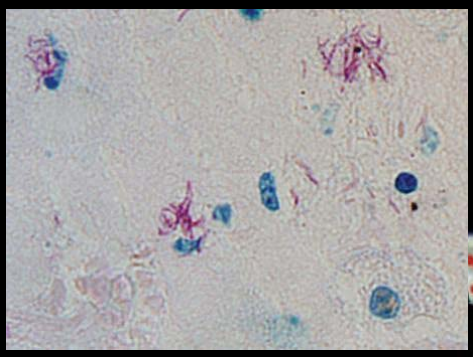
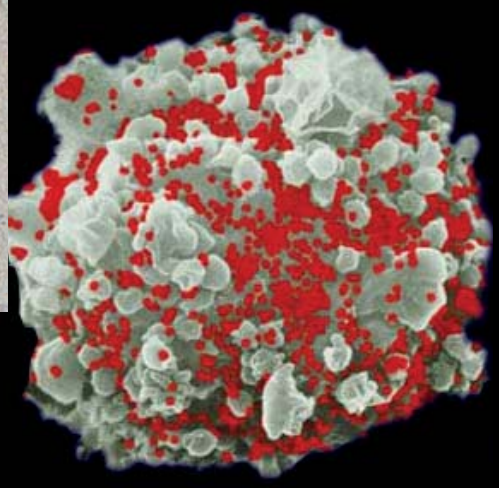
SAARC Regional Strategy on TB/HIV Co-infection





SAARC Tuberculosis and HIV/AIDS Centre

SAARC Regional Strategy on TB/HIV Co-infection

(Revised)

(2011-2015)

SAARC Tuberculosis and HIV/AIDS Centre
Thimi, Bhaktapur,
P.O. Box No. 9517, Kathmandu, Nepal
Tel: 00977-1-6-631048, 6-632601
Fax : 00977-1-6634379
Email: saarctb@mos.com.np
Web: www.saarctb.org

Printed in Nepal

Contents

Preface

The South-East Asia Region carries the highest burden of TB and the second highest burden of HIV in the world. Four Member States, out of eight in the SAARC region, namely India, Bangladesh, Pakistan and Afghanistan are among the 22 high burden countries.

Tuberculosis (TB) and HIV/AIDS are the two major public health problems in the SAARC region. In the field of TB control DOTS strategy has made a remarkable progress, however, emerging HIV epidemic has posed a major challenge to TB control efforts. HIV/AIDS prevalence in general population of SAARC region is still low but its prevalence among high risk groups such as commercial sex workers, injecting drug users, men having sex with men etc. has dramatically increased and risk factors are in place to spread the infection from these high-risk groups to general population. HIV fuels the TB epidemic in several ways. HIV is the most powerful known risk factor for progression of TB infection to active TB disease. HIV infection increases the lifetime risk of reactivation of latent TB infection. TB adds to the burden of illness of HIV infected people and shortens their life expectancy and it becomes the leading cause of death among people with HIV/AIDS.

Realizing the problem of these two diseases, the leaders of the region stressed the need for evolving a regional strategy to combat the same in the eleventh SAARC Summit held in Kathmandu in 2002. The Summit also mandated the SAARC TB Centre to collaborate with international organization and civil society in developing the regional strategy on TB/HIV co-infection. Accordingly, “SAARC Regional Strategy for TB/HIV Co-infection” was developed in 2003 and published in 2004. Since then many developments on TB and HIV/AIDS control have taken place in the world. There have

been revisions in the existing policies and guidelines and in addition, new policies and guidelines have been recommended. Hence, the need was felt to revise the existing SAARC Regional Strategy on TB/HIV Co-infection.

Considering the same, the 18th Meeting of the Governing Board of STAC recommended to organize a workshop to revise the SAARC Regional Strategy on TB/HIV Co-infection. Accordingly, the strategy was revised based on the latest policy, recommendations and guidelines and presented the draft document to the meeting of TB and HIV/AIDS Programme Managers held in Male, Maldives in December 2009. Based on the recommendations of the meeting and further inputs from the Member States the strategy has been further refined and endorsed by Thirty-third session of Council of Ministers (Thimphu, 8-9 Feb. 2011) as recommended by the 39th Session of Programming Committee.

This is a revised edition of "SAARC Regional Strategy on TB/HIV Co-infection" which presents an outline of regional strategy focused on areas of collaboration and directed towards the development and implementation of successful programmes for control of TB/HIV co-infection. This document highlights the SAARC regional context and points out major TB, HIV/AIDS and TB/HIV co-infection status and concerns, outlines strategy goal, objectives and expected outcomes. This document also explains the Strategy on the basis of its five different components.

Valuable inputs were provided by Programme Managers of TB and HIV/AIDS Control of SAARC Member States. STAC thankfully acknowledges for their final comments/ suggestions and guidance for timely preparation of this document.

Dr. Kashi Kant Jha,
Director, STAC

Abbreviations

ACSM	Advocacy Communication and Social Mobilization
AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-Retroviral Therapy
CPT	Co-trimoxazole Preventive Treatment
CSW	Commercial Sex Worker
DOTS	Directly Observed Treatment Short-course
DRS	Drug Resistance Surveillance
DST	Drug Susceptibility Test
EFV	Efavirenz
EQA	External Quality Assurance
HBCs	High Burden Countries
HIV	Human Immunodeficiency Virus
ICDDR-B	International Centre for Diarrheal Diseases and Research - Bangladesh
IDU	Injecting Drug User
INH	Iso-nicotonicacid Hydrazide (Isoniazid)
IPT	INH Prophylactic Treatment
M	Mycobacterium
MDGs	Millennium Development Goals
MDR	Multi Drug Resistance
MSM	Man having Sex with Man
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NGO	Non-governmental Organization
NNRTI	Non-nucleoside Reverse Transcriptase Inhibitors
NPTCCD	National Programme for Tuberculosis Control and Chest Disease
NTP	National TB Programme
PLHA	People Living with HIV/AIDS
RNTCP	Revised National TB Control Programme
SAARC	South Asian Association for Regional Cooperation
STAC	SAARC Tuberculosis and HIV/AIDS Centre
STC	SAARC Tuberculosis Centre
TB	Tuberculosis
ToT	Training of Trainers
VCT	Voluntary Counseling and Testing
VCTC	Voluntary Counseling and Testing Centre
WHO	World Health Organization

1

Introduction

South Asian Association for Regional Cooperation (SAARC) is an association for manifestation of the determination of the people of South Asia to work together towards finding solutions to their common problems in a spirit of friendship, trust and understanding and to create an order based on mutual respect, equity and shared benefits. The SAARC comprises of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

SAARC Tuberculosis and HIV/AIDS Centre (STAC) is a Regional Centre of SAARC, located in Kathmandu, Nepal. The Centre was established in 1992. The initial mandate of the centre was to work for prevention and control of TB in the Region by coordinating the efforts of the National Tuberculosis Control Programs of the Member States. Later on its mandate has been extended to work for prevention & control of HIV/AIDS and TB/HIV Co- infection in the Region. Accordingly, the centre has been working since 2005 for prevention and control of TB and HIV in the SAARC Region.

WHO recommended New Stop TB strategy embraces the fundamentals of TB control originally framed as DOTS, but extends beyond the TB control (DOTS) activities into other key areas. These include the well-known problems of multi-drug resistant TB (MDR TB) and TB/HIV Co-infection.

Tuberculosis (TB) is one of the most common causes of morbidity and the leading cause of mortality in people living with HIV/AIDS (PLHA). Despite significant recent progress in the control of TB, the SAARC region still has the disproportionate global burden of TB. India, Bangladesh, Pakistan and Afghanistan are among the 22 WHO designated high burden nations, with India having the largest global burden of TB.

Although the state of the HIV epidemic in many countries in the SAARC region is currently at a low level, it is increasing and in some places is in a generalized state. Overall 2.45 million estimated HIV infected people are living within the region. Overall HIV prevalence is still less than 1% in the region. In India except Andhra Pradesh with HIV prevalence of 1%, all other states have shown less than 1% median HIV prevalence among ANC Clinic attendees. The overall HIV prevalence among different population groups in 2007 continues to portray the concentrated epidemic in India, with a very high prevalence among High Risk Groups (Annual Report 2008-2009 NACO)[1]. Similar pattern has seen in Nepal and Pakistan and other SAARC member states at low prevalence epidemics (STAC 2008).

As the HIV and TB communities strive to reach their respective Millennium Development Goals (MDGs) targets, it is apparent that synergies can be exploited through greater collaboration between the programmes. Collaboration brings benefits to both programmes, not only in accelerating universal access to comprehensive TB and HIV prevention, treatment and care services, but also in building political commitment, advocating for resources and strengthening health systems (Godfrey et al 2002)[6]. Life saving opportunities to HIV prevention and treatment & care services are missed if National TB programme staffs are not sensitized about the problem of HIV in TB patients. Tuberculosis transmission will also continue to occur in HIV care settings and result in preventable TB disease and death among PLHA if those attending HIV care services are not systematically screened for TB symptoms at each visit and appropriate TB preventive, diagnosis and treatment services are not easily accessible.

The emergence of HIV epidemic has posed major challenges to TB control efforts, in the South East Asia Region, which is the second hardest hit by the HIV epidemic following Sub-Saharan Africa. The incidence of both diseases is highest in the economically productive age group (15-54 years), poses significant threats not only to health, but also to the social economic development of the region.

HIV fuels the tuberculosis epidemic in several ways. HIV promotes progression to active TB both in people with recently acquired and with latent *M. tuberculosis* infection. HIV is the most powerful known risk factor for reactivation of latent tuberculosis infection to active disease. HIV infected people are more susceptible to be TB infected when they are exposed to *M.*

tuberculosis. The annual risk of developing TB in a PLHA who is co-infected with *M. tuberculosis* ranges from 5 to 15 percent. HIV increases the rate of recurrent TB, which may be due to either endogenous reactivation (true relapse) or exogenous re-infection. Increasing tuberculosis cases in PLHA pose an increased risk of TB transmission to the general community, whether or not HIV-infected HIV not only increases the number of TB cases, but also alters the clinical course of TB disease. As HIV-related immunosuppression increases, the clinical pattern of TB disease changes, with increasing numbers of smear-negative pulmonary TB and extra-pulmonary TB cases. TB is more likely to be disseminated and more difficult to diagnose as immunosuppression progresses (WHO 2003)[21].

2

Global Situation of TB

Based on surveillance and survey data WHO estimates that, 9.4 million new cases of TB occurred in 2009. Asia (South-East Asia and Western pacific regions) accounts for 55% of global cases, and Africa accounts for 30%; the other regions account for relatively small fractions of global cases. The 22 high burden countries (HBCs) collectively account for 81% of TB cases globally. An estimated 1.3 million HIV negative people died of TB (20/100 000) in 2009, and there were an additional 400,000 TB deaths among HIV positive people. Among the 9.4 million incident cases of TB in 2009, an estimated 1.1 million (12%) were HIV positive.

The case detection rate of new smear positive cases in 2009 is 63% based on data from all sources (from DOTS and non DOTS) (WHO 2010)[23].

3

Situation of TB in SAARC Region

Tuberculosis continues to remain one of the most serious health and developmental problems in the region. About 50% of the adult population of this Region has already been infected with *M. tuberculosis* and is at risk of developing tuberculosis disease. In the year 2009, a total 2.03 million all types of TB cases were notified.

According to the estimate SAARC Region was bearing 28.7 % of the total global new sputum smear positive TB cases.

India, Pakistan, Bangladesh, and Afghanistan are occupying the 1st, 6th, 7th and 22nd positions in the list of 22 high burden countries (HBCs) respectively. {*according to estimated incidence (absolute number) of WHO TB, 2010}* with India having the highest (21 %) global absolute burden of TB in 2009. These four SAARC nations account for 27.4 % of the global absolute burden of TB.

Table 1: Ranking of the Member States according to estimated epidemiological burden of TB, 2009:

Member States	Incidence			
	All forms	Per 100,000 pop per year	New sputum smear +ve	Per 100,000 pop per year
1. India	1955688	168	873075	75
2. Bangladesh	329235	223	147639	100
3. Pakistan	320000	181	143000	81
4. Afghanistan	45587	190	18955	79
5. Nepal	44084	160	20504	74
6. Sri Lanka	11676	56	5253	25
7. Bhutan	1536	225	512	75
8. Maldives	125	42	45	15
Total	2707931	173	1208983	77

Source: TB Control SAARC Region, Update -2010

By adopting DOTS strategy, the Region has made remarkable progress in TB control. In the year 2008, SAARC Region covered over 99.5% of its population with DOTS and in 2009 it reached 100%. In the region in 2009, 71.9 % of the total estimated new smear positive cases were detected. Hence, the achievement regarding case detection rate of the region is very much close to the global target. The Region has already achieved the target of 85% (now 88%) treatment success rate of detected new smear positive cases. Major challenges however remain for control of TB, such as:

- Sustained implementation of TB/HIV collaboration
- Sustaining quality in diagnosis and case management
- Expanding DOTS services in private sector and hard to reach areas
- Strengthening human resources in terms of numbers and technical capacity
- Strengthening laboratory network and improving EQA and supervision
- Building infrastructure and technical capacity for culture and DST for management of MDR TB
- Establishing effective coordination between NTP and NACP

- Tackling the issues for tuberculosis arising due to migration & cross border, mobility of populations.

Countries are responding to these challenges and expanding the implementation of the new Stop TB Strategy. Over 85% are successfully treated; As a result, the region is already demonstrating a slow but steady decline in TB incidence rates. TB/HIV interventions to address the needs of those dually affected with TB and HIV are yet to be widely available in the region.

In addition, national programmes are now aiming to achieve universal case detection, further shorten diagnostic and treatment delays in order to cut transmission and prevent complications and deaths. At the same time, major efforts are to be made to address TB/ HIV through effective interventions together with HIV programmes, ensuring quality assured laboratory networks for microcopy, culture and drug susceptibility testing, rapidly scaling up capacity to treat existing multi drug resistant cases and focusing on "difficult areas" such as TB control among high risk populations and cross border areas.

4

Epidemiology of HIV/AIDS in the Global and SAARC Region

The global HIV epidemic has emerged as a formidable challenge to public health, development and human rights. Sub- Saharan Africa continues to bear the burnt of the global epidemic. The SAARC Member States have varied epidemiological patterns of human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS). In spite of different predominant HIV risk behaviors in the region, it has extremely diverse capabilities to develop and support public health prevention and control programmes. In reviewing the current epidemiology of HIV and AIDS within the SAARC region, this diversity needs to be fully addressed and defined. Despite of these diversities, Member States are committed to take necessary actions and contain HIV and AIDS epidemic.

The HIV epidemic has had a variable impact in countries in the region. HIV epidemic is in different stages in each country. Through implementation of surveillance systems for HIV prevalence, as well as sexual and injecting risk behaviors study by some Member States, understanding of the many diverse HIV determinants of the epidemic in the region has improved substantially. Overall HIV prevalence rate in the SAARC Member States remains low, but there are major public health concerns regarding the future growth potential of HIV epidemic within the region.

Table 2: Global Summary of HIV/AIDS Estimates, 2009 *(UNAIDS)*

People living with HIV/AIDS	33.3 million 31.4-35.3 million
Adults living with HIV/AIDS	30.8 million 29.7-31.9 million
Women living with HIV/AIDS	17.2 million 16.2-18.2 million
Children living with HIV/AIDS	2.5 million 1.7-3.4 million
People newly infected with HIV	2.6 million 2.3-2.8 million
Adults newly infected with HIV	2.23 million 2.0-2.29 million
Children newly infected with HIV	0.37 million 0.23-0.51 million
Total AIDS deaths	1.8 million 1.6-2.1 million
Adult AIDS deaths	1.54 million 1.6-2.1 million
Children AIDS deaths	0.26 million 0.15-0.36 million

Source: Global HIV Report, UNAIDS, 2009.

5

HIV/AIDS in the SAARC Region

All the SAARC countries are reporting cases of HIV and AIDS and the epidemic is spreading rapidly in most. High risk practices, such as sex work and injecting drug use, drive the epidemic in the region. HIV prevalence among vulnerable and often marginalized groups is high throughout the region and rapidly increasing in some places [5].

The danger for SAARC region rests in the low 'general population' prevalence rates, which may be undermining the gravity of the situation. Such low rates conceal dangerously elevated 'concentrated' infection rates within high-risk groups such as CSW, MSM, IDU etc. The fact is that despite the low prevalence rates within this region, the factors are in place to spread HIV epidemic further and faster.

HIV outbreaks among men who have sex with men are now becoming evident in India, Nepal and Pakistan. HIV outbreaks particularly among injecting drug users are being found in Afghanistan and Pakistan currently. Significant structural and socioeconomic factors across the region put many people at risk of HIV infection.

The country specific HIV/AIDS estimates in the SAARC Member Sates are given below:

Table 3: Adults HIV Prevalence Rates and Estimated Number of PLHA SAARC Region, 2009

Country	HIV prevalence rate (%)	Estimated number of PLHA
Afghanistan	<0.5	2,000
Bangladesh	<0.1	7,500
Bhutan	<0.1	< 500
India	0.29	2.27 million
Maldives	<0.1	<100
Nepal	0.49	66,442
Pakistan	0.1	97,400
Sri Lanka	<0.1	3827
Regional		2.45 Million

Source: HIV/AIDS Update SAARC Region 2010

Table 4: Cumulative number of Reported HIV & AIDS Cases by SAARC Member States-2009

Country	Cumulative Number of Reported HIV Positives	Cumulative Number of Reported AIDS Patients	Cumulative Number of Reported AIDS Deaths	Year of 1st HIV Positive detected
Afghanistan	636	-	-	1989
Bangladesh	1745	619	204	1989
Bhutan	185	84	34	1993
India	288,485	-	-	1986
Maldives	14	11	10	1991
Nepal	15043	2729	509	1988
Pakistan	2917	-	-	1986
Sri Lanka	1196	309	202	1987

Source: HIV/AIDS Update SAARC Region 2010

6

TB/HIV Co-infection

6.1. STAC support towards TB/HIV Collaborative efforts

HIV epidemic has started affecting the global tuberculosis burden. Considering the fact that, STAC has been focusing attention on the need to strengthen links between TB and HIV/AIDS programmes in Member States in order to tackle these public health emergencies more effectively. In relation to initiation of TB/HIV collaborative efforts the first SAARC Regional workshop to develop SAARC Regional Strategy for TB/ HIV Co-infection was held in October 2003, Kathmandu & developed SAARC Regional Strategy on TB/ HIV Co-infection. Second SAARC Regional Workshop on TB/HIV Co-infection to identify research areas & to develop research protocol on the identified areas & study visit to TB/HIV programme implementation sites was organized in Pune, India, 28-31 December 2005 and developed research protocols on identified priority areas.

Third SAARC Regional Workshop on TB/HIV Co-infection organized from 5-6th Sept ember 2007 in Bangalore, India and organized SAARC Regional Workshop for development of Research Protocols for 2009 in Pune India in June 2008. In addition, STAC continues to work closely with national HIV/AIDS control programmes of all member countries to provide technical assistance by organizing workshops, seminars and meetings by sharing the epidemiological and other information on various aspects of TB & HIV/AIDS.

6.2. Status of TB/HIV Co-infection in the SAARC Member States

Globally, the latest data suggests that there were 1.1 million new HIV positive TB cases in 2009 (out of a total of 9.4 million incident cases of TB). The African Region accounts for 79% of estimated HIV – positive TB cases; most of the remaining cases are in South East Asia Region.

Afghanistan

Afghanistan is one of the 22 TB high-burden countries. Preparatory work for a TB/HIV action plan and task force has been carried out. Several component of TB control have not yet been addressed, including the development of collaborative TB /HIV activities and the management of MDR-TB.

Bangladesh

The extent of TB/HIV co infection is not exactly known in Bangladesh. According to three studies carried out in Dhaka city between 1999 and 2007, the figures for HIV prevalence among TB patients have been consistently low. The surveys were conducted between January and June 1999 (first round), between August 2001 and June 2002 (second round), and between August 2006 and July 2007 (third round).

In the first survey, one out of 936 new sputum smear positive patients was found HIV positive. In the second round, one out of 1846 TB patients were found positive. In the last round, one from among 1002 outdoor patients and four of 879 indoor patients were found positive. Since 2006 HIV has turned into a concentrated epidemic with prevalence among IDUs reaching 7%. A study conducted by International Centre for Diarrheal Diseases and Research -Bangladesh (ICDDR'B) in 2007 showed 0.1% HIV co-infection in ambulatory patients and 0.4% in hospital admitted patients in Dhaka city.

The Strategic Plan for TB control has identified TB/HIV collaboration as one of the major service delivery areas. The plan envisages four key activities, namely: developing a national policy for TB/HIV; establishing functional linkages between NTP and NACP; increasing awareness among HIV workers for identification and referral of TB suspects, and carrying out HIV sero-prevalence studies among TB patients. It also

describes process indicators to address TB/HIV issues as well as targets for each indicator for the year 2007 and 2010. The Director General of Health Services has formed a "Forum for HIV and TB Collaboration" with members from NACP, NTP and WHO.

A number of NGOs are currently working along with NACP to deliver HIV/AIDS awareness activities at the district level. Voluntary counseling and testing facilities are available at major cities as well as at the divisional level. However, anti-retroviral services are still limited to metropolitan cities. Some NGOs working for TB control programmes are providing orientation training to staff of NGOs working for HIV prevention and care.

Bhutan

According to UNAIDS estimates, the total number of patients in the country is less than 1000 in 2009. A cumulative number of 83 HIV positive patients have been diagnosed since 1993, of whom 19 have died. Five of them died of TB. Currently, four people are known to be living with HIV while at the same time receiving TB treatment.

Every year from April to June a nationwide sentinel survey takes place, this includes all TB patients. This survey is anonymous and unlinked. No TB/HIV patient was identified among 250 TB patients during the sentinel survey. Voluntary counseling and testing (VCT) is offered during other times of the year. It seemed that HIV is tested in blood taken during hospitalization for other reasons.

India

The number of people living with HIV/AIDS (PLHA) in India is estimated to be 2.4 million, the second largest in the world. However, the pattern of the epidemic shows great variation across the country. The worst affected states are Andhra pradesh, Karnataka, Manipur, Maharashtra, Nagaland and Tamil Nadu. Over the years the virus has moved from the urban to the rural and from the high risk to the general population, disproportionately affecting women and the youth.

To address the intersection of TB and HIV and the potential impact of TB/HIV on both the HIV/AIDS Programme and the RNTCP, several

measures have been taken. A joint NACP/RNTCP Action Plan for TB-HIV Collaboration has been established

In Phase I of the action Plan launched in 2001, coordination activities were initiated in the six high HIV prevalence states of Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu. In 2003,Phase II activities were extended to eight additional states namely Delhi, Gujarat, Himanchal Pradesh, Kerala, Orissa, Punjab, Rajasthan and West Bengal.

Training on TB/HIV is one of the key activities of the joint TB/HIV Action Plan. The two Programmes in 2005 jointly developed TB/HIV training modules for different categories of field staff. Based on these modules, "Training of Trainers" courses have been organized at the national and state levels.

As of September 2006, cross referral mechanisms have been established between health facilities providing RNTCP services and 1143 functional NACP Voluntary Counseling and Testing Centres (VCTCs) in 14 states, including all states classified by NACO as having a high or medium HIV prevalence. In these states, all VCTC clients are to be screened for symptoms of TB disease and referred to the nearest facility providing RNTCP diagnostic and treatment services. On the other hand TB patients with risk factors for HIV infection and/or behavior are to be referred to VCTCs for HIV counseling and testing.

Collaborative efforts to educate patients and the public on the relationship between TB and HIV have been undertaken by both programmes.

Cross-referral activities are monitored by means of the monthly "VCTC-RNTCP cross referral reports submitted by the VCTCs to their respective states, and subsequently to both national programmes using a shared e-mail address. Centrally developed guidelines and terms of reference for these state and district level TB/HIV coordination committees help ensure the participation of key policy makers and stakeholders.

In 2005-06 the RNTCP in collaboration with NACO conducted a series of cross sectional HIV sero-prevalence surveys among TB patients. Surveys

were conducted in four districts, one district each in Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu.

Detection and treatment of HIV in TB patients, in India, 2010 (RNTCP TB India, 2011)

- TB patients for whom the HIV test results was known – 480,752 (59% of total TB patients registered in status implementing intensified TB/ HIV package)
- TB patients with positive HIV test – 41,476 (As % of tested TB patients that were HIV positive – 09%)
- HIV positive patients started or continued on CPT – 36,499
- HIV positive TB patients started or continued on ART –20, 323

Screening for TB in HIV positive patients in India, 2010 (RNTCP TB India, 2011)

- Screened for TB – 393,110
- Started on IPT – N/A

Pilot field studies on the operationalization of decentralized delivery of CPT to HIV infected TB patients has been completed and the initial results of routine referral of TB patients for HIV counseling and testing are now available.

Maldives

Screening of all HIV positives for TB infection and TB patient for HIV infection started as a collaborative effort of both the programme since 2003. Prevalence of HIV among TB patients was 0.001% at the end of 2007 (STAC 2008).

Nepal

HIV surveillance among TB patients is going on since 1993 at 5 sentinel sites under National Tuberculosis Centre. Six rounds of Sentinel Surveillance have been completed. Latest sentinel surveys of HIV among TB patients conducted in 2006-07 show a prevalence of 2.4%.The country

has established a National Working Group on TB –HIV and a National TB/ HIV Coordination Committee. A National strategy for TB-HIV was officially endorsed by both National TB and HIV programme managers in mid -2008. Joint planning, evaluation and logistic management, information sharing, advocacy and operational research have been planned by the two programme, Situation analysis on TB/HIV collaborative activities under National HIV/AIDS control programme has been completed (NTP Annual Report, Nepal 2008)[14].

Pakistan

Pakistan is one of the 22 TB high-burden countries .Collaborative TB/ HIV is established, under National AIDS Control Programme of Pakistan. NACP and NTP are collaborating for training of staff and are establishing referral systems for diagnosis and treatment of HIV in Tuberculosis patients.

Sri Lanka

TB patients have been included under the annual surveillance for HIV since 1993. A national policy for provision of CPT and ART to HIV positive TB patients is in place. In addition, Strategic Plan (2006-2015) TB/HIV co-infection proposed following interventions (STAC 2008).

1. Establishment of a formal mechanism for collaboration at the central level and at other levels
2. Support by National Programme for Tuberculosis Control and Chest Disease (NPTCCD) for the HIV programme in its campaigns to prevent HIV
3. Continuation of the periodic surveillance activities for HIV among TB patients and monitoring of trends in the years ahead.
4. Intensification of efforts to diagnose TB in people known to be HIV-positive
5. Ensuring TB infection control in all health care and congregate settings

6. Designation of the district chest clinic as focal places for the management of HIV-positive TB patients: this includes, training of core team members in TB/HIV and establish a referral system to VCT centers, as well as centers for HIV/AIDS care and support.

7. Formulation of a policy for the treatment of TB in HIV – positive patients.

8. Referring TB patients at risk of HIV to VCT services.

7

TB/HIV Global Targets for 2015

The Global Plan to Stop TB 2006–2015

The Global Plan, launched in 2006 (and endorsed by the World Health Assembly in 2007), has set the following targets for TB/HIV to be reached by 2015:

- 26 million (100%) people living with HIV and attending HIV services screened for TB in 2015;
- 3.1 million newly diagnosed and eligible people living with HIV placed on IPT (isoniazid preventive therapy) annually;
- 2.9 million (85%) of TB patients in DOTS programmes HIV-tested and counselled annually;
- 400 000 (57%) of HIV-positive TB patients placed on ART (antiretroviral therapy) annually.

WHO has updated and revised the Global Plan and published the Revised Global Plan to Stop TB 2011-2015. In this revised Global Plan the TB/HIV Targets for 2015 have also been revised (Annexure – II)

Justification revising the existing Strategy:

As mentioned, TB and HIV Control Programmes share mutual concerns: Prevention of HIV should be a priority for TB Programmes; TB should be priority concern of HIV/AIDS Control Programmes. The public health

approach to decreasing the burden of TB/HIV Co-infection requires more effective delivery of the available interventions by health care providers, with increased population coverage. Both TB and HIV Control Programmes should collaborate by supporting health care providers to deliver these interventions.

The countries of the SAARC region have already developed comprehensive strategic plans to address TB and HIV/AIDS and are implementing them. Some countries in the region already have the TB/HIV Co-infection policy and strategic plans and are also implementing. However, some countries in the region, in spite of having the policy and plans in place, are yet to implement concrete steps to tackle problem of TB /HIV Co-infection. Accordingly, there is very little interaction between these two programmes in these countries.

Tuberculosis and its complications comprise the largest part of the burden of HIV related diseases. The vast majority of HIV infected people do not know their HIV status and seek health care from general health services. Therefore TB and HIV control programmes must strengthen the general health service providers' ability to respond to the health care needs of people in high HIV prevalence populations. Accordingly, in the Eleventh SAARC summit (Kathmandu, 4-6 January 2002) the leaders of the region stressed the need for evolving a regional strategy to combat these dual infections. They also gave mandate to the SAARC TB Centre (STC) to collaborate with the international organizations and civil society in developing a regional strategy. Accordingly, the first regional strategy on TB/HIV co-infection was developed in 2003 by STC in consultation with member countries, civil society in the region, the relevant international organizations and with technical support from Health Canada. This was endorsed by the Twelfth SAARC summit for implementation. The action plan for implementation was developed in 2004. The previous SAARC TB/HIV Co-infection strategy consisted of the following main elements:

(1) Collaboration between National TB and HIV/AIDS Programmes

(2) Regional and National Epidemiological Surveillance net work

(3) Operational Research on TB/HIV Co-infection.

(4) Advocacy, Communication and Social Mobilization.

According to the above strategy SAARC TB and HIV /AIDS centre has been providing continuous support to the member counties for implementing the TB/HIV collaboration activities.

SAARC Regional Strategy on TB/HIV co-infection was developed in 2002.Since then many developments on TB and HIV/AIDS control have taken place in the world. There have been revisions in the existing policies and guidelines and in addition, new policies and guidelines have been recommended. Hence, the need was felt to revise the existing SAARC Regional Strategy for TB/HIV Co-infection.

Considering the same, the 18th Governing Board Meeting recommended to organize to revise and update the SAARC Regional Strategy on TB /HIV Co-infection through a workshop in Bhutan. Accordingly, the Strategy document was planned to revise through a workshop to be held in Bhutan from 16th to 20th November 2009. However, the workshop could not be organized due to unavoidable reasons. Hence, STAC revised the strategy based on the latest policy, recommendations and guidelines and presented the draft document to the Programme Managers/ their representatives in the meeting of TB and HIV/AIDS Programme Managers of SAARC Member countries in December, 2010 in Male, Maldives. The Programme Managers/ their representatives recommended for adoption of the Strategy document after making minor modifications. The draft of the document was again sent to the Programme Managers for their final comments/ suggestions. Based on the suggestions received for the Programme Managers the document has been finalized.

This Strategy document would be applicable for five years with a mid term evaluation in the year 2013.

8

SAARC Regional Strategy on TB/HIV Co–Infection

Goal

To establish effective collaboration between National TB Programme and National HIV/AIDS Control Programmes of SAARC Member States and reduce the burden of TB and HIV/AIDS in the SAARC Region

Objectives

1. To establish the mechanisms for collaboration between TB and HIV control Programmes.
2. To reduce the burden of TB in HIV infected and prevent HIV infection in TB patients.
3. To reduce the morbidity & mortality in TB/HIV co-infected individuals.
4. To support the SAARC Member States on TB /HIV collaboration.

The Expected Outcome

- National formal TB/HIV Co-ordination committees established or strengthened
- National joint collaborative TB/HIV strategic plan developed /strengthened and implemented
- Regional and National ACSM plans developed and implemented
- Regional and National epidemiological surveillance network for TB, HIV/AIDS and TB/HIV Co-infection established / strengthened.

- Referral linkage between TB and HIV/AIDS programme delivery sites established.
- HIV case finding among TB patients and TB case finding among HIV infected intensified.
- INH Prophylactic treatment (IPT) for PLHA with latent TB to be started in selective areas in all SAARC Member States.
- Integrated case management for Anti Retro Viral Therapy (or eligible for it) and DOTS.
- Feasible and effective Infection control measures implemented.
- Co-trimoxazole Preventive Treatment (CPT) for HIV infected TB Patients to be initiated in all SAARC Member States.
- Regional and National capacity building plans developed and implemented
- Operational research on pertinent issues to be conducted.

9

The Strategy

The strategy consists of the following components:

1. **Political & administrative Commitment**

2. **Support HIV surveillance among Tuberculosis patients and Tuberculosis surveillance among PLHA at National/ Sub-National level.**

3. **Decrease the burden of HIV in TB patients and TB in PLHA (including four "I"s).**

4. **Support Regional and National capacity building including training and research.**

5. **Monitoring and evaluation of collaboration activities.**

COMPONENT 1: Political & Administrative Commitment

1.1. To establish/strengthen National TB/HIV Co-ordination committee

For many years, those involved primarily with tackling tuberculosis and those involved primarily with tackling HIV, have largely pursued separate courses**.** Collaboration between TB and HIV /AIDS Control Programmes brings benefits to both Programmes, not only in accelerating universal access to comprehensive TB and HIV prevention, treatment and care services, but also in building political commitment, advocating for resources and strengthening health systems. TB/HIV coordinating bodies are needed to ensure more effective collaboration between existing HIV/AIDS and Tuberculosis Control

Programme efforts at all levels (National /State/Provincial and District). Evidence from operational research and expert opinion has shown that having TB/HIV coordinating bodies operating at all levels, so that all stakeholders from the HIV/AIDS and TB control programmes can participate, is feasible and ensures commitment and ownership (Godfrey –Faussett et al 2002, WHO 2002)[6,19].

The Coordinating Committee for TB/HIV collaboration may comprises of key officials from National TB and HIV/AIDS Control Programmes, representatives from WHO, UNAIDS, Funding agencies, People living with TB and HIV , NGOs working with TB and HIV/AIDS Control Programmes, Private Sector and other important stakeholders. Important areas of responsibility for the Coordination Committee are to ensure:

- Governance and mobilization of resources for TB /HIV activities
- Capacity building including training
- Ensuring coherence of communication about TB/HIV
- Ensuring the participation of the community in joint TB/HIV activities
- Overseeing the preparation of the evidence base.
- Monitoring of policy and plan implementation
- Ensuring policy and plan implementation
- Intensified TB case finding among PLHA
- Introduce HIV prevention methods
- Joint Training of staff (in-service and pre-service)

1.2. To develop, strengthen and implement National joint collaborative TB/HIV strategic plan

Joint strategic planning between both Programmes is needed to enable systematic and successful collaboration. The roles and responsibilities of each Programme in implementing specific HIV/TB activities at national and local levels must be clearly defined.

Crucial elements for joint planning include resource mobilization for TB/HIV, capacity building and training, TB/HIV communication (advocacy, programme

communication and social mobilization), service delivery for reducing the burden of TB in HIV infected & HIV in TB Patients & TB/HIV co-infection, preventive services, enhanced community involvement, infection control and operational research. For preparation/updating of strategic plans, STAC TB/HIV Co-infection strategy may be used as a guide.

1.3. Advocacy, communication and Social Mobilization (ACSM)

Advocacy on TB/HIV is very important for ensuring political commitment and influencing policy development, programme implementation and resource mobilization. Similarly, health professionals need to be informed to enable them to provide appropriate health services. Raising public awareness about issues related to TB/HIV is important for achieving the social mobilization necessary to secure public and political support for collaboration activities.

Advocacy targeted at influencing policy, programme implementation and resource mobilization is very important to accelerate the implementation of collaborative TB/HIV activities. Social mobilization that generates public will and secures broad consensus and social commitment among all stakeholders is critical for stigma mitigation and prevention of TB and HIV, as well as encouraging participation in collaborative TB/HIV activities.

Currently most of the SAARC Member States have their ACSM strategy. As part of the revised TB/HIV Co-infection strategy, Member States are encouraged to include elements of TB/HIV Co-infection responses in their ACSM strategy,

All appropriate and effective methods of information dissemination, awareness creation and sensitization should be utilized. Information, education and prevention materials related to both diseases and co-infection with HIV/TB to be developed and implemented by Member States. The IEC materials of TB Control Programme should also include HIV information; similarly HIV Control Programme materials and messages should also include TB information.

COMPONENT 2: Support National HIV surveillance among tuberculosis patients and tuberculosis surveillance among PLHA.

2.1. Periodic or sentinel surveys on HIV infection among TB patients & TB among HIV infected patients

Surveillance is essential for Programme planning and implementation. In many countries, HIV prevalence in TB patients is a sensitive indicator of the spread of HIV into the general population. Information on HIV infection in TB patients is essential to respond to the increasing requirement to provide comprehensive HIV/AIDS care and support, including ART therapy to HIV positive TB patients and also to provide optimal TB Care. Evidence from descriptive studies (Range et al 2001, Talbot et al 2003)[15, 16] have shown HIV surveillance among TB patients to be a critical activity in understanding the trends of the epidemic and in the development of sound strategies to address the dual TB/HIV epidemic.

Member States will develop/strengthen a surveillance system at selected centers for collection of epidemiological information on the TB/HIV co-infection. Surveillance may be conducted through periodic surveys, sentinel methods or collection of data through routine care. The methods chosen will depend on the state of HIV & TB epidemics and the availability of resources and expertise. If requested by the Member States, STAC shall provide technical support in developing standardized protocols for conducting periodic surveys or for developing protocol for Sentinel Surveillance.

2.2. Drug Resistance surveillance for first and second line Anti TB Drugs among HIV infected TB patients

The growing HIV infection epidemic presents challenges to TB Control Programmes and could lead to loss of gains made for TB Control. If TB is complicated with HIV infection and drug resistance (especially XDR-TB) then controlling such type of TB will be a major hurdle for the TB Control Programmes. In the SAARC region apart from the individual studies, limited periodic National level Drug Resistance Surveillance (DRS) is carried out routinely in TB/HIV Co-infected patients. Hence, it is recommended to initiate

Drug Resistance Surveillance for first and second line Anti – TB Drugs among HIV infected TB patients in Member States where prevalence of TB/HIV co-infection is relatively high.

The methodology operates on three main principals:

(1) the survey must be based on a sample of TB/HIV co-infected patients representative of all cases in the geographical setting under evaluation

(2) drug resistance must be clearly distinguished according to the treatment history of the patients (i.e. never treated or previously treated) in order to allow correct interpretation of the data ;and

(3) optimal laboratory performance of each participating laboratory must be attained through engaging in a quality assurance programme

If requested by the Member States, STAC shall provide Technical Support for carrying out Drug Resistance Surveillance among HIV infected TB patients.

COMPONENT 3: Decrease the burden of HIV in TB patients and TB in PLHA including four "I"s

3.1. Intensified Case Finding – First 'I'

Intensified tuberculosis case finding comprises screening for symptoms and signs of tuberculosis in settings where HIV–infected people are concentrated. It also includes diagnosis of HIV infection among TB patients. Early identification of signs and symptoms of tuberculosis, followed by diagnosis and prompt treatment in PLHA, their household contacts, groups at high risk for HIV and those in congregate settings, increases the chance of survival, improves quality of life and reduces transmission of tuberculosis in the community. In areas with concentrated and low HIV epidemic, selective referrals for high risk groups identified through routine screening shall be practiced. In areas where HIV prevalence is high, all TB patients will be offered HIV Counselling and Testing. Evidence has shown that intensified case finding and treatment of TB among HIV infected persons interrupt disease transmission by infectious cases (DeCock and Chalsson 1999)[3], prevent mortality (Nachega et al 2003)[13], decrease risk of nosocomial TB transmission and offer the opportunity to

provide TB preventive therapy to HIV positive patients (Burgess et al 2001)[2]. It has been established that intensified tuberculosis case finding is feasible, and can be done at limited additional cost in existing health services(WHO 2002).Study conducted in Haiti revealed that previously undiagnosed TB was detected in up to 11% of PLHA identified through HIV testing and counselling (Burgess et al 2001).

The strategy for intensified case finding will include:

3.2. Establishment of Cross-Referral between TB and HIV/AIDS programme delivery sites

In areas with Concentrated or Low HIV Epidemic, at present, some Member States have a policy of "selective referral for HIV counseling and testing" in relation to TB patients. Patients with TB disease registered under National TB Control Programme who give a history of high risk behavior for HIV, and /or who have a history of present or past STI , and /or signs and symptoms suggestive of other HIV related opportunistic infections are referred for Counseling and testing for HIV. Countries where currently system of cross referral is not functioning ,referral linkages will be established between HIV Counselling, Testing and Treatment services and Tuberculosis Diagnostic and Treatment services.

National HIV/AIDS and TB programmes of SAARC Member States will jointly develop mechanism for the documentation and reporting on performance of cross referrals between above sites.

3.3. HIV counseling and testing offered to all TB patients in areas with Generalized HIV epidemic

World Health Organization recommends for HIV Counseling and Testing for all TB patients in countries or parts of countries, where HIV prevalence is above 1% in general population. Though, all SAARC member countries have HIV prevalence below 1% in general population, some parts (States/ Provinces/ Districts) in some Member States have HIV prevalence above 1%. In high HIV prevalence settings universal offer of HIV counselling/testing for all TB patients will be carried out

3.4. Establishment of Linkages between TB & HIV/AIDS Control Programmes service delivery sites:

For the purpose of establishment of diagnosis of TB Disease and HIV infection and to provide optimal care to TB/HIV co-infected patients, optimal linkages will be developed between the following sites:

- VCT Centres and Microscopy Centres
- ART Centres and Microscopy Centres
- Drop-in-Centres and Microscopy Centres
- DOTS Centres and VCT Centres
- DOTS Centres and ART Centres
- DOTS Centres and Drop-in-Centres/similar entities

3.5. INH Prophylactic Treatment (IPT) for PLHA with latent TB-IInd 'I'

In 1998, based on several randomized placebo controlled trials (Wilkinson 2000)[26] the World Health Organization (WHO) and the joint United Nations Programme on HIV and AIDS (UNAIDS) issued a policy statement that recognized the effectiveness of TB preventive therapy in persons living with HIV (PLHIV), and recommended the use of targeted isoniazid preventive therapy (IPT) as part of the package of care for PLHA. In 2004, the WHO produced an interim policy on TBHIV collaborative activities to reduce the joint burden of TB and HIV (WHO 2004)[22]. One of the important policy recommendations is that National HIV/AIDS programmes (NAPs) should provide IPT for PLHA on the condition that active TB has been safely excluded. This recommendation has also been included in the new 10-year Global Plan to Stop TB (2006–2015) and the Stop TB Strategy and is regarded as an important component of several collaborative TB-HIV activities.

Isoniazid is given to individuals with latent infection with *M. tuberculosis* in order to prevent progression to active disease. INH has been documented to be effective for prevention of development of active TB disease in individuals with latent TB infection, with or without HIV infection. Exclusion of active tuberculosis is critically important before the therapy is started in order to

prevent drug resistance. Use of antiretroviral drugs does not preclude its use.

HIV/AIDS Control Programmes of Member States will provide IPT to people with HIV/AIDS, once the active TB is safely excluded (at Tertiary Care Institutes). Linkages will be developed between both the Programmes for institution of IPT in individuals with TB/HIV co-infection. Information will be disseminated about benefits of IPT to people with HIV/AIDS.

3.6. Introduce Anti Retroviral Therapy (ART) for eligible TB Patients diagnosed as HIV Positive

Tuberculosis will be an entry point for a significant proportion of patients eligible for ART. There is evidence that potent ART can reduce the incidence of tuberculosis in HIV positive persons by more than 80% (Giarardi E et al 2000)[5]. However, for ART to prevent a significant fraction of tuberculosis cases, initiation of the treatment early in course of HIV infection and a high rate of compliance are required (Williams and Dye 2003)[25]. Antiretroviral therapy is recommended for all patients with TB with a CD4 count < 200 cells/ mm^3 and should be considered for patients with CD4 < 350 cells/mm^3. ART significantly improves the quality of life, reduce morbidity and enhances the survival of people living with advanced HIV infection or AIDS. Additionally, it reduces HIV transmission and TB incidence. HIV positive TB patients are one of the largest groups already in contact with the health service who are likely to benefit from ART, and efforts should be made to identify and treat those who are eligible. Studies have proposed that directly observed treatment programmes of TB can be used as a model for ART delivery in some situations (Mitty et al 2003, Farmer et al 2001)[4,11].

Tuberculosis and HIV/AIDS programme of SAARC member states should create/ strengthen a mechanism to provide ART to eligible HIV-positive TB patients.

World Health Organization has recommended following recommendations on ART for HIV/TB co infection (WHO 2010):

1. Start ART in all HIV-infected individuals with active TB irrespective of CD4 cell count

2. Start TB treatment first, followed by ART as soon as possible after starting TB treatment

3. Use efavirenz (EFV) as the preferred non-nucleoside reverse transcriptase inhibitors (NNRTI) in patients starting ART while on TB treatment

3.7. Integrated Case Management including anti retro viral therapy and DOTS- IIIrd'I'

People living with HIV/AIDS (PLHA), including those infected with tuberculosis, to be provided with treatment, care and support services. This includes DOTS and ART. Antiretroviral therapy improves the quality of life and greatly improves survival for PLHA. There is evidence that potent Antiretroviral therapy can reduce the incidence of tuberculosis in HIV-positive patients by more than 80% Giarardi et al 2000)[5].

However, for ART to prevent a significant fraction of tuberculosis cases, initiation of the therapy early in the course of HIV infection and a high rate of compliance are required. The availability of Antiretroviral therapy can serve as an incentive for people to be tested for HIV.

ART should be provided to HIV infected tuberculosis patients, depending on the eligibility criteria for the therapy in tuberculosis patients in each Member States and any possible drug interaction (with rifampicin). DOTS can be used as a model for scaling up access to ART.

Optimal Case management is required for TB Patients with HIV infection (on ART or not on ART or who are eligible for ART) and HIV infected TB Patients (who are on ART or are eligible for initiation of ART). The TB patients with HIV infection who are not on ART and are also not eligible for start of ART, also require HIV care and support in terms of prevention of other opportunistic infections and care and support. Special attention is required for TB and Anti Retroviral Treatment due to Anti TB and ART Drug interaction. The National TB & HIV/AIDS Control Programmes will jointly develop guidelines for management of such patients in all kinds of possible situations.

3.8. Implementation of feasible and effective Infection control measures in health care settings, Fourth 'I'

Evidence has shown there to be an increased risk of TB among health workers, medical and nursing students with patient contact (Harries et al 1997, WHO 1999)[8,18], prisoners {WHO 2003(a) forces in military barracks (Miles 2003)[12] which is exacerbated by the HIV epidemic.HIV promotes progression to active TB in people with recently acquired infection or with latent *M. tuberculosis* infection (WHO 2002a)[20]. Infection control measures can reduce the risk of *M. tuberculosis* transmission even in settings with limited resources .TB infection control is based on a 3 –level hierarchy of controls, including administrative or work practice, environmental control and respiratory protection.

Work practice and administrative control measures are the first line of defense against *M. tuberculosis* transmission within facilities caring for people with HIV infection. Their goals are to prevent exposure of staff and patients to TB and to reduce the spread of infection by ensuring rapid and appropriate diagnostic investigation and treatment for patients and staff suspected or known to have TB. Components to good work practice and administrative controls include the following

- An infection control plan
- Administrative support for procedures in the plan including quality assurance
- Training of staff
- Education of patients and increasing community awareness
- Coordination and communication between the HIV and TB programme

General guidelines for infection control will be prepared/strengthened and their implementation should be ensured based on the resources available with each Member State.

3.9. Co-trimoxazole Prophylactic Treatment (CPT) to reduce the morbidity and mortality of PLHA and HIV positive TB patients

Randomized clinical trials, studies using historical controls and observational cohort studies have demonstrated the effectiveness of co-trimoxazole

prophylaxis in reducing mortality and morbidity of PLHA and HIV positive TB patients.

Consistent evidence from all studies that include CD4 cell count supports the effectiveness of co-trimoxazole prophylaxis among people with CD4 counts <200 cells per mm3 (Wikto et al,1999., Kaplan et al 2002)[10].

Similarly, studies show that individuals with WHO clinical stages 3 or 4 for HIV disease (including tuberculosis (TB)) clearly benefit from co-trimoxazole prophylaxis (Graham et al 2000, Watera et al 2002, Wiktor et al 1999)[7,17,27].

More recently, evidence supports the use of co-trimoxazole prophylaxis among people with higher CD4 counts and those with less advanced HIV disease (WHO clinical stages 1 and 2).

Cotrimoxazole is used for the prevention of secondary bacterial and parasitic infections in eligible PLHA, including tuberculosis patients. Evidence from randomized controlled trials of CPT has shown reduced mortality among HIV positive smear–positive tuberculosis patients and reduced hospitalization and morbidity among PLHA (Wiktor et al 1999).

HIV/AIDS National Control Programmes in SAARC Member States will provide CPT to eligible PLHA who have active tuberculosis. In addition, information about the benefits of CPT shall be provided to PLHA.

COMPONENT 4: Support Regional and National Capacity Building including Training and Research

4.1. TB/HIV Capacity Building, including Training

The development of skilled health staff in National TB and HIV/AIDS programmes is a prerequisite for a successful collaboration. Joint capacity-building for TB/HIV activities should include training of health care workers on TB/HIV issues. Capacity should be enhanced of the health care systems, to enable them to cope better with the increasing demands of collaborative TB/HIV activities.

National Tuberculosis and HIV/AIDS Control Programmes to draw up a joint

training plan to provide in-service and induction training on collaborative TB/HIV activities for all categories of health care workers engaged in providing services to TB patients & PLHA and AIDS patients. STAC will conduct regional and national level training programmes for Training of Trainers (TOT) in areas of TB/HIV collaboration in Member States.

4.2. Support Research/Operational Research in the field of TB/HIV.

Since information on clinical issues and delivery of services related to TB/HIV Co-infection is lacking in the region, it is necessary to address this issue. It will involve undertaking research that is patient focused, and evaluates collaborative action of both programmes and general health services, to fill the data /information gap. Research activities include TB/HIV operational research on country specific issues, baseline need assessment studies, basic science research and clinical trials for HIV/TB diagnostic tools and therapies, and the description of process and outputs of TB/HIV activities etc. STAC is already conducting research on the issues pertinent to TB/HIV co-infection and will continue to do so. The National Control Programmes of TB & HIV/AIDS of the Member States will also conduct operational research on relevant TB/HIV co-infection problems/issues.

COMPONENT 5: Monitoring and Evaluation of Collaborative activities

5.1. Ensuring Accountability, Monitoring and Evaluation

It is important to monitor and evaluate TB/HIV activities to assess their quality, effectiveness, coverage and delivery. This allows continuous improvement of programme performance. National level data on TB/HIV collaboration will be presented in the Annual Meeting of Programme Managers which will be jointly organized by STAC and Member States. For the purpose of monitoring, the Member States will operationalize template (indicative only) for collection of information on the indicators enclosed for TB/HIV collaboration:

For the purpose of monitoring TB/HIV collaboration activities, a draft template (indicative only) for monitoring of indicators is enclosed at Annexure 1.

The Member States may adopt the indicators according to TB/HIV situation in the country, availability of resources and the country context.

5.2. Role of SAARC TB & HIV/AIDS Centre:

Development of effective TB/HIV collaboration between National TB & HIV/AIDS Control Programmes is a priority for National TB & HIV/AIDS Control Programmes and SAARC TB & HIV/AIDS Centre. In addition to the ongoing support that STAC is providing to the SAARC Member States, STAC will provide support to the Member States, if requested, for developing/strengthening the Joint Action Plans through the following:

1. Providing Technical Support to the Member States for development of Joint Collaborative Strategic Action Plans for TB/HIV collaboration.

2. Technical Support in developing standardized protocols for conducting periodic surveys or for developing protocol for Sentinel Surveillance

3. Technical Support for carrying out Drug Resistance Surveillance among HIV infected TB patients.

4. Regional and national level training programmes for Training of Trainers (TOT) in areas of TB/HIV collaboration in Member States.

5. STAC will monitor the implementation of SAARC Regional Strategy on TB/HIV co-infection in the Annual meeting of Programme Managers and will also provide support to the SAARC Member States on TB/HIV collaboration, if required.

Implementation Plan of SAARC Regional Strategy on TB/HIV Co–infection

COMPONENT 1: Political & administrative Commitment

Activity 1.1: To establish /strengthen National formal TB/HIV Co-ordination committee**.**

Activity 1.1 Proportion of countries who have established functional coordinating bodies **(**having met at least once a year).	
Purpose	Monitoring of implementation of National Joint Collaborative TB/HIV strategic Plan.
How	Formation of a National TB/HIV Coordination Committee with Members from National TB &HIV/AIDS Control Programmes, representatives of WHO, UNAIDS, Funding Agencies, People living with TB and HIV/AIDS, NGOs working with TB & HIV/AIDS Control Programmes other important stakeholders,
Periodicity of Meeting	Once or Twice a Year
Responsibility	All SAARC Member states
Measurement tools	State/Province wise monitoring of Key Indicators

Activity 1.2 To develop/strengthen and implement National joint collaborative TB/HIV strategic plan	
How	(1)Joint preparations of National TB/HIV Collaboration Strategic Plan (2) STAC TB/HIV Co-infection strategy to be used as a guide.
Indicator	(a) Number of countries having joint TB/HIV Collaborative Strategic Plans (b)Number of countries with clear endorsed policies on TB/HIV co-infection responses.
Purpose	Planning and Implementation of TB/HIV Collaborative Activities
Periodicity	Planning- In the beginning; Implementation- Ongoing
Responsibility	1. Member States 2. STAC to provide Technical support if requested by Member States

Activity 1.3 Advocacy, communication and Social Mobilization	
How	1. Member states to include elements of TB/HIV Co-infection responses in their ACSM strategy, 2. Information, education and prevention materials related to both diseases and co-infection with HIV/TB should be developed and implemented by Member States. 3. Sensitize people on TB/HIV Co-infection and availability of services
Indicator	**Regional** Number of countries with activities on TB/HIV collaboration under their ASCM strategy**.** **National** (1) Number of advocacy meetings /programmes for TB/ HIV Co-infection conducted (2) Number of countries having included TB/HIV Co-infection in National ACSM strategy
Purpose	Implementation of ACSM activities
Periodicity	Ongoing
Responsibility	1. Member States 2. STAC to provide Technical support if requested by Member States.

COMPONENT 2: Support National HIV Surveillance among Tuberculosis patients and Tuberculosis Surveillance among PLHA.

Activity 2.1 Periodic or sentinel surveys on HIV infection among TB patients & TB among HIV infected patients	
How	Development of Protocol and implementation of Nation-wide Survey
Indicator	**Regional**: Number of countries carrying out Periodic or sentinel surveys
Purpose	To measure the estimated Prevalence of TB/HIV
Periodicity	Yearly or Every Two years
Responsibility	Member States/ STAC

Activity 2.2 Drug Resistance surveillance for first and second line Anti TB Drugs among HIV infected TB patients	
How	Development of Protocol and implementation of Survey in High HIV Prevalence Areas
Indicator	**Regional** Countries and their number conducting Drug Resistance surveillance among HIV infected TB patients. **National:** Availability of National level data for the year.
Purpose	To measure the estimated Prevalence of Drug Resistance in TB/HIV co-infected TB Patients
Periodicity	Yearly or Every Two years
Responsibility	Member States/ STAC

COMPONENT 3: Decrease the burden of HIV in TB Patients and TB in PLHA (Including Four I's)

Activity 3.1. Intensified Case Finding - **First 'I'** 3.1.1 Establishment of linkage between TB and HIV/AIDS programme delivery sites. e.g.: ART Centre/VCT Centre/ Care and Support Centre/ Drop-in Centres /DOTS Centres/ TB diagnostic Centre.	
How	Referral of TB patients for HIV Counseling and Testing Documentation and reporting on performance of cross referrals; VCT - Microscopy Centres ART - Microscopy Centres Drop-in-Centres (C & S Centres) - MC DOTS Centres - VCT DOTS Centres - ART Centre
Indicator	• Number of countries with established cross referral linkages • Country wise Indicators : - No. of referrals from VCT - MC - No diagnosed - No started on Treatment - Treatment success among such patients - No of referral from DOTS Centres VCT - No of patients reaching VCTS - No Tested - No. found positive out of Total tested.
Purpose	To initiate or strengthen linkage between TB and HIV/AIDS programme delivery sites.
Periodicity	Ongoing activity
Responsibility	1. Member States 2. STAC to monitor

Activity 3.1.2 ***Intensified case findings*** HIV counselling and testing offered to all TB patients in areas with concentrated and generalized HIV epidemic	
How	Universal offer of HIV Testing for all TB patients in HIV high prevalence settings.
Indicator	Number of countries offer HIV counseling and testing to all TB patients in HIV high prevalence settings
Purpose	To improve quality of life of PLHA and reduce transmission of TB in community
Periodicity	Ongoing activity
Responsibility	Member states and STAC to monitor

Activity 3.1.3 Provider Initiated Counselling and Testing to be carried out in countries with HIV low prevalence settings.	
How	Provider initiated counseling and testing (who give a history of high risk behviour for HIV, STIs and signs and symptoms suggestive of other HIV related opportunistic infections and conditions with high likelihood of HIV infection
Indicator	Number of countries with Provider Initiated Counseling and testing with HIV low prevalence settings.
Purpose	To improve detection of HIV infected cases, reduce transmission of HIV in the community, and early provision of care and support to HIV infected.
Periodicity	Ongoing activity
Responsibility	1. Member states 2. STAC to monitor

Activity3.2 INH Prophylactic Treatment (IPT) for PLHA with latent TB - **Second 'I'**	
How	IPT to be provided to people with HIV/AIDS once the active TB is safely excluded (at Tertiary Care Institutes) Information to be disseminated about benefits of IPT to people with HIV/AIDS.
Indicator	**Regional** Number of countries that have introduced IPT **National** • Number of HIV infected started on IPT • Number of HIV infected who completed IPT
Purpose	To prevent development of active TB disease in PLHA with latent TB infection
Periodicity	Ongoing activity
Responsibility	Member States/ STAC

***Activity* 3.3.** Integrated Case Management including ART and DOTS - **Third 'I'**	
How	Development of policy and guidelines and their implementation for Integrated Case Management for HIV infected TB patients Vis-a-Vis DOTS v/s ART
Indicator	**Regional** Number of countries with policy/guidelines for management of TB along with ART. **National:** Availability & implementation of policy/guidelines for management of TB along with ART
Purpose	Improved management of TB and HIV infection in patients on TB treatment and ART.
Periodicity	Ongoing activity
Responsibility	Member States/ STAC

Activity 3.4	
Infection Control - **Fourth 'I'** Implementation of feasible and effective Infection control measures for both TB and HIV in health care settings:	
How	Development of National Guidelines for Infection Control for TB &HIV/AIDS to reduce the burden of both diseases.
Indicator	**Regional** Number of countries with policy/guidelines for infection control for TB and HIV in diagnostic /treatment service settings. **National:** Availability of policy/guidelines for TB and HIV and their implementation in diagnostic /treatment service settings.
Purpose	Improved Infection Control practices for TB &HIV/AIDS
Periodicity	Ongoing activity
Responsibility	Member states/ STAC

Activity 3.5	
Co-trimoxazole Prophylactic Treatment (CPT) to reduce the morbidity and mortality of PLHA and HIV positive TB patients	
How	HIV/AIDS National Programmes to provide CPT to eligible PLHA who have active tuberculosis. Information to be provided about CPT to PLHA
Indicator	**(Regional)** Number of countries that have introduced CPT **(Country Level)** Proportion of TB/HIV co-infected patients receiving CPT during their tuberculosis treatment.
Purpose	To reduce the morbidity and mortality of PLHA and HIV positive TB patients
Periodicity	Ongoing activity
Responsibility	1. Member States 2. STAC

COMPONENT 4: Support Regional and National capacity building including training and research

Activity: 4.1 To conduct regional training programmes for Training of Trainers (TOT) in areas of TB/HIV collaboration	
How	STAC to conduct Regional and National level Training programmes for SAARC Member States.
Indicator	**Regional** Number of regional trainings conducted on TB/HIV co-infection. **National** Number of national level trainings conducted on TB/HIV co-infection
Purpose	To improve Knowledge/Attitudes and Practices of health workers working in both programmes
Periodicity	Annually
Responsibility	Member States/ STAC

Activity : 4.2 Support operational research in the field of TB/HIV including to solve the problems of diagnostic difficulties especially Smear negative TB and Extra Pulmonary TB	
How	STAC to conduct Regional and National level operational research for SAARC Member States.
Indicator	Number of research studies conducted for TB/HIV collaboration (Country level and Regional level)
Purpose	To conduct operational researches on TB/HIV Collaboration in SAARC Member states.
Periodicity	As per need and guidance
Responsibility	Member States/ STAC

COMPONENT 5: Monitoring and Evaluation

Activity: 5.1 Monitoring	
How	-National level data to be presented in the Annual Meeting of Programme Manager
Indicator	All the indicators mentioned above
Purpose	Monitoring of TB/HIV collaboration activities (above mentioned activities) in SAARC Member States.
Periodicity	Annually
Responsibility	STAC/Member States

Activity: 5.2 Evaluation	
How	Mid term and end term evaluation of strategy
Indicator	Number of countries submitted reports on TB /HIV collaboration
Purpose	Evaluation of TB/HIV collaboration activities (above mentioned activities) in SAARC Member States.
Periodicity	Annually
Responsibility	1. STAC 2. Member States

References:

1. NACO, Department of AIDS Control, Ministry of Health and Family Welfare, Government of India, Annual Report 2008-2009.

2. Burgess A et al. Integration of tuberculosis screening at an HIV voluntary testing and counselling in Haiti. AIDS, 2001, 15:1875-1879.

3. DeCock K, Chalsson R. Will DOTS do it? A reappraisal of tuberculosis control in countries with high rates of HIV infection. International Journal of Tuberculosis and Lung Disease, 1999,3:457-467.

4. Farmer P et al. Community based treatment of advanced HIV disease: Introducing DOT-HAART. Bulletin of the World Health Organization, 2001, 79:1145-1151.)

5. Giarardi E et al. Impact of combination antiretroviral therapy on the risk of tuberculosis among persons with HIV infection. AIDS, 2000, 14:1985-1991.

6. Godfrey –Faussett P, Maher D, Mukadi YD, Nunn P, Perriens J, Raviglione M. How HIV virus voluntary testing can contribute to tuberculosis control. Bull World Health Organ 2002;80:939-945

7. Graham SM et al. Clinical presentation and out come of Pneumocystis carinii pneumonia in Malawian children. Lancet, 2000, 355:369-373.

8. Harries AD, Maher D, Nunn P. Practical and affordable measures for protection of health care workers from tuberculosis in low-income countries. Bulletin of the World Health Organization, 1997, 75:477-489.

9. HIV/AIDS Update in SAARC region, 2010, SAARC TB and HIV/AIDS Center

10. Kaplan JE et al. Guidelines for preventing opportunistic infections among HIV –infected persons -2002 recommendations of the U.S. Public Health Service and the Infectious Disease Society of America. MMWR Recommendations and Reports, 2002, 51 (RR08):1-46.

11. Mitty J et al, Directly Observed Therapy (DOT) for individuals with HIV: successes and challenges. Medscpe General Medicine,2003:5

12. Miles S. HIV in insurgency forces in sub-Saharan Africa - a personal view of policies. International Journal of STD and AIDS, 2003, 14: 174-178.

13. Nachega J et al. Tuberculosis active case finding in a mother to child transmission programme in Soweto, South Africa. AIDS, 2003, 17: 1398-1400.

14. NTP Annual Report-Nepal 2008

15. Range N et al. Trends in HIV prevalence among TB patients in Tanzania, 1991-1998. International Journal of Tuberculosis and Lung Disease, 2001,5:405-412

16. Talbot EA et al. The validity of HIV testing using sputum from suspected tuberculosis patients, Botswana, 2001. International Journal of Tuberculosis and Lung Disease, 2003,7:710-713

17. Watera C et al. Efficacy and toxicity to cotrimoxazole prophylaxis in HIV-1 infected Ugandan adults. 14th International AIDS Conference, Barcelona, Spain, 7-12 July 2002.

18. Guidelines for the prevention of tuberculosis in health care facilities in resource limited settings. World Health Organization (1999), (WHO/CDS/TB/99.269)

19. Second meeting of the Global Working Group on TB/HIV June 2002, Durban, South Africa. World Health Organization (2002).

20. Strategic Framework to Decrease the Burden of TB/HIV 2002 World Health Organization (2002). (WHO/CDS/TB/2002.296,WHO/HIV/AIDS/2002.2)

21. Strategic Framework to Decrease the Burden of TB/HIV. World Health Organization (2003).

22. Interim Policy on Collaborative TB/HIV Activities. Stop TB Department and Department of HIV/AIDS. World Health Organization (2004). WHO, Geneva, Switzerland.

23. Global Tuberculosis Control. WHO, Report 2010

24. World Health Organization (2011). WHO, Country Tuberculosis profile, India, Available at URL: www.who.int/tb/data

25. Williams B, Dye C. Antiretroviral drugs for tuberculosis control in the era of HIV/aids. Science Express, 2003, 10:1126.

26. Wilkinson D. Drugs for preventing TB in HIV infected persons. Cochrane Database of Systemic Reviews 2000, (4):CD000171.

27. Wiktor SZ et al. Efficacy of co-trimexazole prophylaxis to decrease the morbidity and mortality in HIV1 infected patients with TB in Abidjan Lancet, 1999.353, 1469-1475.

Annexure I

Template for National Programmes for describing and monitoring indicators

INDICATOR:	
Definition	
Numerator	
Denominator	
Purpose	
Methodology	
Periodicity	
Strengths & Limitations	
Responsibility	
Measuring tools	

For Example:

INDICATOR: ***Proportion of TB patients with known HIV status***	
Definition	Percentage of TB patients who had an HIV test result recorded in the TB register
Numerator	Number of TB patients registered during the reporting period who had an HIV test result recorded in the TB register.
Denominator	Total number of TB patients registered during the reporting period
Purpose	This indicator measures the HIV status of TB patients. Knowledge of HIV status enables HIV-positive TB patients to access the most appropriate HIV prevention, treatment, care and support services. Trends over time demonstrate progress towards national and international targets. The indicator is an additional recommended UNGASS indicator for national AIDS programmes.

Methodology	Numerator should include all TB patients previously known to be HIV-positive (e.g. documented evidence of enrolment in HIV care) or with a negative HIV result from previous testing that was acceptable to the clinician (e.g. done in the past 3–6 months in a reliable laboratory). All TB patients with unknown HIV status should be offered a provider initiated HIV test. A referral system may need to be established so that the TB control programme records when a TB patient is referred for an HIV test and receives the result. TB patients should ideally be tested at the start of TB treatment so that they can benefit from appropriate care throughout their treatment. However, a recording and reporting system should be able to capture these tests otherwise the total number of TB patients knowing their HIV status will be underreported. This indicator measures the ability of HIV and TB services ability to ensure that the HIV status in people with HIV and TB is known. A high proportion of TB patients knowing their status provides a sufficiently robust estimate of the true HIV prevalence among TB patients for surveillance purposes. It also forms the basis for more in-depth prevention efforts (e.g. condoms, partner testing).
Periodicity	Data are recorded continuously and reported quarterly at the time of reporting TB case-finding. Additional reporting at the time of the TB treatment outcome report allows HIV results to be recorded at any time during treatment.

Strengths & Limitations	HIV infection rates are higher among TB patients than in the general population. Knowledge of HIV status can help promote safer behaviour to reduce HIV transmission and improve access to appropriate care for TB patients to reduce stigma. Health-care workers who know the HIV status of their patients at the start of TB treatment are able to provide the most appropriate treatment, care and support. A high value for the indicator value suggests good referral from HIV care sites or a high uptake of HIV testing at TB treatment sites – both signs that the TB/HIV collaboration system as a whole is working well. A low value suggests problems with HIV testing uptake at the start of TB treatment and late detection of HIV, but provides no indication of where the problem lies. The indicator gives no information on whether a patient knows his or her status or has received appropriate pre- or post-test counselling, which is crucial if behaviour change is to be achieved to reduce HIV transmission.
Responsibility	NTP
Measuring tools	Facility TB registers and quarterly case-finding reports. Countries may also wish to record this during quarterly TB treatment outcome analysis to include late HIV tests.

TB/HIV: STRATEGIC FRAMEWORK, 2011–2015

Annexure II

VISION: NO DEATHS FROM TB AMONG PEOPLE LIVING WITH HIV

GOAL AND OBJECTIVES	MAJOR ACTIVITIES	INDICATOR(S)	BASELINE (2009)	TARGET FOR 2015
Goal: To reduce the global burden of HIV-associated TB		Percentage reduction in TB deaths among HIV-positive people by 2015 compared with baseline of 2004.	~10%	50%
Objective 1: Scale up access to HIV testing among TB patients	Update national policy for HIV testing in TB patients and TB suspects as appropriate; train counsellors and health care workers on HIV testing and counselling; procure and distribute commodities; conduct rapid testing for HIV.	Percentage of TB patients who know their HIV status.	26%	100%
Objective 2: Scale up access to CPT* for HIV-positive TB patients, according to international guidelines	Train health care workers on collaborative TB/HIV activities and management of HIV-associated TB; provide CPT.	Percentage of TB patients diagnosed as HIV-positive started on (or continuing on previously initiated) CPT during TB treatment.	75%	100%
Objective 3: Scale up access to ART for HIV-positive TB patients, according to international guidelines	Update national policy such that all HIV-positive TB patients are eligible for ART; train health care workers on collaborative TB/HIV activities and management of HIV-associated TB; address stigma and discrimination to promote access to TB and HIV services among the most at-risk populations; strengthen laboratory capacity needed to monitor ART; provide ART.	Percentage of TB patients diagnosed as HIV-positive started on (or continuing on previously initiated) ART.	37%	100%
Objective 4: Scale up TB screening among people living with HIV, according to international guidelines	Update national policy on ICF; mobilize HIV stakeholders to provide TB prevention, treatment and care services to all people living with HIV; train health care workers (including community health workers) providing HIV services on collaborative TB/HIV activities and the management of HIV-associated TB; strengthen laboratory capacity needed for TB diagnosis (culture, DST, histopathology); strengthen radiology capacity for TB diagnosis (chest X-ray, ultrasound).	Percentage of all people living with HIV enrolled in HIV and PMTCT care assessed for TB, during their previous visit to HIV care services.	~33%	100%

* Abbreviations and notes: IPT - isoniazid preventive therapy; ICF - intensified case-finding (of TB among people living with HIV); CPT - cotrimoxazole preventive therapy; ART - antiretroviral therapy; PMTCT - prevention of mother-to-child transmission (of HIV). Health care workers includes community health workers.

OBJECTIVES (CONTINUED)	MAJOR ACTIVITIES	INDICATOR(S)	BASELINE (2009)	TARGET FOR 2015
Objective 5: Scale up access to IPT among people living with HIV and who do not have active TB, according to international guidelines	Update national policy on IPT; mobilize HIV stakeholders to provide TB prevention, treatment and care services to all people living with HIV; train health care workers (including community health workers) on collaborative TB/HIV activities and the management of HIV-associated TB; provide isoniazid and pyridoxine drugs.	Percentage of people living with HIV enrolled in care started on IPT, among those who are eligible for IPT *(NB. It is anticipated that about 50% of people living with HIV will be eligible for IPT)*	0.2%	100%
Objective 6: Scale up the implementation of measures for TB infection control in health care facilities providing services to people living with HIV	Conduct annual surveillance for TB disease among health care workers (including community health workers); develop an infection control plan for facility-level managerial activities, administrative controls, environmental controls and personal protection measures, and implement these measures; train health care workers providing care for people living with HIV on TB infection control.	Ratio of TB notification rate among health care workers to notification rate among general population	n/a*	~1
		Number of TB/HIV HBCs with a plan for infection control in health facilities providing services to people living with HIV	n/a	63**
Objective 7: Scale up implementation of interlinked patient monitoring systems for TB/HIV and recording of TB deaths among people living with HIV	Train health care workers on collaborative TB/HIV activities and monitoring and evaluation; provide interlinked patient monitoring recording and reporting formats; strengthen programme capacity in the monitoring and evaluation of collaborative TB/HIV activities (including supervision).	Number of TB/HIV HBCs reporting on TB deaths among people living with HIV	n/a	63**
Objective 8: Coordinate global-level efforts to reduce the burden of HIV-related TB	Organize meetings of the TB/HIV Working Group; disseminate global policy guidance on TB/HIV, with particular attention to ICF, IPT and infection control.	Number of international partners participating in meetings of the TB/HIV Working Group	10	10
		Number of countries in which national policy on ICF and IPT has been updated according to international guidelines	2	63**

* Abbreviations and notes: n/a - not available. Health care workers includes community health workers.
** All of the 63 countries that have been defined as global priorities for implementation of TB/HIV collaborative activities.

SAARC Tuberculosis and HIV/AIDS Centre
Thimi, Bhaktapur,
P.O. Box No. 9517, Kathmandu, Nepal
Tel: 00977-1-6-631048, 6-632601
Fax : 00977-1-6634379
Email: saarctb@mos.com.np
Web: www.saarctb.org