of life for HIV-infected TB patients and their families through provision of comprehensive prevention, care and treatment services. Pediatric clinics were held on the same premises, making it easy for families to be managed together. The exemplary experience was mentioned of Khayelitsha District in South Africa, where a 24-hour social and forensic service to assist women who had been raped was installed, and which resulted in increased prosecution of rapists. These experiences called for broader involvement of the health sector in a holistic approach towards solving the problems of patients, even if they were not strictly in the health domain.

What direction for TB?

Dr Jim Yong Kim of Harvard University presented the historical perspective of international TB advocacy and the DOTS (directly observed treatment, short-course) strategy, contrasting it with the public health approach of antiretroviral therapy scale-up. Although DOTS was a clear strategy he recalled the early resistance to its implementation among key TB stakeholders. He said increasing activism on human rights and social justice grounds had brought a new paradigm to international public health and had influenced the implementation of programmes including treatment access for HIV and TB (Figure 1). He viewed the new Stop TB strategy as a response to this changing global paradigm. However, despite the importance of simplified tools for clinical decision-making and standardized case management, he was concerned that clinicians had been so dominant in the early stages of HIV treatment scale-up. He also cited the controversy and the lack of consensus around HIV testing policies as an issue with the potential to limit the implementation of collaborative TB/HIV activities.

The role of activism for HIV was

Figure 1. The emerging paradigm in global health



also noted by Dr Michel Kazatchkine, who chaired the session that discussed the TB/HIV Working Group's Strategic Plan. He said intense activism and greater treatment literacy in the developing world helped to reduce antiretroviral drug prices by 95%, increase funding for HIV research and programme implementation, and had resulted in antiretroviral therapy adherence rates that were as good or better than in industrialized countries. TB/HIV activism and advocacy were not yet adequately developed despite emerging positive experiences. More resources should be leveraged for TB and TB/HIV research and implementation. One participant contrasted the successful leveraging of United States resources for HIV/AIDS and malaria through the President's Emergency Plan for AIDS Relief (PEPFAR) and the presidential malaria initiative with the lack of resources being committed to TB.

Isoniazid preventive therapy for early HIV infection

Though evidence existed for the efficacy of isoniazid preventive therapy, it was noted that implementation had been slow in many countries, primarily due to concerns about screening protocols for TB and resistance to isoniazid. The role of chest X-rays in ruling out active TB was significantly reduced in those settings where infrastructure was poorly developed and health systems were weak. Implementation of isoniazid preventive therapy by HIV services was called for, with an emphasis on screening for TB in HIV counselling and testing centres, where clients were more likely to have early HIV and screening for TB was easier. TB screening should be strengthened in all service delivery areas, including outpatient departments and antiretroviral therapy programmes, to increase early detection and treatment of TB. This would entail cross-training of health-care workers in both HIV and TB and increased collaboration between the two programmes. Documentation of the programmatic impact of the nationwide roll-out of the isoniazid preventive therapy programme in Botswana should be urgently assessed and disseminated.

TB/HIV pre-service training

Pre-service training for health-care workers should include collaborative TB/HIV activities. The experience from Zambia on how revising the curriculum for pre-service training contributed to changes in the practice of doctors was cited as a good example. Along with designing and revising the curricula of health cadres, continuing education and in-service training were also emphasized.

Debating the targets

During the discussion on the 10-year Strategic Plan of the TB/HIV Working Group, the time-bound targets included in the plan were debated. Proponents of the targets mentioned the "3 by 5" initiative, which had been criticized for being introduced without proper consultation with partners but had resulted in changes of mindset and demonstrated that antiretroviral therapy scale-up programmes could happen in resource-constrained settings. Moreover, it had triggered a strong reaction and forced stakeholders to discuss accountability. Similar movement was crucially needed to rapidly scale up the implementation of the collaborative TB/HIV activities of the Strategic Plan, which were in line with the univer-

sal access concept. A participant mentioned the case of Eastern Europe, where targets were commonly used to ensure implementation and progress, and where progress might be hampered by the absence of such targets.

Those opposing the targets, however, argued that the lesson of the "3 by 5" initiative was that targets should be set realistically at country level with due consideration for local situations and context. They expressed concern that the TB/HIV targets in the Strategic Plan were too ambitious and might therefore deter global HIV stakeholders. They called for more consultation and discussion about the TB/HIV targets, particularly within the global HIV community. The importance of having time-bound country-level targets as critical steps to accelerate the implementation of collaborative TB/HIV activities was reiterated. It was also noted that massive investment in health systems was required to make them strong enough to deliver the services. However, it was agreed that more detail was needed to underpin discussions of health systems, particularly to highlight how specific efforts related to TB and HIV could contribute to the overall efforts of strengthening the health system.

Models for options

The meeting was agreed that different models implementing collaborative TB/HIV activities had been shown to work. The health system structure, including human and financial resources, and the disease burden determined the way services were delivered. The difficulty in defining one ideal model of delivery, applicable across all regions, was discussed. However, it was emphasized that increased focus was needed to ensure the delivery of integrated HIV and TB services through primary health care to the extent possible. There was agreement on the importance of documenting and disseminating successful experiences and developing generic models of service delivery that took into consideration variations across regions and health systems.

Research: Great needs and little investment

The key research directions identified in discussions were intensified TB case finding, the diagnosis of smear-negative TB among people living with HIV, TB preventive treatment, clear understanding of the incidence and risk factors for immune reconstitution syndrome and its clinical definitions and diagnosis, the link between poor nutritional status and mortality among HIV-infected TB patients and the collective population-based impact of the implementation of the 12-point collaborative TB/HIV activities as a package. Researchers (in TB and HIV) and donors needed to prioritize these research areas.

Effective advocacy and activism were needed to ensure a great increase in investment not only in HIV-related TB but also for research into TB prevention, diagnosis and treatment in general. This was discussed by Mark Harrington, a long-time HIV activist who was partly responsible for the notable increase in investment in basic science research into HIV infection to ensure better HIV treatment and improved access to antiretroviral therapy globally. He shared his experience to illustrate the important role that activ-

ists could play through engagement in the coordination and policy decisions of research at all levels. He also presented the preliminary results of a survey that was conducted by the Treatment Action Group among 100 institutions involved in funding TB research and development in 2005.The survey found that US$393 million had been invested in TB research and development in 2005. Intensified action was required to increase investment in TB research

XDR TB: the emerging threat

A presentation was made of a survey that had been carried out in rural KwaZulu-Natal Province, South Africa, among 1539 patients. The survey had detected multidrug-resistant (MDR) tuberculosis in 221 patients, of whom 53 had extensively drug-resistant (XDR) tuberculosis. Prevalence among 475 patients with culture-confirmed tuberculosis was 39% (185 patients) for MDR and 6% (30) for XDR tuberculosis. All 44 patients with XDR tuberculosis who were tested for HIV were co-infected. 52 of 53 patients with XDR tuberculosis died, with median survival of 16 days from time of diagnosis.[1] It was noted that the finding had the potential to undermine achieved successes in TB control and compromise the benefit of the introduction of antiretroviral therapy for HIV-infected TB patients.

The circumstances that led to the emergence of XDR TB in KwaZulu-Natal needed to be investigated in detail and the lessons learned shared with other countries. Furthermore, it was noted that the emergence of MDR and XDR TB called for improvement of basic TB control programmes and for greater integration of TB and HIV services, with specific measures to address transmission of TB to co-infected windows, having outdoor waiting areas and cough hygiene.

New tools, but more still needed

An overview was presented of the diagnostic pipeline, particularly the work pioneered by the Foundation for Improved New Diagnostics (FIND) to improve TB diagnosis among people living with HIV. FIND's work on improving TB diagnosis in people living with HIV included development, evaluation and demonstration of new molecular techniques, and demonstration projects for the liquid culture mycobacteria growth indicator tube (MGIT) system. A new fluorescent microscope that was more sensitive, low costing, robust and user friendly, and did not require use of a dark room, was being developed with a competent manufacturing partner. Feasibility studies using the loop-mediated isothermal amplification (LAMP) technique had been funded in Peru, Tanzania and Bangladesh. Additional diagnostic methods based on rapid antigen detection that had been supported by FIND included a test to identify lipoarabinomannan (LAM) in urine (Tanzania) and the evaluation of interferon gamma release assays (studies of the