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## Acronyms

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<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>AIC</td>
<td>AIDS Information Center</td>
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<tr>
<td>AIDS</td>
<td>Acquired Immuno-Deficiency Syndrome</td>
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<tr>
<td>AIM</td>
<td>AIDS/HIV Integrated Model District Programme</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral therapy</td>
</tr>
<tr>
<td>ARVs</td>
<td>Antiretroviral drugs</td>
</tr>
<tr>
<td>ACS</td>
<td>Advocacy, Communication and Social mobilization</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
</tr>
<tr>
<td>CB-DOTS</td>
<td>Community Based Directly Observed Therapy-Short course</td>
</tr>
<tr>
<td>CV</td>
<td>Community Volunteer</td>
</tr>
<tr>
<td>DHAC</td>
<td>District HIV/AIDS Committee</td>
</tr>
<tr>
<td>DDHS</td>
<td>District Director Health Services</td>
</tr>
<tr>
<td>DOTS</td>
<td>Directly Observed Therapy- Short course</td>
</tr>
<tr>
<td>GDF</td>
<td>Global Drug Facility</td>
</tr>
<tr>
<td>HCT</td>
<td>HIV Counseling and Testing</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health Management Information System</td>
</tr>
<tr>
<td>HSD</td>
<td>Health Sub-District</td>
</tr>
<tr>
<td>HSSP</td>
<td>Health Sector Strategic Plan</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education and Communication</td>
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<td>IUATLD</td>
<td>International Union Against Tuberculosis and Lung Disease</td>
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<tr>
<td>IPT</td>
<td>Isoniazid Preventive Therapy</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>NACP</td>
<td>National AIDS Control Programme</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NTLP</td>
<td>National Tuberculosis/Leprosy Programme</td>
</tr>
<tr>
<td>PEAP</td>
<td>Poverty Eradication Action Plan</td>
</tr>
<tr>
<td>PHA</td>
<td>People with HIV/AIDS</td>
</tr>
<tr>
<td>RCT</td>
<td>Routine Counseling and Testing</td>
</tr>
<tr>
<td>SCHW</td>
<td>Sub-County Health Worker</td>
</tr>
<tr>
<td>STD</td>
<td>Sexually Transmitted Diseases</td>
</tr>
<tr>
<td>TASO</td>
<td>The AIDS Support Organization</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>UAC:</td>
<td>Uganda AIDS Commission</td>
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<tr>
<td>UNHS:</td>
<td>Uganda National Household Survey</td>
</tr>
<tr>
<td>VCT:</td>
<td>Voluntary Counseling and Testing</td>
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<tr>
<td>WHO:</td>
<td>World Health Organization</td>
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Foreword

The human immunodeficiency virus (HIV) pandemic presents a massive challenge to the control of tuberculosis (TB) at all levels. In Uganda the interaction of TB and HIV is increasing the burden of both diseases. At present, an estimated 50% of TB patients are also co-infected with HIV. TB is a common, treatable HIV-related disease and a leading killer of people living with HIV/AIDS (PLHA). TB control will not make much headway in HIV prevalent settings unless HIV control is achieved. This calls for close collaboration between HIV/AIDS and TB control programmes so as to control the dual epidemic.

This policy document responds to a demand from districts and other partners for guidance on collaborative TB/HIV activities to implement. It is complementary to and in synergy with the established core activities of tuberculosis and HIV/AIDS prevention and control programmes.

Even though evidence for collaborative TB/HIV activities is limited, existing evidence from randomized and non-randomized trials, observational studies, operational research and lessons learned from Pro-TEST pilot sites was used for this policy document.

An open and participatory approach was followed in the development of this policy. The process was highly consultative involving participation of stakeholders from Ministries of Health, Defence, Labour and Local Government. Representatives from district health services, development partners, private sector, academia, and patient communities were also involved in the development, review and approval of this policy document.

These guidelines are based on well researched data, vast experience in delivering collaborative services and address community concerns, and should be put to use.

This policy document provides a framework and guidance on implementation of TB/HIV collaborative activities so as to improve care for TB and HIV patients. I therefore take this opportunity to express the gratitude of the Ministry of Health to all the people and institutions listed in the acknowledgement for the selfless work they did to develop these excellent guidelines.

Dr. Sam Zaramba
Director General of Health Services
Acknowledgments

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The Director General Health Services, Dr. Sam Zaramba, Assistant Commissioner, National Disease Control-Dr. Alex Opio, NTLP Programme Manager-Dr. Francis Adatu, and STD/AIDS Control Programme Manager-Dr. Elizabeth Madraa facilitated and supported the development of these policy guidelines.
1.0 Introduction

1.1 Background

Geography, demography, key health and economic indicators:
Uganda is located in East Africa, bordered in the north by Sudan, in the east by Kenya, in the west by the Democratic Republic of Congo, in the south by Tanzania and Rwanda. The population of Uganda is estimated at 27 million persons with an average inter-censal population growth rate of 3.4% between the 1991 and 2002 censuses (UBOS, 2002). The biggest part of the population (90%) is based in rural areas. Uganda is divided administratively into 76 districts, 930 sub-counties, and 5152 parishes. In terms of key health indicators, Uganda has an infant mortality rate (IMR) of 88 deaths per 1,000 live births, a maternal mortality ratio (MMR) of 505 deaths per 100,000 live births (UDHS, 2000). Life expectancy has improved from 42 years (UDHS, 2000) to 47 years (UNDP, 2005). Communicable diseases continue to be the leading cause of morbidity and mortality in the country. Uganda is a low-income country with a GDP per capita of $312 USD for the fiscal year 2004/05, (UBOS, 2005). However, the percentage of the population living below the poverty line, which had been on the decline from 52% in 1992/93 to 44% in 1997/98 and to 35% in 2000, rose slightly to 38% in 2003. (PEAP 2001-2003, UNHS 2003).

Health services
The health care delivery system has been reorganized and restructured to improve performance and comply with the decentralization policy enshrined in the National Constitution (1995) and Local Authorities Act (1997). Core functions of the MOH include policy formulation, setting standards and quality assurance, capacity development and technical support, coordination, monitoring and evaluation of sector performance, resource mobilization and training. District responsibilities include implementation of national policies and planning and managing district health services. Health service delivery is further decentralized to the health sub-district (HSD) level, which serves approximately 100,000 people. There are currently 214
HSDs in Uganda. Physical access to primary health care services has improved with 72% of the population being within 5 kilometers of a health facility as compared to the pre-HSSP I baseline of 49%. (HSSP II, 2005-2010).

Burden of Tuberculosis

Mycobacterium tuberculosis infects a third of the world’s population. In 2003 there were an estimated 8.8 million new cases of tuberculosis (TB) worldwide. The African region (24%), South-East Asia region (35%), and Western Pacific region (22%) together accounted for 82% of all notified cases and similar proportions of new smear positive cases. Developing countries had 95% of TB cases and 98% of TB deaths (WHO, 2005).

Uganda is one of the world’s 22 high-burden countries with TB. The country has an estimated annual risk of infection (ARI) of 3% -equivalent to 150-165 new smear positive TB cases per 100,000 population per year or 300-330 total TB cases per 100,000 per year. Uganda is yet to attain the global case detection and treatment success targets of 70% and 85%, respectively. In 2003, the country detected 52% of the expected new smear positive cases. Of these cases, 67.6% were successfully treated.

Burden of HIV/AIDS.

At the end of the year 2004, a total of 39.4 (35.9 – 44.3) million people were estimated to be living with HIV/AIDS worldwide, of whom 25.4 (23.4 – 28.4) million which is 64.5% were in sub-Saharan Africa and 7.1 million (18%) were in South East Asia, (UNAIDS/WHO, 2004).

In Uganda, an estimated two million people have been infected with Human Immunodeficiency Virus (HIV) and 900,000 people have died since the onset of the Acquired Immunodeficiency Syndrome (AIDS) epidemic. The national HIV sero-behavioural survey that was conducted in 2004/05 shows adult prevalence of 7% in the 15-59 age group. Currently, an estimated 120,000 - 150,000 people have AIDS in

National Policy Guidelines for TB/HIV Collaborative Activities in Uganda
Uganda (MOH, HSSP-II). High mortality due to AIDS in Uganda has significantly contributed to the currently estimated 2.1 million orphans in the country, (MOH, HSSP-II).

**Burden of TB-HIV co-infection**

The human immunodeficiency virus (HIV) pandemic presents a massive challenge to the control of tuberculosis (TB) at all levels. Tuberculosis is also one of the most common causes of morbidity and the leading cause of mortality in people living with HIV/AIDS (PLWHA). By the end of 2000, about 11.5 million HIV-infected people worldwide were co-infected with M. tuberculosis. 70% of them were in sub-Saharan Africa, 20% in South-East Asia and 4% in Latin America and the Caribbean, (WHO, 2004).

In Uganda, the interaction of TB and HIV is increasing the burden of both diseases. It is well established that HIV is the biggest risk factor for the development of active TB among individuals infected with M. tuberculosis. At present, an estimated 50% of TB patients are also co-infected with HIV, (MOH-NTLP, 2004). At the same time, TB remains a leading cause of morbidity and mortality for PLWHA. An estimated 30% of all deaths among PLWHA are attributed to TB (MOH-NACP, 2003).

**Control of Tuberculosis in Uganda**

Community based TB care (CBTBC) with direct observed therapy (DOTS) was adopted by the MOH in Uganda as the best strategy for controlling TB. To date, this strategy has been expanded to all districts in the country although the sub-county and patient coverage is still wanting. In the CBTBC with DOTS model, a public health worker (referred to as a Sub-County Health Worker (SCHW) links the formal health system to communities in their respective sub-counties. SCHWs conduct community mobilization, facilitate communities through their leaders to select community volunteers (CVs) and train those selected. In addition they supervise CVs and replenish their TB drugs fortnightly. The CVs are responsible for administering and directly observing therapy. The CVs are also responsible for referring the TB patients
to health centre for appropriate follow-up sputum testing. The following figure depicts the model of implementation of CBTBC with DOTS at the district level.

![Figure 1: Implementation of CB-DOTS Referral System in Rural Settings](image)

**Control of HIV/AIDS in Uganda**

In the past five years (HSSP-I, 2000-2005), government focused on mainstreaming HIV/AIDS into all sectors and decentralization of the implementation plan. A comprehensive patient care package was developed which included the management of opportunistic infections (including TB), palliative care, and the provision of antiretroviral drugs. The home based care approach has been adopted to care for the persons living with AIDS at the community level and this has the advantage of relieving the already over strained health facilities. Challenges in the control of...
HIV/AIDS in Uganda include inadequate access to IEC messages, condoms and safe blood, limited coverage of VCT and PMTCT services, especially in the rural areas. There is also limited access to clinical, palliative, and home based care, and HIV counseling and testing services, as well as inadequate supply of drugs including those for opportunistic infections and ART. In addition, human resource capacity in terms of numbers and skills poses a special challenge especially in the areas of counseling, laboratory and clinical management for patients on ART. Anecdotal reports indicate increasing number of HIV positive patients that do not use condoms because they are on ART, a behavior that puts many people at risk of acquiring new infection.

**Collaborative TB and HIV Programme Activities**

Although some collaborative activities have been implemented in a few public facilities and NGOs like AIC, AIM, Mbuya Reach Out, Nsambya and TASO, these have not been standardized and depend largely on the knowledge and motivation of an individual health worker or counselor. An external evaluation of the TB Program that was carried out in May 2005 revealed that a number of activities with regard to TB-HIV collaboration were taking place and partners were engaged though following individualized approaches that were not always technically sound. A biannual review of the TB Program which was conducted by IUATLD\(^1\) and GDF\(^2\) mission in August 2005 showed that most health workers lacked knowledge on TB/HIV collaborative activities which resulted in poor implementation.

\(^1\) International Union Against TB and Lung Diseases
\(^2\) Global Drug Facility
Coordination of TB/HIV collaborative activities in Uganda.

To coordinate the national response to the intersecting epidemic of TB and HIV, the Ministry of Health instituted the National Coordination Committee for TB/HIV collaborative activities (NCC-TB/HIV). The NCC-TB/HIV is charged with overall coordination of TB/HIV collaborative activities in the country. The NCC is chaired by the Assistant Commissioner Health Services (National Disease Control) and is co-chaired by the Programme Managers for TB and for ACP/STD\(^3\). It is comprised of representatives from NTLP, NACP, WHO, development agencies, Civil Society Organizations (CSO), nongovernmental organizations, academic institutions, special groups (army, police etc), PLWHA, activists, patient-support groups and district representatives.

The NCC is divided into four working groups;

- Policy & Guidelines
- District Implementation
- Advocacy, Communication and Social mobilization
- Monitoring and Evaluation.

\(^3\)AIDS Control Program/Sexually Transmitted Diseases
1.2 **Rationale**

The above background information demonstrates that HIV prevention and care should be a priority concern of TB programmes and TB care and prevention should be a priority concern of national HIV/AIDS control programmes. Whereas previously TB programmes and HIV/AIDS programmes have largely pursued separate courses, they need to exploit synergies in supporting health service providers to deliver collaborative interventions.

Some of the TB/HIV interventions described later clearly fall under the responsibility and expertise of the NTLP (such as sputum microscopy), while others fall under the responsibility and expertise of the NACP (such as HIV counseling and testing services). However, most activities fall in the middle of the spectrum with much potential overlap between the programmes e.g.:

- Increased community involvement can benefit both TB diagnosis and care, and HIV/AIDS care and prevention.
- IPT is a concern of both TB services (which are likely to supply and monitor the isoniazid) and of NACP services (whose clients will benefit).

At the service delivery level it can be seen that many potential reciprocal synergies exist between different service providers e.g.

- HIV-positive VCT clients have a high rate of TB (and therefore benefit from TB screening and treatment) and TB patients have a high rate of HIV (and therefore benefit from HCT and associated services).
This document will assist policy-makers and health managers at all levels of service delivery to understand what should be done to decrease the joint burden of tuberculosis and HIV. It is designed to be used in conjunction with other existing policies on community based TB care (CB-DOTS), HIV/AIDS Care, ART, Cotrimoxazole prophylaxis, and HIV counseling and testing.

1.3 **Purpose**

This policy responds to a demand from districts, health units, development partners, NGOs and special groups for immediate guidance on implementation of collaborative TB/HIV activities in Uganda. It is complementary to and in synergy with the established core activities of tuberculosis and HIV/AIDS programmes. This policy promotes enhanced collaboration between tuberculosis and HIV/AIDS programs in the provision of a continuum of quality care at service-delivery level for people with, or at risk of, tuberculosis and people living with HIV/AIDS. It also provides a consistent framework for implementers to use in expanding TB/HIV collaborative activities.

While there is good evidence for the cost effectiveness of the CB-DOTS strategy and several HIV prevention measures this policy will require updating to reflect new evidence and best practices.

1.4 **Target audience**

This document is intended for decision-makers in the field of health, civil society organizations, Non Governmental Organizations (NGOs), Faith Based Organizations (FBOs), Community Based Organizations (CBOs), academia, Private sector, special groups (military, police, prison etc) including employers and workers’ Organizations and other ministries with TB and HIV/AIDS programs.
1.5 Policy framework

These policy guidelines are in support and operationalize principles outlined in the following legal and policy documents:

- Local Government Act, 1997 (Amended)
- The Workers’ Compensation Act.
- National Health Policy (1999)
- Health Sector Strategic Plan II (2005/6 – 2009/2010)
- Poverty Eradication Action Plan
- National HIV/AIDS Policy
- National TB control Policy
- National Policy on HIV/AIDS and The World of Work (draft).

1.6 Policy guidelines formulation process

A policy and guidelines subcommittee/working group was formed out of the National Coordination Committee (NCC) for TB/HIV to develop policy guidelines on TB/HIV collaboration. The following documents were reviewed during the process:

- WHO, Interim Policy on Collaborative TB/HIV activities.
- Ministry of Health Policy guidelines on Tuberculosis Control & Community-based DOTS.
- Ministry of Health Policy guidelines on HIV/AIDS Care, ART, HIV counseling and testing, and Cotrimoxazole Prophylaxis.
The drafts were circulated to stakeholders for comments and presented to the National Coordination Committee (NCC) for adoption. The final draft was presented to Ministry of Health (MOH) senior management team and was approved.

2.0 Goal and objectives of collaborative TB/HIV activities

The overall goal of the policy is to decrease the burden of tuberculosis and HIV in Uganda through improved TB and HIV/AIDS collaborative interventions.

The policy objectives are to:
1. Establish the mechanisms for sharing information and collaboration in planning, implementation, monitoring and evaluation of tuberculosis and HIV/AIDS programmes at all levels of health services.
2. To screen all PLWHA for TB and provide preventive and curative care for those with latent and active TB respectively.
3. To provide HIV screening to all TB patients and comprehensive HIV care services to those co-infected with HIV.
3.0 Collaborative TB/HIV activities

This document focuses on collaborative activities that address the interface of the tuberculosis and the HIV/AIDS epidemics and that should be carried out as part of the national response to the intersecting tuberculosis and HIV epidemics. The following table summarizes the TB/HIV collaborative activities to be carried out at various levels of health services.

Table 1  Collaborative TB/HIV activities

<table>
<thead>
<tr>
<th>A. Establish the mechanisms for sharing information and collaboration</th>
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<tbody>
<tr>
<td>A.1 Set up a national coordinating body for TB/HIV activities.</td>
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<tr>
<td>A.2 Identify focal persons at regional, district and HSD levels</td>
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<tr>
<td>A.3 Conduct surveillance of HIV prevalence among tuberculosis patients.</td>
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<tr>
<td>A.4 Carry out joint TB/HIV planning (resource mobilization, capacity building, Advocacy, communication &amp; social mobilization)</td>
</tr>
<tr>
<td>A.5 Conduct monitoring and evaluation</td>
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<tr>
<td>A.6 Coordinate research activities on HIV and TB.</td>
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<table>
<thead>
<tr>
<th>B. Decrease the burden of tuberculosis in people living with HIV/AIDS</th>
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<tbody>
<tr>
<td>B.1 Establish intensified tuberculosis case-finding.</td>
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<tr>
<td>B.2 Provide isoniazid preventive therapy, where feasible.</td>
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<tr>
<td>B.3 Provide TB treatment to those with active TB.</td>
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<tr>
<td>B.4 Ensure tuberculosis infection control in health care and congregate settings</td>
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</table>

<table>
<thead>
<tr>
<th>C. Decrease the burden of HIV in tuberculosis patients</th>
</tr>
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<tbody>
<tr>
<td>C.1 Provide Diagnostic HIV counseling and testing</td>
</tr>
<tr>
<td>C.2 Provide HIV prevention methods</td>
</tr>
<tr>
<td>C.3 Provide Cotrimoxazole preventive therapy</td>
</tr>
<tr>
<td>C.4 Provide HIV/AIDS care and support</td>
</tr>
<tr>
<td>C.5 Provide antiretroviral therapy if eligible</td>
</tr>
</tbody>
</table>
3.1 **A. Establish the mechanisms for sharing information and collaboration**

A.1 **Set up a national coordinating body for TB/HIV activities.**

The national coordinating body should have equal or reasonable representation of the two programmes and should include key stakeholders for tuberculosis and HIV programs.

*Responsibilities for the National coordinating body include:*

- Developing, reviewing, and updating policy and guidelines on TB/HIV collaboration.
- Planning, monitoring and evaluation of interventions
- Mobilization of resources for TB/HIV activities
- Advocacy and social mobilization for collaboration
- Coordination of stakeholder efforts on TB/HIV.
- Ensure that evidence from research and best practices is used to guide policy.

A.2 **Identify focal persons at regional, district and HSD levels**

Ministry of Health area supervision teams shall be responsible for supervising and guiding regions on TB/HIV collaborative activities. The Regional Medical Superintendents will be responsible for appointing focal persons to ensure collaboration between TB and HIV/AIDS programs within their hospitals. However, the Zonal TB/Leprosy Supervisors (ZTLS) shall compliment the regions in supervising and guiding districts on TB/HIV collaborative activities. The Directors of District Health Services and HSD Managers are responsible for identifying focal persons at district and HSD levels to ensure more effective collaboration between existing HIV/AIDS and tuberculosis activities within the districts. The focal persons should articulate TB/HIV collaborative issues within the District Health Management Team (DHMT) meetings.
Responsibilities for the focal persons include:

- Planning, monitoring and evaluation of interventions
- Mobilization of resources for TB/HIV activities
- Advocacy and social mobilization for collaboration
- Coordination of stakeholder efforts on TB/HIV.
- Ensure that evidence from research and best practices is used to guide implementation.
- Capacity-building including training of PHAs as “expert clients”.
- Ensuring coherence of communications about TB/HIV
- Ensuring the participation of the community in joint TB/HIV activities
- Ensuring that evidence from research is used to guide policy.

A.3 Conduct surveillance of HIV prevalence among tuberculosis patients

Surveillance is essential to inform programme planning and implementation. There are three key methods for surveillance of HIV among tuberculosis patients: periodic (special) surveys (cross-sectional HIV seroprevalence surveys among a small representative group of tuberculosis patients within a community); sentinel surveys (using tuberculosis patients as a sentinel group within the general HIV sentinel surveillance system); and routine data for HIV counseling and testing of tuberculosis patients. The surveillance method chosen depends on the existing surveillance system and availability of resources.

In Uganda, HIV counseling and testing for all tuberculosis patients should form the basis of surveillance because of the generalized epidemic state\(^4\).

\(^4\) Generalized epidemic state: HIV prevalence consistently > 1% in pregnant women.
Recommendations

1. There should be HIV surveillance among tuberculosis patients in all districts irrespective of district adult HIV prevalence rates.

2. Districts with unknown HIV prevalence rates among tuberculosis patients should conduct a seroprevalence (periodic or sentinel) survey to assess the situation.

3. All health facilities should offer diagnostic HIV counseling and testing to all TB patients. Information on HIV counseling and testing for TB patients should be incorporated into the existing health information management systems.

A.4 Carry out joint TB/HIV planning:

The tuberculosis and HIV/AIDS programmes need joint strategic planning to collaborate successfully and systematically. They should introduce TB/HIV collaborative components in both the national TB control plan and national HIV/AIDS control plan. The roles and responsibilities of each program in implementing specific TB/HIV activities at national, regional and district levels must be clearly defined.

At the district level, TB/HIV collaborative activities should be included in the district strategic, development and annual plans.

Crucial elements for joint planning include the activities detailed in sections A-C (Table 1) of this document, as well as resource mobilization, capacity-building and training, TB/HIV communication (advocacy, programme communication and social mobilization), enhanced community involvement, and operational research.

National Policy Guidelines for TB/HIV Collaborative Activities in Uganda
A.4.1 Resource mobilization for TB/HIV

Collaborative TB/HIV activities, which build on well-resourced tuberculosis and HIV/AIDS strategies, may not require much additional financial input. If either or both programmes are under-resourced in funds or human capacity, additional resources should first be mobilized to strengthen each programme. Proposals to solicit resources for implementing collaborative TB/HIV activities should be prepared, building on the comparative strengths of both programmes and the specific needs of the nation and the districts.

Recommendations

1. Joint planning should clearly define the roles and responsibilities of each programme in implementing specific TB/HIV activities outlined in Table 1 at national, regional and district level.

2. Ministry of Health and districts should ensure mobilization and adequate deployment of sufficient qualified human resources to implement collaborative TB/HIV activities in accordance with specific situations.

3. The national TB/HIV coordinating body and the District Health Management Teams (DHMT) shall be responsible for the mobilization of resources to implement collaborative TB/HIV activities, thus avoiding competition for the same resources.
A.4.2 TB/HIV capacity-building, including training

Capacity-building for TB and HIV interventions should include training on TB/HIV collaborative issues. Capacity should be enhanced in the health care system, for example, in the laboratory and referral systems, to enable service providers cope with the increasing demands of collaborative TB/HIV activities. However, PHAs could be trained as “expert clients” to support adherence to treatment. It is advisable that counselors receive training in sign language to address the needs of people with disability e.g. the deaf.

Recommendations

1. Tuberculosis and HIV/AIDS programmes should draw up a joint training plan. This should cover pre and in-service training and continuing medical education on collaborative TB/HIV activities for all categories of health care workers.

2. Tuberculosis and HIV/AIDS programmes should ensure that there is sufficient capacity (e.g. laboratory, drug and referral capacity) to effectively implement collaborative TB/HIV activities.

A.4.3 TB/HIV communication: Advocacy, Communication and Social mobilization (ACS)

Advocacy targeted at influencing policy, programme implementation and resource mobilization is very important to accelerate the implementation of collaborative TB/HIV activities. Two-way communication between the programmes and the general public, is crucial for ensuring that patients actively seek for services. Social mobilization that generates public will and secures broad consensus and social commitment among all stakeholders is critical for stigma mitigation and prevention of tuberculosis and HIV, as well as encouraging participation in collaborative TB/HIV activities. There is need for a joint communication strategy to guide implementation of these activities and to link the
Recommendations

1. Well designed TB/HIV advocacy activities, (jointly planned to ensure coherence between their messages) targeted at key stakeholders and decision-makers, should be carried out at national, regional and district levels.

2. HIV/AIDS and Tuberculosis Programs should develop a joint TB/HIV communication strategy that addresses the needs of individual clients and patients and of communities affected by HIV/AIDS and tuberculosis.

3. The joint communication strategies should ensure the mainstreaming of HIV components in tuberculosis communication and vice versa.

4. The special needs of people with disability for example the deaf should be taken into consideration when developing a communication strategy.

A.4.4 Enhance Community involvement in collaborative TB/HIV activities

Expanding collaborative TB/HIV activities beyond the health sector through involvement of communities is crucially important. Through support groups for people living with HIV/AIDS, Village Health Teams (VHT) and community-based organizations, tuberculosis prevention and care can be integrated with HIV/AIDS prevention, care and support. Communities can be effectively mobilized to advocate for resources and opportunities to implement collaborative TB/HIV activities.

Community-based organizations (such as those providing HIV/AIDS home-based care), CB-DOTS community volunteers and workplace managers or staff associations may also be involved in identifying people with symptoms and signs of tuberculosis or HIV/AIDS, referring them to health facilities for diagnosis and treatment and ensuring directly
observed treatment. Innovative mechanisms for delivery of ART could be designed along this arrangement.

**Recommendations**

1. HIV/AIDS programs should ensure the inclusion of tuberculosis prevention, treatment and care in community-based HIV/AIDS prevention, care and support services. Similarly TB programs should include HIV/AIDS prevention, treatment, care and support services.

2. All stakeholders, including HIV/AIDS and tuberculosis programmes, should ensure the involvement of tuberculosis and HIV patient support groups and their communities in the planning, implementation and advocacy of collaborative TB/HIV activities.

**A.4.5 Operational research to enhance collaborative TB/HIV activities**

Operational research helps to determine the most efficient means of implementing collaborative TB/HIV activities. It informs national, district and institutional policy and strategy development, taking account of cultural, geographical and resource diversity.

**Recommendation**

1. All stakeholders of collaborative TB/HIV activities, including both tuberculosis and HIV/AIDS programmes, should support, budget and mobilize resources for TB/HIV operational research to develop the evidence base for efficient and effective implementation of collaborative activities.

2. The academic institutions (Medical, Public Health, Social Sciences etc) should support and disseminate research findings that could improve implementation of TB/HIV collaborative activities.
A.5 Monitoring and evaluation of collaborative TB/HIV activities

Monitoring and evaluation provide the means to assess quality, effectiveness, coverage and delivery of collaborative TB/HIV activities. They promote a learning culture within the programmes and so ensure continuous improvement of programme performance. Monitoring and evaluation involve collaboration between the programmes and the general health system, and the development of referral linkages between different services and organizations. These linkages should be integrated with existing monitoring and evaluation systems and should ensure confidentiality.

M & E Indicators have been developed in line with the goal and objectives of collaborative activities within this document. Even though ten core indicators have been identified, the National TB/Leprosy program shall be responsible for reporting on those collected at the TB clinics while the National AIDS Control shall be responsible for those collected at HIV care, HCT, and PMTCT centers. It is therefore the responsibility of each national program to modify recording and reporting forms, guide districts on collection of data, analyze and disseminate information on selected indicators. It is important that both programs share information at national and district level.

Recommendations

1. The National HIV/AIDS Control Programme should modify recording and reporting forms, guide districts on collection of data, analysis and dissemination on indicators 2, 3, 4, and 10 (See Annex 2).

2. The National TB/Leprosy Programme should modify recording and reporting forms, guide districts on collection of data, analysis and dissemination on indicators 1, 6, 7, 8, 9 and 10 (See Annex 2).

3. Both programs should advocate for inclusion of indicators 1 & 4 in the general HMIS for Ministry of Health.

4. The national guidelines for monitoring and evaluation of collaborative TB/HIV activities should be used as a basis for standardizing monitoring and evaluation of activities.
3.2  B. Decrease the burden of tuberculosis in people living with HIV/AIDS

B.1 Establish intensified tuberculosis case-finding

Intensified tuberculosis case-finding comprises screening for symptoms and signs of tuberculosis in settings where HIV-infected people are concentrated. Early identification of signs and symptoms of tuberculosis, followed by diagnosis and prompt treatment in people living with HIV/AIDS, their household contacts, groups at high risk for HIV and those in congregate settings (e.g. prisons, police, military, barracks, IDPs, HIV clinics, inpatient wards, schools and others), increases the chances of survival, improves quality of life and reduces transmission of tuberculosis in the community.

Recommendations

1. Tuberculosis case-finding should be established and intensified in all HIV testing and counseling settings using, at a minimum, a simple set of questions to identify suspected tuberculosis cases as soon as possible. The questions should be asked by the first contact health workers.

2. A referral system should be established between HIV/AIDS and TB diagnostic, treatment, and support services.

3. Tuberculosis case-finding in people living with HIV/AIDS attending care and support services should be intensified, by increasing the awareness and knowledge of interactions between tuberculosis and HIV among health care workers and the populations they serve.
B.2 Introduce isoniazid preventive therapy

Isoniazid is given to individuals with latent infection with Mycobacterium tuberculosis in order to prevent progression to active disease. Exclusion of active tuberculosis is critically important before this therapy is started. Isoniazid is given daily as self administered therapy for six to nine months. Since HIV-infected people could develop tuberculosis before antiretroviral therapy is indicated, and as there is no evidence contraindicating combined use, use of antiretroviral drugs does not preclude the use of isoniazid preventive therapy. However, this therapy requires several steps to be taken, including identification of HIV-positive subjects, screening to exclude active tuberculosis and treatment adherence.

In Uganda, IPT shall be given to HIV-infected persons after the exclusion of active TB and after confirming presence of latent TB by carrying out a skin test (mantoux). Considering that provision of IPT is labour intensive yet there is limited human resource and limited organizational capacity to offer it, feasibility of this therapy in Uganda is still a national challenge.

Recommendations

1. Only those programs or organizations that satisfy the eligibility criteria for offering isoniazid preventive therapy will be allowed by NTLP to offer it. (Check eligibility criteria in annex 1).

2. HIV/AIDS programmes eligible for provision of IPT should provide isoniazid as part of the package of care for people living with HIV/AIDS when active tuberculosis is safely excluded.

3. Information about isoniazid preventive therapy should be made available to all people living with HIV/AIDS.

4. Organizations or institutions that offer IPT should be supervised by NTLP to control development of resistance against isoniazid.
B.3 Provide TB treatment PLHAs with active TB
If the diagnosis of tuberculosis has been made, the patient should be started on treatment as soon as possible. The basis of treatment of tuberculosis is chemotherapy. It is also one of the most efficient means of preventing the spread of tuberculosis microorganisms. The requirements for adequate chemotherapy include an appropriate combination of antituberculosis medications to prevent the development of resistance to those medications, correct dosage, regular intake by the patient and a sufficient period of taking medication to prevent relapse of the disease after completion of treatment. Treatment must be given to every patient confirmed as having tuberculosis and should be given free of charge to the patients.

Recommendations

1. All persons diagnosed with tuberculosis (including PLHAs) should be treated with antituberculosis medications according to the national guidelines on TB control.
2. All patients on TB treatment should be supported to complete their medications under Directly Observed Therapy (DOT).

B.4 Ensure tuberculosis infection control in health care and congregate settings

In health care and congregate settings (e.g. prisons, police, military barracks, IDP camps, schools and living quarters for workers especially in the Agricultural sector), where people with tuberculosis and HIV are frequently crowded together, infection with tuberculosis is increased. Measures to reduce tuberculosis transmission include administrative, environment and personal protection measures, which are aimed at generally reducing exposure to M.tuberculosis of health care workers, prison staff, police and their clients, and any other persons living in the congregate settings.
Administrative measures should include early recognition, diagnosis and treatment of tuberculosis suspects, particularly those with pulmonary tuberculosis, and separation of pulmonary tuberculosis suspects from others, until a diagnosis is confirmed or excluded. Environmental protection should include maximizing natural ventilation and ultraviolet irradiation. Personal protection should include protection of the HIV-positive person from possible exposure to tuberculosis.

**Recommendation**

1. Each health care and congregate setting should have a tuberculosis infection control plan supported by all stakeholders, which includes administrative, environmental and personal protection measures to reduce transmission of tuberculosis in health care and congregate settings.

2. Persons in congregate settings including health care workers should be provided with information on the risk of acquiring TB among HIV infected persons.

### 3.3 C. Decrease the burden of HIV in tuberculosis patients

**C.1 Provide Diagnostic HIV counseling and testing**

The vast majority of HIV-infected people do not know their HIV status and seek health care from general service providers. HIV counseling and testing for tuberculosis patients, using rapid tests, offers an entry point for a continuum of prevention, care, support and treatment for HIV/AIDS as well as for tuberculosis. Benefits accrue to the patient, the family and the community at large. The counseling
and testing services should be readily available and confidentiality should be protected.

**Recommendations**

1. Diagnostic HIV counseling and testing should be offered to all tuberculosis patients. Patients should be allowed to opt out in case they did not want to test.

2. NTLP should mainstream provision of HIV testing and counseling in their operations or establish a referral linkage with the HIV/AIDS programmes to do so.

**C.2 Introduce HIV prevention methods**

Reduction of sexual, parenteral and vertical transmission of HIV builds on broad-based programmes of education about HIV/AIDS. Measures to reduce sexual transmission of HIV include promoting safer and more responsible sexual behavior and practices in all communities including special groups like prisons, delayed onset of sexual activity, reduced number of sexual partners, systematic use of condoms (male and female) and diagnosis and treatment of other sexually transmitted infections. One of the main vehicles propagating the epidemic is HIV transmission among discordant couples and among positives. Measures to reduce transmission among these subsets are needed. Measures to reduce sexual transmission of HIV should also be extended to work settings whose environment predisposes workers to contracting HIV. Therefore workers in sectors like hotels, bars, pubs, catering industry, transport sector etc are special groups that do not only closely interact among themselves but with the general public.

Measures to reduce parenteral HIV transmission include ensuring the safety of the blood supply and use of sterilized injection and surgical equipment in medical, traditional and cultural settings. Vertical transmission of HIV can be reduced by providing antiretroviral
drugs to pregnant women and their infants. Health education should form a basis for preventive measures more especially in special groups like prisons. However, positive living among those already infected should be emphasized to prevent spread within the community.

**Recommendations**

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>NTLP should develop and implement comprehensive HIV prevention strategies for their patients in all settings including special groups like prisons, targeting sexual, parenteral or vertical transmission.</td>
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<tr>
<td>2.</td>
<td>All clients attending tuberculosis clinics should be screened for sexually transmitted infections using a simple questionnaire or other recommended approaches. Those with symptoms of sexually transmitted infections should be treated.</td>
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<td>3.</td>
<td>In case NTLP is not able to offer the above services, it should establish a referral linkage with HIV/AIDS programmes to do so.</td>
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<td>4.</td>
<td>NTLP should implement procedures for reduction of occupational and nosocomial exposure to HIV infection in their services.</td>
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<td>5.</td>
<td>NTLP should ensure that vertical transmission is prevented by referring pregnant HIV-infected clients to providers of services for prevention of mother-to-child transmission.</td>
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<tr>
<td>6.</td>
<td>Health workers should provide HIV prevention messages to all TB patients.</td>
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C.3 Introduce Co-trimoxazole preventive therapy

The Policy Guideline for Cotrimoxazole prophylaxis in Uganda states that “Cotrimoxazole prophylaxis should be given to all HIV-infected adults and children in Uganda regardless of whether they are on antiretroviral therapy (ART) or not”. Tuberculosis patients who are co-infected with HIV are eligible for this therapy. Cotrimoxazole prophylaxis should be provided daily to all TB patients co-infected with HIV. For centers with facilities for monitoring CD4 cells, cotrimoxazole should be stopped when CD4 count is more than 200 cells for 6 months. Otherwise, it should be provided for life.

C.4 Ensure HIV/AIDS care and support

Access to health care for people living with HIV/AIDS is a basic human right and includes the provision of clinical care as part of a continuum of a comprehensive AIDS care strategy. The strategy includes clinical management with laboratory support (prophylaxis, early diagnosis, rational treatment and follow-up care for opportunistic infections), nursing care (including promoting hygiene and nutritional support), palliative care, home care (including education for care providers and patients’ relatives, promoting universal precautions), counseling and social support. People living with HIV/AIDS who are receiving or who have completed their tuberculosis treatment should be provided with the continuum of care and support for HIV/AIDS supported by a client referral system.

Recommendations

1. All people living with HIV/AIDS who are diagnosed of having tuberculosis disease should also be provided with HIV/AIDS care and support services.

2. NTLP should establish a referral linkage with HIV/AIDS programmes to provide the continuum of care and support for people living with HIV/AIDS who are receiving or who have completed their tuberculosis treatment.
C.5  Introduce antiretroviral therapy

Antiretroviral therapy improves the quality of life and greatly improves survival for people living with HIV/AIDS. Availability of antiretroviral therapy can serve as an incentive for people to be tested for HIV. It also transforms HIV infection into a chronic condition through its positive effect on life expectancy. It is a lifelong treatment requiring a high adherence rate to achieve long-term benefits and minimize the development of drug resistance.

Recommendations

1. Antiretroviral therapy should be offered to all eligible HIV-positive tuberculosis patients following the National ART and Care guidelines for adults and children.

2. Tuberculosis and HIV/AIDS programmes should create a mechanism to provide antiretroviral therapy to eligible HIV-positive tuberculosis patients.

4.0 Targets for collaborative TB/HIV activities

WHO’s global tuberculosis target is to cure 85% of sputum smear-positive patients under treatment and to detect 70% of cases by 2005. Uganda adopted the same targets for 2005. The Millennium Development Goals embrace the WHO tuberculosis targets and also aim to decrease the prevalence and death rates of tuberculosis by 50% of the year 1990 estimates by 2015.

Under the HSSP II (2005/06 – 2009/2010), specific targets for Tuberculosis control in Uganda are:

1. To have raise the TB case detection rate from 60.1 to 70%.
2. To increase the TB cure rate from 62 to 85%.
3. To reduce the TB associated death rate from 6.2 to 3.1%.
4. To achieve 100% national coverage for TB DOTS.
5. To achieve 100% no stock out of anti TB drugs at all levels.
6. To achieve 80% level of concordance quality assurance and control of sputum smear microscopy in all districts.

Specific targets for prevention and control of STI/HIV/AIDS in Uganda are:
1. Increase from 80 to 95% the proportion of population knowledge of at least 2 correct methods of HIV prevention.
2. Reduce from 6.2 to 4.4% the prevalence of HIV among women attending ANC.
3. Reduce from 7 to 3% the prevalence of HIV among the general population.

Effective implementation of collaborative TB/HIV activities will contribute to achieving the HIV/AIDS and tuberculosis targets. Targets will enable the country, organizations and institutions to concentrate on a problem and work towards a common goal. Targets on collaborative TB/HIV activities are needed to increase national coverage and to accelerate implementation of collaborative TB/HIV activities.
The following are targets for collaborative TB/HIV activities in Uganda:

1. By end of 2005, a national TB/HIV coordinating body should have been established and by mid 2006, all districts should have put in place a mechanism for collaboration between tuberculosis and HIV programmes.

2. By end of 2006, all districts should have developed joint TB/HIV implementation plans.

3. By end of 2006, all districts should have established a system for HIV surveillance among tuberculosis patients.

4. By end of 2006, all districts should have established a system for TB surveillance among PLWHA.
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• TB/HIV Clinical Manual, WHO, 2004
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• Uganda Bureau of Statistics, 2005
• Uganda Demographic and Health Survey, 2000
• Uganda National Household Survey 2003
• Uganda National Policy Guidelines for HIV Counseling and Testing, MOH, 2005
Annex 1.

Eligibility criteria for an organization/institution to offer Isoniazid preventive therapy.

The following are the minimum requirements for an organization/institution to offer IPT.

**Human resource:**
- Medical Officer.
- Laboratory assistant.
- Trained counselor
- Pharmacy technician
- Adherence supporters.

**Infrastructure**
- Functional Laboratory
- X-ray or access to x-ray services
- Counseling room/space
- Consultation room

**Equipment and logistics.**
- Facilities for TB microscopy.
- Facilities for skin testing (mantoux)
- Cold chain system.
- Facilities for HIV testing.
- Sustainable supply of anti-TB drugs including Isoniazid.
- Sustainable supply of HIV test kits.

**Other key issues**
If an organization has a TB default rate of greater than 5% it will not be eligible to provide IPT.
Annex 2

Monitoring and Evaluation of TB/HIV activities

The following indicators shall be used to monitor and evaluate TB/HIV collaborative activities in Uganda.

1. **Indicator 1: Proportion of TB patients who are HIV positive.**

   **Numerator:** Total number of newly registered TB patients (registered over a given period) who are HIV-positive.

   **Denominator:** Total number of newly registered TB patients (registered over the same given period) who were tested for HIV and included in the surveillance system.

   **Purpose:** The indicator gives an indication of the degree of overlap in the epidemics in any given setting. It gives an indication of the contribution that HIV is making to the TB epidemic.

   **Source of data:** 1. TB health unit and district registers.

   **Recommendation:**
   1. Need to add a column to the TB registers to capture information on HIV testing.
   2. Mechanism of sharing information between the TB clinic, VCT/HIV clinic and laboratory should be worked out by the district implementation sub committee.
   3. Need to encourage health workers to ensure confidentiality at all times, including keeping patients files, registers and reports in confidence.

2. **Indicator 2: Proportion of VCT clients, screened for TB symptoms.**

   **Numerator:** Number of VCT clients who were screened for TB symptoms, over a given time period.

   **Denominator:** Total number of VCT clients seen, over the same given time period.

   **Purpose:** This is a process indicator for an activity intended to reduce the impact of TB among PLHAs.

   **Source of data:**
   1. VCT register
Recommendations:
1. Need to improve the VCT register to have a column for TB.

3 Indicator 3: Proportion of PWHA attending HIV treatment and care services, screened for TB symptoms.

**Numerator:** Number of PWHA attending HIV treatment and care services who were screened for TB symptoms, over a given time period.

**Denominator:** Total number of PWHA attending HIV treatment and care services, over the same given time period.

**Purpose:** This is a process indicator for an activity intended to reduce the impact of TB among PLHAs.

**Source of data:**

Recommendations:
1. Need to improve the National HIV care registry to capture information on TB screening.
2. The monthly reporting form should be modified to include PWHA screened for TB.

4. Indicator 4: Proportion of PWHA attending HIV treatment and care services, newly diagnosed with TB.

**Numerator:** Number of cases of newly diagnosed TB identified in PWHA attending HIV treatment and care services, over a given time period.

**Denominator:** Total number of PWHA attending HIV treatment and care services (who were screened for TB symptoms), over the same given time period.

**Purpose:** To provide information on the output of intensified TB case finding described in indicators 2 and 3.

**Source of data:**
b. National HIV care registry-Pre-anti retroviral therapy.
**Recommendations:**

1. Need to improve the National HIV care registry-Pre-anti retroviral therapy to capture information on TB screening or whether a person has TB or not.
2. Need to improve the National HIV care monthly monitoring reporting form to be able to capture information on this indicator.
3. Ask health workers on the TB side to note in the remarks section the unit the patient has been referred from.

5. **Indicator 5: Proportion of newly diagnosed HIV positive clients given treatment for latent TB infection.**

**Numerator:** Total number of newly diagnosed HIV-positive clients in whom active TB has been excluded, who start (given at least the first dose) treatment for latent TB infection.

**Denominator:** Total number of newly diagnosed HIV-positive clients, eligible for treatment of latent TB.

**Purpose:** To ensure that eligible HIV positive individuals are given treatment for latent TB infection and thus reduce the incidence of TB in PLWHA.

**Note:** This indicator applies to only those centers that qualify to treat latent TB infection according to the National Policy.

**Source of data:**

1. National HIV care registry (pre-anti retroviral therapy).
2. National HIV care registry (anti-retroviral therapy)

**Recommendation:**

1. Information on the above indicator could be written in the TB treatment column.
2. However, the Guidelines and Policy Subcommittee needs to come up with a policy guideline on IPT.
6. **Indicator 6: Proportion of registered TB patients tested for HIV.**

*Numerator:* Total number of TB patients, registered over a given time period, who are tested for HIV during their TB treatment.

*Denominator:* Total number of TB patients registered over the same given time period.

*Purpose:* To assess the uptake of HIV testing by TB patients.

*Source of data:*  
1. TB unit register

*Recommendation:*  
1. Add a column within the TB unit register to capture information on HIV testing. (HCT result, P/N; not done, Date).

*Caution:* Need to think through maintenance of confidentiality considering that HIV test result is written against a patient’s name and address.

7. **Indicator 7: Proportion of registered TB patients tested for HIV who are positive.**

*Numerator:* Total number of all TB patients registered over a given time period who test HIV positive during their TB treatment.

*Denominator:* Total number of TB patients registered over the same given time period who are tested for HIV.

*Purpose:* To assess the prevalence of HIV among TB patients. This is important in strategic planning, mobilization and targeting of resources.

*Source of data:*  
1. TB unit register.
2. District register

*Recommendation:*  
As for indicator 6
8. **Indicator 8: Proportion of HIV-positive TB patients who receive at least one month dose of co-trimoxazole preventive therapy during their TB treatment.**

**Numerator:** Number of HIV-positive TB patients, registered over a given time period, who receive (at least one dose of ) CPT during their TB treatment.

**Denominator:** Total number of HIV-positive TB patients registered over the same given time period.

**Source of data:**
1. TB unit register

**Purpose:** To monitor commitment and capacity of programmes to provide CPT to HIV-positive TB patients.

**Recommendation**
1. Modify TB unit register, add column to capture use of CPT.

9. **Indicator 9: Proportion of HIV-positive registered TB patients given ART during TB treatment.**

**Numerator:**
All HIV-positive TB patients, registered over a given time period, who receive ART (are started on or continue previously initiated ART)

**Denominator:** All HIV-positive TB patients registered over the same given time period.

**Purpose:** Outcome indicator to measure commitment and capacity of TB service to ensure that HIV positive TB patients are able to access ART.

**Source of data:**
1. TB unit register
2. HIV care register.

**Recommendation:**
Modify TB unit register, add column to capture use of ART.

**Numerator:** Total number of TB and HIV service delivery points where IEC materials on both HIV and TB, their interaction and their prevention are available.

**Denominator:** Total number of TB and HIV service delivery points evaluated.*

- Also give the total number of TB and HIV service delivery points at district and national level to indicate the proportion evaluated.

**Purpose:** To demonstrate the commitment and capacity at national and district level to creating HIV awareness among people with TB, and TB awareness among PLHAs and to promote prevention of HIV and TB.

**Source of data:**
1. TB and HIV service delivery points.