



WORLD HEALTH ORGANIZATION

**REPORT OF A**

**“LESSONS LEARNT” WORKSHOP**

**ON THE SIX PROTEST PILOT**

**PROJECTS IN MALAWI,**

**SOUTH AFRICA AND ZAMBIA**

WHO/HTM/TB/2004.336

REPORT OF A “LESSONS LEARNT”  
WORKSHOP ON THE SIX **PROTEST**  
PILOT PROJECTS IN MALAWI,  
SOUTH AFRICA AND ZAMBIA

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**The workshop participants were:**

Francis Adatu-Engwau, Helen Ayles, Kevin Bellis, Amy Bloom, Rehab Chimzizi, William Coggin, Charlotte Colvin, Cathy Connolly, Saidi Egwaga, Katherine Floyd, Rokaya Ginwalla-Lakhi, Peter Godfrey-Faussett, Nellie Gqwaru, Nicola Hargreaves, Anthony Harries, Harry Hausler, Lyndon Kafwabulula, Georgina Kenyon, Stephen Knight, Lilani Kumaranayake, George Loth, Elizabeth Madraa, Dermot Maher, Mpundu Makasa, Anthony Mbewu, Mabuyi Mnguni, Balaam Mugisha, Ya Diul Mukadi, Lindiwe Mvusi (*rapporteur*), Andrina Mwansambo, Alwyn Mwinga, Pren Naidoo, Buhle Ncube, Charles Nhachi, Wilfred Nkhoma, Paul Nunn, Eugene Nyarko, Olusegun Obasanya, Francis Onyango, Philip Onyebujoh, Audrey Penrose, Ana Paula Perdigao, Rose Pray, Paul Pronyk, Alasdair Reid, Felix Salaniponi, Jackie Sallet, Fabio Scano, Ezra Shimeles, Nono Simelela, Catherine Sozi, Rowland Swai, Vincent Tihon, Jeroen van Gorkom (*rapporteur*), Jan van den Hombergh, Annelies van Rie, Anna Vassall, Kgomotso Vilakazi, Charles Wells, Brian Williams.

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*In Malawi:*

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*In South Africa:*

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*In Zambia:*

Helen Ayles, Virginia Bond, Rokayah Ginwalla-Lakhi, Nomusa Sibande

*WHO Secretariat of TB/HIV Working Group:*

Dermot Maher, Paul Nunn, Philip Onyebujoh, Alasdair Reid, Fabio Scano

*WHO Stop TB department:*

Mario Raviglione

**Overall coordination:** Alasdair Reid

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**TB:IV**



# Acronyms and abbreviations

<b>AIDS</b>	acquired immunodeficiency syndrome
<b>ART</b>	antiretroviral therapy
<b>CBO</b>	community-based organization
<b>CPT</b>	co-trimoxazole preventive therapy
<b>DFID</b>	Department for International Development
<b>DHMT</b>	district health management team
<b>DOTS</b>	the internationally recommended strategy for TB control
<b>ELISA</b>	enzyme-linked immunosorbent assay
<b>HAART</b>	highly active antiretroviral therapy
<b>HBC</b>	home-based care
<b>HCW</b>	health care worker
<b>HIV</b>	human immunodeficiency virus
<b>IEC</b>	information, education and communication
<b>IPT</b>	isoniazid preventive therapy
<b>LSHTM</b>	London School of Hygiene and Tropical Medicine
<b>M&amp;E</b>	monitoring and evaluation
<b>NACP</b>	national AIDS control programme
<b>NGO</b>	nongovernmental organization
<b>NORAD</b>	Norwegian Agency for Development Cooperation
<b>NTP</b>	national tuberculosis programme
<b>PLWHA</b>	people living with HIV/AIDS
<b>PMTCT</b>	prevention of mother-to-child HIV transmission
<b>ProTEST</b>	WHO-coordinated initiative to <b>promote testing</b> for HIV by using VCT as an entry point to a range of HIV/TB/STI prevention and care interventions
<b>PTB</b>	pulmonary tuberculosis
<b>STI</b>	sexually transmitted infection
<b>TB</b>	tuberculosis
<b>TB/HIV</b>	the intersecting epidemics of TB and HIV
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>UNZA</b>	University of Zambia
<b>USAID</b>	United States Agency for International Development
<b>VCT</b>	voluntary counselling and testing (for HIV)
<b>WHO</b>	World Health Organization
<b>ZAMBART</b>	Zambia AIDS-Related TB project

**TB:IV**



The ProTEST initiative was established in 1997 by WHO to develop a more coherent response to tuberculosis (TB) in settings with high HIV prevalence through collaboration between TB and HIV/AIDS control programmes. HIV counselling and testing services were developed as the entry point to a package of prevention, care and support services.

Under the overall coordination of WHO, Six ProTEST projects were established in three countries with a high burden of HIV-related TB: Malawi (Lilongwe); South Africa (Bohlabela District, Limpopo Province; Ugu District, KwaZulu Natal Province; East London District, Eastern Cape Province; Cape Town Central District, Western Cape Province); and Zambia (Lusaka). The project results were reviewed during a four-day “Lessons Learnt Workshop” in Durban, South Africa, in February 2003.

The interventions included:

- stakeholder and health service collaboration
- improved access to high-quality voluntary HIV counselling and testing
- intensified case-finding and treatment of active TB for HIV-positive clients to reduce transmission of *Mycobacterium tuberculosis*
- isoniazid preventive therapy (IPT) to treat latent TB infection in HIV-positive clients likely or known to be infected with *M. tuberculosis*
- co-trimoxazole preventive therapy (CPT) to reduce morbidity and mortality due to HIV-related opportunistic infections
- HIV prevention (including condom promotion, treatment of sexually transmitted infections, prevention of mother-to-child HIV transmission)
- improved clinical care for people living with HIV/AIDS (PLWHA)

## 1.1

## Summary of results

**Collaboration between TB and HIV/AIDS control programmes** was feasible at all levels and helped to improve general health services delivery through enhanced and expanded referral networks, better use of resources and improved staff capacity, training and support. The profile of HIV-related TB was raised at all levels (from community to national government and internationally). Collaboration may also have improved staff morale and contributed to reducing the stigma attached to TB and HIV.

**Situational analysis** at the outset of each project informed planning and ensured that improvements in service provision were focused on areas of local need.

All projects **improved human resource capacity** by providing training in TB and HIV and their interaction, as well as continuous post-training support for staff. Additional staff had to be hired for general project management and for



implementation of activities. Different cadres of staff were employed to provide the additional services, including doctors, nurses, lay people trained as counsellors, community volunteers, data entry clerks, and support and administrative staff. However, one project managed to achieve its goals with the employment of only one additional part-time project coordinator. (The comprehensive summary table in the Annex includes details of the numbers of project staff involved.)

More than 140 000 people accessed voluntary counselling and testing (VCT) for HIV as part of the ProTEST projects. **Improved access to high-quality HIV counselling and rapid testing services**, in a variety of settings, responded to a large unmet need; the resulting increase in uptake of these services was dramatic – up to 13-fold in South Africa and 6-fold in Lilongwe. In most settings, high uptake was achieved with a minimal communication strategy at community level to promote such services. Increased counselling capacity through training of more counsellors, the use of rapid HIV test kits with same-day test results, and social mobilization were also shown to improve uptake. Uptake of VCT by TB patients varied between the projects.

**Intensified case-finding (screening) for TB** was introduced in all projects and proved to be feasible and effective. The proportion of people found to be HIV-positive after VCT who were also found to be new cases of TB on screening for TB symptoms ranged from less than 1% to 10% depending on the setting. The epidemiological impact of detecting these additional cases is unknown, but the cost of their detection is small. IPT was offered to HIV-positive clients who had no evidence of active TB on questioning.

**Isoniazid preventive therapy** was introduced in all sites. **Co-trimoxazole preventive therapy** was introduced in all projects except Zambia where the results of a randomized controlled trial are awaited. Although the uptake of and adherence to preventive therapy were low among eligible clients, so were the costs. Early analysis suggests that the costs are in line with estimates from elsewhere and that preventive therapies are likely to be cost-effective – the incremental expense of grafting them onto existing services is low. Adherence appeared to be improved by the application of stricter inclusion criteria and by greater support and resource input.

All projects introduced **HIV prevention activities** or enhanced existing activities (such as condom promotion and screening for sexually transmitted infections) in clinics and VCT centres. The impact of these interventions and the direct impact of VCT on HIV prevention were not measured. However, assuming that counselling and testing can prevent HIV through consequent behavioural change, the ProTEST projects are likely to have made a sizeable contribution to HIV prevention. A study is under way in Malawi and another is planned in Zambia to measure the impact of ProTEST activities on sexual risk behaviour.

**Community involvement and post-test support clubs** were developed with the aim of strengthening promotion of VCT, and identifying and providing psychosocial support for people living with TB and/or HIV in the community.

Data on the cost-effectiveness and behavioural impacts of ProTEST collaborative interventions are still being collected.

All projects made significant progress towards their original goals. The governments of the three countries involved are now formulating and approving plans for national expansion of TB/HIV joint activities, based on the achievements and evidence from the ProTEST pilots.

Monitoring and evaluation of the six pilot projects were developed locally and therefore not in a standardized manner. This has often made it difficult to directly compare results (e.g. the need for adherence definitions for isoniazid and co-trimoxazole preventive therapies) between projects.

## 1.2

## Conclusions

The ProTEST projects have demonstrated that HIV/AIDS and TB control programmes can work together effectively, at all levels, towards the same goal, i.e. providing comprehensive prevention, care and support services for the benefit of people living with HIV/AIDS and/or TB.

Project results have convinced policy-makers, planners and programme managers in HIV/AIDS and TB that these collaborative activities are necessary and feasible, and that they contribute to improving health services for people living with HIV/AIDS and/or TB.

The involvement of all stakeholders, including the district health management team, community- based organizations, nongovernmental organizations (NGOs), from the early stages of situational analysis and project development is critical to project success.

TB and HIV programme collaboration is important for:

- surveillance of HIV seroprevalence among TB patients and of TB among HIV-positive people;
- making HIV counselling and testing systematically available to all TB patients;
- reducing TB transmission among PLWHA and their communities through intensified TB case-finding (screening for TB) in settings where HIV-infected people are concentrated, including people attending VCT centres, people with respiratory symptoms attending health services, and prisoners and household contacts of HIV-positive infectious TB patients;
- improved prevention and care services for PLWHA (including isoniazid and co-trimoxazole preventive therapies and improved management of opportunistic infections in HIV-infected clients);
- improving prevention of HIV transmission.

In addition, collaboration between TB and HIV programmes may be important for increasing access to antiretroviral therapy (ART) for HIV-positive clients with TB. (ART was not included in the pilot projects as the drugs were not affordable at the time of project development. However, participants viewed the ProTEST model as a useful foundation for provision of antiretrovirals in the future.)

The provision of high-quality, accessible VCT, using rapid HIV tests and linked to a comprehensive package of prevention, care and support, greatly increases the

number of people who know their HIV status, are counselled about HIV prevention and have access to the most appropriate prevention and care services based on their needs.

The provision of isoniazid and co-trimoxazole preventive therapies is feasible in the context of collaborative TB/HIV activities. The inclusion criteria for these therapies need to be reassessed in the light of the low uptake. Culturally specific information is needed on how to promote the uptake of and adherence to IPT and CPT, which will be important in their own right and when ART is introduced. The efficacy and effectiveness of CPT in reducing TB mortality in different country settings has been questioned and these studies have not clarified the picture. The impact of IPT on TB control has so far been small. However, as part of a total package of care for people with HIV and TB, health care workers (HCWs) had confidence in the use of IPT and CPT for the management of individual clients, as provision of these therapies had clearly improved morale and reduced stigma.

Standard tools are needed for monitoring and evaluating collaborative TB and HIV activities. Additional resources and technical support may be needed to improve data collection, analysis and dissemination.

Linked, multicentre, operational research studies can produce a wealth of information to assist policy-makers and implementing agencies in deciding on the most efficient manner of delivering the interventions that have already shown their effectiveness.

Joint TB/HIV planning is essential in all countries with a significant epidemic of HIV-related TB. This planning must include a specific description of the roles and responsibilities of TB and HIV/AIDS programmes, a formal mechanism for cooperation and collaboration, and mainstreaming of TB/HIV activities into national TB/DOTS expansion plans and HIV/AIDS strategic development plans.

The challenge now is to ensure that TB prevention, care and control are regarded as elementary interventions for PLWHA, with or without ART. Similarly, TB programmes should regard HIV prevention, care and support as key components of TB control. Efforts to prevent new HIV infections will ultimately contribute to a reduction in HIV-related TB – and reduced HIV mortality among TB patients will improve both TB and HIV treatment outcomes.

To supplement this brief summary, the reader whose time is limited is strongly encouraged to read the detailed recommendations given at the end of each section in Chapter 3.

# The ProTEST initiative and Durban workshop

## 2.1

### Background

The ProTEST initiative was conceived and launched by WHO in 1997 in response to the unprecedented scale of the epidemic of HIV-related TB. Its aim was to develop, through operational research, a district-based strategy for a joint TB and HIV programme approach to the problem. The approach entails the promotion of HIV counselling and testing as an entry point to a package of interventions aimed at reducing the dual burden of TB and HIV.

Pilot projects were established in Malawi, South Africa and Zambia, with funding from the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Norwegian Agency for Development Cooperation (NORAD), the Department for International Development (DFID) in the United Kingdom, the South African National Department of Health, the Centers for Disease Control and Prevention, Global AIDS Program, in the United States of America, and the United States Agency for International Development (USAID). The intention was to develop and evaluate the feasibility, impact and cost-effectiveness of a set of interventions to decrease the burden of HIV-related TB. The interventions evaluated were:

- Improved stakeholder and service collaboration – in particular between HIV/AIDS and TB programmes and NGOs – leading to overall improvement in access to quality health services.
- Increased provision of voluntary HIV counselling and testing (VCT), using rapid HIV test kits, for TB patients and the general population, in both stand-alone and health-service-based VCT centres.
- Intensified TB case-finding and treatment among HIV-positive clients to reduce transmission of *Mycobacterium tuberculosis*.
- IPT to treat latent TB infection in HIV-positive clients likely or known to be infected with *M. tuberculosis*.
- CPT to reduce morbidity and mortality due to opportunistic infections.
- Preventive interventions, including condom promotion and treatment of sexually transmitted infections (STIs), to reduce HIV transmission.
- Improved management of HIV-related opportunistic infections.

## 2.2

### Three countries, six projects

In early 1997, WHO organized a protocol development workshop attended by teams from Malawi, South Africa and Zambia<sup>1</sup>. Protocols for piloting collaborative TB/HIV activities were finalized after discussion with relevant stakeholders in the countries, and financial resources were sought, both nationally and from external donors. Additional project staff were hired where needed (the number varied markedly between sites), and vehicles and other equipment were purchased to facilitate implementation. The London School of Hygiene and Tropical Medicine

(LSHTM) provided general technical assistance through a common mentor and also gave specific technical assistance in the areas of health economics and qualitative research.

## Malawi

The Malawi project started in August 1999 in Lilongwe District, which has a total population of 1.3 million, 450 000 of whom live in the capital city. Under the initiative of the national tuberculosis control programme (NTP) a ProTEST project team was created with five additional full-time staff, including two full-time coordinators. The team purchased a vehicle, telephone connections, computers and printers, e-mail facilities, furniture, etc., held workshops and meetings, and established a TB/HIV Committee. It also phased in the following interventions:

- formalized collaboration between stakeholders in TB and HIV/AIDS control at district level, from both public and private sectors;
- support and expansion of VCT services, both stand-alone and health-service-based;
- creation of a referral system between the various services and partners;
- involvement of groups of PLWHA in mobilization and education of the community;
- introduction of symptomatic screening for STIs and TB among VCT clients;
- training and support of community health volunteer groups in Lilongwe, to provide home-based care (HBC) for PLWHA, identify ill people with possible TB, and provide community-based DOTS;
- provision of CPT to HIV-positive TB patients;
- provision of IPT to fit and well VCT clients showing no symptoms suggestive of TB.

During late 2001 and the first half of 2002, a National Plan for the "roll-out" of TB/HIV activities in the country was formulated and linked to a national proposal on HIV/AIDS for the Global Fund to Fight AIDS, Tuberculosis and Malaria. By July 2002, the pilot project had been adopted by the Ministry of Health and Population as a component of the NTP, funded largely by the Ministry and the TB donor basket and with support from USAID. The Global Fund approved funding for the HIV/AIDS proposal in July 2002 and, together with specific TB/HIV support from NORAD, this will provide the financial resources to expand care and support services for HIV/AIDS, and the national roll-out of TB/HIV activities.

## South Africa

Reviews of the NTP and the national HIV/AIDS control programme (NACP) were conducted in 1996 and 1997. Both recommended the strengthening of collaboration between TB and HIV/AIDS and STI programmes at all levels of the health system. In 1998, representatives of both programmes consulted provincial TB and HIV/AIDS and STI coordinators in all provinces to determine what should be done to strengthen TB/HIV services at district level. The Department of Health subsequently allocated funding for TB/HIV pilot district projects in three provinces (Bohlabela District in Limpopo Province, Ugu District in KwaZulu Natal Province, and Central District in Western Cape Province), while the USAID-supported Equity Project agreed to support a pilot district project in the Eastern Cape (East London District). WHO supported the coordination of the South African ProTEST sites. The objectives of these pilot projects were to:

- facilitate collaboration between TB/HIV public and private stakeholders at district level;
- increase access to voluntary counselling and rapid HIV testing;
- promote VCT, improve TB case-finding, treatment completion and cure rates, and improve community-based care through community involvement;
- improve access to sustainable IPT to prevent TB in PLWHA;
- determine reasons for differences in adherence to IPT and evaluate the feasibility and cost-effectiveness of the therapy;
- improve comprehensive HIV/AIDS/STI/TB care and referral (including CPT to ensure continuity of care for PLWHA);
- assist provinces to build capacity for comprehensive HIV/AIDS/STI/TB prevention, care and support in TB/HIV training districts;
- involve communities and key stakeholders in TB/HIV collaboration at district level.

In 2000, provinces committed themselves to implementing, in all districts, the lessons learnt from the TB/HIV pilot district projects. Experiences in the four pilot districts were evaluated extensively in late 2001/early 2002 and informed the preparation of a five-year national plan for the expansion of TB/HIV activities in all districts of South Africa. This plan was fully endorsed by senior management in the national and provincial departments of health; the Belgian Technical Cooperation organization and the Global Fund pledged financial support. Delay in the receipt of funding from donors meant that implementation was delayed until 2003. All provinces have now identified one TB/HIV training district for roll-out of collaborative TB/HIV activities. By 2007 all districts in the country should be involved in TB/HIV activities.

A large number of existing stakeholders were involved in the formulation and implementation of the four pilot projects (see Annex). This participatory approach was required to achieve ownership and sustainability of the implementing bodies. All four pilot projects introduced the following interventions: network and referral system-building; expansion of high-quality VCT services within the existing infrastructure; intensified case-finding for TB; screening for STIs; provision of isoniazid and co-trimoxazole preventive therapies; and improved management of HIV-related opportunistic infections. An overall aim was to use existing systems where possible and minimize the involvement of separately funded project staff.

## **Zambia**

The Zambian project started in 1999 with financial and technical support from DFID to two clinics in Lusaka (in Chawama and Matero). A further pilot project linking ProTEST to prevention of mother-to-child HIV transmission (PMTCT) began in 2001 (in Chipata), funded by WHO. The project aims were to:

- encourage VCT as an entry point for integrated management and prevention of HIV-related TB;
- enhance collaboration between government health services and community organizations;
- introduce TB-related issues into HIV-related social mobilization and activism;
- develop a model for collaborative TB/HIV activities that could be integrated into the essential health package at the district level.

Considerable time was invested in the coordination and communication required to mobilize a large group of stakeholders to support the ProTEST project. The Zambia AIDS-Related TB project – ZAMBART\* – was the driving and catalysing force in the pilot phase.

Extensive situational analysis with the stakeholders resulted in the introduction of the following interventions: strengthening of VCT capacity; setting up of HIV/AIDS clinics in government health centres; provision of screening for STIs and TB; provision of IPT; involvement of HBC organizations in the area; peer education and mobilization through youth-friendly services; and post-test clubs. The clinic in Chipata integrated PMTCT services into collaborative activities, increasing access to prevention and care services for antenatal clinic clients and their partners. CPT was not included as an intervention, because stakeholders are awaiting the results of a randomized controlled trial currently underway in Zambia before national policy is established.

### 2.3

## The future of collaborative TB/HIV activities

Expansion of the ProTEST vision is already under way in response to the enormous demand for provision of such services in settings with a high prevalence of HIV. The proposed approach is a phased implementation of collaborative TB/HIV activities; “phased” refers both to the stepwise geographical expansion of collaborative activities, starting in a few districts and expanding over 3–5 years to achieve nationwide coverage and to the stepwise introduction of further collaborative TB/HIV activities in addition to existing VCT services.

In February 2002, WHO and partners convened a protocol development workshop in Nairobi, Kenya, inviting the three countries involved in piloting ProTEST (Malawi, South Africa and Zambia) and five other countries with the highest combined burden of TB and HIV/AIDS (Ethiopia, Kenya, Mozambique, Uganda and the United Republic of Tanzania). The protocols developed by these eight countries are based on the experience and evidence that existed in 2002 from the three countries already piloting ProTEST. Plans have now been developed and approved for funding in five of the eight target countries.

The workshop on which this report is based was held in Durban, South Africa, in February 2003. It was intended to document the lessons learnt and the achievements made by the ProTEST pilot projects in the past three years and, on the basis of those lessons, to make recommendations for the way forward.

### 2.4

## The Durban workshop

### *Overall objective*

- To document the lessons and experiences acquired through the ProTEST pilot projects in Malawi, South Africa and Zambia and to translate this knowledge into

\* **ZAMBART**: a collaboration between the University of Zambia School of Medicine and the London School of Hygiene and Tropical Medicine.

recommendations for the expansion of collaborative TB and HIV programme activities in the future.

### ***Specific objectives***

- To present quantitative and qualitative data on the outcomes of the various interventions promoted through ProTEST activities in the three countries involved in the pilot projects, including available data from the cost-effectiveness and behavioural studies.
- To document the overall lessons learnt from the pilot projects and, on the basis of these lessons, to develop policy recommendations for collaborative TB and HIV programme activities.
- To develop indicators and targets for monitoring and evaluation of future collaborative TB and HIV programme activities.
- To develop policy recommendations for expanding the scope of collaborative TB and HIV programme activities, for expansion from district pilot projects to national programmes and to indicate areas for operational research.

### ***Expected outcomes***

- Documentation of the results and lessons learnt from the interventions evaluated in the district pilot projects.
- Development of policy recommendations for collaborative TB and HIV programme activities based on the lessons learnt from the pilot projects.
- Development of consensus on the indicators and targets for monitoring and evaluation of future collaborative TB and HIV programme activities.
- Development of policy recommendations for the expansion of the scope of collaborative TB and HIV programme activities and the expansion from district pilot projects to national programmes.

### ***Participants (for the full listing see Acknowledgements)***

- Country teams from the ProTEST project countries (Malawi, South Africa and Zambia).
- Country teams involved in collaborative TB and HIV programme activities in Ethiopia, Kenya, Mozambique, Uganda and the United Republic of Tanzania.
- Mentors and partners.
- UNAIDS intercountry team (southern and east Africa).
- Representatives of development agencies.



**TB:IV**

## Establishing the mechanisms for collaboration

### Building collaboration between HIV/AIDS and TB programmes, nongovernmental organizations, community-based organizations and other stakeholders

During the workshop's group sessions, participants discussed the extent to which ProTEST has or has not contributed to improving the collaboration between TB and HIV/AIDS programmes and other stakeholders and the impact this has had on the health system.

#### *Lessons learnt*

- Stronger partnerships were forged within the health system and between the health service and external stakeholders, including better links between health clinics, NGOs and community-based organizations (CBOs). These partnerships contributed to providing comprehensive, effective, client-friendly and culturally acceptable services in this highly stigmatized area of work. Collaboration between programme managers and researchers through operational research has helped to ensure that the operational research findings were quickly used to inform policy development and implementation.
- The ProTEST projects nurtured closer collaboration between researchers from varied health science backgrounds, including epidemiology, quantitative and qualitative research, anthropology, clinical medicine, community health, and policy development and evaluation. The external technical assistance provided to the ProTEST projects was considered important to support the operational research aspects. However, the most important factor in achieving success was the creation of district ownership through early engagement of district health management teams (DHMTs), and NGO and community stakeholders, creating determination in the district to make the ProTEST projects work.
- The ProTEST projects have been adopted by the governments of each country as models to be scaled up nationally, testifying to the success of projects in mobilizing national ownership.
- The projects have also contributed successfully to convincing international agencies that TB/HIV collaborative activities are feasible and relevant and that they respond to the needs of affected populations.

#### *Recommendations*

##### **General**

- TB and HIV communities should seek opportunities to collaborate at international, national, district and facility levels.

***International level***

- In settings where HIV is driving the TB epidemic, donors and international technical agencies should encourage and support collaboration between TB and HIV programmes as an effective means of providing comprehensive prevention, care and support services for people living with TB and/or HIV/AIDS.

***National level***

- A national TB/HIV coordinating body with the broadest possible representation should be created at the outset to ensure effective collaboration and the involvement of all stakeholders from the health sector (public and private) and other sectors, NGOs and civil society.
- A full-time TB/HIV coordinator should be appointed at national level; regional and district-level coordinators may also be useful.
- Opportunities for districts to develop collaborative TB/HIV activities should be promoted.
- A phased implementation approach should be taken to achieving national coverage of collaborative TB/HIV activities, using the experiences gained from initial demonstration and training districts to develop a national expansion plan and assist in training.

***District level***

- The establishment of a TB/HIV committee at the district level is critical. This committee should meet regularly and include representatives of all stakeholders. It should develop and oversee the implementation of a district TB/HIV plan. The DHMT should be engaged from the earliest stages of planning and take ownership of collaborative TB/HIV activities. It should, at a minimum, be the lead agency on the TB/HIV committee and may take on the role of the district TB/HIV committee.
- A district situational analysis should be conducted early in the planning process to define population needs, identify stakeholders and partners, define the extent of current service and care provision, and identify the gaps. The results of the analysis should inform the development of a district TB/HIV implementation plan, clearly describing the roles, responsibilities and activities of each stakeholder.
- A full-time TB/HIV coordinator at district level may help with the implementation and ongoing management and support of collaborative TB/HIV activities.

***What is still needed?***

- Further research is needed to document the evidence and experience of expansion from district pilot project sites to national TB/HIV collaboration in terms of process and, ultimately, the impact of this on population health.

**Capacity-building, training and support*****Lessons learnt***

- Adequate training and support help HCWs to overcome inhibitions about discussing HIV/AIDS and promoting and providing VCT. ProTEST has shown that

attitudes to PLWHA can be improved through holistic training and support of HCWs in the provision of VCT services and empowering them to provide treatment and support for those with HIV and/or TB. General health staff felt encouraged by the capacity-building and by being able to provide treatment, prevention and care services to the community. This improved morale and also helped to address health-system-related stigma. It is not necessary to make every nurse a counsellor to achieve this.

- Community volunteers and NGOs can make a valuable human resource contribution to collaborative TB/HIV activities.

### *Recommendations*

- A long-term human resource plan is essential to ensure that adequate numbers of motivated and empowered staff are available to provide prevention, care and support services for the growing burden of HIV and TB. The plan should include involvement of community volunteers, NGOs, private practitioners and other partners in TB/HIV.
- There should be continuous training and support for staff working in TB and HIV at all levels. Training should include not only service delivery staff but also senior staff at all levels to ensure managerial involvement and support.
- Training should confront stigmatization and personal fears about TB and HIV.

### *What is still needed?*

- A solution is needed to the current limitations on the number of public sector employees laid down by international funding and technical agencies. This would allow an increase in the human resource capacity for counselling, testing, care and support of people living with TB and HIV.
- Information is needed on the role of volunteers, especially lay counsellors, in providing health services, and the impact that payment of volunteers (as happens in some settings) will have on service provision and other non-paid volunteers.

## **3.2**

### **Decreasing the burden of HIV: prevention, care and support**

The HIV prevention interventions recommended by the national AIDS control programme need to be included in any joint TB/HIV implementation plan. All six projects included the following interventions for HIV prevention in their objectives:

- promotion of and improved access to high-quality VCT, resulting in behavioural change;
- symptomatic screening for STIs in the VCT setting and subsequent referral for syndromic management in the same or another clinic;
- promotion and distribution of condoms in VCT sites and clinics.

One pilot site (Lusaka) is encouraging couple counselling and is integrating PMTCT services with TB and STI screening within the VCT service. The results of this pilot are awaited. All sites in Lusaka have supported the activities of peer educator groups (post-test clubs and youth-friendly services) as interventions for enhancing behaviour change.

Improving the package of care available to those who are found to have HIV infection is important to reduce morbidity and mortality from HIV-related disease and to reduce the stigma arising from the fear of a terminal disease. The ProTEST projects provided different combinations of care interventions for PLWHA.

These included:

- CPT for HIV-positive TB patients;
- screening for active TB among all PLWHA, with referral of TB suspects for investigation and treatment;
- IPT for PLWHA who showed no evidence of active TB.

#### ACCESS TO HIV/TB CARE BY PROJECT SITE

SITES	NO. OF HIV-POSITIVE CLIENTS	PROPORTION ACCESSING CARE (%)
Malawi	9025	Not known <sup>a</sup>
South Africa: Bohlabela	2520	42%
East London	4808	48%
Ugu	11734	26%
Cape Town	5733	47%
Zambia	3822	50%

<sup>a</sup> HIV care in Lilongwe is provided by various bodies, e.g. HBC organizations (100 clients/month); Lighthouse HIV care and support service (1000 clients/month); MACRO VCT centre (700 clients/month); more than 3000 referrals to other partners.

HIV care clinics in the primary care setting were found to be highly acceptable to clients. HIV- positive clients were happy to queue outside the clinics, knowing they could be identified as HIV-positive by their community, because they had access to good-quality care and support in a client-friendly setting.

### Voluntary counselling and testing

VCT was the entry point to all interventions in each of the projects. Appropriate care can only be delivered when the HIV status of an individual is known to their HCW. A high proportion of the target population accessed VCT services as a result of ProTEST activities in most settings. Pre-existing VCT structures were incorporated into the ProTEST projects and in addition many new such centres were created within primary health care clinics by training existing nurses or through employment and training of lay people as counsellors. Generally, demand for VCT outstripped supply, despite minimal marketing and promotion of these services.

## THROUGHPUT AND ACCESS TO VCT SERVICES BY PROJECT SITE

SITES	NUMBER ATTENDING VCT	COVERAGE OF ADULT POPULATION (%)
Malawi	41 026	14–18
South Africa: Bohlabela	6 569	3
East London	14 453	16
Ugu	23 114	20
Cape Town	29 345	20
Zambia	29 329	27
Total	143 836	

### Lessons learnt

#### General

- High population coverage was achieved in a short period of time and with the use of modest additional human and other resources. In resource-poor settings it is possible to implement VCT services using existing staff; however, coverage was much lower in rural sites where no additional resources were allocated.
- Providing HIV-positive clients with access to a package of care results in health care staff being more enthusiastic and motivated in promoting VCT. It is unclear what encourages clients to come forward for HIV testing. Although providing same-day HIV results through rapid testing was the biggest factor in increasing uptake of testing, some project managers believed that the provision of CPT and IPT was important to motivate clients to undergo VCT; others believed that the positive attitude and support of HCW were more important in helping clients to overcome their inhibitions. The presence of support groups, food incentives and a disability allowance were also considered important incentives for VCT. This was confirmed by a survey at one site where clients said that getting daily food was about a greater concern than their HIV status. In the absence of ART, it is improved services, change in HCW attitudes and access to care and support – rather than other medical interventions such as IPT and CPT – that encourage people to attend for VCT.
- When client-friendly, non-stigmatizing services were provided, client numbers steadily increased, even in the absence of community campaigns promoting the VCT service.
- Different VCT service models were well used and attracted different client populations.
- The proportion of VCT clients who were self-referred increased over time, suggesting community members' increased interest in knowing their HIV status.
- In Lusaka, when monitoring of those attending for VCT revealed that certain population groups were under-represented (e.g. commercial sex workers and young women), these groups were successfully targeted through specific social mobilization activities.
- None of the sites attempted to measure the impact of collaborative TB/HIV activities on preventing HIV infection; such studies are complicated and costly to conduct. However, a study to determine the impact of ProTEST on sexual behaviour change is under way in Malawi and a further study is planned in Zambia.
- The results of two studies on the effectiveness of VCT on influencing behavioural change conducted in Kenya and United Republic of Tanzania suggest that, for

every 10 clients tested, one incident HIV infection is prevented. This implies that more than 14 000 new HIV infections may have been prevented through the counselling and testing carried out by the ProTEST projects.

### ***Counselling***

- To maximize the service provided, additional human resources (counsellors) and confidential counselling space are required. The lack of private space for counselling limited access to VCT in some facilities.
- Lay people trained as counsellors ("lay" counsellors) proved able and willing to provide HIV counselling and to conduct rapid HIV testing.
- Counsellor mentors or supervisors are important for providing follow-up training and ongoing support for counsellors to maintain morale, motivation and quality of counselling.
- The use of "mock" clients to identify weaknesses in the quality of the counselling services provided was useful in the important area of quality assurance. UNAIDS tools for evaluating VCT were useful in Malawi and Zambia.

### ***HIV testing***

- In all sites where ELISA testing was replaced by rapid HIV test kits with same-day results, the number of clients accessing VCT increased considerably, as did the proportion of clients receiving HIV test results. In Malawi the proportion of clients tested who receive their results rose from 70–80% to more than 99% after the introduction of the rapid HIV test kits. Logistics are important: an interrupted supply of test kits lead to an unreliable service and falling attendance.
- Legislation in some countries forbids nurses or lay counsellors to perform rapid HIV tests.
- Uptake of HIV testing was low among TB patients.

### ***Recommendations***

- HIV counselling and testing services should be established in a range of different settings (clinical settings including TB hospitals, clinics/health centres, and stand-alone VCT centres) ensuring equitable access for various populations at risk for HIV.
- Political commitment and resources should be established to ensure equitable access to counselling and testing services.
- Dedicated personnel are required to scale up services which will require investment in new human resources or recruitment of lay volunteers. Partnerships with NGOs should be used to improve access to counselling and testing services. Developing a cadre of counsellor mentors or supervisors should be considered to provide support to and prevent "burn-out" in counselling staff. Community mobilizers should be deployed to ensure that at-risk or difficult-to-reach populations are able to access services.
- There should be investment in infrastructure to provide adequate space for counselling services.
- The following aspects of on-site rapid HIV testing, which is the most effective, should be addressed:
  - use of standard national/WHO protocols for testing
  - establishment of quality assurance mechanisms
  - reliable establishment of logistics, ensuring continuity of service.
- National policies on who is authorized to conduct the rapid test should be reviewed in order to accelerate scaling up.

- Importantly, a quality assurance system for counselling should be put in place.
- There should be simple standard reporting and recording systems that can be integrated into district health management systems.

### *What is still needed?*

- Completion of cost analyses across sites to allow comparison of costs and cost-effectiveness of different HIV testing models.
- Knowledge of the impact of different HIV testing models on behaviour change will permit assessment of their impact on HIV and TB transmission through modelling.
- Qualitative research to develop an understanding of the social context of TB/HIV, the extent to which VCT, care provision and health care attitudes contribute to reducing stigma, and how stigma impacts on access to prevention, care and support services.
- Information on the barriers to HIV testing (especially for TB patients) and how they can be overcome.



## **Screening for sexually transmitted infections and syndromic management**

All projects considered STI screening to be an important measure for HIV prevention and built it into the VCT counselling procedure. Screening was done by the administration of a simple questionnaire. Subsequent syndromic STI management was effected through referral to a clinical officer (in the same VCT centre or clinic compound, or in a nearby clinic).

### *Lessons learnt*

- It is feasible to introduce STI screening into the VCT setting using a checklist for STI symptoms.
- Additional undiagnosed STIs can be detected and treated syndromically in the context of the VCT setting at little additional cost.
- Data collection on diagnosis and treatment of STIs from ProTEST projects was not systematic, and the effectiveness of this intervention is therefore unknown.
- A quality assurance system for the application of the STI checklist and syndromic management in the VCT context is required.

### *Recommendation*

- Simple tools should be developed to monitor the process, quality and effectiveness of STI screening in the VCT setting.

### *What is still needed?*

- Clarification of the role of STI screening questionnaires and syndromic management in the context of the TB service, including their effect on stigma.



## **Condom promotion and distribution in VCT sites and clinics**

Condoms were promoted in all the projects, as this is standard NACP policy. Promotion and distribution of condoms were carried out in VCT centres, clinics and



hospitals at all the pilot sites, and the number of condoms distributed was recorded in some projects. In Malawi, an average of 30 000 condoms per month were distributed through ProTEST activities.

### *Recommendation*

- Condoms should be promoted and available in all healthcare settings.



### **Co-trimoxazole preventive therapy**

After the results of two studies from the Ivory Coast<sup>2</sup> a WHO/UNAIDS consultation<sup>3</sup> advised that, although the evidence was limited, CPT should be promoted for all HIV-positive TB patients and HIV-positive persons with stage 2, 3 or 4 of the WHO staging system for HIV infection and disease in adults and adolescents<sup>4</sup>. In the light of this recommendation, further new randomized controlled trials on the efficacy of CPT were considered to be unethical. Evidence on the efficacy of CPT is conflicting: there are favourable results from Côte d'Ivoire and South Africa, no evidence for effectiveness from studies in Senegal and South African miners, and only weak evidence for effectiveness in Malawi.

Both Malawi and South Africa introduced CPT, but eligibility for the therapy differed. In Malawi CPT was provided to all HIV-positive TB patients in the project; in South Africa it was provided to all HIV-positive persons with WHO clinical stage 3 or 4 of HIV disease, with or without TB (and later to stage 2 clients in Ugu) provided that they had no history of allergy to sulfa-containing drugs. The project in Zambia did not introduce CPT in any setting – the results of a randomized controlled trial are awaited before policy recommendations can be made.

The ProTEST pilots were not initially designed to collect and document adherence data, and different definitions of adherence were used between the sites. Care is therefore essential in analysing adherence data. Reasons for non-adherence were not collected routinely and data will thus include individuals who died or moved away during the study period.

Malawi considered a patient to be adherent if more than 80% of daily doses were collected during the eight months of TB treatment. In South Africa, Ugu District considered a patient adherent if he or she collected six or more months of monthly co-trimoxazole doses; Bohlabela reported adherence as the percentage of clients who started on CPT and were still collecting it by the end of 2002; Central District looked at the percentage of clients who completed six months of CPT in an eight-month period.

### *Lessons learnt*

- Malawi introduced CPT for HIV-positive TB patients, with drugs provided through the national TB control programme. Uptake was low, mainly because only 15% of TB patients accessed VCT. NTP staff did not actively promote the advantages of VCT and subsequent CPT. Lack of privacy in the TB clinic and inability to communicate with TB patients about HIV/AIDS-related issues were considered to be the main reasons for this. A high proportion of TB patients on CPT continued the therapy after completing TB treatment (57% still on CPT six months after completing TB treatment and 42% at 12 months).

- In South Africa, CPT was gradually introduced to HIV-positive clients with stage 2, 3 or 4 of the WHO staging system for HIV infection and disease in adults and adolescents. Thus, CPT was not restricted to TB patients as it was in Malawi. Data show that the uptake of this intervention was generally low. A total of 20 418 tested clients were HIV-positive; 8000 (36%) accepted screening for CPT; 3635 (45%) of those screened started a course of CPT. Adherence was evaluated for a selected population in three districts and showed that 404 of 928 patients (44%) had completed a six-month course.
- Evaluation of adherence in CPT was not standardized between projects, making comparison difficult.
- CPT is operationally easy to administer and to include in a package of care for eligible clients and patients.
- Acceptance by patients is generally very good when CPT is offered to them after VCT.
- CPT is a service that is appreciated by patients and nurses and that is easy to implement as part of a comprehensive care package.

### *Recommendations*

- CPT should be implemented as part of a comprehensive package of care for PLWHA within the guidelines offered by the provisional WHO/UNAIDS recommendations.
- When implemented, CPT use should be monitored in a simple, standardized manner. A simple tool, appropriate to the specific country setting, should therefore be developed.
- The current WHO/UNAIDS provisional policy on the use of co-trimoxazole prophylaxis should be reviewed in the light of new research.

### *What is still needed?*

- Greater understanding of the mode of action of CPT in HIV-infected TB patients so that other alternatives can be tested in settings with high levels of co-trimoxazole resistance.
- Information on the best way to maintain TB patients who have completed TB treatment on CPT for life.
- More evidence on the efficacy of CPT in country settings, where there are different rates of background co-trimoxazole resistance. Background co-trimoxazole resistance may be high in some settings as a result of widespread use of the drug to treat urinary tract and respiratory tract infections and of cross-resistance due to the sulfonamide component of fansidar for malaria.
- Data on the impact of widespread CPT on antimalarial drug resistance.
- Information on the role of CPT in HIV-positive patients who have started ART.



### **Community involvement through peer educator groups and post-test clubs**

Community-based support groups or post-test clubs can provide valuable psychosocial support for PLWHA and their families. Links were made with these groups to ensure that people newly diagnosed with HIV could be referred for such support. If no groups existed, efforts were made to establish such groups. In Zambia, volunteer peer educators were used to carry out community education on TB, HIV and VCT.

### *Lessons learnt*

- Referral to PLWHA support groups for people living with HIV or AIDS following diagnosis was considered to be an important part of the package of care for HIV-positive clients.
- The project in Lusaka supported post-test community support clubs as part of after-care for all people tested for HIV, whether they tested positive or negative.
- Peer educators were also useful in targeting groups at risk of HIV infection who were underrepresented at VCT services.

### *Recommendations*

- Post-test support should be provided for those who test HIV-negative as well as for those who test HIV-positive.
- Community members should be encouraged to become more involved in supporting and providing ongoing prevention, care and support for people living with HIV or AIDS and/or TB.

### *What is still needed?*

- Information on how sensitizing communities before the introduction of VCT and TB/HIV collaborative activities can increase awareness and use of services.
- Information on the best ways for communities to contribute to provision of prevention, care and support services.

## **3.3**

### **Decreasing the burden of tuberculosis in people living with HIV/AIDS**

All projects introduced the following interventions aimed at reducing the burden of TB among PLWHA:

- Intensified case-finding of TB among clients attending VCT centres and, in Lusaka, also among those attending PMTCT clinics.
- IPT for HIV-positive clients in whom active TB was excluded through screening for symptoms of TB using a questionnaire. Only one site (Cape Town) used tuberculin skin tests and chest X-rays as additional screening tools.

TB-preventive interventions were added only if there was a high probability that additional cases of TB found through intensified case-finding would be cured by the existing TB programme.

### **Intensified case-finding for tuberculosis**

### *Lessons learnt*

- Symptomatic screening for TB in VCT centres is relatively easy to implement, at little additional cost, by administering a questionnaire during the pre- or post-test counselling session. Previously undiagnosed TB was detected in up to 10% of HIV-positive clients identified through VCT in the six project sites.
- The relative contribution of intensified case-finding in VCT settings to overall case-detection in project areas is low. However, the projects were on a small

scale and attracted a selected group of “worried well”. The extent to which intensified case-finding will reduce the burden of undiagnosed TB, and thus of transmission of infection, when scaled up to a national level is unclear.

- The Zambian ProTEST project has collaborated with the ongoing national PMTCT expansion and introduced intensified TB case-finding (and STI screening) into the VCT services for antenatal clinic attendees. This policy has now been adopted in the standard VCT procedures for all antenatal clinic attendees in Zambia. Numbers of TB suspects detected among antenatal clinic attendees were small; it is also unclear how these TB suspects were selected, making it difficult to assess the effectiveness of this policy. However, with intensified case-finding accepted as a standard procedure in VCT, a considerable proportion of antenatal clinic attendees – with high HIV seroprevalence (20–30%) – are likely to present with active TB.

### *Recommendations*

- Intensified case-finding through symptomatic screening should be part of standard operating procedure in counselling, either before or after HIV testing, and should be enhanced by appropriate information, education and communication activities in communities and among HIV-positive clients.
- The scope of intensified case-finding through symptomatic screening should be expanded beyond clients attending VCT centres and primary health care facilities to all populations likely to include dually infected persons (e.g. medical wards in hospitals, congregate settings, prisons) and also to close contacts of sputum smear-positive TB patients (particularly TB patients who are also HIV-positive).

### *What is still needed?*

- Information on the effectiveness of intensified case-finding in different populations at risk for HIV (e.g. antenatal clinic attendees, STI clients, military, policemen, mineworkers) in the VCT process and during any other health system contact.
- Data on the effect that intensified case-finding among VCT clients, when scaled up to national level, can have in reducing the community burden of undiagnosed TB.
- Information on the contribution of intensified case-finding to TB control in VCT centres with varying populations of clients, such as STI patients or clients attending antenatal clinics.
- Information on the benefits of intensified case-finding outside stand-alone VCT sites and primary health care facilities (e.g. in home-based care settings, or among high-risk groups other than VCT clients). The introduction of “cough registers” in all centres where intensified case-finding is implemented will facilitate monitoring of this activity.

## 3.4

### **Isoniazid preventive therapy**

Daily IPT given for six months to HIV-positive clients with no evidence of active TB disease will reduce their risk of developing active TB. Existing policy recommends IPT as follows<sup>5</sup>:

- for prevention of the first-ever episode of TB;
- for individuals, rather than as a public health benefit;

- as part of the package of care for PLWHA;
- when it will not detract from TB programme resources or undermine performance in achieving DOTS, the WHO TB control strategy.

All projects offered IPT to HIV-positive clients who had no evidence of active TB disease. As for CPT, the pilot projects were not designed to test the effectiveness of IPT. The data must therefore be treated with caution, especially when comparing between sites, as different protocols for screening and definitions of adherence were used in the different sites.

Previous trials on the efficacy of IPT in sub-Saharan Africa have shown that the duration of the protective efficacy is limited to two years. Studies have shown that highly active antiretroviral therapy (HAART) reduces TB incidence but that many HIV-positive persons develop TB before they are eligible for HAART. This raises questions about the desirability, effectiveness and feasibility of life-long IPT to prevent first and subsequent episodes of TB in high-prevalence populations, in the presence and absence of HAART.

## Malawi

Malawi implemented IPT quite late in a single stand-alone VCT site. HIV-positive clients were screened for active TB by means of a simple symptom questionnaire. A relatively low number of eligible HIV-positive clients were screened and, of those started on IPT, only 32% completed the course. Adherence was defined as collection of six monthly doses within a period of nine months.

## South Africa

In the South African projects, the proportion of HIV-positive clients accepting screening for TB varied from 26% to 48% (average 36%). The proportion of screened HIV-positive clients who were started on IPT varied from 19% to 69%. Central District in Cape Town was the only district that used tuberculin skin tests and chest X-rays to exclude active TB; the other three sites used symptomatic screening to exclude active TB, in essence accepting only HIV-positive clients who were fit and showing no signs or symptoms of disease. The inclusion of tuberculin skin tests and chest X-rays resulted in 18% of clients in Central District dropping out before completing the screening process.

Adherence was measured as the proportion of people who came to collect six monthly pill-packs within a period of eight months. Between the four pilot sites, adherence varied from 24% to 59%. A possible explanation for the better adherence in Central District is that eligible clients who return to the clinic to complete the longer screening process are better motivated and able to attend health services regularly and thus to adhere to the treatment. Other possible reasons may be the easier access to health facilities in an urban setting, or the more patient-centred care services provided by nurses. Interruption of isoniazid drug supplies in Ugu and Bohlabela may have contributed to the lower adherence.

In Bohlabela, in-depth semi-structured interviews were conducted with six clients who completed IPT successfully, six who interrupted IPT and six who were about to start IPT. The following factors negatively affected adherence:

- lack of money for transport to the clinic;

- lack of money to buy food;
- perceived and real side-effects of IPT;
- the belief that medicines should be taken only with food and in case of illness;
- the belief that “western” medicine should not be taken together with traditional medicine.

Factors that enhanced adherence included:

- attending clinic support groups;
- empathic and non-discriminatory clinic services;
- acceptance of personal HIV status;
- support from family members and the community; acceptance of HIV status.

The South African National Department of Health did not promote IPT in the National Plan for Roll-out of TB/HIV Joint Activities (2000) but, with the evidence on favourable cost-effectiveness of IPT collected in both South Africa and Zambia, it is likely to reconsider its current IPT policy. Meanwhile IPT is considered a useful intervention for HIV-positive individuals in whom active TB has been excluded.

## **Zambia**

In Zambia, IPT was implemented in all sites. Of 3986 HIV-positive clients, 2652 (68%) were screened for IPT and 1390 (52%) of these started IPT; 1264 were ready for evaluation, of whom 365 (29%) completed a six-month course in a period of 12 months. Clients were interviewed to find out why adherence was poor. The most frequently cited reasons were hunger, lack of support from relatives, lack of disclosure, and beliefs about IPT (such as lack of confidence in its efficacy and concern about side-effects).

## ***Lessons learnt***

- Provision of IPT services can be established through TB/HIV collaboration. HIV counselling and testing provide an ideal opportunity to screen for TB and to offer IPT to those without evidence of active disease.
- The uptake of IPT by HIV-positive clients is generally low (for the reasons outlined earlier).
- Adherence to IPT is generally low (24–59% across the projects) but improves when a more rigorous process is used to select patients for therapy.
- The epidemiological impact of IPT on TB is unknown but is unlikely to be large given the limited scale of uptake.
- Adherence criteria were not standardized between projects; they are relatively strict compared with those used in previous studies on IPT.
- The total and incremental costs of delivering IPT are low, consistent with previous estimates, and provision of IPT is therefore cost-effective, despite low adherence. This was shown in a cost-effectiveness study conducted in South Africa and Zambia.
- Record-keeping is problematic because of the variety of providers offering IPT and the burden of recording and reporting in addition to other priorities.

## ***Recommendations***

- The existing WHO/UNAIDS policy of 1998 should be reinforced. There is no need to review this policy in the light of current evidence.
- IPT should be offered as part of a minimum package of care for PLWHA.

*What is still needed?*

- More evidence on cost and cost-effectiveness of IPT in routine services, comparing different delivery models.
- Investigation of the most effective ways of increasing uptake of and adherence to IPT.
- Information on the feasibility, affordability and cost-effectiveness of lifelong IPT in preventing the first episode of TB (before such a policy is promoted).
- Information on the feasibility, affordability and cost-effectiveness of lifelong therapy in preventing a recurrent episode of TB (before such a policy is promoted).
- Research into the utility of IPT in the context of ART, its effectiveness and efficacy, for preventing both first and recurrent episodes of TB.

**3.5****Referral systems**

Different services, e.g. VCT, and support groups for TB patients, PMTCT, and PLWHA, are often provided at different sites or at different locations within the same site. Good referral links between services need to be established if people are to be able to access the full range of services from which they can benefit. This does not mean just creating the paper referral forms but also making sure that the people working in one service know that the other services exist, who should benefit from those services and how patients can be referred to them.

*Lessons learnt*

- All five project teams had to invest considerable time and energy in establishing referral networks between a multitude of different partners and service providers.
- All the project teams considered the monitoring of referral patterns to be important, although implementation proved to be quite time-intensive. Referral forms were designed, often using carbon copies to enable tracking between referring units.

*Recommendation*

- Referral networks need to be established to ensure that people can access all the services that they need, preferably in one visit.

**3.6****Monitoring and evaluation**

During the workshop it became clear that all of the projects had invested much time and energy in monitoring and evaluation (M&E). Because of the nature of the six projects, M&E was developed locally, in close collaboration with local stakeholders. Resource limitations meant that M&E had to be as simple as possible, appropriate to the local setting, and sustainable. The disadvantage of this approach was that different criteria and methodologies were used, making comparison between projects complex. The importance of developing standardized indicators for the M&E of future collaborative TB and HIV programme activities is clear. A full day of the workshop was spent discussing this issue. In collaboration with other partners, the secretariat of the TB/HIV Working Group is currently working on the development of guidelines for monitoring and evaluation of collaborative TB and HIV programme activities. These would be circulated for comments among a larger group of stakeholders in due course.

### *Lessons learnt*

- M&E is essential to account for the resources being spent on the activities, for programme management, for quality assurance and to determine the impact of the interventions on HIV and TB incidence.
- Many of the activities carried out through TB/HIV collaboration can be covered by standard indicators developed by other organizations, e.g. HIV-prevention indicators developed by the UNAIDS-led international collaboration.

### *Recommendations*

- Given the resource constraints, it is vital to avoid overburdening the routine health system and creating an unsupportable burden of administration through excessive M&E.
- Standard indicators already developed by other organizations should be used wherever possible; such indicators should not be reinvented or added to but referred to and cross-referenced in the planned M&E guide.
- Consideration should be given to intermittent, rather than continuous, implementation of M&E systems in order to reduce the administrative burden.
- M&E systems should be integrated as far as possible into the systems that already exist at district level.

### *What is still needed?*

- Development of a core set of indicators specific to TB/HIV activities for future programmes.

#### **3.7**

### **Case-holding for tuberculosis**

Although the subject was not discussed specifically, some of the workshop participants mentioned that collaboration between TB and HIV programmes has great potential to support case-holding for TB patients, through the involvement of communities and community care organizations. This is an aspect in which HIV/AIDS programmes have advanced much further than TB programmes.

All projects created or strengthened links with community-based organizations, mainly for intensified case-finding. No systematic data are available on the specific outcomes of TB treatment managed by workers in community-based organizations or by home-based care workers.

### *Recommendation*

- Specific data on the success of the case-holding approach should be collected in future projects, where workers in CBOs have been given responsibility for implementing the DOTS strategy in the community.

#### **3.8**

### **Antiretroviral therapy**

None of the projects provided ART as these drugs were not considered financially accessible at the conception of ProTEST. There was, however, agreement among workshop participants that the experience of TB programmes in the provision and supervision of “chronic” care for a period of six to eight months during TB treatment can provide valuable lessons for the management of ART in PLWHA.



### *Lessons learnt*

All of the project teams found that PLWHA enormously valued the basic services (e.g. psychosocial support, IPT, CPT) provided by the ProTEST projects in a client-friendly and compassionate environment despite the absence of ART. This refutes the often-heard notion "that VCT and knowledge of HIV status are not attractive when there is no specific HIV treatment on offer".

### *What is still needed?*

ART will be an important addition to the package of care for PLWHA in the developing world; however, the logistics of providing such complex treatment in the primary care setting have not yet been clarified. Ways of integrating antiretroviral therapy into collaborative TB/HIV activities are needed.

# Annex 1



**Characteristics of 6 ProTEST projects in Malawi,  
South Africa and Zambia**

Project characteristics	Lilongwe	East London, Eastern Cape Province	Ugu, KwaZulu-Natal Province	Bohlabela, Limpopo Province	Cape Town, Western Cape Province	Lusaka
	<b>Malawi</b>	<b>South Africa</b>	<b>South Africa</b>	<b>South Africa</b>	<b>South Africa</b>	<b>Zambia</b>
Evaluation period	Aug 1999–June 2002	May 2000–Dec 2002	Oct 1999–Dec 2002	Nov 1999–Dec 2002	April 2000–Dec 2002	Oct 1999–Dec 2002
PTB notification rate/10 <sup>5</sup>	District: 163 (2001)	Province 397 (2000)	Province 205 (2001)	District: 212 (1999)	District: 546 (1999)	District: >800 (1998)
Adult HIV prevalence (year)	National: 16% Lilongwe: 25%	Province: 20.2% (2000)	District 32.5% (2000)	District: 19.4% (2000)	District: 18% (2000)	District: 22% (1999)
HIV among TB patients	National: 77%	Unknown	District: 61%	District: 50%	District: 35%	District: 70–80%
ProTEST staff (full-time equivalents (fte) unless otherwise noted)	2 coordinators 3 support staff	1 coordinator (0.6 fte)	2 coordinators 1 driver 1 data-entry clerk 18 lay counsellors	1 coordinator (in kind) 1 administrator (0.5 fte) 1 researcher 1 data manager 1 VCT nurse trainer 1 counsellor 1 data manager (0.5 fte)	1 coordinator 2 professional nurses 4 lay counsellors	1 project manager 1 clinical officer 2 support staff 1 counselling supervisor 1 outreach worker (allowances are paid to counselling nurses)
ProTEST partners	WHO NTP/NACP District 1 hospital MACRO (VCT) Lighthouse (VCT) Lighthouse Clinic Lilongwe HBC 4 PLUWA orgs Traditional healers Private practitioners Family Planning Association of Malawi LSHTM	WHO NTP/NACP DHMT Equity project 14 clinics AIDS Training, Information and Counselling Centre LSHTM	WHO NTP/NACP DHMT 2 hospitals 10 clinics 5 HBC teams General practitioners Univ. of Natal MRC Rotary International SANTA LSHTM	WHO NTP/NACP Regional HMT 4 hospitals 5 clinics District Health and Social Services Consortium National Association of PLWA LSHTM	WHO NTP/NACP DHMT 6 clinics 4 community health service organizations 2 reproductive health clinics Provincial admin. Metropolitan Council Univ. of Cape Town Langa Health Committee NGOs LSHTM	WHO Zambia AIDS-Related TB project (ZAMBART) Kara Counselling and Training Trust Lusaka DHMT Network of Zambian People Living with HIV HBC groups Central Board of Health National HIV/AIDS Council LSHTM

Project characteristics	Lilongwe	East London,	Ugu,	Bohlabela,	Cape Town, Central District	Lusaka
Responsible agencies in pilot phase	NTP ProTEST Team	District and Equity Project	South Coast Hospice	Health Systems Development Unit, Univ. of Witwatersrand	City of Cape Town	ZAMBART
Funding source	NORAD WHO	District Equity Project	Chief Directorate HIV/AIDS and TB, National Department of Health	Chief Directorate HIV/AIDS and TB, National Department of Health	Chief Directorate HIV/AIDS and TB, National Department of Health	WHO LSHTM DFID
Population type	Urban	Urban, periurban	Rural	Rural	Urban, periurban	Urban (3 sites)
Population size	District 1.3 million Urban: 450 000	180 000	225 919	Pilot subdistrict: 66 000 District: 500 000	296 000	District: 1.1 million Pilot sites: 214 000
Various collaborative activities and interventions introduced and enhanced						
Collaboration between TB and HIV/AIDS public and private stakeholders	Yes	Yes	Yes	Yes	Yes	Yes
Accessing VCT (number)	41 026	14 453	23 114	6 569	29 345	29 329
HIV-tested		14 453	22 474	6 569	27 986	10 333
HIV-positive	9 025 (22%)	4 808 (33%)	11 734 (52%)	2 520 (38%)	5 733 (20%)	3 822 (37%)
STI screening in VCT setting?	Yes. Screening questionnaire and symptomatic patients referred for syndromic management	Yes	Yes	Yes	Yes	Yes. Screening questionnaire, symptomatic patients referred for syndromic management
VCT clients screened	STI drugs provided 25 788	n.a.	n.a.	n.a.	n.a.	STI drugs provided n.a.
Symptomatic clients	601 (2%)	n.a.	n.a.	n.a.	n.a.	731
STI confirmed and treated	501 (2%)	n.a.	n.a.	n.a.	n.a.	731

Project characteristics	Lilongwe	East London,	Ugu,	Bohlabela,	Cape Town, Central District	Lusaka
Intensified TB case-finding in VCT Centres	Sites: VCT centres HBC organizations traditional healers private practitioners 14 422 VCT clients	Yes	Yes	Yes	Yes	Yes VCT centres HBC private practitioners
VCT clients screened for TB	197 (1.4%)	1 472 HIV-positive VCT clients	1 357 HIV-positive VCT clients	393 HIV-positive VCT clients	1 991 HIV-positive VCT clients	2 531 HIV-positive VCT clients
Clients symptomatic	93	-	353 (26%)	124 (32%)	416 (21%)	1 453 (57%)
Excluded for various reasons	98/104	-	-	9	373	-
Sputum examined	98/104	-	-	-	498	-
Clients diagnosed with TB	25 (< 1%) 173/100 000 11 sputum +ve	144 (10%)	-	10 (3%)	147 (7%)	206 (5.4%) 71 smear +ve 173 smear -ve
Cases identified through home-based care organizations	182 in 2-yr period 49% smear +ve	n.a.	n.a.	n.a.	n.a.	n.a.
Intensified TB case-finding in PMTCT clinic	n.a.	n.a.	n.a.	n.a.	n.a.	Chipata PMTCT clinic
Pregnant women referred for TB screening	n.a.	n.a.	n.a.	n.a.	n.a.	18
Pregnant women diagnosed with TB (on treatment from TB clinic)	n.a.	n.a.	n.a.	n.a.	n.a.	4
Postnatal women with TB	n.a.	n.a.	n.a.	n.a.	n.a.	3
Mothers referred for IPT	n.a.	n.a.	n.a.	n.a.	n.a.	10
CPT for HIV+ clients with or without TB	9 826 (TB patients) 1 500 (15%) accessed VCT 69 not tested 1 206 HIV+ 1 206 N = 423 346 adherent by end of TB Rx (82%) 198 (57%) cont'd CPT 6 m after completing TB Rx 144 (42%) cont'd CPT 12 m after TB Rx	2 328 screened for CPT	3 070 screened for CPT	601 screened for CPT	1 991 screened for CPT	None – awaiting outcome of clinical trial n.a. n.a.
Started on CPT Adherence		1 149 (49%) n.a.	1 226 (40%) N = 89 7 (8%) completed 6 months	276 (46%) N = 154 50 (32%) completed 6 months	984 (49%) N = 685 347 (51%) completed 6 months	

Project characteristics	Lilongwe	East London,	Ugu,	Bohlabela,	Cape Town, Central District	Lusaka
IPT: Clients HIV+	3 377	4 808	11 734	1 556	4 203	3 822
Screened for IPT	741 (22%)	2 328 (48%)	3 070 (26%)	648 (42%)	1 991 (47%)	3 061 (80%)
Started IPT	569 (77%)	1 606 (69%)	1 368 (44%)	244 (38%)	373 (19%)	1 364 (45%)
Evaluated	446	–	548	102	373	1 264 (93%)
Completed 6 months	150 (32%)	–	131 (24%)	45 (44%)	219 (59%)	365 (29%)
Improved management of opportunistic infections		Yes	Yes	Yes	Yes	Yes, weekly HIV clinic in all sites
Antiretroviral therapy		No	No	No	No	No
Linkage to community-based care organizations	Started in 2nd quarter 2002 at Lighthouse HIV/AIDS clinic 6 groups of community volunteers trained in TB and HIV	Yes	5 integrated community home-based care teams	Yes	Yes	6 HBC groups 5 groups of outreach workers trained in TB/HIV
Linkage to PLWHA organizations	2 groups actively involved in IEC					Yes
Communication strategy to patients and community	Radio adverts PLWHA groups					Community mobilizers, PLWHA groups, 2 TB/HIV videos, 2 editions of ProTEST bulletin, MTCT/ProTEST leaflet (in local languages)

**TB:IV**

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# TB HIV

Stop TB Department  
Communicable Diseases Programme

HIV/AIDS Department  
Family and Community Health

WORLD HEALTH ORGANIZATION  
20 avenue Appia  
CH-1211 Geneva 27  
SWITZERLAND

For further information about tuberculosis  
or other communicable diseases,  
please contact  
Information Resource Centre  
Communicable Diseases  
World Health Organization  
CH-1211 Geneva 27, Switzerland  
[cdsdoc@who.int](mailto:cdsdoc@who.int)

fax +41 22 791 4285

You can also visit our website at  
<http://www.who.int/gtb>

For further information  
about HIV/AIDS, please contact  
Information Resource Centre  
HIV/AIDS Department  
World Health Organization  
CH-1211 Geneva 27, Switzerland  
[hiv-aids@who.int](mailto:hiv-aids@who.int)

tel +41 22 791 4530  
fax +41 22 791 4834

You can also visit our website at  
[http://www.who.ch/hiv\\_aids](http://www.who.ch/hiv_aids)