



IMPLEMENTATION OF TB/HIV COLLABORATIVE ACTIVITIES IN GHANA

JOINT PROGRAMME PLANNING POLICY AND GUIDELINES

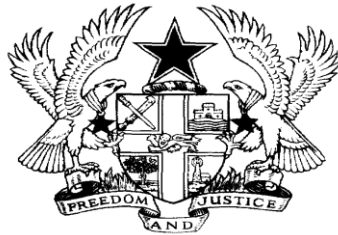


March 2014

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List of Abbreviations

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
CSOs	Civil Society Organizations
CD4	T Lymphocyte Cluster of Differentiation 4
CPT	Co-trimoxazole Preventive Therapy
CTX	Co-trimoxazole
CXR	Chest X-Ray
DOT	Directly Observed Therapy
DOTS	Directly Observed Therapy, Short Course
DCD	Disease Control and Prevention Department
DTHCC	District TB/HIV Collaborative Committees
EHP	Essential Health Package
eMTCT	Elimination of Mother-to-Child Transmission of HIV
FTHCC	Facility TB/HIV Collaborative Committees
GAC	Ghana AIDS Commission
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
HIV	Human Immunodeficiency Virus
HRD	Human Resource Development
HSS	HIV Sentinel Survey
HTC	HIV Testing and Counselling
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
NMIMR	Noguchi Memorial Institute for Medical Research
NTHCC	National TB/HIV Collaborative Committees
NTP	National TB Control Programme
OIs	Opportunistic Infections
OPD	Out Patients Department
OR	Operational Research
PLHIV	People Living With HIV
PPM-DOTS	Public- And Private-Mix DOTS
PPP	Public Private Partnership
RTACP	Regional TB/HIV Coordinating Partnership
STIs	Sexually Transmitted Infections
SWAp	Sector Wide Approach
TB	Tuberculosis
THs	Teaching Hospitals
TST	Tuberculin Skin Test
UV	Ultra Violet Light
WHO	World Health Organization

Foreword to Second Edition

This is the revised joint planning document for NTP, NACP and other stakeholders since the first edition in 2007. The consultative process in the development of the second edition is consistent with the previous edition and is highly commendable. The document is a good source of reference material and can be used as standard operating procedures (SOP) for TB/HIV collaborative activities.

It serves to jointly define the gaps and specific objectives the two programmes must work towards to achieve.

This TB/HIV collaborative effort is expected to consolidate the gains already achieved and to further reduce the burden of morbidity and mortality of both diseases.

Significant strides have been made in the national response against this dual epidemic. It is now easier to diagnose TB in PLHIV using newer technologies. Over 70% of TB patients receive HIV testing and all PLHIV receive TB screening as part of routine care. The National Tuberculosis Control Programme (NTP) has built a nationwide system that permits Ghanaians infected with TB to access the most effective, proven diagnostic tests and treatments. The National AIDS/STI Control Programme (NACP) has expanded its reach to district level of health delivery providing antiretroviral therapy (ART) to 175 ART sites in 118 districts of the country.

These revised technical and policy guidelines lay out a detailed strategy for moving forward further collaboration between the NTP and NACP at the district, regional, and national levels. This joint planning and implementation document delineates the responsibilities of health care workers in the collaboration. 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 successful implementation of this TB/HIV collaboration would ensure achievement of the ultimate goal of decreasing the burden of TB and HIV in persons infected and affected in Ghana. This is a coordinated response to the dual epidemic. The purpose 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.

‘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*

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1. Introduction

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. This has prompted a coordinated national response to reduce and control both infections.

Further to this, the National HIV/AIDS Control Programme (NACP) and the National TB Control Programme (NTP) continue to collaborate to ensure an effective response to the dual epidemic. This revised policy and guidance document seeks to build upon lessons learned so far and consolidate the progress made in implementation of key TB/HIV strategies and interventions since the inception of the collaboration.

TB/HIV Co-infection: The Current response

HIV in Ghana

The HIV prevalence in Ghana has experienced a sustained decline over the past decade and is currently stabilizing. Despite the generalised nature of the epidemic there are pockets of high prevalence among key populations. The HIV Sentinel Survey (HSS) 2013 reports a national HIV prevalence of 1.30%. An estimated 224,488 persons made up of 34,557 children (11.8%) are living with HIV and AIDS in Ghana. The number of new infections was 7,812¹. It is estimated that 11,682 will need eMTCT services. Number receiving ART as at December 2013 is approximately 70,000 with an average annual enrolment of 15,000 new persons onto ART care.

TB still remains the most important opportunistic infection among PLHIV in Ghana since the first case of HIV was reported in 1986 and ART care commenced in 2003 in the public health sector.²

TB in Ghana

The National TB Programme in Ghana was re-branded in 1994 following the declaration of TB as a global emergency by the World Health Organization (WHO) in 1993. Reported cases of Tuberculosis in Ghana have doubled since 1996 to 15,500 in 2013. Likewise, proportions of patients successfully treated (treatment success rate) has increased to 86%. Deaths have however remained at 8% and less than 3% of all clients default from treatment. The TB epidemic in Ghana is generalised. Further analysis shows the epidemic occurring in all age groups but that older aged males (45-74) bear the biggest brunt of the disease burden.³

Preliminary data from the National Tuberculosis Prevalence Survey 2013 estimates about

¹ NACP/GHS. HIV Sentinel Survey Report 2013. Accra, 2014

² HIV in Ghana. Epidemiological and Impact Analysis 2014. Ghana Health Service and Ghana AIDS Commission, July 2014.

³ The National Tuberculosis Health Sector Strategic Plan for Ghana 2015-2020. Ghana Health Service, 2014

286 TB patients (all forms) per 100,000 population with sputum smear positive TB at about 139 per 100,000 population.^{3,4}

TB/HIV Co-Infection in Ghana

A baseline study of HIV among TB patients revealed a co-infection rate of 14.7%.⁵ In the last six years, following implementation of the first guidelines, there has been an improvement in TB case detection and management among PLHIV in Ghana. In 2012, 51,061 PLHIV on ART were screened for TB and whereas in 2013, 45,217 were screened for TB. (NACP Annual Report 2013) In 2013, 2,740 TB patients were diagnosed with HIV of which 37% (1,003) received ARVs (NTP Annual Report, 2013). An AIDS-impact model projects an additional 30,000 new TB cases in Ghana attributable to HIV/AIDS annually by the year 2015.

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.^{6,7,8,9}

Health Sector Response

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. The Ghana AIDS Commission was established by an act of Parliament (Act 613) in 2002 to co-ordinate the decentralised response to HIV/AIDS, 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 national response is guided by the HIV/AIDS Strategic Plan for the Health Sector 2011-2015.

The implementation of the National Strategic Plan has been a joint effort by the GAC, MOH, development partners and relevant stakeholders at all levels with a greater

⁴ Epidemiological Situation of TB in Ghana. Management Science for Health and Ghana Ministry of Health, 2014

⁵ Nationwide Survey of TB/HIV Infection in Ghana.

⁶ National TB Control Programme Annual Report 2013

⁷ 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.

⁸ 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.

⁹ 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.

involvement and participation of persons living with HIV.

In 2003, Ghana began the process of delivering ART to all eligible HIV-positive clients at 4 public health facilities. Subsequently, ART delivery has expanded to 175 facilities as at the end of 2013. There are also 1,656 HTC/eMTCT sites (see Annex II). The costs of various HIV services are borne by the Government of Ghana with major funding support from the Global Fund for AIDS, TB and Malaria (GF) and other development partners.

Response to the TB Epidemic

Three strategic plans have been successfully implemented in response to the TB Epidemic from the period 1994-2013. The implementation was to address the neglected TB problem, make it visible, and build the necessary infrastructure, with the ultimate goal of reducing the TB burden.

With full time appointment of Programme Manager, Central level team was strengthened ensuring implementation of Programme plans through resource mobilisation, capacity building, supervision, protocols and guidelines development for programme implementation.

The general approach of implementation was systematic roll out of interventions initially targeted at high incident geographic populations and key affected populations. The first plans addressed TB quality issues in big cities of Accra and Kumasi from 2002 to 2006.

The second plan fundamentally focused on higher incident geographic regions and simultaneously addressed service quality in 60 districts while focussing on key affected Prisons population. (2006-2008) It also expanded to address quality issues including urban areas in 6 cities. The third plan expanded to cover 10 cities (regional capitals) and targeted the low incident regions.

Fundamentally therefore the infrastructure and systems to improve quality access to at least 70% of the population is in place.

Since the beginning of the implementation of the strategic plans the general collective efforts have been directed at:

1. Correcting quality deficiencies of DOTS implementation and integrating into public sector facilities countrywide
2. Expanding private sector participation
3. Implementing community based DOTS care.

The most recent strategic plan implementation (2009-2013) also focussed on setting the infrastructure to address the problem of TB/HIV and MDR-TB.

In all this the National TB Control programme provided leadership to implementing partners to undertake comprehensive multiple interventions in detail at National, Regional district, sub-district and community levels through coordinated approach.

Key interventions implemented are summarised below:

- Maintain quality standards of DOTS in all public sector facilities
- Engaging private sector providers in TB control
- Developing the capacities of the laboratories and health staff for drug resistant TB
- Streamlining drug procurement, distribution and logistics management
- Implementing community based TB care activities
- Implementing TB/HIV collaborative activities
- Implementing infection control interventions
- Support control of bovine tuberculosis
- Conduct relevant operations research for programme implementation
- Health system support and strengthened programme management at all levels
- Implementing ACSM activities for stigma reduction and treatment adherence

1.2.3 Response to the TB/HIV Dual Epidemic

Ghana has implemented a work plan of TB/HIV collaborative activities borne out of the joint planning document since 2007 with the main goal of taking advantage of the natural synergies of the two programmes. This national approach is consistent with current WHO recommendations on the need for collaboration in addressing TB/HIV.⁹

At the national level a focal person for joint TB/HIV collaboration was identified, and currently co-ordinates the collaborative activities across both programmes in addition to joint programmatic planning. At the regional level, co-ordination and supervision of clinical services for HIV and TB is undertaken jointly and is to be further enhanced by Clinical Care Units involvement.

Three models of TB/HIV integrated services are in place at various levels of the health care delivery system. Each model adopted in response to system needs and capacity. TB clients are screened for HIV at TB clinics and linked to care. PLHIVs are screened for TB at every visit and treated. Some levels provide one stop service delivery for TB/HIV, and the others make referrals between programmes. Systems of referrals are in place to remove bottlenecks for the patients and providers. Screening tools and algorithms are in place to facilitate this collaboration. Programme guidelines and training manuals reflect TB/HIV co-infection management. Therefore, joint resource mobilisation would further enhance the implementation of coordinated activities.

Gaps and Challenges

Identified gaps and challenges from implementing the earlier joint planning policy are identified in the End Term Comprehensive External Review Report TB, TB Epi Analysis

Report and HIV Epi Analysis Report. Below is a summary of these.

Figures 1 and 2 below show the outputs of collaboration for the period 2008 to 2013. The data indicates there were improvements in performance in this component of the program during successive years. The proportion of TB patients tested for HIV rose from 17% during the first year of introduction of TB/HIV activities to 77.8% in 2012 but declined to 72.7% in 2013 due to challenges with supply HIV test kits. In addition, the percentage of HIV positive persons with TB who were placed on ART increased from 13.9% in 2008 to 42.6% in 2013 while CPT uptake among HIV positive patients remained steady at around 70% during the past six years. In spite of these increases performance is below programme targets and important gaps for this plan still remain.

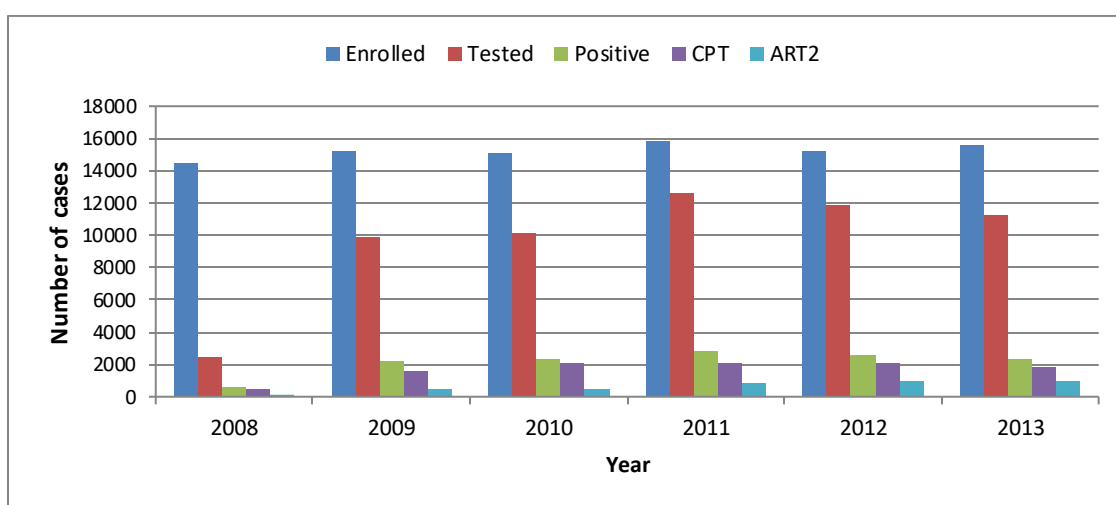


Figure 1: Trend of TB/HIV Service Coverage 2008-2013

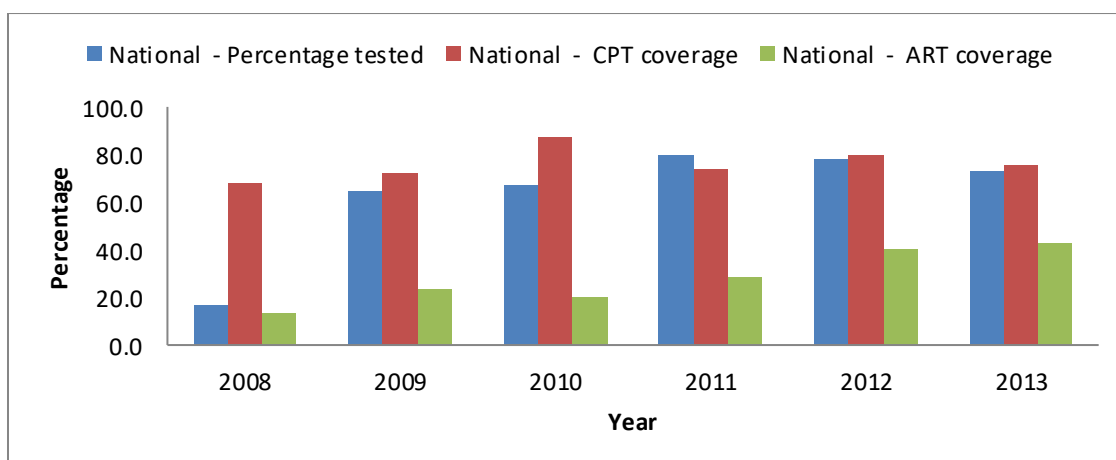


Figure 2: Percentage Coverage of TB/HIV Services 2008-2013

Further analysis of testing data for 2013 showed that there were regional variations in rates of uptakes for HIV testing (Figure 3). Four regions namely Central, Volta, Western, and Ashanti had rates that were lower than the national average.

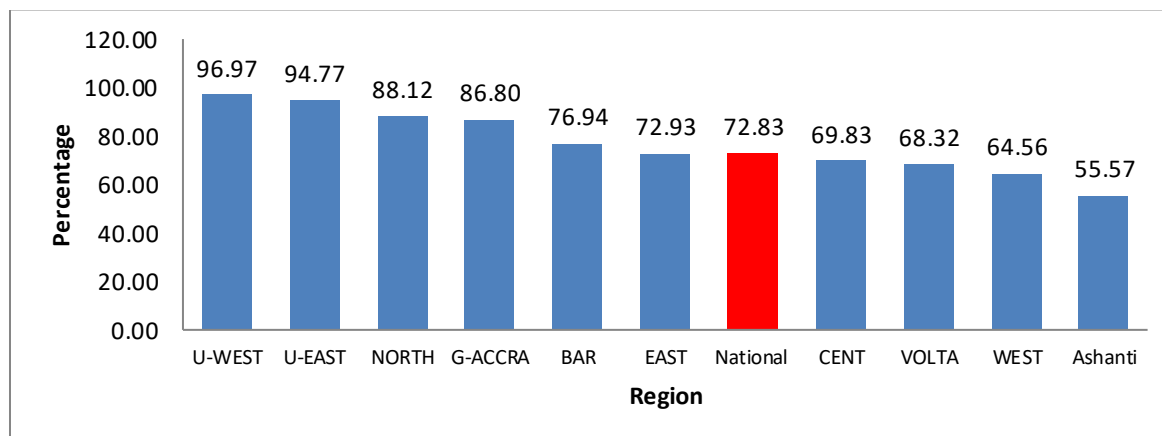


Figure 3: Percentage of newly registered patients with HIV test Result by Region, 2013

HIV Sero-prevalence: With regards to test results, HIV prevalence among TB patients varied in the different regions ranging from 33.4% in the Eastern Region to 9.4% in the Upper east. In all years, HIV sero-prevalence was consistently higher among women than in men. In addition data from 2013 showed variation in HIV sero-prevalence across the various regions and within districts in some regions

Implementation Challenges

Some implementation challenges are listed below.

Challenges at level of Programme Management

These are challenges at national and regional levels of programme implementation:

- Weak linkage/coordination between both programmes at all levels
- Weak linkages for care and incomplete integration of TB/HIV services
- Difficulty in diagnosing TB in HIV infection due to inadequate newer diagnostic tools
- Inadequate resource allocation for joint TB/HIV activities
- Non-collaborative engagement of Civil Society Organizations (CSOs)
- Paucity of research into TB/HIV co-infection

Challenges at Service delivery Levels

These are challenges at service delivery levels:

- Poor implementation of infection prevention and control practices

- High rate of lost to follow up amongst patients
- Poor linkages for care and weak integration of services
- Non harmonised tools for HIV/TB data collection
- Insufficient number of trained healthcare and support workers to treat co- infected patients
- Scarcity of well-established community systems for providing care and support services

2. Rationale and Purpose

Introduction

This Joint Programme Planning Policy and Guidelines document on implementing TB/HIV collaborative activities provides updates to the framework for implementation, cognisant of the gap analysis undertaken through HIV Epi Analysis, TB Epi Analysis and independent external evaluation of the TB/HIV collaborative activities led by WHO, USAID and other partners.

Rationale for TB/HIV Collaborative Activities

The rationale for collaborative activities on TB/HIV is recognition of the overlapping and synergistic effect of HIV and TB infections. TB is recognized as the most important opportunistic infection in HIV. TB increases morbidity and mortality in HIV clients speeding the progression of HIV infection to clinical AIDS. HIV also increases the incidence of TB. Collaborative activities increase efficiencies and eliminate overlaps, helping to reduce national health care costs.

Purpose of the National TB/HIV Policy

The purpose of this policy, therefore, is to delineate the roles and responsibilities of NTP, NACP, development partners and all stakeholders at all levels of the health system. It is also to provide guidance on collaborative TB/HIV activities being 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 and Strategic Framework

Policy Goal

The goal of TB/HIV collaboration is to decrease the dual burden of TB and HIV in co-infected persons and affected in Ghana.

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 by 2020:

- To reduce death rates of TB/HIV co-infected cases from 20% in 2012 to 10% by 2020 and uptake of ART coverage among co-infected from 37% in 2013 to 90% by 2020
- To increase the percentage of HIV-positive patients who were screened for TB in HIV care or treatment settings from 20% in 2013 to 90% by 2020.
- To address the infection control challenges of TB/HIV and MDR-TB/HIV

Strategic Framework

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

- Effective implementation of the post 2015 national strategic plan for TB control [NTP has primary responsibility] The National Tuberculosis Health Sector Strategic Plan for Ghana 2015-2020.
- Effective implementation of priority investment case comprehensive package of HIV prevention, treatment care and support interventions [NACP has primary responsibility] National HIV and AIDS Strategic Plan 2011-2015 and beyond.
- Implementation of collaborative TB/HIV activities and integrated services [Joint responsibility of NTP and NACP]

4. Policy on Collaborative TB/HIV Activities

These interventions shall be carried out as part of the health sector response to the intersecting TB and HIV epidemics, and as part of the essential health care package (EHP) in Ghana. These interventions, as shown below, adapted from WHO Policy on Collaborative TB/HIV Activities (2012) document would guide the process.

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

Goal I: Establish and strengthen the mechanisms for delivering integrated TB and HIV services
A.1. Set up and strengthen a coordinating body for collaborative TB/HIV activities functional at all levels
A.2. Maintain partnerships between communities, civil society organisations and private sector
A.3. Determine HIV prevalence among TB patients and TB prevalence among people living with HIV
A.4. Carry out joint TB/HIV planning to integrate the delivery of TB and HIV services
A.5. Monitor and evaluate collaborative TB/HIV activities
Goal II: Reduce the burden of TB in people living with HIV and initiate early antiretroviral therapy (the <i>Three I's</i> for TB/HIV)
B.1. Intensify TB case-finding and ensure high quality tuberculosis treatment
B.2. Initiate TB prevention with Isoniazid preventive therapy and early antiretroviral therapy
B.3. Ensure control of TB Infection in health-care facilities and congregate settings
Goal III: Reduce the burden of HIV in patients with presumptive and diagnosed TB
C.1. Provide HIV testing and counselling to patients with presumptive and diagnosed TB
C.2. Provide HIV prevention interventions for patients with presumptive and diagnosed TB
C.3. Provide co-trimoxazole preventive therapy for TB patients living with HIV
C.4. Ensure HIV prevention interventions, treatment and care for TB patients living with HIV
C.5. Provide antiretroviral therapy for TB patients living with HIV

4.1 Establish and strengthen the mechanisms for delivering integrated TB and HIV services

Weak health care systems and limited capacities to deliver health services are constraints to implementing TB/HIV collaborative activities. Joint NTP & NACP planning shall take place at all levels and shall be coordinated by a joint planning committee & Disease Control and Prevention Department (DCD) of Ghana Health Service (GHS). TB/HIV collaborative activities shall then be integrated into existing activities of NTP and NACP. This shall facilitate a “one stop shop” approach, the ultimate vision in providing TB/HIV services. Regardless of programme specific supervision, which shall include TB or HIV related activities, joint NTP & NACP planning, supervision, monitoring and evaluation activities of TB/HIV shall be encouraged or institutionalised. This update recognises 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 shall be promoted under the technical coordination and supervision of the Disease Control and Prevention Department. Capacities for laboratories and monitoring & evaluation shall be further developed to facilitate implementation of TB/HIV collaborative activities.

All health care providers shall 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

A *TB/HIV focal person* shall be appointed in both programmes to be responsible for the day to day running of programme implementation and oversight of TB/HIV collaborative activities through that programme. Procedures for seeking technical assistance shall follow programme and Ghana Health Service guidelines.

Coordination of TB/HIV activities shall be performed by the following collaborative committees:

1. National TB/HIV Collaborative Committees (NTHCC)
2. Regional TB/HIV Collaborative Committees (RTHCC)
3. District TB/HIV Collaborative Committees (DTHCC)
4. Facility TB/HIV Collaborative Committees (FTHCC)

These bodies shall be formed based on the structures already in existence at each level and shall not be separate or new structures. These shall 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 at their level. (See Annex I for a summary of the activities and implementing partners responsible.)

The National TB/HIV Collaborative Committees (NTHCC) shall consist of key players from NTP, NACP and relevant stakeholders. The NTHCC 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 collaborative committees (RTHCCs and DTHCCs) shall comprise members of the regional and district health management teams, respectively, a focal person for TB/HIV collaboration (either the TB or HIV Coordinator), CSOs and other partners. The RTHCCs and DTHCCs shall ensure that national policy on TB/HIV collaboration is implemented and feedback is provided to the national programmes & DCD in a timely manner using existing and improved reporting 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.

The collaborative committees shall monitor and advocate for the following:

- Joint capacity building for TB/HIV activities, including joint training of health care workers in TB and 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.
- Creation of at least one “5-star Medical Doctor” or Practitioner at every facility.^{10 10}

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 collaborative 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.

¹⁰ “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 Se

- 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) and CSOs. As much as possible, both the NTP and NACP shall ensure that organizations already working in 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 supported by the NTP and NACP programmes.

4.1.2.2 Resource Mobilization and Deployment

In the areas of resource mobilization and development, the collaborative 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 shall 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 collaborative committees. To combat both diseases effectively, strong advocacy to counter stigmatization and discrimination is needed. To these ends, the following activities shall 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 shall be produced and distributed to all DOTS and comprehensive HIV care support centres in the country. Staff at these centres shall 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

4.1.2.5 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 and laboratory external quality assurance
- Drug, equipment and health commodity procurement and management capacities
- Infrastructure/facilities for DOTS and ART centres
- Improved partnerships and linkages
- Strengthen capacity of existing DOTS centres to provide ART services and ART centres to provide DOTS

4.1.2.6 Strengthening Programme Management at All Levels

The DCD, NTP, NACP, and the collaborative 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, infection control, 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

4.1.2.7 Models of integrated TB and HIV service delivery

A systematic approach towards integrated TB/HIV care shall be undertaken throughout the country. Integration would primarily be at the level of service implementation/service provision. The extent of integration shall 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 “ART centres” and “DOTS corners” might refer in the first instance to HIV and TB clinics which are set up separately (stand-alone clinics or as part of OPD). In the second instance, they might refer to a section / unit in the OPD where both TB and HIV patients are seen.

A patient-centred approach to the care of the TB/HIV patient shall be established. The district and facility collaborative committees shall place priority on establishing strong links among the different service providers (TB, HIV, family planning, eMTCT, 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 shall be put into place. As far as possible each patient shall be provided basic, integrated TB/HIV services at his or her entry point – whether that entry point is a DOTS corner, ART centre, or a combined centre. The basic set of integrated TB/HIV services to be offered shall cover prevention, care and support, and shall consist of:

- Routine offer of HIV testing and counselling (provider-initiated)
- 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
- Contacts and partner tracing
- Nutritional assessment, counselling and support (NACS)
- Family planning and support
- Psycho-social support
- Referral to community TB/HIV services
- Assessment and referral of co-infected individuals for the consideration of ART at the nearest ART centre.

Referrals to community TB/HIV services shall aim to ensure the use of treatment supporters such as the Models of Hope who are drawn from PLHIV groups and CSOs. These individuals shall support patients to improve their treatment adherence and community-based DOTS. A strong two-way referral system shall be set up between health services and the community including the private sector and special areas such as prisons and refugee camps, schools and the workplace.

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

4.1.3 Building Partnerships with Communities, PLHIV, CSOs, and the Private Sector

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

- The NTP and NACP already have linkages with local communities and CSOs. These linkages shall be reinforced and modified to include TB/HIV collaborative activities.
- Communities affected by TB and HIV shall 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 CSOs 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.

4.1.4 Determine HIV prevalence among TB patients and TB prevalence among people living with HIV

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

Surveillance activities shall 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 PLHIV
- Measure the magnitude of the effect of HIV on the TB epidemic
- Monitor the success of collaborative TB/HIV activities and identify areas where improvement is needed
- Provide evidence for advocacy efforts, including mobilization of partners and resources

A variety of methods shall be used for TB/HIV surveillance as appropriate, including routine surveillance 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 shall be established by a one-time special survey, using representative sampling methods according to international

guidelines.¹¹

- Routine surveillance shall be performed systematically and regularly using the joint recording and reporting tools provided by the two programmes. The objective shall be to counsel and test more than 90% of TB patients.

4.1.5 Monitoring and Evaluation (M&E)

Optimum use must be made of limited human and financial resources. To this end, NTP and NACP shall 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, shall 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 shall be used¹².
- As much as possible, reporting on indicators shall be harmonised by both programmes.
- The programmes shall review indicator results half-yearly and make the necessary programme redirection.
- Dissemination and feedback of data monitoring and evaluation reports to regional and district levels shall be done by the M&E focal point for each programme at all levels. Data shall also be presented at annual programme review meetings.
- Each level (national, regional and district) shall be encouraged to use its own information and to undertake its own monitoring activities.
- Periodic external programme monitoring and evaluation shall be done by contracting out to public health specialists, national and international consultants.
- The overall responsibility for monitoring and evaluation of the collaboration rests with the respective programmes.

¹¹ WHO. Guidelines for HIV surveillance among tuberculosis patients, Geneva 2004 (WHO/HTM/TB/2004.339).

¹² WHO. A guide to monitoring and evaluation for collaborative TB/HIV activities. Geneva 2003

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

4.2.1 Prevention of TB Infection in PLHIV

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

4.2.1.1 Active Contact Tracing for PLHIV with TB

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

- All PLHIV (whether they have TB or not) shall have home visits for TB screening of household contacts using a simple symptom questionnaire and anyone presumed to have TB referred for sputum smear microscopy as per NTP guidelines and procedures.
- Health facilities shall liaise with CSOs to undertake contact tracing.

4.2.1.2 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 PLHIV shall receive health education on TB.
- Using a simple symptom questionnaire, every HIV testing and counselling (HTC) centre¹³ and every ART centre shall screen all of their attending clients for TB, including all PLHIV who are not on TB treatment. Note that all HIV testing and counselling (HTC) centre clients shall be screened for TB, not just those who are HIV positive. This approach shall ensure the necessary synergism between NACP and NTP in decreasing the TB burden in Ghana. Counsellors shall be trained to administer the screening questionnaires, which shall be made available to all centres.
- PLHIV attending clinics shall be routinely counselled and screened for TB to include clinical symptom and signs, sputum smear microscopy and Chest X-ray (CXR) on initial visit and at least yearly thereafter. Among HIV patients a CXR shall be requested early in the investigation of TB.
- Any PLHIV in whom TB is suspected should be tested using rapid diagnostic tests (Xpert MTB Rif, Line Probe Assay) for *Mycobacterium tuberculosis* and drug susceptibility for confirmation. Any health staff or trained counsellor shall be able to make this request.
- All PLHIV testing positive for *Mycobacterium tuberculosis* and susceptible to first line

¹³ Counselling and Testing centres include: Voluntary Counselling and testing (stand alone or health facility based), PMTCT Centres, and Diagnostic Counselling Centres.

medicines shall be treated according to NTP guidelines (See NTP Manual). TB diagnosis is made by a trained health worker using national guidelines.

- All PLHIV with Rifampicin Resistant result on rapid tests (Xpert MTB Rif, Line Probe Assay) shall be prepared for second line treatment whilst awaiting full culture and DST results. They shall be treated according to national guidelines for drug resistant TB if confirmed.
- Operational research (OR) would be conducted to investigate all areas of TB/HIV collaborative activities implementation.
- There shall be strong linkages between HTC and ART centres, on the one hand, with DOTS diagnostic and treatment centres, on the other. The NACP shall ensure that all HTC centres are linked with TB DOTS centres (one-stop-shop).

4.2.2 TB Prevention with Isoniazid Preventive Therapy (IPT)

Use of isoniazid preventive therapy (IPT) 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 of IPT in Ghana would be considered.

However the use of IPT in TB prevention is supported in specialised cases where patients are supervised to go through and complete treatment. These include children under 5 years who are exposed to people with active TB and persons with immunosuppression as a result of chemotherapy, prolonged steroid use and persons on renal replacement therapy.

Prior to initiating IPT it is very important to rule out active TB disease using molecular diagnostic tools such as Xpert MTB Rif or Line Probe Assay (LPA).

When IPT is indicated, patients shall receive a dose of 10mg/kg body weight and treatment duration shall be for a minimum of 6 months.

4.2.3 TB Infection control in all health facilities and congregate settings

TB transmission is common in all facilities and places where people congregate for various reasons such as prisons, workplaces, churches, boarding houses, institutions of care such as orphanages, psychiatric hospitals etc.

- All health facilities, at all levels, and all prisons (in addition to other congregate settings as indicated) shall ensure TB infection control for PLHIV and their health staff by following the National Infection Prevention and Control Policy and Standard Operating Procedures for TB and Airborne Infection Prevention and Control in Ghana.
- Mandatory medical examinations, including chest x-ray (CXR) and sputum smear microscopy (SSM) of all staff at DOTS and ART centres shall be conducted at the

beginning of employment and yearly thereafter to exclude TB in health staff.

- Each health care and congregate setting shall have an Airborne/TB Infection Prevention and Control plan integrated into a general infection prevention and control plan of the facility supported by all stakeholders.
- The infection control plan shall have managerial, administrative, environmental and personal protection measures to reduce transmission of TB and HIV in these settings.
- All facilities shall set up a system of TB and HIV disease surveillance among health care workers. Health workers who are diagnosed with TB disease shall have drug sensitivity testing (DST) to confirm disease state and get the best of care.
- Health care workers shall be offered the opportunity for TB and HIV testing annually.
- Persons testing positive for either or both shall be offered supportive counselling and treatment.
- Health care workers who are living with HIV shall be offered an opportunity for transfer to work in clinical sites that have the least risk of TB transmission.

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 Testing and Counselling to all TB clients

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

- All DOTS centre staff shall know the links between TB and HIV and routinely discuss and offer HIV testing and counselling (HTC) to all TB patients.
- Information, education, and communication (IEC) materials covering HIV and TB, their linkages, and their prevention shall be produced and distributed to all DOTS and ART centres in the country.
- All presumed TB patients who attend DOTS centres shall be routinely offered HIV testing and counselling (HTC). In other words, HIV testing and counselling is not only for proven TB patients. HTC shall be done at the beginning and end of DOTS i.e. at month 0 and month 6.
- HIV testing and counselling shall 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 shall have a pool of trained health staff that shall perform most of the different types of counselling (HIV, TB, Nutrition, adherence and psychosocial counselling).

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

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

4.3.1.3 STI Screening and Treatment at DOTS Centres

- STI screening and syndromic management shall be provided for all TB patients in accordance with national guidelines at all DOTS centres.
- All DOTS centres shall 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 shall 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 clients shall have early access to ART by referral to ART centres. Facilities shall work towards provision of integrated care. As previously stated, a strong link with TB DOTS centres shall be established in localities where DOTS and ART centres are not at the same site. At the district hospital level HIV and TB prevention and care shall be provided in a setting of great overlap amongst healthcare workers and facilities. There shall be the need to build capacity for regional referral clinicians to initiate ART in DOTS centres, in line with the policy of the “one stop shop” approach.

The following additional guidelines shall apply:

- The initiation of ART in TB patients shall follow the eligibility criteria for initiation of ART in the national ART guidelines. To this end, all TB/HIV co-infected clients shall have CD4 count determined soon after determination of HIV status.
- The choice of ART drug regimen shall follow current national guidelines.
- All health workers trained to administer ARVs are eligible to initiate and supervise ARV care be they clinicians or task shifting officers.
- Extreme care shall be weighed in the initiation of ART during the first trimester of pregnancy, with careful weighing of the potential risks and benefits. All considerations shall be discussed with the expectant couple (or at least with the woman) so that they / she may make an informed decision.
- All pregnant women co-infected with TB/HIV shall be entered into the eMTCT programme as early as possible.
- The timing of the addition of ART to anti-TB treatment shall follow national guidelines. To ensure TB/HIV integrated prevention and care, the capacity of existing DOTS centres will be built to offer ART.
- Data shall be recorded using the newly revised TB register at DOTS/ART centres. Where DOTS and ART centres are separate, strong linkages will be established.
- There shall be collaborative meetings to ensure effective data management and client monitoring.

4.4.1 HIV Care and Support During and After TB Treatment

All HIV positive TB patients should have access to comprehensive health care. This includes clinical management (prophylaxis, early diagnosis, treatment, management of co-morbidities and follow-up care for opportunistic infections); nursing care including nutritional support; palliative care; home-based 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 shall be provided as the basic package of care at all health facilities (DOTS centres included). If there is a separate ART centre, then a strong cross referral system should be put in place to ensure continuity and coordination of patient care.

4.4.2 Prevention of Opportunistic Infections in TB/HIV Patients

Co-trimoxazole preventive therapy (CPT) shall be provided to all TB/HIV patients during TB treatment, unless contraindicated (e.g. G6PD deficiency) and should be given according to national guidelines. Co-trimoxazole shall be budgeted for and provided by the two programmes through joint planning and shall be administered to patients by the DOTS staff during TB treatment. It shall be administered by the ART staff after TB treatment is complete.

Data on CPT during TB treatment should be recorded on the client card and TB patient's register and at the ART centres.

5. Monitoring and Evaluation

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 shall 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 shall be made to ensure that double counting of cases does not occur.

The TB/HIV register shall be used to collect data relating to TB/HIV case finding. The present forms and data recording tools for the two programmes shall be modified to capture the joint TB/HIV data.

5.1.1 Recording and Reporting on TB/HIV Patients at the DOTS Centre

Health staff at the DOTS centres are responsible for initiating, maintaining and completing *TB Treatment Cards* (TB 01) on all confirmed TB patients (i.e., started on therapy) and recording TB/HIV collaborative activities. TB Treatment Cards have 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 ART

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

- The facility TB Register shall be completed by the designated ART/DOTS Centre staff.
- A Patient Identity Card shall be issued to each patient, and carried by the patient to all appointments. This card contains pertinent clinical information including drug regimen, OPD and ART folder numbers and next appointment date.
- A Treatment Supporter Record Card shall be used by each treatment supporter (facility or community-based) to record each DOT episode.
- Validated data shall be entered into the District Health Information Management System II (DHIMS2) by the facility TB/HIV co-ordinator.

5.1.2 Recording and Reporting on TB/HIV Patients at the ART Centre

Health staff at the ART centres are responsible for initiating and maintaining HIV/AIDS clinical care programme records on all patients receiving care and treatment for HIV/AIDS. They are also responsible for recording TB/HIV collaborative activities. HIV care documents have been modified to capture TB/HIV collaborative activities. These are:

- Date and results of TB screening
- TB diagnosis confirmed and date
- Date of initiation of TB treatment
- TB treatment monitoring
- TB treatment completion
- Start date of co-trimoxazole preventative therapy (CPT)

Where ART centres provide TB treatment, the ART Centre trained health care staff shall ensure that a *TB Treatment Card* for each TB/HIV co-infected patient started on TB therapy at that centre is maintained. The trained health staff shall 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 shall report the following data to the NACP:

- Number and percentage of TB patients counselled for HIV
- Number and percentage of TB patients tested for HIV
- Number and percentage of TB patients testing positive for HIV
- Number and percentage of TB/HIV co-infected who started CPT
- Number and percentage of TB/HIV co-infected who started ART
- Number and percentage of DR-TB/HIV co-infected who are HIV positive
- Number and percentage of DR-TB/HIV on DR-TB treatment & ART

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

- Number and percentage of PLHIV screened for TB
- Number and percentage of PLHIV diagnosed with TB
- Number and percentage of PLHIV with bacteriologically confirmed TB
- Number and percentage of PLHIV started on TB treatment
- Number and percentage of PLHIV on ART care who started TB treatment
- Number and percentage of PLHIV who completed TB treatment and/or were cured.
- Number and percentage of PLHIV diagnosed with DR-TB
- Number and percentage of PLHIV on ART and DR-TB treatment

5.2 Programme Review Meetings

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

- The programme review meetings shall 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 shall involve both TB and HIV programme staff (if they are different) and shall review both programmes and their collaborative activities.
- An annual joint review meeting shall be held at national level where comparison of results of both programmes shall provide a good context for evaluation.
- The review meeting shall present and discuss uniform and quality data without duplication.
- Analysis of data shall be done at all levels during the review meeting and this shall lead to a plan of action to remedy any programme deficiency.
- Active two-way communication (feedback) between the different levels shall be maintained.

5.3 Measurable Indicators and Tables

Effective monitoring and evaluation of Ghana's progress in controlling the dual TB/HIV 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. Below is the list of key measurable indicators for TB/HIV collaborative activities in Ghana:

- Number of health care &/or congregate settings implementing minimum requirement for TB infection control policy
- Number of children under 5 who received IPT
- Number (%) of TB patients receiving
- HIV testing & counselling
- Number (%) of TB patients who tested HIV+
- Number of new TB cases found among PLHIV receiving HIV treatment/care services
- Proportion of HIV+ TB patients who receive CPT during TB treatment
- TB treatment success rate among TB/HIV patients.
- Number (%) of ART centres providing DOTS
- Number (%) of DOTS centres providing ART services
- Number and proportion of HIV+ TB patients
- Initiated on ART during TB treatment

6. Conclusion

The Government of Ghana is committed to controlling and reversing the dual epidemic of TB/HIV which currently affects our society. Whereas TB is curable, HIV is treatable and managed as a chronic disease. This TB/HIV collaborative effort is expected to further reduce the burden of morbidity and mortality of both diseases.

Significant strides have been made in the national response against this dual epidemic. It is now easier to diagnose TB in PLHIV using newer technologies. Over 70% of TB patients receive HIV testing and all of PLHIV receive TB screening as part of routine care. The National Tuberculosis Control Programme (NTP) has built a nationwide system that permits Ghanaians infected with TB to access the most effective, proven diagnostic tests and treatments. The National AIDS/STI Control Programme (NACP) has expanded its reach to district level of health delivery providing antiretroviral therapy (ART) to 175 ART sites in 118 districts of the country.

To move forward lessons learnt from current implementation would foster stronger collaboration between both programmes. Joint planning and implementation of collaborative activities would promote better outcomes for the country.

These revised technical and policy guidelines lay out a detailed strategy for moving forward further collaboration between the NTP and NACP at the district, regional, and national levels. This joint planning and implementation document delineates the responsibilities of health care workers in the collaboration. 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 successful implementation of this TB/HIV collaboration would ensure achievement of the ultimate goal of decreasing the burden of TB and HIV in persons infected and affected in Ghana.

'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

Annex I

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

TB/HIV ACTIVITY	Responsible Party
<ul style="list-style-type: none"> Meetings (National, Regional, District and Health Facility levels) 	NTP/NACP, GAC & relevant stakeholders
<ul style="list-style-type: none"> Setting up District TB/HIV collaborative committees 	NTP/NACP & relevant Stakeholders
<ul style="list-style-type: none"> Production and distribution of tools for collaboration (Including TB/HIV clinical manual; generic terms of reference for district TB/HIV collaborative committees; guidelines for prioritized TB/HIV activities; training manuals and modules; IEC materials; and monitoring & evaluation tools) 	NTP/NACP & relevant Stakeholders
<ul style="list-style-type: none"> Training of Regional, District and Health Facility Coordinators for TB/HIV collaborative activities 	NTP/NACP
Provision of HIV testing and counselling to all TB patients	
<ul style="list-style-type: none"> Train DOTS centre staff on links between TB and HIV and importance of routinely discussing HIV with all TB patients. 	NACP/NTP
<ul style="list-style-type: none"> Conduct refresher training for DOTS centre staff 	NACP/NTP
<ul style="list-style-type: none"> Establish HTC services at DOTS centres. Where HTC centres exist, establish/strengthen links with nearest DOTS centre 	NACP/NTP
<ul style="list-style-type: none"> Refurbish DOTS centres to improve patient privacy 	NTP
<ul style="list-style-type: none"> Develop IEC strategy with clear messages addressing the TB/HIV link and promoting HTC 	NACP/NTP & relevant stakeholders
<ul style="list-style-type: none"> Procure HIV test kits & other commodities, distribute to DOTS centre 	MOH/GHS
<ul style="list-style-type: none"> Train health staff on HIV testing 	NACP
<ul style="list-style-type: none"> Conduct refresher training on HIV testing for laboratory staff 	NACP
<ul style="list-style-type: none"> Provide materials promoting safer sex practices and condom use for distribution at DOTS centre 	NACP/FHD
<ul style="list-style-type: none"> Train DOTS centre staff to promote safe sex and discuss sexual issues with patients 	NACP/FHD
<ul style="list-style-type: none"> Supply condoms for distribution to DOTS centres 	FHD/NACP & relevant stakeholders
STI screening and treatment at DOTS centres	
<ul style="list-style-type: none"> Train DOTS centre staff on implementation of national guidelines for the syndromic management of STIs. 	NACP
<ul style="list-style-type: none"> Provide STI materials and guidelines to DOTS centres 	NACP
<ul style="list-style-type: none"> Train treatment centre staff on HIV surveillance 	NACP
<ul style="list-style-type: none"> Conduct HIV refresher courses for previously trained staff 	NACP
<ul style="list-style-type: none"> Produce and distribute TB registers capturing HIV status 	NACP/NTP

TB/HIV ACTIVITY	Responsible Party
<ul style="list-style-type: none"> Conduct refresher course for trained lab personnel regarding HIV surveillance 	NACP
<ul style="list-style-type: none"> Procure and distribute reagents for HIV testing 	MOH/GHS
<ul style="list-style-type: none"> Conduct population based survey of HIV in TB clients 	NACP/NTP
Active contact tracing for TB among contacts of TB/HIV co-infected clients	
<ul style="list-style-type: none"> Train community/treatment supporters 	NTP
<ul style="list-style-type: none"> Conduct refresher training for community/treatment supporters 	NTP
<ul style="list-style-type: none"> Produce and distribute TB screening tool and referral forms 	NTP
<ul style="list-style-type: none"> Support community/treatment supporters to visit homes 	NTP/NACP & CSOs
<ul style="list-style-type: none"> Ensure that TB & HIV/AIDS service providers give technical supervision and support to the community/treatment supporters 	NTP/NACP & CSOs
<ul style="list-style-type: none"> Arrange for regular meetings and supervision of community/treatment supporters 	NTP/NACP & relevant stakeholders
<ul style="list-style-type: none"> Produce and distribute infection control plan and guidelines 	NTP/ICD/OEHP
<ul style="list-style-type: none"> Train health care workers on infection prevention and control 	NTP/ICD/OEHP
<ul style="list-style-type: none"> Produce and distribute IEC materials for patient education 	GHS/HPU
<ul style="list-style-type: none"> Conduct periodic surveillance for TB infection/TB disease among health care workers in DOTS and ART centres 	MOH/GHS/NTP/OEHP, ICD Teaching Hospitals,
<ul style="list-style-type: none"> Refurbish ART and DOTS centres to ensure TB prevention 	NTP, NACP, GHS, THs & partners
<ul style="list-style-type: none"> Procure and supply co-trimoxazole to DOTS and ART centres through existing channels 	MOH/GHS/
<ul style="list-style-type: none"> Implement guidelines for management of co-trimoxazole side effects 	NACP
<ul style="list-style-type: none"> Train DOTS and ART centre staff in co-trimoxazole prophylactic treatment (CPT), management and counselling 	NACP
<ul style="list-style-type: none"> Procure and distribute drugs for OI treatment and prophylaxis 	MOH/GHS
Prevention of TB Disease in PLHIV	
<ul style="list-style-type: none"> Conduct operational research to investigate the feasibility and effectiveness of isoniazid preventive therapy (IPT) 	NTP/NACP & Partners
Intensified TB Case Detection in PLHIV	
<ul style="list-style-type: none"> Adapt and produce simple TB screening tool 	NTP
<ul style="list-style-type: none"> Train ART and CT centre staff to discuss TB with PLHIV and to use the TB screening tool 	NTP
<ul style="list-style-type: none"> Support ART & HTC centres in bacteriological confirmation of TB by strengthening DOTS centres including refurbishment and provision of lab & logistical support for sputum collection & microscopy 	NTP
<ul style="list-style-type: none"> Procure and distribute sputum containers and request forms to ART and HTC centres through normal channels 	MOH/GHS
<ul style="list-style-type: none"> Conduct implementation, recording and reporting activities 	NTP/NACP

Implementation of TB/HIV Collaborative Activities in Ghana: Joint Programme Planning Policy and Guidelines

TB/HIV ACTIVITY	Responsible Party
<ul style="list-style-type: none"> Establish referral system/strong linkage with nearest ART/DOTS centre 	RTHCC, DTHCC, FTHCC & CSOs
Antiretroviral Treatment for TB/HIV patients During TB Treatment	
<ul style="list-style-type: none"> Conduct site visits and accreditation 	NACP/NTP
<ul style="list-style-type: none"> Conduct initial and refresher trainings for DOTS centre staff on ART 	NACP/NTP
<ul style="list-style-type: none"> Strengthen DOTS centre pharmacy security for drug storage 	GHS & relevant partners
<ul style="list-style-type: none"> Strengthen referral links between DOTS and ART centres if not fully integrated 	NACP/NTP
<ul style="list-style-type: none"> Procure and distribute ART drugs 	MOH/GHS
<ul style="list-style-type: none"> Train health staff on adherence counselling and monitoring 	NACP
Community involvement in the management of TB and HIV patients	
<ul style="list-style-type: none"> Develop and distribute IEC materials about TB and HIV to community/treatment supporters. 	MOH/GHS/HPU, GAC CSOs & Partners
<ul style="list-style-type: none"> Train PLHIV support group members about TB and HIV 	NACP/NTP
<ul style="list-style-type: none"> Train PLHIV support groups & CHOs on adherence counselling 	NACP/NTP
<ul style="list-style-type: none"> Train health staff on adherence counselling 	NACP/NTP

Annex II

List of ART Treatment Sites in all Regions as at end of 2013

ASHANTI REGION		37	Mathias hospital
1	Komfo Anokye Teaching Hospital	CENTRAL REGION	
2	Kumasi South Hospital	38	Saltpond hospital
3	Bomso Clinic	39	Apam catholic hospital
4	St. Michael's Hospital	40	Abura dunkwa govt hospital
5	St. Patrick's Hospital	41	Twifo praso govt hospital
6	Anglogold Ashanti Hospital	42	Cape coast metro hospital
7	Obuasi gov hospital	43	UCC hospital
8	Mampong district hospital	44	Winneba government hospital
9	Animwaah medical centre	45	Breman asikuma catholic hospital
10	Agogo presby hospital	46	St. Xavier catholic hospital
11	Sda hospital, kwadaso	47	Central regional hospital
12	Bekwai hospital	EASTERN REGION	
13	Suntreso hospital	48	Begoro hosp.
14	Tepa hospital	49	Presby hosp.
15	St. Martins hospital, agroyesum	50	St. Dominic's
16	Ejura hospital	51	Oda hosp.
17	Nyinahin district hospital	52	New abirem hosp.
18	Juaso hospital	53	Suhum hosp.
19	Knust hospital	54	Asamankese hosp.
20	Juaben hospital	55	Vra hosp.
21	Mankraso hospital	56	Agormanya hosp.
22	Asafo agyei hospital	57	Holy family
23	Atasomaso hospital	58	Atibie hosp.
24	New edubiase hospital	59	Kibi hosp.
25	Methodist faith healing hospital, ankaase	60	Akuse
26	Tafo government hospital	61	Atua
27	Nkenkensu hospital	62	Tqmh
BRONG AHAFO REGION		63	Nsawam hosp.
28	St. Elizabeth hosp., hwidiem	64	Regional hospital
29	Regional hospital, sunyani	65	St. Joseph
30	Methodist hospital, wenchi	66	Enyiresi hosp.
31	Holy family hospital berekum	67	Asesewa hosp.
32	Kintampo hospital	GREATER ACCRA REGION	
33	St. Theresah's hosp., nkoranza	68	Pantang
34	Municipal hospital, sunyani	69	Maamobi
35	St. Mary's hospital, drobo	70	Legon
36	Holy family hospital techiman	71	Tema gen hosp

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72	37 Military Hospital	87	Madina Polyclinic
73	Odornaa Hospital	88	Akai house Clinic
74	La General Hospital	89	Holy Trinity Hospital
75	Police Hospital	90	Lekma Hospital
76	Ashiaman Hospital	91	Manna Mission Hospital
77	Ga South Hospital	92	Lister Hospital
78	Dangme East Hospital	93	Adabraka Polyclinic
79	Ridge Hospital	94	Ussher Polyclinic
80	Amasaman Hospital	95	Narh Bitá Hospital
81	Mamprobi Polyclinic	96	Rabito Clinic
82	Nyaho Clinic	97	Korle Bu Teaching Hospital
83	IHCC	98	Princess Marie Louise Hospital
84	Port Medical Centre	99	Dodowa Hospital
85	Tema Polyclinic	100	Kaneshie Polyclinic
86	Trust Hospital		

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Annex III

OBJECTIVE	INDICATOR	Baseline (2013)	2015 Target	2016 Target	2017 Target	2018 Target	2019 Target	2020 Target	Frequency	Responsible Party	Measurement Tools
Prevention of TB in PLHIV	Number of health care &/or congregate settings implementing minimum requirement for TB infection control policy	Unknown	20%	30%	30%	50%	60%	70%	Annual	NTP/ICD	Facility review check list
Prevention of TB in PLHIV	Number of children under 5 who received IPT	unknown	50%	60%	70%	80%	90%	100%	Annual	NTP	Institutional TB register
Prevention of HIV in TB Patients	Number (%) of TB patients receiving HIV testing & counselling	11,387 /74360 (15.3%)	17364 /77175 (23%)	20182 /74887 (27%)	23096 /72175 (32 %)	26740 /71594 (37%)	29528 /69478 (43%)	33572 /67821 (50%)	Annual	NTP	Institutional TB Register
Intensified TB Case Finding in PLHIV	Percentage of HIV-positive patients who were screened for TB in HIV care or treatment settings	20% (45,217 /224,488)	56% (104,666 /185,261)	64% (122,031 /190,944)	70% (135,774 /194,821)	80% (158,135 /197669)	85% (170,012 /200,014)	90% (182,425 /202,694)	Annual	NACP/ NTP	HIV clinical care register
Prevention of OIs in PLHIV with TB	Proportion of HIV+ TB patients who receive CPT during TB treatment	74%	85%	90%	95%	100%	100%	100%	Annual	NTP	TB/HIV Register
HIV Care & Support for TB/HIV patients	TB treatment success rate among TB/HIV patients.	73%	75%	77%	79%	80%	81%	82%	Annual	NTP	TB/HIV Register
HIV Care & Support for TB/HIV patients	Number (%) of ART centres providing DOTS	13/175 (7%)	10%	20%	30%	40%	50%	60%	Annual	NACP	Annual regional reports
HIV Care & Support for TB/HIV patients	Number (%) of DOTS centres providing ART services	13/230 (6%)	10%	20%	30%	40%	50%	60%	Annual	NTP	Annual regional reports
Provision of ART for TB Patients	Percentage of HIV-positive registered TB patients given ART during TB treatment	6% (1,009 /17,846)	11% (2084/ 18,522)	15% (2664/ 17,973)	19% (3326/ 17,322)	24% (4171/ 17183)	30% (4961/ 16675)	37% (6043/ 16277)	Annual	NACP/ NTP	ART centre Register

