National Tuberculosis Strategy

Ministry of Health
Timor Leste

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Situational analysis

The population of Timor Leste of approximately 850,000 is spread throughout 13 districts. The districts can be further divided into 63 sub-districts, 498 villages and 2,336 hamlets. Tuberculosis (TB) both pulmonary and extra pulmonary, is endemic in Timor Leste. It has been classified as a high burden nation with 139 new smear positive cases notified in 2002 per 100,000 of the population.

The endemic prevalence of TB has significant implications for East Timor and TB has the potential to undermine sustainable development and economic growth. This is due to the number of disruption of family life, suffering and possible death of the individual, and economic hardship for individuals, families and the community due to lost productivity caused by the symptoms of the disease. TB can therefore be directly related to poverty issues within the community.

The social and environmental conditions in Timor Leste provide ideal conditions for the transmission of TB. Population displacement and the subsequent rural-urban migration have led to overcrowding in the larger towns. This situation, combined with poverty, malnutrition and the inadequate coverage of accessible and meaningful anti-TB interventions has created ideal conditions for transmission. Hence the opportunistic nature of TB poses a serious threat to the future social and economic development of Timor Leste.

The disease

While there are a number of bacillus that cause TB, the main cause of tuberculosis in East Timor is mycobacterium tuberculosis. This tubercule bacillus can present itself either in pulmonary or extra pulmonary form. Transmission is usually acquired through the inhalation of the mycobacterium into the lungs, which then may subsequently spread to other parts of the body other than the lungs such as the pleura and the gentio-urinary system. Bacilli are sensitive to UV light, thus overcrowded and poorly ventilated housing is conducive to increasing the risk of transmission.
Symptoms of the disease include persistent cough with or without haemoptysis, night sweats, weight loss, and malaise. Treatment is with a combination of anti TB drugs. However delays in seeking treatment and problems associated with diagnosing the disease can lead to death. Incomplete treatment due to non-compliance or inadequate drug supply can result in the emergence of multi-drug resistant tuberculosis (MDRT**B).**

TB epidemiology in East Timor

Timor Leste is a high TB burdened nation. New sputum positive cases identified annually since the NTP started are:1389 (2000),1315 (2001), 1136 (2002). The decrease in notification since 2000 may be explained by the

limited access to adequate TB services before 2000 and the rapid and successful expansion of DOTS introduced in selected sub-district in all districts during first year of implementation in 2000.

The prevalence of untreated TB cases is expected to decrease with the strengthening of district health services, including the implementation of DOTS. With the current decentralization of DOTS services at sub-district and village level, it is expected that the TB notification rate will depict a more accurate picture of the incidence of TB and will in turn progressively increase the successful treatment of identified cases towards reaching the planned global target of a 70% reduction by 2008

The notification rate of the number of smear positive cases in Timor Leste in 2002 (140/100,000 hab) was 1.8 times higher than the case notification in any Indonesian province (Gorontalo in Sulawesi: 78/100,000). According to WHO, however, Indonesia has a very low case detection rate and the estimated incidence in Indonesia is similar to the notification rate in East Timor. If and how much more tuberculosis there is in East Timor than in Indonesia remains to be seen.

East Timor demographics

Timor Leste is currently one of the poorest countries in the world. In August 1999 following 24 years of occupation, which was ensued by post referendum violence, Timor Leste was left in a state of disarray with no functioning government. Seventy to eighty percent of the infrastructure including health facilities were destroyed or badly damaged.

On 20th May 2002 Timor Leste became an independent nation and 191st sovereign state in the world. A democratic government was elected, a new constitution drafted and the rebuilding of its infrastructure commenced. Rapid economic growth also occurred, assisted by international donors. The country has moved to a post conflict stage with significant reconstruction and systems development taking place. However the transition to economic independence will take much longer.

Timor Leste has the highest rate of human poverty of the all the Asian countries. The average Gross National Product (GNP) per capital was US$ 478 with a life expectancy of 50-58 years. Data illustrates that more than 40% of the population are living below the poverty line of US$ 0.55 per day.

The constitution of the Democratic Republic of Timor Leste recognizes the right of every citizen to health and medical care. The government is fully committed to improving the health status of the population. It has given priority to health and health related activities in the National Development plan approved and adopted shortly after independence.

The Ministry of Health now is currently providing an integrated package of clinical services and health interventions in all 13 districts in Timor Leste, including tuberculosis control.

The local NGO Caritas Dili (CD) started a nation-wide tuberculosis control program in 1997 in the network of church-based clinics, parallel to the

Indonesian National Tuberculosis program (NTP), with financial and technical support from Caritas Norway (CN). This program followed the strategy recommended the International Union Against Tuberculosis and Lung Disaese (IUATLD) and WHO, which is usually called DOTS (Directly observed treatment short course). This program was reviewed by the IUATLD in 1998. In 2000 the authorities appointed Caritas Dili as lead agency in the new National Tuberculosis Program , and the Central Unit of the NTP is still in Caritas Dili.

After 2000 the coverage of tuberculosis control increased and the number of cases tripled compared to the Caritas-based program., but coverage is still far from complete at all levels throughout the 13 districts. BCG vaccinations are given to infants as an essential component of the national immunisation program as a preventative measure. Scope still exists for addressing many of the determinants of TB (malnutrition, cramped and dark housing, other public health related concerns) as long term strategies, however the greatest immediate effort will be the further coordinated expansion of the DOTS strategy, to the sub-districts and health posts not already covered by the programme. By increasing diagnosis and treatment throughout all levels in the 13 districts the potential exists to make a further significant impact on the current situation. Funding and support for the current NTP from CN, may terminate from the end of 2005. It is already planned to transfer the operational running of the TBU to the Government as an essential step in integrating this program into regular MoH service provision. However this step will require mobilization of political, financial, technical and managerial support and systems development..

The health authorities established in 2000 a Memorandum of Understanding (MoU) to ensure good coordination between the partners involved in the NTP, including Caritas Norway, Caritas Dili and WHO. The partners have since had regular meetings and a new MoU was signed in December 2003 to incorporate changes within the partnership arrangements identified in the original agreement.

The WHO has set targets for Global TB control, to find 70% of smear positive TB cases and successfully treat 85% of them by the year 2005. In view of the slow global expansion, the year of achieving the goal has been postponed, but all countries are asked to develop multiyear DOTS expansion plans specifying how these goals can be reached within a few years.

The current TB strategy is based on addressing TB within a comprehensive primary health care approach and includes the multiyear plan for DOTS expansion in East Timor.

DOTS: introduction, expansion and results

DOTS is seen as the major weapon to halt and reverse the spread of TB. Each infected person may transmit the disease to between 12 and 20 other persons. Treatment through the DOTS method halts the infection and the spread.

DOTS was initiated in Timor Leste in 1997. It is currently implemented across a range of government health centres and health clinics run by Caritas a part of the Catholic Church health network. Decentralization of some of the

components of TB health services such as passive case detection, smear preparation, DOT (directly observed treatment) and advocacy have been implemented in 42 out of 64 CHC at sub district level. In addition, these elements have been introduced through voluntary village health workers in 20 out of 320 satellite health posts at village level. DOTS is available in all the 13 districts of Timor Leste, in 66% of sub districts and 6% of health posts. DOTS is also implemented in 4 out of 5 secondary hospitals and 2 out of 3 prisons through the nearest district CHC.

DOTS is implemented throughout the curative public health network in CHC and NGO clinics mainly on an outpatient basis. However, some TB cases (representing less than 10%) require inpatient treatment for between one and two weeks, mainly because of an accompanying severe medical condition Free housing is also provided within the Caritas Dili system for a limited number of TB patients when the treatment cannot be directly supervised otherwise during initial phase of treatment. This accommodation is provided through 90 beds in 7 hostels (albergues) supported by Caritas Dili and one supported by the local Klibur Domin NGO. Following this directly supervised treatment the 6 months continuation phase treatment is provided on a two-monthly or monthly ambulatory basis.

Treatment results have improved and success rates have increased from 73% in 2001 to 81% in the first quarter of 2002 (see annex table 2, 3,4). The global target recommended by WHO is 85% success in new smear positive cases. Treatment regimens are standardized with 6 to 8 months WHO recommended regimen[1] TB drugs are not prescribed for other diseases, other than TB. The administration of treatment is in the intensive phase is fully supervised.

BCG strategy

Small children have a especially high risk of developing serious tuberculosis (meningitis and miliary tuberculosis) if they are infected. BCG vaccination reduces this risk and is therefore an essential component of the immunization program (EPI) for children at birth or as soon as possible afterwards. We refer to the national EPI strategy document.

The Plan

The NTS is an essential element of the Communicable Disease component of the Basic Package of Services (BPS). The NTS has been developed within a consensus based on problem identification and strategy development by stakeholders from the health sector of the Government, National and International NGOs and other international organizations located at central, and district levels.

It provides an plan of action based on available evidence for a working partnership between Ministry of Health (MoH), WHO and an NGO partnership comprising of Caritas Dili and Caritas Norway.

[1] Cat 1 (all adult cases not previously treated): 2RHZE/6EH; Cat2 (previously treated patients with positive sputum smear microscopy): 2SRHZE/1RHZE/5R3H3E3; Cat3 (children):2RHZ/4R3H3

The NTS will be implemented within the developing systems of the MoH that provide an environment that, in itself will ensure a coordinated, national response that incorporates DOTS and reflects Timor Leste's policies on health sector reform, poverty alleviation and support from development partners.

The overall strategy

The NTS will be implemented within a comprehensive primary health care framework. This will entail short, medium and longer term interventions; utilising the DOTS strategy as it has been proved to be the most cost effective strategies for treating the disease. BCG will also contribute to reduction of disease in children as victims although not as transmitters of the disease. As the capacity of the MoH grows and further systems are put in place the NTS will attempt to address the determinants of TB is a multisectorial and community based approach. Timeframes for this broader approach will be determined when this strategy is reviewed within the next five years.

The immediate focus will be that of expanding the implementation of the DOTS strategy.

Although DOTS has already achieved nationwide coverage in Timor Leste, it has still to be fully implemented in all community health centres (CHC) and health posts (HP) in order to increase access to interventions for the poorest and most vulnerable sectors of the population. The expansion of the DOTS strategy into all CHCc, HPs and mobile clinics will take place within the delivery of the Basic Package of Services.

Expansion of interventions within the BPS, including NTS, will require costings of additional interventions and appropriate budget allocation.

DOTS is based on five key elements:

- **Sustained political commitment** to increase human and financial resources for health services and make TB control an integral component of primary and secondary services; available and implemented nation wide within the national health system
- Access to **quality assured TB sputum microscopy** for case detection among people presenting with symptoms of TB. Screening of individuals with prolonged cough by sputum microscopy. Other means of clinical, radiographic and TB skin tests, culture and active case finding among high-risk groups are adopted.
- **Standardized short course chemotherapy to all cases of TB under proper case management conditions including direct observation of treatment**- proper case management conditions imply technically sound and socially supportive treatment services
- **Uninterrupted supply of quality assured pharmacy items** with reliable drug procurement, distribution and monitoring systems
- **Recording and reporting system enabling outcome assessment** of each and every patient and assessment of the overall programme performance.

DOTS also includes two vital crosscutting strategies on:

- Behaviour Change Communication to increase the knowledge, skills and competencies of community members in regard to TB awareness and determinants, means of prevention, and the need for prompt initial symptomatic diagnosis and to follow treatment regimes.
- Monitoring, evaluation and research to constantly review the impact of TB interventions, identify new opportunities and up-grade control strategies of existing services and interventions.

Objectives of the NTS

- **To reduce the morbidity and mortality rate of TB by 50% by the year 2014 by achieving and maintaining case detection rate of 70% and treatment success rate of 85%**
- **To promote the accessibility and sustainability of the DOTS strategy by ensuring DOTS interventions are integrated into the Basic Package of Services.**
- **To identify and address the determinants of TB through a comprehensive primary health care approach.**

Purpose

The National Tuberculosis Strategy will be implemented within the developing systems of the MoH thereby ensuring:

- stakeholder coordination and effort
- strengthened partnerships
- integrated systems
- advocating resource priority
- focused national commitment
- development, dissemination and implementation of national guidelines

The National Tuberculosis Strategy will provide a basis to ensure common understanding and optimal coordination between the partners involved in TB control: MOH, WHO, Caritas Dili, Caritas Norway, Global Fund and others and eventually a multi-sectorial approach in addressing determinants.

For the Ministry of Health:

- a framework for developing TB control within the Basic Package of Services
- a basis for ensuring coordination between all strategic and implementation partners and sectors involved in TB control

For the Department of Communicable Diseases :

- a map for providing leadership, guidance, technical support and workable strategies for districts and service providers.
- the basis for working with partners agencies

For districts and sub-districts:

- a framework on which to strengthen the District Health Plans to address tuberculosis at the community level.

And for partner agencies:

For multi-lateral and bi-lateral agencies:

- a framework for considering and monitoring effective, coordinated support.

For national and international NGOs

- a framework in which to work in partnership with MoH to continue and expand TB initiatives.

For implementation partners:

- a basis for strategic roles and consistent action towards a common goal.
- a guide to support agreed interventions within the District Health Plans.

The Mandate

The National Tuberculosis Strategy is mandated by, embraces and conforms to the National Development Plan of Timor-Leste, MoH Health Policy Framework, Basic Package of Services and the document on the Vision 2020.

STRATEGIC APPROACH No. 1

Sustained political commitment to increase human and financial resources for health services and make TB control an integral component of primary and secondary services; available and implemented nation wide within the national health system and partner agencies

At present the TB unit is operating as a function of Caritas although the transition to a central unit within the MoH has commenced. The unit should be fully established within the MoH by the end of 2005. The NTS will then be developed and delivered as an integral component of MoH primary and secondary health services.

Goal

The MoH to facilitate and establish the integration of the TB unit within the Ministry of Health and to build its capacity with regards to human and financial resources.

Target by the end of 2005

The Ministry of Health to officially establish a TB unit (CU) within the Department of Communicable Disease and recruit sufficient, qualified staff to fully discharge central level responsibilities. In conjunction with responsibilities listed as National level responsibilities the TBU will:

- monitoring progress toward TB reduction targets
- determining central level strategies to boost efforts toward goals,
- contributing to development of NTS data collection (within HMIS) and analysis
- presenting the epidemiological status,
- reporting on activities and expenditures
- identifying and presenting financial and technical gap to reach the global targets;

Implementation of strategy

Key issues for effective TB control measures integrated within the national health care system are:

- strong national technical leadership
- national strategy overview committee functioning; National Tuberculosis Interagency Committee (NTBIC)
- NTS as a component of the health sector development plan, DHPs and beyond health a component of country development;
- national TB guidelines reflecting the national scheme for TB control activities (detection, diagnosis, treatment, registration) and TB management (quality assurance, drug supplies, risk groups, training, monitoring);
- annual statement of health expenditure, including TB related costs.
- adequate training and continual upgrading of technical skills and competencies of health workers
- legal framework (laws, order, circular, official act) to support delivery of health interventions including TB control activities.
- review of incentives for health staff including those supporting and delivering TB initiatives.

In addition:

TB unit coordinate with National Centre for Health education and Training (NCHET) to identify training needs and conduct refresher **training** activities including:

- Training of medical and laboratory trainers (in-country and out-country workshops)
- TB nurses and laboratory refresher training courses for nurses and laboratory staff from 18 TB units and 5 hospital (13 district Community Health Center, 5 Dili CHC, 5 hospital in Dili, Baucau, Maliana, Maubesi, Ambeno)
- TB nurse's refresher training courses for nurses from 64 sub-district Community Health Center CHC).
- TB community representative training conducted at the district level for 70 new volunteers per years participating to DOT in DOT satellites at village level
- Computer, English lessons.

Service support activities of the central level will include:

- TB unit team to organise regular (monthly or quarterly depending on needs) **monitoring visits** to all districts and support DHMTs to monitor TB activities within their health facilities.
- TB laboratory team at central level to conduct monitoring visit on quarterly basis to facility level laboratories (Community Health Centers, hospitals and clinics), where possible jointly with the TB Unit team.
- TB unit to conduct quarterly **peer meetings** with TB nurses and laboratory technicians from district facilities and hospitals providing TB services
- TB unit to coordinate with and support SAMES to establish stockholding and distribution systems within the government system.
- TB unit will act as secretariat for the NTBIC and will facilitate annual meetings of the NTBIC along with periodic working group meetings.
- The TBU will work within procurement protocols and departments to support the Ministry of Health in developing and submitting applications for supplies (drugs, vaccins, consumables) and other necessary equipment maintain effective TB interventions.

Not all activities are related to integration, but are routine activities to be carried out by the Central TB Team. The approach should therefore be broadened with the third component.

STRATEGIC APPROACH No.2

Clinical management: Access to quality assured AFB microscopy to improve diagnostic detection of new smear positive pulmonary cases and strengthening of the diagnostic process.

Microscopy of sputum smears is the key diagnostic tool in tuberculosis, since it confirms the diagnosis rapidly, identifies the infectious cases and document the effect of treatment. A minority of TB cases have pulmonary TB where no bacilli are found by microscopy but clinical and x-ray criteria suggest the diagnosis. At present too many of the TB cases do not have the diagnosis confirmed by positive sputum smear microscopy [this is currently the largest problem in diagnostics]. Lack of access to TB diagnosis in many areas indicates that many infectious cases are not detected.

Goal

The MoH to ensure access to quality assured AFB sputum microscopy for case detection among people presenting with TB and screening of high-risk individuals

The collection of sputum in CHCs and sending of smear to district laboratories (either at sub-district CHCs with Laboratory facilities or the District CHC) needs to be strengthened.

The diagnostic process needs to be improved so that a higher proportion of cases are confirmed by sputum smear microscopy.

To explore possibilities and make available when and where appropriate additional means of detecting cases by radiography, tuberculin skin tests, and contact tracing among at risk groups.

To ensure that all those at risk of acquiring TB have access to BCC initiatives to improve knowledge of TB issues, recognition of signs and symptoms with the objective of raising awareness of TB and increasing self presentation to health facilities.

Targets by:

End of 2005

- Proportion of all adult pulmonary cases with positive sputum smear increased to 50%.
- All CHCs collect sputum and send smears to district lab regularly.
- MOH ensure access to x-ray for suspected TB cases according to diagnostic algorithm (only after two negative rounds of sputum smear microscopy and one round of antibiotics).

End of 2007

- The MoH Central Laboratory is skilled and equipped to support the full roll-out of the DOTS initiative.
- MoH, through the TBU, to strengthen the link between the Central Laboratory and the supra national network of laboratories for the testing of TB culture and sensitivity as may be required for treatment of MDR-TB cases and specific research on an agreed basis.

End of 2009

- 70% case detection rate of new smear positive cases
- 100% of treatment failure will have laboratory examination.

Implementation of the policy

The correct usage of diagnostic measures is integral to the success of the strategy. Investment in training, adequate equipment and updating laboratory technicians is thus vital in addition to maintaining quality assurance.

The MOH is to:

- *Ensure that CHC supervise the collection of sputum and send smears to district level laboratories (District CHC or sub-districts CHCs with laboratories)*
- *Ensure that doctors, especially in hospitals and private sector follow guidelines*
- *Train foreign doctors on arrival in TB policies*
- *Expand the network of x-ray to referral hospitals to ensure x-ray according to diagnostic algorithm*

The MoH Central Laboratory, TB unit will:

- Be equipped with adequate equipment and resources such as access to microscopes and a reliable electricity supply
- Implement quality improvement for laboratories to improve the reliability, efficiency and use of laboratory services. The quality improvement comprises 1) quality improvement as an internal process performed by all laboratory workers, 2) quality improvement based on problem solving during on-site supervisory visits, and 3) proficiency testing (or external quality control) through cross-checking test (re-reading) of smear microscopy slides culture and drug sensitivity testing. The MoH Central Laboratory will organise cross-checking test and

The following activities will be undertaken:

- Strengthening and assessment of quality improvement systems;
- Annual peer meetings and training of laboratory technicians at central levels;
- Annual assessment of laboratory quality assurance during the national conference.
- Link national reference laboratories with the supranational network of laboratories for DST quality assurance

STRATEGIC APPROACH No. 3:

Clinical Management: providing effective standardised short course chemotherapy to all cases of detected TB under proper case management conditions including direct observation of treatment

The standardized 6-8 month WHO recommended DOTS regimen is the most cost effective means of treating, monitoring and surveying TB throughout Timor Leste. The four drug fixed dose combination tablets prevent both mono-therapy and the potential for the emergence of further cases of MDRTB. The treatment success rate of newly detected smear positive cases in the first quarter of 2002 was 81%.

Goal

The Government of Timor Leste will ensure:

1. all health facilities, especially CHCs, supervise treatment according to guidelines.
2. adequate information is available so all those receiving treatment are aware of the possible side effects of the treatment regime, the importance of completing the full course of treatment and additional social benefits they may be entitled to
3. systems are put in place at the community level to recognise and engage the DOTS community representatives in meaningful health related activity
4. capacity building for DOTS management among clinicians
5. treatment also for patients with multidrug resistant tuberculosis.

Target

- All Tb cases receive treatment under direct supervision according to guidelines.
- To treat successfully 85% of the new sputum smear positive TB detected cases
- Train additional community representatives in accordance with available resources including funding.
- For the TB central unit to expand and strengthen DOTS in government and implementation partner health facilities in accordance with the national rollout plan and TB Manual directions.
- Establish effective treatment also for patients with multidrug resistant tuberculosis.

Implementation of the strategy

The NTS will be developed and delivered within the MoH national health service. The level of service will grow incrementally along with the capacity of the MoH to adequately support quality interventions.

All cases are treated with the standardized DOTS at the nearest health care facility providing this intervention to the patient's home.

Regular supervisory/support visits to health staff at all levels, training and annual updating of clinical professionals through workshops, annual meetings at central and regional levels and an annual national conference

MOH will apply to the Green Light Committee (in WHO) to get access to cheaper second line drugs for MDRTB and get advise on rational use of them.

Increasing community awareness and participation

In order to improve the health status of the community in regard to TB infection it is vital that those undergoing a regime of treatment take the correct dosages over the recommended intervention period. Additionally, individuals under treatment, family members and close community are entitled to higher levels of knowledge of this major public health issue and the potential threat to their health and wellbeing.

Engaging individuals and family in identifying the value of full recovery from a completed course of DOTS, and having them identify problems along with possible solutions in order to maintain treatment regimes, will dramatically reduce the potential for an increase of incidence of MDRTB.

The NTS should promote that DTCs help identify community workers to be trained and followed up as DOT providers in a gradual and carefully supervised process..

Social support

It is recognised that members of the community undergoing extended treatment for TB may require support during that period. This 'social' support has been a component of the initial TB program and is considered to have proven valuable in case detection and to have contributed to success rates in certain cases. The definition of social support to date has included the provision of free services to TB patients in areas of; food, treatment and services, transport and home service.

The NTS cannot disregard the potential benefits of providing this support and recognises that in many cases these initiatives being a contributing factor to full compliance with the DOTS treatment regime. The NTS recognises that the Government of East Timor does not have the capacity at present to support such initiatives by diverting scarce funding from other more essential and urgent public priorities.

The NTS will endeavour to seek opportunities with development partners for support of social support initiatives within the overall framework of health service development.

Improvement of case management by service providers

Capacity for effective management of the DOTS strategy needs to be strengthened. The NTS will work in coordination with the NCHET and districts in identifying training needs and developing training opportunities. Periodic refresher courses should be made available. In addition training of

both postgraduates and undergraduates needs to be negotiated with training agencies by adjusting the curricula in nursing and laboratory schools to accommodate the DOTS strategy. The following activities need to be organized:

- Training workshops for the managerial team at central levels, clinicians, nurses, primary health care staff, laboratory technicians, pharmacists, and community volunteers in the public and private sector ;
- Training workshops on specific issues (drug management and quality, programme review, data analysis, vulnerable groups, etc.);
- Development of curricula, including the DOTS strategy, in medical, nursing and laboratory schools;
- Annual peer meetings at central, and regional levels
- Annual national conference.

STRATEGIC APPROACH No. 4

Pharmaceutical Supplies: procuring an uninterrupted supply of quality assured pharmacy items.

Successful interventions for the prevention and treatment of TB in part rely on an adequate supply of the recommended drugs and vaccines. The availability of stocks of these essential in sufficient quantities and quality, both at the central level and for immediate use at the operational level is critical to support service delivery and build community confidence in priority interventions including DOTS and vaccinations of BCG.

Goal

MoH to integrate TB related drugs and pharmaceutical supplies into the government pharmacy stocking and distribution system and facilitate access to those quality anti-mycobacterium drugs, vaccins and consumable items and to ensure they reach those that require them in a timely manner.

Implementation of strategy

The NTP has until now been provided with TB drugs without stock-outs by Caritas Dili. In order to strengthen integration, over time the current purchase, storage and distribution system for essential TB intervention items will be phased into the central pharmacy supply system of the MoH.

Funding for essential items will made to development partners, ie. Global Drug Facility for first line TB drugs, and the GLC mechanism for second line drugs,

along with budgeted allocation within the MoH recurrent budget. 4FDC drugs should gradually be introduced.

District health management teams have the responsibility to ensure stock levels are maintained and to order drugs based on reported cases through quarterly reports. The NTP Central Unit will periodically monitor the ordering and storage of TB drugs.

It is the responsibility of SAMES to authorize drug orders from abroad and distribution to districts. Existing pharmaceutical stores ordering processes will be modified to accommodate TB initiatives as the program is integrated into the MoH systems.

Registration issues regarding the 4 FDC tablets and second line drugs, including certificate indicating maintenance of the manufacturing process will be undertaken within MoH processes.

The MOH should work with partners and other ministries to eliminate TB drugs through other channels than the NTP, including border control.

STRATEGIC APPROACH No. 5

Recording and Reporting: maintaining TB specific reporting within MoH HMIS components to enable the assessment of case finding and treatment outcomes and evaluation of overall program performance

The measurement of achievements of TB initiatives is essential to analyse the effectiveness of current interventions, identifying trends in disease patterns and new opportunities to prevent infection and re-infection, along with TB/HIV co-infection.

Goal

To maintain the recording system and incorporate NTP specific reporting requirements for the assessment of case finding and treatment outcomes and evaluation of overall program performance within the HMIS.

Implementation of strategy

- Treatment outcomes analysis for all notified smear-positive TB cases through regular reports on notification and treatment outcomes in HMIS;
- Development of a set of indicators to monitor DOTS expansion;
- Development of a set of indicators to assess achievements across all TB initiatives
- Update projections for TB epidemiology.
- Ensure current levels of gender disaggregation are not compromised.

Measuring target indicators of the NTS

Assessments will be structured to measure outcomes and process by the year 2007. This data will be used to redefine 2012 targets. The TB unit will undertake a series of reviews, facility level surveys and community-based surveys to assess the targets set out as part of the NTS for 2007. The national surveys will be conducted every three years beginning 2004. These surveys, tools and funding will be developed with the assistance of funding and development partners and involve the MoH policy and Planning Department, Monitoring and Evaluation Unit. As Timor-Leste is in the process of integration of disease surveillance and control activities, it will be possible to develop monitoring and evaluation processes in an integrated manner.

Impact assessment

To assess the overall impact of the NTS on the health of the community at large, two approaches will be undertaken:

Facility level

- Age-structured, TB case fatality rates from hospital facilities.
- Annual and monthly TB cases in out-patients from dispensaries and health centres.
- Annual incidence of new smear positive cases and MDR cases
- Numbers of fully immunised children and drop-out rates.

Community level

The key impact parameters of primary interest to the TB programme are:

- Infant and under five mortality
- Treatment outcomes with regards to numbers cured, completed, failed or defaulted on treatment

STRATEGIC APROACH No. 6

Information, Education and Communication: facilitating awareness and knowledge on the TB problem within the community.

The NTS recognises that an essential component of the DOTS strategy is for recognition by individuals and the community of prompt detection, accurate analysis and a full course of comprehensive treatment. These actions are intrinsic in the control and prevention of any communicable disease including tuberculosis.

In direct regard to DOTS, these interventions will focus on increasing the awareness of individuals and community in taking appropriate action if a TB

case is suspected and addressing risks associated with defaulting in the DOTs treatment regime.

Behaviour change communication which addresses issues surrounding successful DOTS treatment will be initiated within the overall scope of health promotion activities of the MoH.

The NTS proposed IEC approach has been developed within the broad framework of the National Health Promotion Strategy but focuses on specific interventions and messages designed to contribute to sustained behavioural change in relation to TB control and prevention.

Goal

The MoH will ensure that all the population of Timor-Leste have access to appropriate, accurate and culturally relevant information about TB control and management, in order to facilitate the greater understanding of the community in regard to the TB problem in order that this knowledge may contribute to informed decisions on changing their behaviours to address their personal priorities.

Targets by 2007

- 90% of households national-wide should have received targeted IEC on all key messages from at least one source every 6 months.
- 90 % of community health centers integrate health promotion messages on TB in their daily service provision
- 90 % of districts establish a community support group together with NGOs and/or other stakeholders in the districts for TB patients

Advocacy

The overall approach of the MoH to addressing public health priorities in East Timor encompasses the principle of community participation. In this regard the development of community associations or interest groups that have an interest in TB is considered favourably and will be supported at both the central and operational/community levels.

Implementation framework

The health promotion activities will be coordinated and led by the Health Promotion Department – MOH with assistance from WHO. A working group is recommended to support the Health Promotion Department – MOH, especially for coordination and ensuring that messages are in concert with national policy recommendations and monitoring strategic directions. The WG will establish a framework and partnerships for implementation of activities.

These partnerships will include the following:

- Partnerships at district and community levels for education and skills building (fostering links, supporting and initiating local health promotion schemes based on "best practices")
- Partnership with other ministries, including Ministry of Education (working with teachers at districts level and at institutions like adult education institution, and feeding the TB topic into national curriculum development).
- Partnerships with NGOs, Church and non-profit health care providers (coordination and sharing health promotion expertise and tools, setting up of an implementing agency to develop workshops and national communication resource center).

Focus for health promotion

All IEC approaches will focus on several generic messages including

- the signs and symptoms of TB
- importance of prompt diagnosis and treatment
- importance of recognising and undertaking preventative interventions
- compliance with DOTS

All approaches to IEC will be developed using Good Communication Practice Standards.

STRATEGIC APPROACH No. 7

Tuberculosis and HIV: developing integrated interventions for surveillance and control

The link between those living with tuberculosis and HIV/AIDs is now well known. As such the NTS will coordinate with the STI/HIV/AIDs program of the MoH to develop initiatives to.

Components will include:
- HIV testing in TB patients (as sentinel group, with councelling, in VCT centers)
- Ensure sterile injections of streptomycin
- Indications for ARTs

At this point of time this strategic approach has yet to be developed and will depend on the development of strategies within the STI/HIV/AIDS unit of department of Communicable Disease Control to develop the goal and objectives along with specific strategies for intervention.

STRATEGIC APPROACH No. 8

Research: mechanisms for informing reviews of strategy and readjustment of guidelines and interventions for TB control.

Research and development

Research and development in the areas of treatment delivery, TB control in health systems, TB prevention and monitoring and evaluation can be promoted. The following topics will be encouraged:

Regular reporting mechanisms of the MoH will be the prime source of evidence for NTS development.

Regular (standard) reports:

- Quarterly report of the NTP
- Monthly facility level HMIS reports (primary and secondary services)
- District Plan Implementation Reports (6 monthly)
- Hospital Annual Action Plan Implementation Reports (6 monthly)
- other national level reports (MDG, AAP, TSP) (Annual)

Ad Hoc research

- Prevalence estimates and TB mortality surveys (through vital registration data system)
- Case detection increase

Institutional Approach

Ministry of Health, Timor-Leste has reviewed the institutional framework and human resources required to take forward the proposed NTS and other National Strategies formulated for priority diseases. Services will be planned and integrated within the Basic Package of Services. The proposed institutional framework for tuberculosis control will:

- Consist of a national level tuberculosis unit which over time will be situated within the Department of Communicable Diseases and its terms of reference will support that of a strategic and technical support role for the unit.
- Ensure that districts are supported in their responsibilities for planning and implementing services within these centrally developed strategies.

Short and medium term developments in the development of TB control will require a degree of flexibility, with regard to the workforce of MoH Central Services. These developments will include the transition of the current external management of the current TB program to within the MoH Service Directorate as well as strengthen capacities to fully support the district services with technical advice and quality improvement support.

The Institutional Framework

Tuberculosis is one of the seven priorities (essential packages) of the Health Sector Strategic Plan and is included in the Basic Package of Services within Communicable Diseases. As such the principles and structures of the MoH will form the foundation of National TB Strategy. There are 4 levels of activity within the MoH structure:

Community level

Interventions with the community are the first level of health interventions of the BPS. The need to strengthen community engagement in health matters is a core principle of primary health care approach to health and wellness. This strengthening of community participation will contribute to NTS objectives by helping:

- Curative intervention initiatives
- Advocacy opportunities for those under treatment
- Identification of prevention opportunities
- Increasing skills/competencies of the community
- Address environmental issues within resources and capacity

At the community level, all NTS activities will be implemented through delivery of the Basic Package of Services. Support for community level interventions will come from other levels in the system. The NTS activities will be integrated with activities of other health interventions at the community level (behaviour change, disease reduction and wellness promotion, advocacy).

The community level includes the work of Health Posts where there will be integration of all the components of the NTS in the basic health package as outlined in the district health work plan. Planning and implementation will involve community representatives, local community authorities and leaders, health workers, community groups, religious organizations, alternative health providers, other governmental and non-governmental community-based structures and organizations operating at that level. The DHP planning process is expected provide important entry points for broader health sector involvement at the community level, with support and access to information from other levels in the system.

The NTS's activities will be integrated with activities of other health interventions provided at the community level (BCC, IMCI, reproductive health, HIV and others).

Sub-district level

The sub-district level of service provision is centred around the Community Health Centre. As with the community level interventions, a participatory and multi-sectorial approach will be taken to identify issues regarding case detection, treatment, follow-up and administration of the NTS. Sub-districts will develop their own action plans working with stakeholders to identify problems in coverage, utilisation, resource allocation and local initiatives to address determinants within the scope of their capacity.

The plan of the Sub-district management and health team will form the basis of the District Health Plan.

Additionally, in keeping with the strategic direction of the DHPs, the MoH has expectations of improved liaison between sub-districts and non-government agencies, including church organisations, as key stakeholders, currently delivering or planning to deliver health services within the community. In this strategy, the Caritas supported Catholic health network will continue to be viewed as a major service provider of health services. It is hoped that this cooperation will identify sound models of service interventions that can be replicated elsewhere to strengthen health service delivery including TB control.

District level

The District Health Management Team (DHMT), including the Sub-district managers and District Medical Officers, will include in the district planning process clear mechanisms for TB control - tailored to the particular tuberculosis problems in each area.

The DHMT will develop these TB control mechanisms within existing structures and in keeping with the DHP methodologies, ensure a close relationship with other governmental structures. Key stakeholders at both the sub-district and district will be included in problem identification and intervention planning which will help build alliances for tuberculosis control.

In the immediate future, the Tuberculosis unit will work with the districts to strengthen district capacity to provide technical and service support to sub-districts. These support teams will have the responsibility to introduce the NTS integrated with other priority strategies (IMCI) as the strategy is rolled out.

National level

The Tuberculosis Unit will be the strategic focal point of the national TB control programme at the central level. It is situated within the Services Directorate and will provide strategic direction for districts, a liaison point for other MoH services and administrative units while providing a resource of expertise for partners in tuberculosis control. Its primary roles will be to:

- develop and disseminate policy and strategies and keep them up to date
- to champion the importance of the NTP so that sufficient resources are allocated
- provide technical guidance and assistance

- make regular supervisory visit to districts, as much as possible jointly with the central lab
- provide the focal point for inter-sectorial, interagency coordination at national level
- produce and disseminate national guidelines for all components of the strategy
- develop annual work plans, budgets –
- monitor and evaluate implementation and impact
-
- build capacity through identification of training needs – and in conjunction with NCHET ensure that training takes place
- develop systems and address quality improvement issues
- advocate TB control with the integration of other programmes
- coordinate with SAMES and national laboratory to ensure supplies of drugs and laboratory reagents/equipment.

Partnerships

Key to the success of the NTS is development of effective partnerships at all levels

Within the Ministry of Health

- Other service units (Maternal Health, Child Health, Communicable Disease, Environmental Health, NCHET)
- Policy and Planning (including M&E, HMIS, Human Resources)
- District Health Management Teams
- District and Central Laboratories
- Central Pharmacy and SAMES

Other Ministries

- Ministry of Finance and Planning
- Ministry of Agriculture
- Ministry of Education
- Ministry of Home Affairs
- Ministry of Tourism and Environment
- Other relevant ministries

UN, Donors, NGO's and Research Institutions

- UN and development partners: on access to technical advice, resources and global initiatives
- NGOs: to assist in the co-coordinated delivery of services to coordinated delivery of services to communities.
- Research institutions: on identifying research needs, translating research results to improve existing policy and practice.

Mechanism for coordination and communication

A National Tuberculosis Interagency Coordination Committee (NTBIC) will be established as a standing committee of the MoH. The committee will be supported and provide a forum for partners in the NTS to

exchange information, coordinate TB control strategies track service level activities, and monitor progress against objectives. The NTBIC will focus on national level policy and strategy development. It is proposed to establish a working group who will report to the central committee. Their terms of reference are defined within the TB Manual.

The terms of reference of the NTBIC committee will be:

- to advise and guide the Ministry of Health on national tuberculosis policy, strategy and priorities.
- to advise and support the MoH TB Unit in advocating resources for TB.
- to advise and guide the TB Unit and other collaborating partners on technical issues and new developments in TB control and elimination.
- to act as a forum for exchange of information on partners' activities
- to identify and advise on areas for national/international coordination to define and review the output of technical working groups and take account of their findings
- to receive and review reports from partners on progress against objectives
- to identify problems and obstacles to implementation of TB control activities and recommend solutions
- to report to the MoH yearly on achievements and progress against objectives.

The committee will meet at six monthly intervals. Ad hoc meetings on specific business may be arranged in exceptional circumstances.

Membership

The NTBIC will have a membership that can fulfil the responsibilities (listed above) and reflects the needs of the MoH.

- Director General of Services Delivery
- TBU coordinator

Plus selected representatives from (to be identified in the revised NTP Manual and Transition Plan:

- Multi-sectorial partners
- Implementation partners
- Development partners
- Technical representatives
- Service level representatives (DHMT, health workers)
- Community representatives

At least one member of NTB IC will be a permanent member of any working groups to aid in two-way communication, ensure national strategies are followed and avoid duplication.

Implementation

Annual Plans of Action

Each component of the ten year NTS will be broken down into milestones, set before the start of each financial year. These milestones will compliment the indicators and targets identified in the MoH Annual Action Plan, Millennium Development Goals, TSP and other MoH commitments.

The Central Unit will develop a draft detailed annual plan identifying activities, responsibilities, resources needed and time-scales for action which will provide the strategic direction for operational district health planning. Costed draft plans will be used to support the development of the MoH budget and negotiated with other partners who will bring in their possible contributions. The TB unit will work with districts and other partners to ensure strategies are articulated to each level of the system and operational plans, within the DHP, support the strategies of the national program.

Advocacy and Political Support

The Ministry of Health will press for adequate and sustainable resource allocation and lobby political support for all services including those related to the NTS through the appropriate parliamentary channels.

Information Service

Information is vital to the coordinated and strategic response to TB control, enabling all partners at all levels to make decisions in concert with national policy. This is particularly necessary at district-levels, where the soon to be developed HMIS/IDSS system is expected to have a significant impact on strategic planning capacity.

The TB unit will ensure all relevant NTS related information is available to partners and implementing agencies through:

- Distribution of all policy documentation, protocols and guidelines to districts, national and international partners.
- Contributing to the development of national data collection and analysis systems (HMIS, M&E systems) and coordinating NTS specific research opportunities.

Building capacity

The TB unit has the responsibility of strengthening the NTS as an component of communicable disease control within the BPS and certain secondary services. Capacity building will be developed around the five strategic approaches of NTS, systems for assessing TB training needs and building partnerships for service support and interventions.

Resources

Budgeting will be tied to annual work plans at all levels. Current restrictions in the financial reporting processes do not allow this to undertaken, however as systems are developed:

- At service levels TB interventions will be costed within primary and secondary health services and incorporated in budgets for delivery of the total health package (primary and secondary).
- At the district level consolidated budgets for all health facilities will be developed. Activities associated with providing support to health workers in relation to delivering the NTS will also be costed and integrated in district budgets.
- At central level, activities will be costed and a budget will be attached to the TB unit work plan and to TB control activities. Resources for this plan will come through the recurrent and development budgets. Negotiations with development partners, including NGOs are expected to contribute to NTS budgets with budget contributions being channelled through regular government systems and all expenditures reported.

Note: *Within the planning and resource allocation systems of the MoH there is now the mechanism for planning with development and implementation partners to take place at the national level, districts and sub-district levels. Forums for coordinated planning have been started with the expectation that MoH and partners jointly share needs identification, options for interventions and resource allocation.*

Budget status and resources required

Goals and targets, financial monitoring will be estimated for the NTS and periodically updated to estimate expenditure; resource needs, funding sources and gaps on a routine basis.

Annex 1: Health Promotion Activities

The success of TB Program depends on the community's level of awareness of TB and its participation in the recommended control measures. Accordingly, IEC activities play an important role in the success of TB Program. It is important, therefore, that IEC activities on TB are targeted to the right groups, culturally sensitive and aimed at assisting the target communities to improve their health behaviour. Messages on TB can be communicated:

- Verbally, from person to person (inter-personal communication primarily between health providers and TB patients and their families)
- Via printed materials, such as leaflets, brochures, flipcharts, posters
- Via mass media, such as radio and television

A comprehensive approach of IEC activities, which consists of inter-personal communication, use of print materials and mass media, is highly recommended.

Development and production of print materials is important to ensure correct information for the target communities. TB messages for the target communities should focus on:

- The nature of TB and the way in which it spreads
- Recognition of the signs and symptoms of TB and the need for early diagnosis
- Emphasis of severity of the TB problem and that DOTS is the best solution (Provide examples of DOTS successes and demonstrate its advantages)
- Cost effectiveness of the DOTS approach
- Availability of services and facilities for early diagnosis and treatment of TB
- Treatment procedures and duration
- The importance of regular and complete treatment, the adverse effects of irregular and incomplete treatment
- TB prevention measures

Manual and brochures on how to diagnose and treat TB will need to be developed and produced as they are useful for:

- Reinforcing the TB knowledge and treatment skills of health providers
- Ensuring correct information on case management of TB, especially of those who have not been trained in TB case management or who have fewer opportunities for participating in training courses

Workshops

There will be regular IEC strategy workshops across the country with representatives from target groups and communities to test communication approaches, ideas, and messages. These creative workshops will include IEC partners from NGO, governmental organizations, and develop local links with women, youth, religious and other such groups. Locally developed theatre, puppetry and photo stories will be encouraged.

Strategies such as sponsored annual prizes to reward best community-initiated schemes will be considered.

Mass Media

TB Unit and health education units together will develop mass media information campaigns on TB.

Print Materials

Print materials will be reviewed by testing in community before making them available for public use. Effective distribution channels will be explored.

School Health

The present school-aged population represents the parents of the future and the development of effective life-skills in relation to TB recognition, management and prevention will be a long-term priority. TB Unit through the IEC WG will revise health curriculum.