



# IMPLEMENTATION OF TB/HIV COLLABORATIVE ACTIVITIES IN GHANA

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## TECHNICAL POLICY AND GUIDELINES



February 2007

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**World Health  
Organization**

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## List of Abbreviations

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ACSM	Advocacy, Communication and Social Mobilization
AFB	Acid Fast Bacillus
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARVs	Antiretroviral Drugs
BCC	Behaviour Change Communication
BMC	Budget Management Centre
CB-DOTS	Community Based DOTS
CBOs	Community Based Organizations
CD4	CD4+ T-Lymphocyte
CPT	Co-Trimoxazole Preventive Therapy
CT	Counselling and Testing
CTX	Co-trimoxazole
CXR	Chest X-Ray
DOT	Directly Observed Therapy
DOTS	Directly Observed Therapy, Short Course
DCPD	Disease Control and Prevention Department
DTACP	District TB/HIV Coordinating Partnership
EHP	Essential Health Package
FBOs	Faith Based Organizations
FTACP	Facility Level TB/HIV Coordinating Partnership
GAC	Ghana AIDS Commission
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
HRD	Human Resource Development
HSS	HIV Sentinel Survey
IEC	Information Education and Communication
IPT	Isoniazid Preventive Therapy
M&E	Monitoring & Evaluation
MO	Medical Officer
MOH	Ministry Of Health
NACP	National AIDS/STI Control Programme
NGOs	Non-Governmental Organizations
NMIMR	Noguchi Memorial Institute for Medical Research
NTACP	National TB/HIV Coordinating Partnership
NTP	National TB Control Programme
OIs	Opportunistic Infections
OPD	Out Patients Department
OR	Operational Research
PLWHA	People Living With HIV/AIDS
PLWHIV	People Living With HIV
PMTCT	Prevention Of Mother-To-Child Transmission
PPM-DOTS	Public- And Private-Mix DOTS
PPP	Public Private Partnership

PT	Preventive Therapy
RTACP	Regional TB/HIV Coordinating Partnership
QHP	Quality Health Partners
SHARP	Strengthening HIV/AIDS Response Partnerships
STIs	Sexually Transmitted Infections
SWAP	Sector Wide Approach
TAP	Treatment Accelerated Programme
TB	Tuberculosis
THs	Teaching Hospitals
TST	Tuberculin Skin Test
UV	Ultra Violet Light
VCT	Voluntary Counselling And Testing
WHO	World Health Organization

## Foreward

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There is a complex relationship between Human Immunodeficiency Virus (HIV) and Tuberculosis (TB) which fuels both epidemics in a synergistic way, resulting in a worsening of the morbidity and mortality attributable to each infection. TB is the most important opportunistic infection in HIV and the leading cause of mortality and morbidity among People Living with HIV (PLWHIV) across sub-Saharan Africa, including Ghana. Meanwhile, HIV is fanning the TB epidemic in Ghana.

This situation is of great concern and has prompted a coordinated national response to reduce and control these infections. A significant part of this response is the close collaboration between the National HIV/AIDS Control Programme (NACP) and the Tuberculosis Control Programme (NTP). The NACP and NTP worked very closely together to develop this document, in collaboration with their partners SHARP, QHP and WHO. These TB/HIV Technical Policy and Guidelines set forward the policy framework for this important collaborative effort to fight the dual TB and HIV epidemics in Ghana.

While the NACP's HAART programme of antiretroviral therapy is relatively new, the NTP is already well established in all districts (Ghana has 100% DOTS coverage). The tuberculosis programme has strengths that can be synergistic with the national scale-up of HAART. Both patients and health workers will benefit from closer collaboration between the two programmes, while the increased efficiencies and elimination of overlap will help to reduce costs.

The purpose of this policy is not to create a new programme or structures. Rather, it is to enhance and strengthen the two programmes in the provision of a continuum of quality care, prevention, and support at all service delivery points in Ghana for people living with, or at risk of, tuberculosis, HIV and/or AIDS. This policy delineates the roles and responsibilities of stakeholders at every level of healthcare provision and it provides guidance on which collaborative TB/HIV activities are to be implemented in the country. This policy document will be complemented by a forthcoming set of clinical guidelines on TB/HIV co-infection.

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# 1 Introduction

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As the director of the Ghana Health Service emphasized in his foreward, the complex relationship between Human Immunodeficiency Virus (HIV) and Tuberculosis (TB) results in synergistic increases in their prevalence, morbidity, and mortality. The occurrence of both infections in Ghana is a great public health problem. There is the looming threat of a pandemic emerging in this country as it has in other African countries.

The situation is of great concern. It has prompted a coordinated national response to reduce and control the dual infections. Previously the National HIV/AIDS Control Programme (NACP) and the National TB Control Programme (NTP) worked independently of each other. Breaking from the past, an effective national response will require joint collaborative activities between the NACP and the NTP in order to harness the programmes' individual strengths and reduce their weaknesses. This document sets the policy framework for this collaboration.

## 1.1 TB/HIV Co-Infection: The Current Situation

### 1.1.1 HIV in Ghana

Ghana is currently experiencing a generalised HIV/AIDS epidemic, with the main modes of transmission being heterosexual (80-85% of new infections), mother-to-child transmission (15% of new infections), and blood or blood products (5%). The HIV/AIDS situation in Ghana has changed significantly since the first case of HIV was reported in 1986. Median prevalence increased from 2.4 % in 1994 to 3.6 % in 2003, and to 2.7 % in 2005<sup>1</sup>. The Ghana Demographic and Health Survey (GDHS), conducted in 2003, estimated adult HIV prevalence at 2.2% (where males = 1.5% and females = 2.7%). It is estimated that in 2005 there were 14,449 new AIDS cases in Ghana. The peak age group is 35 to 39 years for males and 30 to 34 years for females.

The increasing number of AIDS cases is already impacting the health sector. Some health institutions have already ranked AIDS as the number one cause of death in their facilities. Hospital bed occupancy of patients with HIV-related diseases in some localities has risen to 40%<sup>2</sup> and the growing demand threatens to overwhelm health services.

### 1.1.2 TB in Ghana

The World Health Organization (WHO) in 1993 declared TB a global emergency in recognition of its growing importance as a public health problem. Deaths from TB account for 25% of all avoidable deaths in developing countries. Ghana is estimated to have had 44,733 new cases of TB in 2004 (incidence rate of 206 per

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<sup>1</sup> NACP/GHS. HIV sentinel survey report 2005. Accra, 2006.

<sup>2</sup> MOH. Bulletin of health information: Information for action. A digest of current information for decision makers in the health sector. Accra, March 2002.

100,000 population), of whom 19,670 were new smear positive cases (92 per 100,000 population)<sup>3</sup>. The number of reported TB cases (all forms) gradually increased from 10,386 cases in 1999 to 12,220 in 2005. In 2005, notified smear positive cases totalled 7,584, with a case detection rate of 35 per 100,000 population.<sup>4</sup>

Between 60-70% of TB cases reported occur in the economically most productive age group (15-49 years). This same age group is the most sexually active and is at the greatest risk of contracting HIV. TB mortality in Ghana is relatively high. Anecdotal evidence in Korle-Bu Teaching Hospital, Accra, indicates that TB is the cause of death in one out of seven post mortems. TB case fatality rates (new smear positives) as reported to the National TB Control Programme (NTP) increased from 3.4% in 1996 to 8.6% in 2004. Factors contributing to this increase may include late reporting of patients for medical care, late diagnosis of their condition, and the presence of HIV co-infection.

TB treatment success rate has risen from 22% in 1996 to 70.1% in 2004. Due to strengthening of the reporting system over the past years, the proportion not evaluated has decreased from 62% to 4.4% in 2003. The treatment failure rate in 2004 was 2%.

### 1.1.3 TB/HIV Co-Infection in Ghana

No systematic, nationwide study has been conducted to assess the prevalence of TB/HIV co-infection in the country. However, it is estimated that the influence of HIV on TB has been increasing. Whereas in 1989 roughly 14% of Ghana's TB cases could be attributed to AIDS, by the year 2009 about 59% of the projected TB cases will be due to the HIV/AIDS epidemic. An AIDS-impact model projects an additional 30,000 new TB cases in Ghana attributable to HIV/AIDS annually by the year 2015. Up to 70% of patients with sputum smear-positive pulmonary TB are HIV-positive in some countries in sub-Saharan Africa.<sup>5</sup>

In Ghana as in other areas of generalized HIV prevalence, all TB patients should be considered as possibly HIV infected. Hospital studies have shown the prevalence of HIV in TB patients is 25-30% and that as many as 50% of patients with chronic cough could be HIV positive.<sup>6,7,8,9</sup> Autopsies done in Accra found that the proportion of TB deaths increased from 3.2% in 1987-88, at the beginning of the

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<sup>3</sup> WHO. WHO Report 2006: Global tuberculosis control – surveillance, planning, financing. Geneva, 2006 (WHO/HTM/TB/2006.362).

<sup>4</sup> National TB Control Programme. NTP Annual Report 2005 Ghana Health Service. 2006. Accra.

<sup>5</sup> Harries A Hargreaves N, Kemp J, Jindani A, Enarson D, Maher D, Salaniponi F: Deaths from tuberculosis in sub-Saharan African countries with a high prevalence of HIV-1. The Lancet, Volume 357, Issue 9267, Pages 1519-1523.

<sup>6</sup> Ankrah TC, Roberts MA, Antwi P, Atubrah MP, Bawuah PP et al. The African AIDS case definition and HIV serology in medical in-patients at Komfo Anokye Teaching Hospital, Kumasi, Ghana. W Afr J Med 1994; 13(2): 98-101.

<sup>7</sup> Frimpong EH, Lawn P, Dwemoh B, Afful B & Acheampong JW. HIV infection in tuberculosis patients in Kumasi, Ghana. Ghana Med J 1997; 31b:850-854.

<sup>8</sup> Hesse IFA & Neequaye AR. HIV infection in pulmonary tuberculosis patients admitted to the Korle Bu Teaching Hospital, Accra, Ghana in 1996-1997. Ghana Med J 2003; 37(1):7-11.

<sup>9</sup> Adjei AA, Adiku TK, Ayeh-Kumi P. F. & Hesse IFA. Prevalence of human immunodeficiency virus infection among tuberculosis suspect patients in Accra, Ghana. West Afr J Med 2005.

HIV epidemic, to 5.1% in 1997/98<sup>10</sup>. At the Korle-Bu Teaching Hospital in Accra, 30% of HIV patients present with TB, TB accounts for 40-50% of HIV deaths, and HIV is an important cause of death on the medical services.

## 1.2 Health Sector Response

### 1.2.1 Response to the HIV Epidemic

The Ministry of Health led and coordinated the efforts to fight HIV/AIDS in the late 80s and in the 1990s. Since the establishment of the Ghana AIDS Commission by an act of Parliament in 2000, the Ministry of Health/Ghana Health Service (MOH/GHS) has provided technical support for the multi-sector response and is responsible for the health-sector based interventions in the areas of prevention, treatment, care and support. The response of the MOH is guided by the HIV/AIDS Strategic Plan for the Health Sector 2002-2006. Among the activities undertaken by NACP are programme planning, training, HIV/AIDS related counselling, logistic management, treatment of opportunistic infection, highly active antiretroviral therapy (HAART), and assessment and monitoring of sites, among several other tasks.

In collaboration with its partners, MOH/GHS achievements include the development of guidelines to standardize treatment and care, training of service providers, and the setting up of VCT and PMTCT centres nationwide. In 2003, Ghana began the process of delivering ART to all eligible HIV-positive patients in the country at four public health facilities. The public sector HAART programme is currently offered at the following centres: Atua Government Hospital and St. Martins Catholic Hospital, both in the Manya Krobo District of the Eastern Region, the two national teaching hospitals (Korle-Bu in Accra and Komfo Anokye in Kumasi), all regional hospitals and 32 other facilities round the country (See Annex II).

In 2005 and 2006, the Government of Ghana's HAART programme began to implement an ambitious scale-up plan, accompanied by ongoing efforts to scale up VCT and PMTCT services. By scaling up HAART services in the period 2006-2010 to include all 10 regional hospitals, the two teaching hospitals, and all 138 district hospitals, the programme aims to cover a targeted 71,000 PLWHA. So far the programme has expanded to additional sites including Tema General Hospital, the Police and Military Hospitals in Accra, 8 district hospitals, and 7 private and 12 quasi-governmental hospitals, with more to be phased in during 2007. (See Annex II for a full list of facilities providing HAART in Ghana at the end of 2006.)

Key activities in the ongoing national scale-up of antiretroviral therapy include, among others:

- Sensitizing communities and service providers
- Training of prescribers in ART and management of opportunistic infections
- Training of adherence counsellors

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<sup>10</sup> Gyasi RK, Kumoji R. & Akosa AB. Tuberculosis associated deaths - A comparative autopsy study in Accra, Ghana. *Ghana Med J* 2000; 34:147-151.

- Training of staff in the Logistics Management Information System
- Ensuring that staff have been trained in VCT and PMTCT and in testing options
- Ensuring linkages with other support systems such as PLWHA support groups, etc.
- Procurement and distribution of laboratory equipment
- Refurbishment of clinical sites
- Establishing and effective monitoring and evaluation system and health management information system
- Strengthening infection prevention and control, injection safety, waste management, and post-exposure prophylaxis (PEP) programmes

The costs of the various HIV services are highly subsidised by the government. For example, the HIV patients are charged \$5-6 per month for their clinical care, which amounts to less than 10% of the actual cost. This includes the costs of HIV testing, baseline investigations, one month's supply of ARVs, and drugs for opportunistic infections. Patients pay approximately \$0.50 for the voluntary testing and counselling (VCT) service, while the Prevention of Mother-To-Child Transmission (PMTCT) service is free. The true cost of service per person per year, including actual cost of drugs, laboratory tests, consumables, patient registration, care for opportunistic infections, and cost of test kits, was estimated at US\$630.00 in 2003. The cost of HAART triple therapy first-line drugs is down to \$227 per person per year.

### **1.2.2 Response to the TB Epidemic**

Ghana's National TB Control Programme (NTP) has formally been in existence since 1994. Prior to this there was a structure in place for the care of TB patients in all regional hospitals and the two Teaching Hospitals localised to the Chest Clinics from as far back as the '50s. In addition most mission hospitals also run Chest Clinics which took care of TB patients. These clinics were supervised infrequently by the Ministry of Health with problems such as late reporting of patients and with advanced disease, no specific treatment guidelines, erratic drug supply and no proper evaluation systems.

The DOTS programme was launched 1993 with support from the Danish government through DANIDA with the formation of a National Tuberculosis Control Programme (NTP). The NTP was tasked with reducing mortality and morbidity due to TB; to reduce the transmission of the disease to a level where it is no longer a major public health problem; and to prevent the development of drug resistance.

The health sector response to the TB epidemic in Ghana in recent times has focussed on implementing the expanded framework of the DOTS strategy. Well recognized internationally, the DOTS strategy consists essentially of providing the most effective medicines to TB patients, ensuring that they take these medications regularly as prescribed, and monitoring their progress to cure. Ghana is currently in the maintenance phase of DOTS expansion having been implementing the DOTS strategy since 1994. Since 2005 Ghana has been implementing the new Stop TB Strategy in all health facilities nationwide.

The current MOH/GHS strategy on TB sets forth the following objectives:

- 1) To improve the coverage and quality of DOTS expansion in Ghana by:
  - a) Expanding Public-Private Mix DOTS (PPM-DOTS) from 2 to 6 cities in order to increase case detection rates from 36% to 70% and cure rates from 71% to 85% by the end of 2010;
  - b) Supporting the two teaching hospital Chest Units (in Accra and Kumasi), such that they will increase their cure rates from 69% to 85% and decrease default rates from 10% to 4% by 2010;
  - c) Improving access to DOTS services through community based TB care activities in 60 districts, such that case detection rates will increase from 40% to 60% and cure rates will increase to 85% by 2008;
  - d) Reducing TB transmission in the Ghana Prison System, such that the case detection rate is increased to 70% and the cure rate to 85% by 2010.
- 2) To integrate TB and HIV prevention, care, and support activities in 60 districts by 2008.
- 3) To promote behavioural change communication (BCC) interventions in support of TB control activities, with the goal of reaching at least 75% of adults in all districts by 2010.

DOTS expansion, TB/HIV integration and behavioural change communication are to be implemented in phases. PPM-DOTS will be limited to 6 cities. Community TB care and HIV collaborative activities will initially cover 60 districts in the first three years and then further scaled up to cover the entire country by 2010. Quality improvement activities such as monitoring, supervision, training, and education will be implemented nationwide.

Under PPM-DOTS, an additional 2 million inhabitants of 6 urban areas, especially those from urban slums, are intended to benefit from improved access to DOTS over 5 years. Teaching hospital Chest Units are reference points for complicated case management. They treat approximately 1,300 TB cases annually. Thus, over 6,000 TB patients are expected to benefit from the proposed activities over 5 years.

Community TB care is expected to benefit 75,000 households in 138 districts in Ghana over 5 years. In Ghana's prisons, approximately 12,000 inmates in the 12 main prisons will benefit from care and support of TB. Integrated TB/HIV care will benefit 1,000 individuals each year in 60 districts (both rural and urban). Over 5 years, roughly 13,000 dually infected patients will benefit. For BCC, 20.9 million people in 45,000 communities will be reached over 5 years to encourage healthy behaviour and reduction of stigma.

The various components of the strategy – including quality improvements, PPM DOTS, TB/HIV collaborative activities, TB in prisons, community based TB care, as well as sustainable advocacy, communication and social mobilization (ACSM) interventions are aimed at bringing TB care closer to the patient's doorstep. The

goal is to improve accessibility, affordability, acceptability and coverage of services. The components are intended to bring efficiency to service delivery and thereby contribute to reducing the disease burden of TB and TB/HIV.

### **1.2.3 Response to the TB/HIV Dual Epidemic**

The need for collaboration between the two control programmes, the NACP and NTP has been recognized and accepted. This national approach is consistent with current WHO recommendations on the need for collaboration in addressing TB/HIV.<sup>11</sup> A national stakeholders meeting was held in 2005 and a National Working Group was established.

A mechanism for undertaking collaborative TB/HIV activities was initiated in early 2005 at the national level by the establishment of a national TB/HIV coordinating body. This body defined the roles and responsibilities for TB/HIV collaborative activities by NACP and NTP. In allocating responsibilities, care was taken to minimize duplication of effort and to coordinate budgets. The main goal is to take advantage of the natural synergies and complementariness of the two programmes. A focal person for joint TB/HIV collaboration has been identified. It has been agreed that an office be established at the Central TB Unit to coordinate and ensure joint TB/HIV activities. Generally, the two programmes run in parallel with informal collaboration at health facilities where the two exist. In district hospitals, integration of both programmes is informally being practiced.

## **1.3 Key Issues, Problems & Gaps**

The national technical policy and guidelines for TB/HIV collaboration in Ghana are designed to take into account and address the country's current needs in this area. The following key issues, problems, and "priority gaps" have been identified during the policy development process:

### **1.3.1 Priority Gaps**

- Need for decentralisation of comprehensive HIV care at the facility level, and possibly at the community level, in order to increase accessibility (as in the DOTS programme)
- Need for affordable services for TB/HIV co-infected patients
- Lack of country-specific guidelines on antiretroviral treatment of HIV related TB, including diagnostic algorithms and training materials
- Absence of monitoring & evaluation and surveillance systems for TB/HIV collaborative activities
- Lack of resources committed to TB/HIV collaborative activities

### **1.3.2 Key Issues at the General and National Levels**

- High rate of TB/HIV co-infection in Ghana. (TB is the leading cause of morbidity and mortality in HIV/AIDS patients.)

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<sup>11</sup> WHO. Interim Policy on Collaborative TB/HIV Activities. Geneva, 2004 (WHO/HTM/TB/2004.330 and WHO/HTM/HIV/2004.1). See also WHO. TB/HIV: A clinical manual, 2<sup>nd</sup> edition. WHO, Geneva 2004 (WHO/HTM/TB/2004.329).

- Difficulty in diagnosing TB in HIV patients (especially extrapulmonary TB and smear negative cases)
- Fear of a “double stigma” in TB/HIV co-infected patients
- Lack of research into TB/HIV co-infection
- Need for an TB/HIV focal person at the national level
- Poor integration of HIV and TB services at all levels
- Need for a comprehensive national plan for integrating TB and HIV services. (National TB and HIV programmes have had different sources of funding, reporting systems and cultures; only intermittent communication and cooperation has occurred.)

### **1.3.3 Key Issues at the Technical and Local Levels**

- Need for technical assistance at all levels
- Lack of ultraviolet (UV) lamps to protect TB-negative HIV patients from exposure to TB if the same facility is used
- Lack of integration of education on the relationship between TB and HIV into all training programmes and at service delivery points
- Inadequate numbers of treatment supporters to follow up TB patients who are at risk of HIV (the goal of supportive therapy being behaviour change for the prevention of HIV)
- Need for integrated TB services providing HIV testing, ARV treatment, follow-up care and support as part of the continuum of care
- Insufficient number of trained healthcare and support workers to treat co-infected patients
- Need for increased numbers of adequately trained treatment supporters (necessary to permit the scaling up of treatment care & support interventions, while at the same time improving case management of TB and HIV/TB co-infected patients)
- Scarcity of well established community systems (district level) for providing care and support services
- Scarcity of TB and HIV services with providers trained in highly active antiretroviral therapy (HAART).

## 2 Rationale and Purpose

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### 2.1 Rationale for TB/HIV Collaborative Activities

The main rationale for collaborative activities on TB/HIV is the recognition that these two serious infectious diseases amplify one another's impact. TB is recognized as the most important opportunistic infection in HIV. TB increases mortality and morbidity in HIV patients, speeding the progression of HIV infection to clinical AIDS. By the same token, HIV is known to be fanning the flames of the TB epidemic in Ghana.

There is also an important organizational, programmatic rationale. While the NACP HAART programme is relatively new, the NTP is well established in all districts (Ghana has 100% DOTS coverage) and has strengths that can be synergistic with the national scale-up of the HAART programme. Both patients and health workers will benefit from closer collaboration. Increased efficiencies and elimination of overlap will help reduce national health care costs.

### 2.2 Purpose of the National Policy

Decreasing the morbidity and mortality of TB in Ghana through implementation of the DOTS strategy is the main function of the National TB Programme (NTP). Similarly, the prevention, care, treatment, and support of people living with HIV are the core activities of the National STI and HIV/AIDS Control Programme (NACP). These two national programmes should continue to pursue their main strategies and activities. However, because of the overlapping and synergistic effect of HIV and TB infections, there is the need for close collaboration between the two programmes. The NACP must do something about TB to reduce the morbidity and mortality TB causes in HIV patients, while the NTP must do something about HIV, which increases the morbidity and mortality of TB patients.

The purpose of this policy, therefore, is to delineate the roles and responsibilities of all stakeholders at every level of the provision of health, and to provide guidance on which collaborative TB/HIV activities are to be implemented in the country.

In keeping with WHO recommendations, Ghana's national policy does not aim to create a new programme or structures. Instead, its purpose is to enhance the two existing programmes in the provision of a continuum of quality care, prevention and support at all service delivery points in Ghana for people living with, or at risk of, tuberculosis and HIV/AIDS.

## 3 Goals, Objectives & Strategic Framework

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### 3.1 Policy Goals

The overall goals of the TB/HIV policy are threefold:

- To strengthen the health system to respond to the TB/HIV dual epidemic
- To decrease the burden of TB in people living with HIV/AIDS and
- To decrease the burden of HIV in TB patients.

### 3.2 Specific Objectives

The policy aims to expand the scope of activities of the NACP and NTP and of their partners in order to achieve the following specific objectives:

- 1) The NTP and NACP will integrate TB and HIV prevention, care, and support activities in 60 districts by 2008, and in all districts (138) by 2015.
- 2) To the extent possible, TB and HIV services will share the same facilities and personnel.
- 3) Collaborative activities will result in reduced morbidity and mortality from TB/HIV co-infection, earlier and increased TB and HIV case detection, enhanced TB cure rates, improved case management, reduced duplication of effort, and other improved efficiencies.
- 4) Active involvement of the community, including treatment supporters, will enhance treatment adherence, improve TB and HIV case detection, and assist in reducing the social stigma of the two diseases.

### 3.3 Strategic Framework

In order to achieve the above objectives and goals, the NTP and NACP shall retain and continue their primary responsibilities for their respective programme areas, while collaborating in agreed areas of joint activity. In other words, the overall strategic framework consists of three linked sets of activities:

- *Effective implementation of the STOP TB Strategy for TB control* [NTP has primary responsibility<sup>1</sup>] 1 THE STOP TB STRATEGY 2006 WHO
- *Improved HIV prevention and care* [NACP has primary responsibility]
- *Implementation of a set of additional collaborative TB/HIV activities* [Joint responsibility of NTP and NACP ]

The agreed-upon set of collaborative activities is outlined in Table 1 and is delineated in the following pages.

These TB/HIV collaborative activities will be rolled out in phases from selected districts and metropolitan areas. The experience gained in the initial localities will help make future scale up more effective, for example, by establishing best practices, identifying lessons learned, and revealing key challenges. Further

expansion will be synchronised with the roll out of the NACP HAART services. (See implementation plan for further details).

These TB/HIV collaborative activities will be implemented by the NACP, the NTP and their partners, which include the Teaching Hospitals, Non-governmental Organizations (NGOs), Community Based Organizations (CBOs), Faith Based Organizations (FBOs) and private sector entities.

## 4 Policy on TB/HIV Collaborative Activities

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This policy provides guidance for the NACP and NTP to carry out as agreed-upon a set of collaborative TB/HIV activities which are to be pursued jointly and in cooperation with their partners. The activities are summarised in Table 1 and discussed in detail below. These activities logically fall under three headings, corresponding to the three overall goals of the policy as previously noted. Namely, each of the activities covered in this policy will be directed either to: (1) strengthening the health system to respond to the TB/HIV dual epidemic; (2) decreasing the burden of TB among in people living with HIV/AIDS; and/or (3) decreasing the burden of HIV in TB patients. These interventions are to be carried out as part of the health sector response to the intersecting TB and HIV epidemics (sector wide approach –SWAP), and as part of the essential health care package (EHP) in Ghana.

Table 1. Summary of TB/HIV Collaborative Activities, Grouped by Policy Goal

### ***Policy Goal I. Strengthening the Health System to Respond to TB/HIV***

- Coordination of TB/HIV activities at all levels
- Joint TB/HIV planning
  - Partnership development & coordination
  - Resource mobilization and deployment
  - Joint advocacy, communication & social mobilization (ACSM)
  - Operational research to enhance TB/HIV collaboration
- Health infrastructure development
- Building partnerships with communities, PLWHA, NGOs, private sector, etc.
- Surveillance
- Supervision, monitoring & evaluation (M&E)

### ***Policy Goal II. Decreasing the Burden of TB in People Living with HIV/AIDS***

- Prevention of TB infection in PLWHA
- Early diagnosis & treatment of HIV-associated TB
- Prevention of TB disease in HIV patients

### ***Policy Goal III. Decreasing the Burden of HIV in TB Patients***

- Prevention of HIV in TB patients
- Provision of antiretroviral treatment for TB patients
- HIV care and support during and after TB treatment
- Prevention of opportunistic infections in TB/HIV patients

## 4.1 Strengthening the Health System to Respond to TB/HIV

Weak health care systems and limited capacities to deliver health services are constraints to implementing TB/HIV collaborative activities. Joint NTP & NACP planning will take place at all levels and will be coordinated by the joint planning committee & Disease Control Unit. TB/HIV collaborative activities will then be integrated into existing activities of NTP and NACP plans. This will facilitate a “one stop shop” approach, the ultimate vision in providing TB/HIV services. Joint NTP & NACP planning, supervision, monitoring and evaluation activities of TB/HIV will be institutionalised. These activities are already taking place at some operational levels.

Tuberculosis- or HIV/AIDS-specific funding shall be used for TB/HIV activities. Additional funding mechanisms shall be mobilised in support of joint TB/HIV planning and other activities.

A joint TB and HIV programme approach coordinated with other disease-specific programmes will be promoted under the technical coordination and supervision of the Disease Control and Prevention Department (DCPD). Capacities for laboratories and monitoring & evaluation will be further developed to facilitate implementation of TB/HIV collaborative activities.

All health care providers will be engaged in collaborative TB/HIV activities including those outside the traditional public health system in providing comprehensive, high quality TB/HIV prevention and care services in line with National programmes.

### 4.1.1 Coordination of TB/HIV Activities at All Levels

The *national TB/HIV focal person*, under both managers of the NTP and NACP, shall be responsible for the day to day running of programme implementation and oversight of TB/HIV collaborative activities. Procedures for seeking technical assistance will follow programme and Ghana Health Service guidelines.

Coordination of TB/HIV activities will be performed by the following coordinating committees:

- 1) National TB/HIV Coordinating Partnership (NTACP)
- 2) Regional TB/HIV Coordinating Partnership (RTACP)
- 3) District TB/HIV Coordinating Partnership (DTACP)
- 4) Facility level TB/HIV Coordinating Partnership (FTACP)

These bodies will be formed based on the structures already in existence at each level and will not be separate or new structures. They will meet quarterly to plan and coordinate joint HIV/TB activities at their respective levels. These will then be incorporated into NTP and NACP specific plans for implementation and supervision by the two programmes. The committees shall clearly define the roles and responsibilities of each key player in TB and HIV control activities. (See Annex I for a summary of the activities and implementing partners responsible.)

The *National TB/HIV-AIDS Coordinating Partnership (NTACP)* shall consist of key stakeholders from the NTP, the NACP, international partners (bilateral and multilateral), NGOs, community based organizations (CBOs), faith based organizations (FBOs), universities/teaching hospitals, people living with HIV/AIDS and TB, and a national TB/HIV focal person. The NATCP shall:

- Promote advocacy and communication directed at placing TB/HIV at the top of health and development agendas
- Promote and monitor joint NTP & NACP planning & TB/HIV collaborative activities
- Promote and support research on TB/HIV collaborative activities
- Guide and support the evaluation of TB/HIV collaborative activities,
- Mobilize additional resources to support implementation

The *regional and district TB/HIV coordinating committees (RTACPs and DTACPs)* shall comprise members of the regional and district health management teams, respectively, a focal person for TB/HIV collaboration, the TB and HIV coordinators and other partners, NGOs, CBOs, FBOs, and PLWHIV and TB in the region and district, respectively. The RTACPs and DTACPs shall ensure that national policy on TB/HIV collaboration is implemented and feedback is provided to the national programmes & DCPD in a timely manner using existing and improved systems. Each region, district and facility is to appoint a TB/HIV focal person from among its staff using the established national procedures for appointments and delegation of duty.

#### **4.1.2 Joint TB/HIV Planning**

The coordinating committees shall ensure joint TB/HIV collaborative planning and budgeting, including a joint communication and advocacy strategy for the TB and HIV programmes, and a joint approach to M&E.

The coordinating committees through the TB/HIV focal persons shall ensure that the joint TB/HIV strategic plans are incorporated into both the NTP and NACP plans at all levels for implementation.

##### **4.1.2.1 Partnership Development & Coordination (National, Community, and Public-Private)**

The coordinating committees shall:

- Build strong partnerships with all stakeholders at all levels of healthcare in Ghana to enhance advocacy for resource mobilization and opportunities to implement collaborative TB/HIV activities.
- Promote expansion of TB/HIV collaborative activities beyond the public health sector through enhanced involvement of local communities, private sector entities (health and non-health related), CBOs, FBOs, NGOs, HIV and TB support groups, etc. Such groups and organizations should be involved in the planning, implementation, and advocacy of collaborative TB/HIV activities. As much as possible, both the NTP and the NACP should ensure that organizations already working in the communities become involved in HIV and TB prevention, treatment, care, and support activities.

- Encourage all stakeholders who are working at the community level to include and integrate TB and HIV prevention, treatment, care, and support activities in their services. To this end, organizations at any level which are providing both HIV and TB services in Ghana would be preferentially supported by the NTP and NACP programmes.

#### **4.1.2.2 Resource Mobilization and Deployment**

In the areas of resource mobilization and development, the coordinating committees shall monitor:

- The roles and responsibilities of each programme in implementing specific TB/HIV activities, as defined clearly in this policy (see Annex I for details)
- The mobilization and deployment of available resources (human, community, and other) to enhance implementation of TB/HIV collaborative activities
- Joint development of funding proposals for implementing TB and HIV activities, based on the comparative strengths and weaknesses of both programmes. For example, funding proposals might be jointly developed in response to the Global Fund or Budget Management Centre (BMC) budgeting requirements.

#### **4.1.2.3 Joint Advocacy, Communication and Social Mobilization (ACSM)**

Advocating for political commitment and resource mobilization at national, regional and district levels and in communities to tackle TB/HIV is a key responsibility of the coordinating committees. To combat both diseases effectively, strong advocacy to counter stigmatization and discrimination is needed. To these ends, the following activities will be carried out:

- Both programmes shall develop joint TB/HIV advocacy, communication and social mobilization strategies (ACSM) that address the needs of individual clients, patients, and communities affected by the two diseases.
- Each programme must communicate the same message and ensure the mainstreaming of both components: HIV ACSM activities must include TB as an integral part, while TB ACSM must include HIV as an integral part.
- Information, Education, and Communication (IEC) materials about HIV, TB, their linkages and prevention should be produced and distributed to all DOTS and comprehensive HIV care support centres in the country. Staff at these centres should be trained to routinely discuss TB and HIV with all clients using the materials.

#### **4.1.2.4 Operational Research to Enhance TB/HIV Collaboration**

The policies, plans and their implementation must be based on sound evidence generated locally and internationally. To this end:

- All stakeholders must support and encourage operational and other research that will provide the evidence base for efficient and effective implementation of collaborative TB/HIV activities.
- Research shall be an integral part of the work plan for collaborative TB/HIV activities at all levels – i.e., an operational and utilization research approach should guide programme planning and implementation.
- The research agenda would be informed by the operational needs of both programmes and their TB/HIV collaborative activities.

### **4.1.3 Health Infrastructure Development**

#### ***4.1.3.1 Human Resources Development and Capacity Building***

The coordinating committees shall monitor and advocate for the following:

- Joint capacity building for TB/HIV activities, including joint training of health care workers in TB/HIV issues. A joint training plan shall be drawn up at all levels to provide pre-service, in-service, and continuing professional development and specialization courses for all categories of health care workers.
- Sufficient human resource capacity in health facilities in the country for the implementation of TB/HIV collaborative activities.
- Establishment of at least one “5-star Medical Doctor” or practitioner at every facility.<sup>12</sup>

#### ***4.1.3.2 Health Systems Support***

The NTP and NACP shall advocate for the allocation of sufficient capacity at health care delivery points to permit effective implementation of both HIV and TB programme activities. This includes strengthening capacity in the following areas:

- Laboratory network capacity and laboratory external quality assurance
- Drug, equipment and health commodity procurement and management capacities
- Infrastructure/facilities for DOTS and HAART treatment centres
- Improved partnerships and linkages

#### ***4.1.3.3 Strengthening Programme Management at All Levels***

The Disease Control and Prevention Department (DCPD), NTP, NACP, and the coordinating committees shall together provide for the following elements to enhance programme management:

- Central unit staff such as data manager; drug manager; and focal persons for TB/HIV, human resource development (HRD), and M&E; etc.
- Technical assistance as required for HRD, research, TB/HIV patient services, M&E, ACSM, etc.
- Regularly updated field manual for TB/HIV collaborative activities
- Regularly updated clinical forms, registers, and cards for TB/HIV patient visits
- Sensitisation meetings for all stakeholders and partners

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<sup>12</sup> “5-Star Medical Doctor” – following the WHO suggestion, this would be a doctor of excellence with “five-star” quality, possessing the following five aptitudes: 1) a high quality care provider who considers the patient holistically (as an individual and a member of a community); 2) a decision maker who chooses which technologies to employ in an ethical and cost effective manner; 3) an effective communicator; 4) a community leader; and 5) a manager and team builder. References: WHO. Doctors for Health: A WHO global strategy for changing medical education and medical practice for health for all. (WHO/HRH/96.1); Boelen, C., Frontline doctors of tomorrow, 1994, World Health, 5 Sept-Oct, 4-5.

#### **4.1.3.4 Integration, Referral, and Communication Systems**

A *systematic approach towards integrated HIV/TB care* is to be undertaken throughout the country. Integration would primarily be at the level of service implementation/service provision. The extent of integration will depend on local circumstances and may vary. For example, in health facilities where there is separation of the HIV and TB services, integration would consist of strong referral linkages. However, full integration would be appropriate in institutions where both programmes use the same healthcare staff and facilities. Therefore “HAART centres” and “DOTS centres” might refer in the first instance to HIV and TB clinics which are set up separately (whether as two stand-alone clinics or as two parts of the outpatients department, OPD). In the second instance, they might refer to a combined area or unit in the OPD at district hospitals where both TB and HIV are treated.

A *patient-centred approach to the care of the TB/HIV patient/client* should be established. The district and facility coordinating committees should place priority on establishing strong links among the different service providers (TB, HIV, family planning, PMTCT, child health, psycho-social support and other health services) so that a patient-centred approach can be kept in common.

A “*one stop shop*” approach should be put into place. As far as possible each patient should be provided basic, integrated TB/HIV services at his or her entry point – whether that entry point happens to be a DOTS centre, a HAART centre, or a combined centre. The basic set of integrated TB/HIV services to be offered will cover prevention, care and support, and will consist of:

- Routine offering of HIV counselling and testing (provider-initiated, patient opt-out model)
- Early detection and syndromic management of sexually transmitted infections (STIs)
- HIV prevention measures
- Treatment and prophylaxis of opportunistic infections (OIs)
- Drug adherence counselling
- Intensive TB case finding and treatment using DOT
- Contact and partner tracing
- Nutritional support
- Family planning and support
- Psycho-social support
- Referral to community HIV/TB services
- Assessment and referral of co-infected individuals for the consideration of HAART at the nearest HAART Centre.

*Referrals to community HIV/TB services* will aim to ensure the use of treatment supporters who are drawn from PLWHA groups, community based organizations (CBOs), NGOs, and/or community members. These individuals will support patients/clients to improve their treatment adherence and community-based DOTS. A strong two-way referral system should be set up between health services and the community including the private sector and special areas such as prisons and refugee camps, schools and workplaces.

*Monthly meetings* at health facility levels and quarterly meetings at district and regional levels will be held to promote effective communication, ensure uniform reporting and recording standards, and to eliminate duplication of data.

#### **4.1.4 Building Partnerships with Communities, PLWHA, NGOs & the Private Sector**

Communities, PLWHA, and NGOs play a vital role in HIV prevention, and in providing care and support for persons affected by HIV/AIDS. These key stakeholders must be involved in the planning and implementation of TB/HIV collaborative activities. The following guidelines apply:

- The NTP and NACP programmes already have linkages with local communities, NGOs, CBOs, and FBOs. These linkages shall be reinforced and modified to include TB/HIV collaborative activities.
- Communities affected by TB and HIV should be involved in the planning, delivering and monitoring of TB/HIV collaborative activities.
- The two programmes at all levels shall ensure that adequate training, support and supervision are provided to NGOs, CBOs, and FBOs, to ensure quality of care.
- The CB-DOTS approach for TB control shall include HIV activities as a core part of the strategy.

The two programmes shall ensure that they harmonize their public-private partnership (PPP) activities to conform to the policy of integration of TB and HIV prevention, treatment, and care. Thus, as far as possible private health providers participating in the Treatment Accelerated Programme (TAP) for HIV care should be resourced to add TB activities to their work. Similarly, those private health providers who are involved in the PPM-DOTS programme for TB control should undertake HIV prevention, treatment, and care activities.

#### **4.1.5 Surveillance**

Generating evidence through epidemiological surveillance and research is vital for advocacy, programme planning, and for monitoring the performance and impact of programmes. TB/HIV surveillance should be integrated into the existing health information system in the country.

Surveillance activities will be used to:

- Estimate and project the burden of TB/HIV co-infection in the country
- Evaluate the magnitude of TB as an OI among HIV/AIDS cases
- Measure the magnitude of the effect of HIV on the TB epidemic
- Monitor the success of collaborative HIV/TB activities and identify areas where improvement is needed
- Provide evidence for advocacy efforts, including mobilization of partners and resources

A variety of methods will be used for TB/HIV surveillance, as appropriate, including routine surveillance methods and special survey methods (e.g., periodic, cross-sectional, and/or sentinel surveys). The following guidelines apply:

- A baseline survey of the TB/HIV burden in the country should be established by a one-time special survey, using representative sampling methods according to international guidelines.<sup>13</sup>
- Routine surveillance should be performed systematically and regularly using the reporting and recording tools jointly provided by the two programmes. The objective should be to counsel and test more than 90% of TB patients.
- Sentinel surveys of the TB/HIV prevalence should be linked to the HIV Sentinel Survey (HSS) by the inclusion of TB patients at the HIV sentinel sites every 2-3 years in order to fine-tune the routine TB/HIV surveillance system.

#### 4.1.6 Supervision, Monitoring and Evaluation (M&E)

Optimum use must be made of limited human and financial resources. To this end, the NTP and NACP will increase their scope of supervision, monitoring and evaluation to ensure that interventions in the national strategic plans are working effectively, that financial and human resources are effectively allocated and are being used for the intended purposes, and that all partners (stakeholders, the community etc.) are informed about the successes of the collaborative activities. The following guidelines apply:

- The M&E plan of each programme, based on respective programme goals, objectives and service delivery areas, should include TB/HIV collaborative activities.
- An agreed-upon, core set of indicators and data collection tools for monitoring and evaluation of collaborative TB/HIV activities based on international guidelines should be used.<sup>14</sup>
- As much as possible, reporting on indicators shall be harmonised by the NTP and NACP programmes.
- The programmes shall review indicator results half-yearly and make the necessary programme redirection.
- Dissemination and feedback of monitoring data to the regional and district levels will be done by the M&E focal point for each programme at all levels. Data will also be presented at respective annual programme meetings.
- Each level (national, regional and district) will be encouraged to use its own information and to undertake its own monitoring activities.
- Periodic external programme monitoring and evaluation will be done by contracting out to public health specialists, national and international consultants.
- The overall responsibility for monitoring and evaluation of each programme rests with the respective programme managers.

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<sup>13</sup> WHO. Guidelines for HIV surveillance among tuberculosis patients, Geneva 2004 (WHO/HTM/TB/2004.339).

<sup>14</sup> WHO. A guide to monitoring and evaluation for collaborative TB/HIV activities. Geneva 2003 (WHO/HTM/TB/2004.342, WHO/HIV/2003.01).

## 4.2 Decreasing the Burden of TB in People Living with HIV/AIDS

### 4.2.1 Prevention of TB Infection in PLWHIV

The best way to decrease the burden of tuberculosis in an HIV patient is, of course, to prevent that patient from contracting TB in the first place. Two effective measures for preventing TB infection in PLWHIV are (1) active contact tracing and (2) infection control in high-risk settings.

#### 4.2.1.1 Active Contact Tracing for TB in Contacts of PLWHIV

TB infection in PLWHIV most often occurs in the close-contact situation at home. The following activities would be required:

- All PLWHIV (whether they have TB or not) should have home visits for TB screening of household contacts using a simple symptom questionnaire and any TB suspects referred for sputum smear microscopy as per NTP guidelines and procedures.
- All PLWHIV home contacts with symptoms suggestive of TB should be counselled and referred to the nearest DOTS centre for diagnosis and treatment.

#### 4.2.1.2 TB Infection Control in Health Care Facilities and Prisons

- All health facilities, at all levels, and all prisons (in addition to other congregate settings as indicated) should ensure TB infection control for PLWHIV and their health staff by following the national policy and guidelines for TB infection control.
- Mandatory medical examinations, including chest x-ray (CXR) and sputum smear microscopy (SSM) of all staff at DOTS and HAART centres would be conducted at the beginning of employment and yearly thereafter to exclude TB in health staff.

### 4.2.2 Early diagnosis and treatment of HIV-associated TB

Intensified TB case finding based on early diagnosis and treatment of HIV-associated TB is an important policy objective. To this end:

- All HIV patients/clients should receive health education on TB.
- Using a simple symptom questionnaire, every HIV counselling and testing (CT) centre<sup>15</sup> and every HAART centre should screen *all* of their attending clients for TB, including all PLWHIV who are not on TB treatment. Note that *all HIV counselling and testing clients should be screened for TB, not just those who are HIV positive*. This approach will ensure the necessary synergism between the NACP and NTP programmes in decreasing the TB burden in the country. Counsellors should be trained to administer the screening questionnaires, which should be made available at all centres.
- PLWHIV attending clinics should be routinely counselled and screened for TB to include clinical symptom and signs, sputum smear microscopy and CXR on initial visit and at least yearly thereafter. In HIV patients a chest x-ray should be requested early in the investigation of TB.

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<sup>15</sup> Counselling and Testing centres include: Voluntary Counselling and testing (stand alone or health facility based), PMTCT Centres, and Diagnostic Counselling Centres.

- A request for sputum smear microscopy should be made for those in whom TB is suspected. Any health care staff or trained counsellor should be able to make this request.
- All PLWHIV suspected of TB but with sputum smear microscopy negative for acid fast bacilli (AFB) should have sputum sent for sputum culture for AFB and fungal studies by a medical officer (MO).
- All patients/clients suspected to have TB should be seen by a clinician, and if TB confirmed, should be treated according to the NTP guidelines (see NTP Manual).
- TB is to be diagnosed by a clinician using national guidelines (see for example the forthcoming TB/HIV Clinical Guidelines document).
- Operations research (OR) would be conducted to investigate the feasibility and effectiveness of a more active, intensified approach to TB case finding which would use, for example, sputum induction techniques, tuberculin skin testing (TST), serological TB diagnosis, and other new TB diagnostics.
- There should be strong linkages between CT and HAART centres, on the one hand, with DOTS diagnostic and treatment centres, on the other. The NACP should ensure that all CT centres are linked with TB DOTS centres.

Use of isoniazid preventive therapy (IPT) or TB preventive therapy (TB PT) in HIV patients is *not* yet national policy, as the evidence for its effectiveness as a public health strategy is still not clear. Operational research on the feasibility and effectiveness in Ghana of TB PT would be considered.

## **4.3 Decreasing the Burden of HIV in TB Patients**

### **4.3.1 Prevention of HIV in TB Patients**

#### ***4.3.1.1 Routine Offering of HIV Counselling and Testing to All TB Patients***

Again, prevention is the best way to reduce disease burden. To improve the prevention of HIV infection in TB patients:

- All DOTS centre staff should know the links between TB and HIV and routinely discuss and offer HIV counselling and testing to all patients.
- Information, education, and communication (IEC) materials covering HIV and TB, their linkages, and their prevention should be produced and distributed to all DOTS and HAART centres in the country.
- All TB suspects who attend DOTS centres should be routinely offered HIV counselling and testing (CT). In other words, HIV counselling and testing is not only for proven the TB patients. Clients should be given the alternative of “opting out” of HIV testing if they so choose.
- HIV counselling and testing (CT) should be integrated into TB care as part of the patient flow at all DOTS centres in a similar manner to TB counselling and drug adherence counselling.
- All health facilities should have a pool of trained health staff that will perform most of the different types of counselling (HIV, TB, adherence and psychosocial counselling).

#### **4.3.1.2 Promotion of Safer Sex Practices and Condom Use to TB Patients**

- All staff should discuss reproductive health issues with all TB patients and promote safe sex and condom use to them.
- The national guidelines for HIV prevention should be followed.
- Privacy should be ensured at DOTS centres to enable discussion of sexual issues.

#### **4.3.1.3 STI Screening and Treatment at DOTS Centres**

- STI screening and syndromic management should be provided for all TB patients in accordance with national guidelines at all DOTS centres.
- All DOTS centres should implement the national guidelines for the syndromic management of STIs using the STI screening tools, guidelines, client information leaflets and client's partner notification tools.

#### **4.3.1.4 Reduction of Occupational and Nosocomial Exposure to HIV Infection**

- All health facilities should implement procedures for reduction of occupational and nosocomial exposure to HIV infection according to national guidelines. These include standard infection prevention procedures and post-exposure prophylaxis.

### **4.4 Provision of Antiretroviral Treatment for TB patients**

All TB/HIV patients should have access to HAART by referral to HAART centres. Facilities should work towards provision of integrated care. As previously stated, a strong link with TB DOTS centres should be established in localities where DOTS and HAART centres are not at the same site. At the district hospital level HIV and TB prevention and care would be provided in a setting of great overlap amongst healthcare workers and facilities. There will be the need to build capacity for regional referral clinicians to initiate HAART in DOTS centres, in line with the policy of the “one stop shopping” approach.

The following additional guidelines apply:

- The initiation of HAART in TB patients should follow the eligibility criteria for initiation of HAART in the national HAART guidelines. To this end, all TB/HIV co-infected patients should have CD4 count determined soon after determination of HIV status.
- The choice of HAART drug regimen should follow current national guidelines.
- Extreme care should be weighed in the initiation of HAART during the first trimester of pregnancy, with careful weighing of the potential risks and benefits. All considerations should be discussed with the expectant couple (or at least with the woman) so that she/they may make an informed decision.
- All pregnant women co-infected with TB/HIV should be entered into the PMTCT programme as early as possible.
- The timing of the addition of HAART to anti-TB treatment should follow national guidelines. Operational research to find the optimum time for the co-treatment of TB and HIV should be undertaken.

- To ensure TB/HIV integrated prevention and care, new HAART centres will be established at sites where DOTS centres already exist. These DOTS centres will be strengthened to cope with the increased cases and the quality of DOTS improved.
- Data will be recorded using the newly revised TB register at DOTS/HAART centres. Where DOTS and HAART centres are separate, the referring letter should have a return portion which would be filled and returned to the DOTS centre when the patient is started on ARVs. Regular HIV/TB collaborative meetings at which data are synchronised would ensure that TB staffs are aware of TB patients being started on or continuing HAART in order for them to manage any side effects and drug-drug interactions.

#### **4.4.5 HIV Care and Support During and After TB Treatment**

All HIV positive TB patients should have access to health care for PLWHIV. This includes clinical management (prophylaxis, early diagnosis, treatment and follow-up care for opportunistic infections); nursing care including nutritional support; palliative care; home care including education for care providers and patients' relatives; promoting universal precautions; and counselling and psycho-social support.

This HIV care and support should be provided both during and after TB treatment. It should be provided as the basic package of care at all health facilities (DOTS centres included). If there is a separate HAART centre, then a strong cross referral system should be put in place to ensure continuity and coordination of patient care.

#### **4.4.6 Prevention of Opportunistic Infections in TB/HIV Patients**

Co-trimoxazole preventive therapy (CPT) should be provided to all TB/HIV patients during TB treatment, unless contraindicated (for example, in G6PD deficiency). The CPT should be given for 6 months during TB treatment at DOTS centres, then continued at HAART centres after TB treatment for life or until the CD4 count is  $>500/\text{mm}^3$  and maintained for six months when on HAART. CPT should be provided according to national guidelines for CPT.

Co-trimoxazole will be budgeted for and provided by the NACP but will be administered to patients by the DOTS staff during TB treatment. It will be administered by the HAART staff after TB treatment is complete.

Data on CPT during TB treatment should be recorded on a modified TB patient's register and at the HAART centres, which will issue out the stock to the DOTS centres. This will ensure uninterrupted supply of co-trimoxazole to TB/HIV patients especially after TB treatment and the capture and reporting of CPT data by the NTP and NACP.

## 5 Monitoring and Evaluation (M&E)

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### 5.1 Reporting and Recording for TB/HIV Patients

Both the NTP and the NACP have their own established recording and reporting systems to track TB and HIV/AIDS, respectively. These core recording and reporting activities for their respective diseases will not change. Please refer to the NTP Manual and the NACP guidelines for further details. However, the integration of services requires cross-training and multi-tasking of clinicians (with creation of the “5-star Medical Doctor” role model) to ensure that data quality for both programmes is maintained.

With the integration of TB/HIV care, it is essential that each health worker from the respective disease programmes understand his or her reporting obligations which are clearly stated in this policy and may be modified periodically by the two programmes. Every effort should be made to ensure that double counting of cases does not occur.

Separate TB/HIV register and recording forms will not be created. However, the present forms and data recording tools for the two programmes will be modified to capture the joint TB/HIV data.

#### 5.1.1 DOTS Centre Recording and Reporting Duties for TB/HIV Patients

Clinicians at the DOTS centres are responsible for initiating, maintaining and completing *TB Treatment Cards* on all confirmed TB patients (i.e., started on therapy). The TB Treatment Cards have been revised to include the following HIV-related data:

- Dates HIV testing and counselling offered, conducted and results
- Start date of co-trimoxazole preventative therapy (CPT)
- Start date and regimen of HAART

To maintain confidentiality of patient information, patients should no longer be given a copy of the TB Treatment Card since it now has the confidential HIV information described above.

The following additional documentation requirements apply at DOTS centres for TB patients who are HIV-infected:

- The *TB Register* should be completed by the DOTS Centre clinician and District TB Coordinator at the facility and district levels, respectively.
- A *Patient Identity Cards* should be issued to each patient, and carried by the patient to all appointments. This card contains pertinent clinical information including their drug regimen and their next appointment date.
- A *Treatment Supporter Record Card* should be used by each treatment supporter (facility or community-based) to record each DOT episode.

At DOTS Centres where HAART is initiated and/or continued, the centre staff and facility TB coordinator should be responsible for HAART clinical care programme

records and submitting data monthly to the HIV/AIDS District Coordinator through the Facility HIV/AIDS Coordinator. In facilities where there is no HIV/AIDS Coordinator but there is a TB Coordinator, the latter shall assume this responsibility until full integration is effected.

### 5.1.2 HAART Centre Recording & Reporting Duties for TB/HIV Patients

The clinicians at the HAART centres are responsible for initiating and maintaining HIV/AIDS clinical care programme records on all patients receiving care and treatment for HIV/AIDS.

Staff at HAART centres are responsible for recording TB/HIV collaborative activities. *HIV recording documents* should be modified to capture these TB/HIV collaborative activities. These should include:

- Date and results of intensified TB case detection
- When TB treatment was started and the regimen
- Date of initiation of co-trimoxazole preventive therapy (CPT)

Where HAART centres provide TB drug treatment, the HAART Centre clinicians should ensure that a *TB Treatment Card* for each TB/HIV co-infected patient started on TB therapy at that centre is initiated and maintained. This is irrespective of the fact that the DOTS nurse typically will implement the treatment and fill in the form. The clinician should also submit data for TB case-finding and treatment outcome as described in the above section.

### 5.1.3 National-Level Mutual Reporting of TB/HIV Patient Data

At the national level, the NTP will report the following data to the NACP:

- Number of TB suspects who were referred for CT
- Percent of TB suspects referred who accepted CT
- Percent of TB suspects tested who were found to be positive for HIV
- Percent of HAART patients with smear-positive TB that started TB treatment

At the national level, the NACP will report the following data to the NTP:

- Number of HAART patients who were screened for TB
- Percent of HAART patients screened for TB who were diagnosed as TB
- Percent of HAART patients with sputa exams who were smear-positive
- Percent of HAART patients with smear-positive TB started on TB treatment who completed treatment/were cured.
- Number and Percent of HIV-infected TB patients eligible for HAART who started HAART

## 5.2 Programme Review Meetings

Regular programme review meetings of TB and HIV programme personnel should be held at all levels. The following guidelines apply:

- The programme review meetings should be monthly at the facility level, quarterly at the district and regional levels, and biannually at the national level.

- Review meetings at the facility, district, and regional levels should involve both TB and HIV programmes staff (if they are different) and should review both programmes and their intersection (collaboration) in an integrated fashion.
- Review meetings at the national level should be in addition to the separate NTP and NACP national review meetings and should involve only the areas of collaboration. However, comparison of results of the programmes in non-dual infected patients will provide a good context for evaluation.
- The review meetings should ensure uniform and quality data without duplication.
- Analysis of data should be done at all levels during the review meetings and this should lead to plan of action to remedy any programme deficiency.
- Vigorous two-way communication (feed back) between the different levels should be maintained.

### **5.3 Measurable Indicators and Tables**

Effective monitoring and evaluation of Ghana's progress in controlling the dual HIV/TB epidemic depends on having clear targets and measurable indicators of progress. Annex III sets forth the specific policy objectives, their corresponding indicators, and yearly target performance. It also delineates reporting responsibility between the NTP and NACP and indicates the measurement tools to be used.

## 6 Conclusion

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*'We cannot win the battle against AIDS if we do not also fight TB. TB is too often a death sentence for people with AIDS'.*

Nelson Mandela, International AIDS Conference 2004

The Government of Ghana is committed to controlling and reversing the dual epidemic of TB/HIV which currently menaces our society. The enemy is formidable. HIV is incurable, though it can be controlled with a complex set of medications. TB can be cured, but only if a patient takes numerous pills per day for many months. Each disease tends to make the other more dangerous to the patient, and more infectious to other people if not treated. Co-infection with TB and HIV poses a whole range of social, psychological, diagnostic and treatment challenges to patient and health care staff.

This is a tough fight, one which requires that we marshal our limited resources in the most efficient manner possible. Success will require a well considered plan of battle. Since 1994 the National Tuberculosis Programme (NTP) has been building a nationwide system that permits Ghanaians afflicted with TB to access to the most effective, proven diagnostic tests and treatments. In recent years, the National AIDs/STI Control Programme has been expanding its reach, and has rolled out a plan to bring antiretroviral therapy (HAART) to all corners of the country. These existing programmes to combat TB, on the one hand, and HIV/AIDS, on the other have made significant progress, but more resources, and more coordination is needed.

To this end, these technical and policy guidelines lay out a detailed strategy for collaboration between the NTP and NACP on the district, regional, and national levels. The policy delineates the responsibilities of clinicians, counsellors and administrators in each programme. It also spells out the useful roles which all stakeholders and partners in the public and private sectors can play in this great undertaking. The guidelines delineate a set of activities which promise to bring the TB and HIV epidemics under control in Ghana if implemented fully and with vigour.

## Annex I:

### Summary of TB/HIV Activities, Responsible Parties, and Implementing Partners

TB/HIV ACTIVITY	Responsible Party and/or Partner(s)
<b>Prevention of HIV in TB Patients</b>	
<b><i>a. Provision of HIV counselling and testing to all TB patients</i></b>	
<ul style="list-style-type: none"> <li>▪ Train DOTS centre staff on links between TB and HIV and importance of routinely discussing HIV with all TB patients.</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Conduct refresher training for DOTS centre staff</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Establish CT services at DOTS centres. Where CT centre already exists, establish/strengthen links with nearest DOTS ctr.</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Refurbish DOTS centres to improve patient privacy</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Develop IEC strategy with clear messages addressing the TB/HIV link and promoting VCT</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Procure HIV test kits &amp; other commodities, distribute to DOTS centre</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Train health staff on HIV testing.</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Conduct refresher training on HIV testing for laboratory staff</li> </ul>	NACP
<b><i>b. Promotion of safer sex practices and condoms to TB patients</i></b>	
<ul style="list-style-type: none"> <li>▪ Provide materials promoting safer sex practices and condom use for distribution at DOTS centre</li> </ul>	NACP/RCH
<ul style="list-style-type: none"> <li>▪ Train DOTS centre staff to promote safe sex and discuss sexual issues with patients</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Supply condoms for distribution to DOTS centres</li> </ul>	RCH/NACP
<ul style="list-style-type: none"> <li>▪ Refurbish DOTS centres to improve privacy as per activity (a.) above.</li> </ul>	NTP
<b><i>c. STI screening and treatment at DOTS centres</i></b>	
<ul style="list-style-type: none"> <li>▪ Train DOTS centre staff on implementation of national guidelines for the syndromic management of STIs.</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Provide STI materials and guidelines to DOTS centres</li> </ul>	NACP
<b><i>d. Surveillance of HIV prevalence in TB patients</i></b>	
<ul style="list-style-type: none"> <li>▪ Train treatment centre staff on HIV surveillance</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Conduct HIV refresher courses for previously trained staff</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Modify, produce &amp; distribute TB registers capturing HIV status</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Conduct refresher course for trained lab personnel regarding HIV surveillance</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Procure and distribute reagents for HIV testing</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Conduct population based survey of HIV in TB clients</li> </ul>	NACP/NTP

TB/HIV ACTIVITY	Responsible Party and/or Partner(s)
<b>Prevention of TB Infection in PLWHIV</b>	
<b><i>a. Active contact tracing for TB in contacts of PLWHIV</i></b>	
<ul style="list-style-type: none"> <li>▪ Train community/treatment supporters</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Conduct refresher training for community/treatment supporters</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Produce and distribute TB symptom questionnaire and referral forms</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Support community/treatment supporters to visit homes</li> </ul>	NTP/NACP
<ul style="list-style-type: none"> <li>▪ Ensure that TB &amp; HIV/AIDS service providers give technical supervision and support to the community/treatment supporters</li> </ul>	NTP/NACP
<ul style="list-style-type: none"> <li>▪ Arrange for regular meetings and supervision of community/treatment supporters arranged</li> </ul>	NTP/NACP
<b><i>b. TB infection control in health care facilities and prisons</i></b>	
<ul style="list-style-type: none"> <li>▪ Produce and distribute infection control plan and guidelines</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Train health care workers on infection control</li> </ul>	NTP, GHS, THs, NMIMR
<ul style="list-style-type: none"> <li>▪ Produce and distribute IEC materials for patient education</li> </ul>	NTP/HPU
<ul style="list-style-type: none"> <li>▪ Conduct periodic surveillance for TB infection/TB disease among health care workers in DOTS and HAART centres</li> </ul>	NTP, GHS, THs, NMIMR
<ul style="list-style-type: none"> <li>▪ Refurbish HAART and DOTS centres to ensure TB prevention</li> </ul>	NTP, NACP, GHS, THs
<b>Prevention and Treatment of OIs in TB-Infected PLWHIV</b>	
<ul style="list-style-type: none"> <li>▪ Procure and supply co-trimoxazole to DOTS and HAART centres through existing channels</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Implement guidelines for management of co-trimoxazole side effects</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Train DOTS and HAART centre staff in co-trimoxazole prophylactic treatment (CPT), management and counselling</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Procure and distribute drugs for OI treatment and prophylaxis</li> </ul>	NACP
<b>Prevention of TB Disease in PLWHIV. TB preventive therapy</b>	
<ul style="list-style-type: none"> <li>▪ Conduct operational research to investigate the feasibility and effectiveness of isoniazid preventive therapy (IPT)</li> </ul>	NTP/NACP
<b>Intensified TB Case Detection in PLWHIV</b>	
<ul style="list-style-type: none"> <li>▪ Adapt and produce simple TB symptom questionnaire</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Train HAART and CT centre staff to discuss TB with PLWHIV and to use the TB questionnaire</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Support HAART &amp; CT centres in sputum detection of TB by strengthening DOTS centres including refurbishment and provision of lab &amp; logistical support for sputum collection &amp; microscopy</li> </ul>	NTP

TB/HIV ACTIVITY	Responsible Party and/or Partner(s)
<ul style="list-style-type: none"> <li>▪ Procure and distribute sputum containers and request forms to HAART and VCT centres through normal channels</li> </ul>	NTP
<ul style="list-style-type: none"> <li>▪ Conduct implementation, recording and reporting activities</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Establish referral system/strong linkage with nearest DOTS centre</li> </ul>	RTACP, DTACP, & FTACP
<b>Antiretroviral Treatment for TB/HIV patients During TB Treatment</b>	
<ul style="list-style-type: none"> <li>▪ Conduct site visits and accreditation</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Train DOTS centre staff about HAART and interactions with TB medication</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Conduct refresher courses on HAART interaction with TB medications</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Strengthen DOTS centre pharmacy security for drug storage</li> </ul>	NACP, GHS, THs, NTP
<ul style="list-style-type: none"> <li>▪ Strengthen referral links between DOTS and HAART centres if not fully integrated</li> </ul>	NACP/NTP
<ul style="list-style-type: none"> <li>▪ Procure and distribute HAART drugs</li> </ul>	NACP
<ul style="list-style-type: none"> <li>▪ Train health staff on adherence counselling and monitoring</li> </ul>	NACP
<b>Community involvement in the management of TB and HIV patients</b>	
<ul style="list-style-type: none"> <li>▪ Develop and distribute IEC materials about TB and HIV to community/treatment supporters. Train PLWHIV support group members about TB and HIV</li> </ul>	NACP/NTP/HPU, DHMT, CBOs, FBOs, Treatment supporters & All Stakeholders <sup>1</sup>
<b>Coordination of HIV/TB Activities at All Levels</b>	
<ul style="list-style-type: none"> <li>▪ Meetings (National, Regional, District and Health Facility levels)</li> </ul>	NTP/NACP & All Stakeholders
<ul style="list-style-type: none"> <li>▪ Setting up District HIV/TB Coordinating Committees</li> </ul>	NTP/NACP & All Stakeholders
<ul style="list-style-type: none"> <li>▪ Production and distribution of tools for collaboration (To include TB/HIV clinical manual; generic terms of reference for district HIV/TB coordinating committees; implementation of guidelines for prioritized HIV/TB activities; training manuals and modules; IEC materials; and monitoring &amp; evaluation tools)</li> </ul>	NTP/NACP & All Stakeholders
<ul style="list-style-type: none"> <li>▪ Training of Regional, District and Health Facility Coordinators for HIV/TB collaborative activities</li> </ul>	NTP/NACP

1 All Stakeholders mean all major

## Annex II:

### Hospitals and Clinics Providing HAART Services in Ghana (End of 2006)

Name of Hospital or Clinic	Location
1. Korle Bu Teaching Hospital	Accra, Greater Accra Region
2. Ridge Hospital	Accra, Greater Accra Region
3. 37 Military Hospital	Accra, Greater Accra Region
4. Police Hospital	Accra, Greater Accra Region
5. Nyaho Medical Centre	Accra, Greater Accra Region
6. Holy Trinity Medical Centre	Accra, Greater Accra Region
7. Akai House Clinic	Accra, Greater Accra Region
8. Odorna Clinic	Accra, Greater Accra Region
9. Tema General Hospital	Tema, Greater Accra Region
10. Narh Bitu Clinic	Tema, Greater Accra Region
11. Dangbe East District Hospital	Dodowa, Greater Accra Region
12. Atua Government Hospital	Atua, Eastern Region
13. St Martins Hospital	Agormanya, Eastern Region
14. Eastern Regional Hospital	Koforidua, Eastern Region
15. Holy Family Hospital	Nkawkaw, Eastern Region
16. St. Dominic Hospital	Akwatia, Eastern Region
17. Donkorkrom Presbyterian Hospital	Donkorkrom, Eastern Region
18. Akyem Oda Government Hospital	Akyem Oda, Eastern Region
19. Volta Regional Hospital	Ho, Volta Region
20. Hohoe District Hospital	Hohoe, Volta Region
21. Aflao District Hospital	Aflao, Volta Region
22. Nkwanta District Hospital	Nkwanta, Volta Region
23. Sunyani Regional Hospital	Sunyani, Brong-Ahafo Region
24. Holy Family Hospital	Techiman, Brong-Ahafo Region
25. Goaso District Hospital	Goaso, Brong-Ahafo Region
26. Tamale Teaching Hospital	Tamale, Northern Region
27. Bole District Hospital	Bole, Northern Region
28. Komfo Anokye Teaching Hospital	Kumasi, Ashanti Region
29. Kumasi South Hospital	Kumasi, Ashanti Region
30. Obuasi Government Hospital	Obuasi, Ashanti Region
31. Anglogold Ashanti Hospital	Obuasi, Ashanti Region
32. St. Micheal's Hospital	Pramso, Ashanti Region
33. St. Patrick's Hospital	Offinso, Ashanti Region
34. Bomso Clinic	Bomso, Ashanti Region
35. Effia Nkwanta Regional Hospital	Sekondi, Western Region
36. GPHA Hospital	Takoradi, Western Region
37. Tarkwa Government Hospital	Tarkwa, Western Region

- |                                    |                               |
|------------------------------------|-------------------------------|
| 38. ABA Hospital                   | Tarkwa, Western Region        |
| 39. Bibiani Government Hospital    | Bibiani, Western Region       |
| 40. St. John of God Hospital       | Sefwi Asafo, Western Region   |
| 41. St. Martins De Porres Hospital | Eikwe, Western Region         |
| 42. Central Regional Hospital      | Cape Coast, Central Region    |
| 43. St Xavier Catholic Hospital    | Assin Fosu, Central Region    |
| 44. Bolgatanga Regional Hospital   | Bolgatanga, Upper East Region |
| 45. Bawku Presbyterian Hospital    | Bawku, Upper East Region      |
| 46. Wa Regional Hospital           | Wa, Upper West Region         |

**ANNEX III: Measurable Indicators and Targets for TB/HIV Collaborative Activities**

OBJECTIVE	INDICATOR	2006 Target	2007 Target	2008 Target	2009 Target	2010 Target	Freq <sup>16</sup>	Resp. <sup>17</sup>	Measurement Tools
Prevention of TB in PLWHIV	Number of health care &/or congregate settings implementing TB inf. control policy	54	124	234	404	580	1/yr	NTP	Facility review check list
Prevention of HIV in TB Patients	Number (and %) of TB patients receiving HIV counselling and testing	2000 (15%)	4000 (35%)	8000 (65%)	9000 (75%)	10000 (90%)	4/yr	NTP	Modified TB Register
Prevention of HIV in TB Patients	Number of registered TB patients at collaborating sites who are tested and are HIV+	300	640	1090	1360	1625	1/yr	NTP NACP	Modified TB Register Sentinel Survey Special survey
Intensified TB Case Finding in PLWHIV	Number of new TB cases found by screening pts. receiving HIV treatment/care services	600	1500	2905	3625	4575	4/yr	NACP NTP	Mod. HAART Cent. Reg. CT Register Modified TB Register
Intensified TB Case Findings in PLWHIV	Number (cumulative) of pts receiving HIV treatment /care services who were screened for TB symptoms <sup>18</sup>	5,000	12,000 (17,000)	22,500 (40,500)	29,500 (70,000)	36,500 (106,500)	4/yr	NACP	Mod. HAART Cent. Reg. CT Register
Prevention of OIs in PLWHIV with TB	Proportion of HIV+ TB pts who receive CPT during TB treatment	50%	80%	90%	95%	95%	4/yr	NTP	Modified TB Register
HIV Care & Support for TB/HIV pts	TB treatment success rate among TB/HIV pts.	50%	60%	70%	75%	75%	4/yr	NTP	Modified TB Register
HIV Care & Support for TB/HIV pts	Number of HIV+ TB patients referred to HIV care/ support services during TB treatment	320	640	990	1630	1920	4/yr	NTP	Modified TB Register
Provision of HAART for TB Patients	Number and proportion of HIV+ TB pts on HAART during or at end of TB treatment	320	640	990	1,630	1,920	4/yr	NACP NTP	Modified HAART Centre Register TB register

<sup>16</sup> Freq. = Measurement frequency, where 1/yr signifies annually, 4/yr signifies quarterly

<sup>17</sup> Resp. = Responsible party

<sup>18</sup> Patients being treated with HAART are screened every year for TB. The number of patients screened is reported annually (cumulative totals in parentheses).

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