TB CONTROL

STRATEGIC PLAN

FOR GHANA

National Tuberculosis Control Programme
TUBERCULOSIS CONTROL
STRATEGIC PLAN FOR GHANA

Ministry of Health,
Accra
2001
ACKNOWLEDGEMENT

The National Tuberculosis Control Programme (NTP) wishes to acknowledge with appreciation for the funding and support received from the following organizations and partners:

• WHO
• World Bank
• JICA
• Noguchi Memorial Institute for Medical Research
• Other units of the Ministry of Health; and
• All other health partners
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EXECUTIVE SUMMARY

More people die from TB than from any other curable infectious disease in the world. By established number of cases reported to WHO Ghana is ranked 13th in the Africa region.

The Country therefore must position herself to meet the TB Challenge which is threatening nations worldwide. It is important we scale up activities to meet the globally set targets in order to make an impact in the TB situation in Ghana. The targets include

- Identify 70% of all infectious cases of TB and cure 85% of identified cases by the year 2005 through accelerated efforts at country and global level.
- By 2010 to reduce the global burden of TB (deaths and prevalence) to 50% of 2000 levels.
- By 2050 eliminate TB as a public health problem

This document provides a coherent framework to guide implementation and action of stakeholders involve in TB Control.

GOAL:
The goal of this plan is to consolidate, expand and improve the quality of DOTS in health facilities and in the communities using a Public Health approach to bridge the gap between TB Clinical care.

STRATEGIES AND INTERVENTIONS

Strategy One: Improved TB case management and control

The overall objective of improving TB case management and control is to ensure that TB cases are detected early, treated with approved protocols and supported to go through the entire 8 months treatment.

Interventions:

- Build capacity among health personnel and within the sector at all levels including the private sector to manage and implement the DOTS strategy
- Improve programme coordination at all levels through meetings and conferences
- Improve the quality of care and programme implementation through better supervision at all levels
- Monitor and evaluate programme performance including HIV, Tuberculin and drug resistance surveys
Strategy 2: Improved TB case detection

The main objective is to use IE&C to assist in creating awareness to encourage TB sufferers to access TB services. It will be used to help minimize the stigma attached to the disease. The laboratories would be supported and quality control to meet the expected increase in case detection.

Interventions

- Promote understanding of TB among Health staff and communities through advocacy, education and awareness creation
- Expand TB quality control and strengthen laboratories

Strategy 3: Forge Partnership to expand DOTS

The National TB Control Programme would create and sustain partnership for TB control. The Objective is to expand the DOTS strategy with the same level of commitment to TB care as in the public sector.

Interventions

- Strengthen collaboration with other Control programmes,( EPI/HIV) the prisons and the private sector
- Build capacity within the civil society, NGO’S and communities to expand DOTS

Strategy 4: Focused Research

The objective is to ensure that all efforts made in TB care and control is supported by well-researched information to guide policy decisions and monitor progress and outcomes of interventions.

Intervention:

- Conduct relevant operations research
- Support action oriented research to support TB service delivery
## Budget Summary: USD($)

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*The budget has assumed that case finding would be stable over the period, but this is expected to increase and the amount for treatment and case finding will rise.*
LIST OF ABBREVIATIONS

<table>
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<th>Abbreviation</th>
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<td>CDC</td>
<td>Centre for Disease Control</td>
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<tr>
<td>EIS</td>
<td>Epidemiological Intelligence Service</td>
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<td>DHMT</td>
<td>District Health Management Team</td>
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<td>DOTS</td>
<td>Directly Observed Treatment, short course</td>
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<td>HSR</td>
<td>Health Sector Reforms</td>
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<td>HIV</td>
<td>Human Immuno deficiency Virus</td>
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<td>IE&amp;C</td>
<td>Information, Education and communication</td>
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<td>INH</td>
<td>Isoniazid</td>
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<td>IUATLD</td>
<td>International Union Against Tuberculosis and Lung disease</td>
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<td>MIS</td>
<td>Management Information System</td>
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1.0 INTRODUCTION

1.1 Purpose of Document

This document is as a result of a consultative process involving major stakeholders during a consensus workshop to chart new direction of TB control in Ghana. The document provides framework for implementing TB control within the context of Ministry of Health / Ghana Health Service Programme of Work for the period 2002 – 2006.

The document is therefore the detail TB component of the 5-year programme of work.

1.2 Background

TB is among the commonest communicable diseases in Ghana. It is estimated that over 250,000 more Ghanaians acquire M. tuberculosis infection (not disease) each year, and half of the adult population is infected. The spread of HIV will hasten development of TB disease; HIV-positive people previously infected with M. tuberculosis have a very high risk of developing active TB due to the breakdown of their immunological defence against the dormant bacilli.

In the current era of HIV/AIDS, increasing population and poverty, the problem is expected to get worse without intensified efforts in TB control.

Facing this reality the Ministry of Health in partnership with World Health Organization Africa Region (WHO) Set up the National TB Control Programme with support from DANIDA.

1.3 DOTS STRATEGY

As the results of Tuberculosis control in the past decade did not have a measurable impact on the size of the Tuberculosis problem the Ministry of Health decided to reformulate its control strategy.

The programme elements consist of the recommendations of the WHO (e.g. emphasis on the diagnosis of smear-positive patients and fully supervised short course chemotherapy for smear-positive patients) and IUATLD’s practical solutions to monitor and improve the results of case finding and treatment.

The programme is integrated into the primary health care system: diagnosis and treatment depends on the general health staff at district and regional level.
2.0 TB SITUATION IN GHANA

2.1 EPIDEMIOLOGICAL CHARACTERISTICS

In 1957, a WHO-sponsored study reported a point TB prevalence of 0.2% to 0.9% in the general population (all ages). However, the gold mining areas had very high rates of between 0.4% and 3%. At that time the annual risk of infection for the whole country was on average about 3% to 4%. The annual risk of infection in recent years is estimated at between 1% and 2%.

Burden of Disease

With Ghana’s population of 18.8 million (2000 Census report), an estimated 52,828 new cases of TB is projected using a WHO calculated TB incidence rate of 281 per 100,000 inhabitants. (WHO Report 2001, Global Tuberculosis Control). Estimated new smear positive cases is expected to be 23,124 equivalent to 123 per 100,000 inhabitants.

For the past six years the number of reported TB cases (all forms) have been increasing gradually, from about 3,000 cases in 1986 to a cumulative total of 60,000 in 2001 (about 40,000 cumulative total being smear-positive). (1% annual risk of infection corresponds to an incidence of 50 smear-positive TB cases per 100,000 population).

MORTALITY

A study done in 1981 by MOH planning unit described TB as the most common cause of losing healthy days of life, due to premature deaths of adults. A verbal autopsy studies done in Kassena Nankana district (unpublished) put TB mortality as among the top five common causes of death. In Korle-Bu (personal communication) with department of pathology, every one in seven post mortems death is from TB.

Since 1996 TB case fatality rates (new smear positives) as reported in the public sector range from 3.4% in 1996 to 5.5% in 2000. A total cumulative death from 1996 to 2000 is 2,328 (CFR 6.6%).
Figure 1 Case detection TB Ghana, 1997-2001, rates/100,000 population

Figure 2

Trend of Reported TB cases 1996-2001
2.2 TB AND HIV

If HIV prevalence in the Ghana is projected to increase to about 8% in the year 2015, a corresponding increase in number of reported TB cases is to be expected. At present HIV prevalence among new TB patients is estimated to be 10% (unpublished study Public Health reference laboratory). For in-patients HIV prevalence among new TB patients is estimated at between 23% in Komfo Anokye Teaching Hospital and 16% in Korle-Bu teaching Hospital.
3.0 **STATUS OF NTP**

3.1 **STRUCTURE**

Within the Organizational framework of Ministry of Health/ Ghana Health Service, the responsibility for Tuberculosis control in the country is with the Disease Control Unit of Public Health Division.

Within this division a Medical Doctor is on full time basis responsible for the co-ordination of Tuberculosis control.

3.2 **ACHIEVEMENTS**

Between the periods 1994-1998 a positive impact was made on the National TB Programme lifting it from state of neglect and lack of results, to a stage that was set for the achievement of results. Many problems, were addressed including the following:

(i) TB drugs are now available for treatment of cases  
(ii) There are case definitions for TB  
(iii) There are standardized diagnostic procedures  
(iv) Some health staff have been trained  
(v) An improvement in the reporting system  
(vi) Improvement in case finding and case holding in some health facilities  
(vii) Availability of standardized treatment  
(viii) Central level management of TB control strengthened  
(ix) Delivery of TB services integrated into the general health services  
(x) 98% Coverage of the Districts with the DOTS Strategy

However, TB control faces new challenges within the health sector reforms and needs to be strengthened for the objectives of the National TB Programme to be fully realized.
4.0 HEALTH SECTOR

4.1.1 Vision of the Health sector

‘Improved overall health status and reduced inequalities in health outcomes of people living in Ghana’

4.1.2 Mission Statement

‘The Ministry of Health will work in collaboration with all partners in the health sector to ensure that every individual, household and community is adequately informed about health; and has equitable access to high quality health and related interventions’

4.2 Health Sector Analysis

The government of Ghana is committed to improving the health of all people living in Ghana. Such a broad goal encompasses many specific objectives for individuals and populations e.g. increased life expectancy, reduction in avoidable deaths and improvement in quality of life. Recognizing that, there are never enough resources to make what is technically possible universally available, a rethinking and restructuring of priorities is inevitable at all levels.

Tuberculosis has been identified as one of the priority diseases targeted for control in the medium term. The expansion and quality of implementing the DOTS strategy for TB control has been constrained by limited geographical and financial access to basic health services, inadequate quality of health services in both public and clinical care services, inadequate funding of health services, inefficient allocation of resources, and poor community, intersectoral and private sector participation.

In this section there is an analysis of the delivery of health services. The purpose is to provide an understanding within the context for which TB control or services are carried out. There are no special health personnel dedicated to only TB work at all levels. However at the National level the programme Manager commits 90% of his time for TB work. In the past, personnel dedicated to TB work operated in Chest clinics scattered in some districts. These clinics have been maintained to provide special support services for TB control programme. Each district keeps a TB register, and all health facilities are expected to keep their own institutional TB registers, provided for by the National TB control Programme. The NTP keeps its surveillance systems along WHO recommendations.

4.3 Organisation of Health Services Delivery

Health services in Ghana are delivered in primary, secondary and tertiary health systems. The primary health care system is equivalent to the district health system. It comprises all institutions (clinics, health centres and hospitals) and individuals whether private, public or traditional. All districts have also been subdivided into 4-6 subdistricts with each subdistrict covering a defined geographic area of 20,000-30,000 people.
The health center is responsible for providing clinical, public health and maternity services to the catchment’s population using a combination of clinic-based, regular outreach and mass campaigns in close collaboration with communities, community institutions and leaders and village based health workers and health institutions.

The district hospital serves as the first referral point in the primary health service. They provide clinical (outpatient and inpatient) and maternity services and serves as backup for health centers in the district. The regional hospital is the second referral level. It acts as the technical focal point for specialized clinical and diagnostic care in broad specialized areas like medicine, general surgery, pediatrics and obstetrics and gynaecology.

The teaching hospitals form the apex of specialized care in the country. They are the leading training and research institutions, and offer undergraduate and postgraduate training for doctors and other professions.

Each level as described above delivers TB services. This was made possible during the period when the National TB control Programme had adequate funding (1996-1998). Critical Mass of health personnel of all categories were trained from teaching Hospitals to District hospital level.

However, since 1999 the responsibility to continue the training went to the in-service training Unit of Human resource Division, under the common management arrangement. Regions and Districts were to continue to fund vital TB control activities from an ‘increased budgetary allocation’ under the ‘common pot ‘ arrangement.

These change slowed down TB control activities and interest. And this has affected rapid achievement of Targets.

Management of Health Services

Health management in Ghana is fairly decentralized within the MoH, a nested approach involving District Health Management Teams (DHMTs), Regional Health Management Teams (RHMTs) and headquarters. Complementing this arrangements are institutional/health facility management teams. Each of these management levels is a Budget and management center i.e. they are responsible for a defined programme of work supported by a defined operational budget including Tuberculosis.

As part of the health reform process, there are plans to establish a Ghana Health Service (GHS), which will be an autonomous government agency responsible for service delivery. Thus the Ministry of Health will change and will focus on sector-wide policy formulation, monitoring and evaluation of progress in achieving targets. The relationship between the GHS and the district assemblies has raised a lot of concerns and issues, which requires clarification. Particularly, whether District Health Management Teams ‘s will be part of the district assemblies and will be financed from the district composite budgets.

Currently, a sector-wide approach to health delivery exists in Ghana. The principles underlying the implementation of the Sector Wide Approaches (SWAPs) in Ghana include an agreement between Government of Ghana and health partners on an agreed and co-ordinated programme of work, an integrated approach to funding and common implementation and evaluation arrangements.

Under this arrangement, the MoH prepares an annual programme of work, which is then funded with collective resources from Government of Ghana (GOG), internally generated and pooled
donor funds. The MoH and partners meet twice a year to review and plan sector-wide performance.

A few donors, for various reasons are however out of the “common pot” and continue to earmark funds. And even for those contributing to the pot, most of them earmark a proportion of their funds and disburse out of the “common pot” as well.

With the exception of WHO that provide dedicated funds for TB control activities, TB services is fully funded through the ‘common pot’ arrangement. The result has been varied. Generally the trend has been a slow response and activities in TB control. In some regions the performance has been anything but good. This has been attributable to poor timeliness in release of funds and ‘inadequate funds’.

There is the need for additional resources from health partners into ‘an enlarged pot’ or in special cases, through earmarking of funds for specified activities considered critical for TB control activities.
5.0 STRATEGIC PLAN

The basis of this plan is from inputs made by stakeholders analysis meeting, and recommendations by World Health Organization and World Bank Missions to Ghana.

GOAL:

The goal of this plan is to consolidate, expand and improve the quality of DOTS in health facilities and in the communities using a Public Health approach to bridge the gap between TB Clinical care.

STAKEHOLDERS ANALYSIS

The consensus was that, there was a need to quicken the pace of TB control activities (DOTS STRATEGY).

That there must be a strong advocate and a case made for TB control. And that policy makers and health partners must understand, that it takes 8 months or more to achieve one successful output, requiring efficient, timely and coordinated activities of highly motivated staff.

Expansion of DOTS must involve the communities and should take advantage of existing structures carrying out services within the communities.

Further supports in the following areas are crucial for effective and quick achievement of results in TB Control in Ghana.

• Capacity building at all levels, including advanced level training for Central TB Unit staff for TB Control, logistics and supplies, financial and health information management.

• Intensification and support to Monitoring, supervision and evaluation system for the TB programme
• Quality control and strengthening of laboratories.
• Support for TB activities in Prisons and the private sector.

• Established system of case holding and defaulter tracing with active community participation.
• Provision of space for supervised treatment in some district hospitals.
• Support for Operational Research
• Strengthen collaboration between TB and HIV Control programmes.
• Increase social mobilization and community education for DOTS implementation

Specifically the following items may be required

1. Capital Costs
(i) Laboratory Equipment’s
(ii) Communication Equipment’s to strengthen MIS
(iii) Vehicles and Motorcycles
(iv) Infrastructure rehabilitation

2. Recurrent Costs
   (i) Training course, study tours, seminars and conferences
   (ii) Technical Assistance (TB Control Experts/Laboratory Experts)
   (iii) Operational Research
   (iv) Health Education Materials

ADDITIONAL CHALLENGES

- There is the need to re-orient health personnel to have a *patient centered approach* in patient care.
- It is essential to move towards community based TB care with support from the health sector
- It is critical to have a synergy between Public and Private in TB care.
- Inadequate health personnel to support TB services

5.1 Key Strategies

1. Improved TB case management & Control.
2. Improved TB case detection
3. Forge partnership to expand DOTS
4. Focused Research

5.2 Conceptual framework

The implementation of the strategies is to be guided by the principles of decentralization, improved access, efficiency, quality of care, sustainability and through fostering partnership with other agencies and the communities.

5.3 Key Implementing Partners

Delivery of TB services in the entire country must involve District Assemblies, individuals and households, opinion leaders and chiefs, religious leaders, NGO’s, private sector, the civil society, the media, the Universities, Ghana education service, Research organizations (local and international), and healthcare providers.
5.3.1 Beneficiaries

The ultimate Beneficiaries of a well executed and implemented TB services will be:
1. TB patients in the country
2. Family members of TB patients and their household contacts and
3. The entire population on the country.

5.4 THE LONG-TERM OBJECTIVES OF THE NTP

The long-term objectives of the NTP are:

- To reduce the incidence and the prevalence of Tuberculosis
- To reduce the physical and psycho-social suffering of the population from Tuberculosis;
- To reduce the incidence of disabilities or deformities caused by Tuberculosis, in such a way that Tuberculosis is no longer remains a Public health problem

5.5 Medium Term objectives (5 years)

To achieve high quality services in the entire country;

- Achieve strong integration of TB services into general Health services and involve and collaborate with the private sector
- Increase access to TB drugs
- Expand TB Microscopy Laboratory quality assurance to cover all regions
- Improve advocacy, social mobilization and education for TB control.

5.6 SHORT TERM OBJECTIVES / TARGETS

These have been set mindful of human, material and financial resources that are available on the ground. It is slightly below Global targets.

Objectives related to case-finding

To increase the level of case finding from 36% of the total estimated incidence of smear-positive cases to at least 60% by the end of 2006.

Objectives related to Chemotherapy and case holding
Attaining at least 80% cure rate in all Cohorts of smear-positive cases enrolled on short-course Chemotherapy.

**Objectives related to treatment of HIV-Positive Tuberculosis cases**

Treating all smear-positive HIV-Positive pulmonary Tuberculosis cases, which are diagnosed by the programme.

Smear-negative pulmonary and extra-pulmonary Tuberculosis cases would be treated with Chemotherapy, regardless of HIV status in pursuit of the second long term objective of the programme.

**National Targets and Means of verification**

- **Indicator:** Case detection coverage: (Proportion of new smear-positive cases that are diagnosed in Ghana.)
  
  
  Means of verification: (TB Management information systems)

- **Indicator:** Cure Rate: The proportion of newly diagnosed sputum positive patients who have completed treatment and declared cured.
  

**REGIONAL TARGETS**

**Cure rates %**

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5.7 STRATEGIES AND INTERVENTIONS

Strategy One: Improved TB case management and control

The overall objective of improving TB case management and control is to ensure that TB cases are detected early, treated with approved protocols and supported to go through the entire 8 months treatment.

Interventions:

- Build capacity among health personnel and within the sector at all levels including the private sector to manage and implement the DOTS strategy
- Improve programme coordination at all levels through meetings and conferences
- Improve the quality of care and programme implementation through better supervision at all levels
- Monitor and evaluate programme performance including HIV, Tuberculin and drug resistance surveys

Strategy 2: Improved TB case detection

The main objective is to use IE&C to assist in creating awareness to encourage TB sufferers to access TB services. It will be used to help minimize the stigma attached to the disease. The laboratories would be supported and quality control to meet the expected increase in case detection

Interventions

- Promote understanding of TB among Health staff and communities through advocacy, education and awareness creation
- Expand TB quality Control and strengthen laboratories
Strategy 3: Forge Partnership to expand DOTS

The National TB Control Programme would create and sustain partnership for TB control. The Objective is to expand the DOTS strategy with the same level of commitment to TB care as in the public sector.

Interventions

- Strengthen collaboration with other Control programmes,( EPI/HIV) the prisons and the private sector
- Build capacity within the civil society, NGO’S and communities to expand DOTS
- Conduct relevant operations research
- Support action oriented research to support TB service delivery

Strategy 4: Focused Research

The objective is to ensure that all efforts made in TB care and control is supported by well-researched information to guide policy decisions and monitor progress and outcomes of interventions.

Intervention:
6.0 INTERVENTIONS & ACTIVITIES

STRATEGY ONE: Improved TB case management and Control

A) Intervention: Build capacity among health personnel and within the sector at all levels including the private sector to manage and implement the DOTS strategy.

Concerns have been raised about health personnel who have not received training in the management and control of Tuberculosis. This lack of training affects all categories of Staff involve in TB Control both in the Clinical and Public health Divisions. Health personnel who have received training in TB care are rotated to other departments and new staff posted to DOTS centers often does not understand the principles of the DOTS strategy. It is therefore necessary for regular in-service training. In certain centers there are no microscopes and laboratory equipments may be functioning poorly.

The programme plan to train personnel to the subdistrict level was not completed and was not moved forward by some regional programmes after financial integration since 1998.

Specific Activities

- Train core group of regional and District TB teams to manage and support TB control activities
  - Train private sector & Quasi government Institutions in TB control and management
  - Train staff in tertiary, Regional, Districts and Sub district health facilities in the public sector
  - Train Community based health workers (CBHWs) in TB case management (TB treatment supporters)
  - Train Laboratory technicians in smear microscopy and TB quality assurance
  - Train National & regional programme managers in Arusha, CDC- EIS, Japan or India in Disease control & TB epidemiology
  - Provision of logistic support Microscopes, Laboratory reagents sputum containers X-rays etc to support DOTS expansion in Public & Private sectors
  - Support renovations and creation of DOTS centers within existing health services to enhance treatment supervision in Public and private sectors.

B) Intervention: Improve programme coordination at all levels through meetings and conferences.

One shortcoming of the TB programme is the weak;
- Coordinating activities within health facilities among staff,
- Intra district coordination of activities among participating health institutions, and
- Inter district and Regional coordinating activities.
This weakness in the programme contributes to high default rates. Regular meetings of various stakeholders will help strengthen the referrals and transfer mechanisms of the programme. Participants are regularly updated and experiences are shared. Participating in international conferences provide the platform for senior programme managers to share experiences and receive update for TB control issues.

Specific Activities

- Organise regularly National TB advisory board meetings
- Regions to organise quarterly meetings for Regional TB coordinators, District TB coordinators and Institutional TB coordinators to review TB activities at the operational levels
- Organise annual Regional TB managers meetings
- Participate in IUATLD International Meetings on TB
- Conduct Regional & District TB team meetings
- Conduct Facility based TB teams meetings

C) Intervention: Improve the quality of care and programme implementation through better supervision at all levels

Monitoring and supervision is key to ensuring the quality of care given to TB patients. It also ensures that documentation and reporting is done accurately and promptly. Increasingly, capacity and resources to undertake such vital activities is dwindling.

Specific Activities

- Central TB Unit to organise integrated Monthly support visit to the regions
- Regional TB coordinators to visit every district once in a quarter
- District TB coordinators to visit every health facility involve in DOTS programme once in a month
- Establish mechanism for defaulter prevention and tracing in each district
- Provide Transport & Vehicles to the districts and the reference laboratory to strengthen monitoring & supervision
- Conduct Tuberculin survey
- Print and distribute TB programme stationery for surveillance
**D) Intervention**: Monitor and evaluate programme performance including HIV and Tuberculin surveys

TB prevalence was established in 1960 through a tuberculin survey. There is the need to do another survey and subsequent ones to assess the progress being made in the area of TB transmission. The quality of monitoring the programme will be enhanced with monitoring of HIV prevalence among TB patients in addition to internal and external reviews. Regular drug resistance surveys provide information on the quality of the National TB Control Programme.

**Specific Activities**

- Conduct Tuberculin survey
- Conduct HIV prevalence among TB patients
- Organize Internal and external review of the programme
- Conduct drug resistance surveillance studies
- Undertake technical & managerial supports visits

**STRATEGY TWO: Improve TB case detection**

**A) intervention**: Promote understanding of TB among Health staff and communities through advocacy, education and awareness creation

There is lack of focus on TB Control owing to diminish awareness. This situation is observed both in the health sector and the communities. Intense education will go a long way of putting TB on the agenda of health care managers, NGO’S and the civil society. The communities would have a rational understanding of TB and support TB care. Disease stigma would be reduced.

**Specific Activities**

- Develop and produce IE&C materials at the national level
- Intensify mass education, radio, print media, television in all regions
- Celebrate World TB Day activities at all levels
- Lobby private sector, professional bodies, and other civil societies through seminars & workshops to implement DOTS
- Districts and sub districts to carry out IE&C activities
- Undertake advocacy support visit in support of community initiated TB activities and others
- Develop a social marketing strategy for Programme strategy and patient care
STRATEGY THREE: Forge Partnership to expand DOTS

A) Intervention: Strengthen collaboration with HIV/AIDS control and other programmes and support to TB activities in Prisons and within the private sector

The impact of HIV/AIDS would be minimize with a strong TB control programme to handle its commonest opportunistic infection in Africa. Forging partnership with National AIDS Control Programme would occur at all levels. It must however, be noted that there is the need to be careful in combining the two activities at the operational level in order not to re-enforce the stigma both disease carry.

HIV home based activities must offer HIV patients the chance to be screen for TB and possible INH Chemoprohylaxis.

TB patients may also be given the opportunity to know their HIV status in accordance with the principles of HIV testing in Ghana. Some may benefit from co-trimoxazole prophylaxis.

Specific Activities

- Conduct joint meetings at programme management levels
- Conduct Home based care support visits for those affected
- Conduct counseling and screening services for TB for those HIV positive individuals
- Supervision of CBHWs

STRATEGY FOUR: Focused Research

A) Intervention: Conduct relevant operations research

The need for all levels to perform action oriented research to support service delivery is vital. In addition the Central level will engage in research with Health research Unit and other partners to form a vital component of the programme. Policy issues will then be evidenced based.

Specific Activities

- Studies on quality of DOTS services
- Conduct studies to expand DOTS (community centered approach)
- Health seeking behaviours
- Tuberculin survey
- HIV prevalence studies among TB patients
- Studies on private sector-Public mix
- Assess distribution and drugs supplies
- Epidemiological intervention studies to improve DOTS (fixed dose combination of TB drugs etc)
7.0 PRIORITY ACTIVITIES

The following level specific activities must be carried out in support of identified specific activities under each intervention. Some of these activities overlap, but it is intended to emphasize and provide more details. It is also a direct response to some recommendations made by stakeholders.

Regional level activities

In each region a Regional Tuberculosis co-ordinator will co-ordinate the NTP. The Regional co-ordinator works closely with the Senior Medical Officer Public health, and is directly responsible to the Regional Director of Health Services.

1. Train District TB coordinators in Cohort Analysis & Monitoring /Evaluation
2. Train Hospital staff (Regional and District) in TB Management and Control
3. Train TB laboratory focal persons in each District to implement TB Microscopy quality assurance programme
4. Organise quarterly District and Institutional TB coordinators review / update meetings
5. Intensify technical support visits of Regional TB coordinators
6. Commemorate World TB day activities on 24th March as climax to advocacy meetings with District Assemblies
7. Procure TB drugs and other logistics regularly.
8. Develop Regional specific plans to improve case detection and treatment outcomes

In each district the District Director of Health, whose duties include TB, co-ordinates the NTP. A District Tuberculosis Coordinator helps the Director.

District level Activities

1. Set up DOTS centers in all health facilities (at least one functioning microscope for 100,000 population)
2. Train health personnel to support TB control in each subdistrict
3. Pre-pack TB drugs for all patients to prevent treatment interruptions
4. Establish a system of transporting sputum specimen to diagnostic centers
5. Link hospital level TB activities with DHMT activities
6. Establish mechanism to prevent, detect and to trace defaulters( community and Public Health Nurses in case holding)
7. Undertake IE&C activities/ world TB day
8. Involve Community base NGO’s and others in TB treatment supervision at least in the continuation phase
9. Link TB and HIV activities where appropriate especially in the field of counselling and patient care
10. Develop District specific plans for improving case detection and treatment outcomes
National level Activities

1. Train Regional TB coordinators
2. Train Regional Laboratory Technicians
3. Organise National TB review meetings
4. Support Training of Two teaching Hospitals
5. Organise training for Prisons, Military and Police institutions
6. Conduct National TB advisory board meetings
7. Provide technical support visits to Regional programmes
8. Promote understanding of TB among Health staff and communities
9. Conduct Tuberculin survey
10. Conduct HIV prevalence studies among TB patients
11. Conduct internal review of programme activities
14. Develop a policy on MDR-TB
15. Review TB surveillance forms

The frequency of each activity would depend on the state of TB control at the operational level.
**LOGICAL FRAMEWORK FOR NTP PROGRAMME OF WORK, 2002-2006**

National TB Control Programme

<table>
<thead>
<tr>
<th>KEY STRATEGIC AREA</th>
<th>OBJECTIVELY VERIFIABLE OUTCOME INDICATORS</th>
<th>MEANS OF VERIFICATION</th>
<th>IMPORTANT ASSUMPTIONS</th>
</tr>
</thead>
</table>
| IMPLEMENTING THE DOTS STRATEGY FOR TB CONTROL | 1. Improve TB cure rates from 43% to 80% by 2006  
2. Improve case detection rates from 36% to 60% by 2006 | TB Surveillance system  
TB surveillance System | That anti-TB drug and other supplies will be adequately and timely procured.  
A quality assurance programme established. Laboratory equipments and supplies provided. That TB patient will report early. Coverage of population with diagnostic and treatment services increased.  
Highly motivated and adequate health personnel |
<table>
<thead>
<tr>
<th>Key strategy</th>
<th>Strategic component</th>
<th>OUTCOME</th>
<th>KEY ACTIVITIES</th>
<th>EXPECTED OUTPUT</th>
<th>START TIME</th>
<th>DURATION</th>
<th>LEVEL RESPONSIBLE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve TB case management and Control</td>
<td>Build capacity among Health personnel at National regional, district levels to manage and monitor implementation of TB</td>
<td>Improve TB case management and Control</td>
<td>-Train 10 Regional TB coordinators at Arusha, CDC, Tanzania (2-4 weeks)</td>
<td>13 coordinators trained</td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
<td>$91,000</td>
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<td></td>
<td></td>
<td></td>
<td>-Bi-annual re-view training of RTC (3 days)</td>
<td>300 participants updated bi-annual training</td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
<td>$50,000</td>
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<td>Improve TB case detection</td>
<td>Expand TB quality control &amp; strengthen laboratories</td>
<td>Improve TB case detection</td>
<td>-Regional Laboratory technicians training annually</td>
<td>75 participants trained in 5 years</td>
<td>2002</td>
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<td>KEY ACTIVITIES</td>
<td>EXPECTED OUTPUT</td>
<td>START TIME</td>
<td>DURATION</td>
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<tr>
<td>Improve TB case management and control</td>
<td>Build capacity among Health personnel at National regional, district levels to manage and monitor implementation of TB</td>
<td>Staff equipped with appropriate clinical knowledge, managerial and counselling skills</td>
<td>- support Implementation of DOTS in KATH &amp; KBTH</td>
<td>- Teaching Hospital staff trained in DOTS implementation</td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
<td>$43,750</td>
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<td>- Annual training of Regional Hospital staff</td>
<td>- 600 to be trained per year/ 60 per hospital</td>
<td>2002</td>
<td>2002-2006</td>
<td>Regional</td>
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<td>- RHMT/DTC quarterly meetings</td>
<td>- 4 TB quarterly review meetings conducted per region</td>
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<td>- Annual Regional TB teams training</td>
<td>- 50 persons to be trained annually. 5 per region</td>
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<td>START TIME</td>
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<tr>
<td>Improve TB case management and control</td>
<td>Build capacity among Health personnel at National regional, district levels to manage and monitor implementation of TB</td>
<td>Staff equipped with appropriate clinical knowledge, managerial and counselling skills</td>
<td>- Annual Training of District TB teams.</td>
<td>-550 persons trained per year. 5 per district</td>
<td>2002</td>
<td>2002-2006</td>
<td>District</td>
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<td>- Annual District Hospital staff training</td>
<td>-3,300 trained per year. 30/ hosp.</td>
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<td>2002-2006</td>
<td>District</td>
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<td>- Annual Treatment Centre staff training</td>
<td>-1320 persons to be trained. 12 per dist.</td>
<td>2002</td>
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<td>District</td>
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<td>Improve TB case detection</td>
<td>Expand TB quality control &amp; strengthen laboratories</td>
<td>Provide training inputs</td>
<td>Manual</td>
<td>2002</td>
<td>2002-2006</td>
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<td>Provide Case finding inputs</td>
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<td>Renovate DOTS centres</td>
<td>250 centres</td>
<td>2002</td>
<td>2002-2006</td>
<td>National/regional</td>
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<td>OUTCOME</td>
<td>KEY ACTIVITIES</td>
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<td>START TIME</td>
<td>DURATION</td>
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<tr>
<td>Improve TB case management and control</td>
<td>Improve Programme coordination at all levels through meetings &amp; Conferences</td>
<td>Increase access to anti-TB drugs and reduction of defaulter rates</td>
<td>- CTU staff to attend IUATLD meetings, annually</td>
<td>- updated CTU staff to effectively coordinate TB control activities; - Active National advisory board committee; - Programme management capability strengthened in all regions</td>
<td>2002</td>
<td>2002-2006</td>
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<td></td>
<td></td>
<td></td>
<td>- Organise annual TB advisory board meetings</td>
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<td>- Organise annual Regional TB Managers meetings</td>
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<td>Strengthened programme management</td>
<td>LCD projector; Office equipment</td>
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<td>KEY ACTIVITIES</td>
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<tr>
<td>Improve TB case management and control</td>
<td>Improve Programme coordination at all levels through meetings &amp; Conferences</td>
<td>Increase access to anti-TB drugs and reduction of defaulter rates</td>
<td>Organise quarterly regional TB teams meetings / year</td>
<td>Improved regional DOTS programme</td>
<td>2002</td>
<td>2002-2006</td>
<td>Regional</td>
<td>$7000</td>
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<td></td>
<td></td>
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<td>- Organise quarterly DTC &amp; ITC’s meetings every year</td>
<td>- Regular meetings of 220 RTC &amp; ITC’s</td>
<td>2002</td>
<td>2002-2006</td>
<td>Regional</td>
<td>$250,000</td>
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<td>- Organise District TB teams meetings twice /year</td>
<td>- Improved Districts DOTS programme</td>
<td>2002</td>
<td>2002-2006</td>
<td>District</td>
<td>$41,250</td>
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<td>- Organise Institutional TB teams meetings 2x/year 120 Hospitals</td>
<td>- Improved TB care and case holding</td>
<td>2002</td>
<td>2002-2006</td>
<td>Reg/Dist</td>
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<td>START TIME</td>
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<tr>
<td>Improve TB case management and control</td>
<td>Improve the quality of care and Programme implementation through better supervision at all levels</td>
<td>Improved cure rates and TB surveillance</td>
<td>- CTU integrated Monthly support visit to the regions</td>
<td>12 visits conducted annually</td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
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<td></td>
<td></td>
<td></td>
<td>- Quarterly supervision of Districts by Regional TB coordinators</td>
<td></td>
<td></td>
<td></td>
<td>Regional</td>
<td>$31,250</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- District TB coordinators will visit all institutions monthly</td>
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<td></td>
<td></td>
<td>District</td>
<td>$247,500</td>
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<td>- Better or improved documentatio n</td>
<td></td>
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<tr>
<td>Establish mechanism for defaulter tracing &amp; prevention</td>
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<td>2002</td>
<td>2002-2006</td>
<td>District</td>
<td>$110,000</td>
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<tr>
<td>Print &amp; distribute programme stationary</td>
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<td></td>
<td></td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
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<td>Provide transport</td>
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<td>START TIME</td>
<td>DURATION</td>
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<tr>
<td>Improve TB case management &amp; control</td>
<td>Monitor and evaluate Programme performance Through HIV and Tuberculin surveys</td>
<td>Improved knowledge for Programme implementation and policy change</td>
<td>- Conduct Tuberculin Survey</td>
<td>- TB prevalence determined</td>
<td>2002</td>
<td>2003 &amp; 2006</td>
<td>National</td>
<td>$160,000</td>
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<td>- Conduct HIV prevalence among TB patients</td>
<td>- HIV prevalence among TB patients determined Review reports to direct NTP implementation</td>
<td>2002</td>
<td>2003</td>
<td>Nat/Regional</td>
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<td>- Conduct internal review of NTP/ every year</td>
<td>- Conduct TB Microscopy laboratory monitoring &amp; Evaluation Reduced false positives results</td>
<td>2002</td>
<td>2002-2006</td>
<td>NAT/ REG.</td>
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<td>KEY ACTIVITIES</td>
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<td>START TIME</td>
<td>DURATION</td>
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<tr>
<td>Improve TB case detection</td>
<td>Promote understanding of TB among Health staff &amp; communities through advocacy, education and awareness creation</td>
<td>Improved community involvement in TB care as well as other civil organisations</td>
<td>- Develop &amp; produce IE&amp;C materials</td>
<td>Flyers, handbooks, posters Bill Boards etc produced</td>
<td>2002</td>
<td>2002-2006</td>
<td>National</td>
<td>$131,250</td>
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<tr>
<td></td>
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<td>- Intensify mass radio, print media, and TV activities( World TB day)</td>
<td>- Increased media activities</td>
<td>2002</td>
<td>2002-2006</td>
<td>Nat/Regional</td>
<td>$31,250</td>
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<td></td>
<td></td>
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<td>-Lobbying of Private, Professional groups and other civil societies</td>
<td>Professional, Private and civil organisations better integrated and increased</td>
<td>2002</td>
<td>2002-2006</td>
<td>NAT/ REG./District</td>
<td>$247,500</td>
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<td>- District and facility staff will carry out IE&amp;C activities</td>
<td>- IE&amp;C regularly conducted</td>
<td>2002</td>
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<td>DISTRICT</td>
<td>$68,750</td>
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<td></td>
<td></td>
<td>Develop social marketing strategy</td>
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<td>To be contracted out</td>
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<tr>
<td>Key strategy</td>
<td>Intervention</td>
<td>OUTCOME</td>
<td>KEY ACTIVITIES</td>
<td>EXPECTED OUTPUT</td>
<td>START TIME</td>
<td>DURATION</td>
<td>LEVEL RESPONSIBLE</td>
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<tr>
<td>Forge partnership to expand DOTS</td>
<td>Strengthen collaboration with HIV/AIDS and other control programme</td>
<td>Improved programme effectiveness</td>
<td>- Conduct joint meetings at the programme management levels</td>
<td>-Number of meetings organised</td>
<td>2002</td>
<td>2003 &amp; 2006</td>
<td>NTP</td>
<td>$ 250,000</td>
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<td></td>
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<td>Support Home based care visit to those co-infected</td>
<td>Home visits conducted</td>
<td>2003</td>
<td>2003-2006</td>
<td>District</td>
<td>$320,000</td>
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<td></td>
<td></td>
<td></td>
<td>Provide screening services for TB patients</td>
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<td></td>
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<td></td>
<td>Conduct HIV survey</td>
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<td></td>
<td></td>
<td></td>
<td>Train prison staff</td>
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<td></td>
<td>Build capacity among NGO’s &amp; civil society</td>
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<td></td>
<td>Build capacity within NGO and civil society &amp; other private providers</td>
<td></td>
<td>Support private providers</td>
<td>100 private health units to be involved</td>
<td>2002</td>
<td>2002</td>
<td>Regions &amp; districts</td>
<td>$5,000,000</td>
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<td>250 NGO’s to be assisted &amp; trained in 5 yrs</td>
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<td>60 trained annually</td>
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<td>Key strategy</td>
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<td>OUTCOME</td>
<td>KEY ACTIVITIES</td>
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<tr>
<td>Focused Research</td>
<td>Conduct relevant operations research</td>
<td>Improved programme effectiveness</td>
<td>- Conduct Studies as defined in specific activities</td>
<td>2002</td>
<td>2002 &amp; 2006</td>
<td>2003-2006</td>
<td>All levels, Universities, HRU</td>
<td>$250,000</td>
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<td>Disseminate research findings</td>
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<td>Literature subscriptions</td>
<td>2002</td>
<td>2003-2006</td>
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<td>Nat/Regional</td>
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