



SAARC Regional Strategy for Control/Elimination of Tuberculosis

SAARC TUBERCULOSIS AND HIV/AIDS CENTRE
NEPAL

SAARC Regional Strategy
for
Control/Elimination of Tuberculosis

2013-2017

Abbreviations

ACSM	Advocacy, Communication and Social Mobilization
AIDS	Acquired Immuno-deficiency Syndrome
ARI	Annual Risk of Infection
ART	Anti Retroviral Treatment
CDR	Case Detection Rate
CSR	Corporate Social Responsibility
DOT	Directly Observed Treatment
DRS	Drug Resistance Surveillance/ Survey
GFATM	The Global Fund to fight AIDS, Tuberculosis and Malaria
HBC	High-burden country
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
MDG	Millennium Development Goal
MDR-TB	Multi-Drug-Resistant Tuberculosis
NGO	Nongovernmental Organization
NTP	National Tuberculosis Control Program
PLHA	People Living with HIV/AIDS
PPM	Public–Private Mix
QMS	Quality Management System
SAARC	South Asian Association for Regional Cooperation
SEAR	South-East Asia Region
SRL	Supranational Reference Laboratory
STAC	SAARC TB and HIV/AIDS Centre
STG	Standard Treatment Guideline
TB	Tuberculosis
USAID	United States Agency for International Development
WHA	World Health Assembly
WHO	World Health Organization
XDR-TB	Extensively drug-resistant TB

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Preface

Tuberculosis (TB) is one of the major public health problems in SAARC Region. Out of the 22 high TB disease burden countries (HBC) in the world, four countries (Afghanistan, Bangladesh, India and Pakistan) are in the SAARC Region. There are estimated 4.54 million prevalent cases, and 3.07 million new cases in the Region.

SAARC Tuberculosis and HIV/AIDS Centre (STAC), Kathmandu, Nepal, a Regional Centre of SAARC, was established for prevention and control of TB through coordination of National TB Control Programs (NTPs) in the Member States.

In 1993, WHO recommended the path-breaking Directly Observed Treatment Short-course (DOTS) Global Strategy for Prevention and Control of TB. All SAARC Member States have achieved 100% coverage with DOTS with fairly satisfactory case detection and cure rates in TB patients. In 2006, WHO recommended STOP TB Partnership Strategy with a vision of a TB Free World by 2015 and Elimination of TB. It endorsed the Goal 6 Target 6c of UN Millennium Development Goals (MDG). Stop TB Partnership strategy expanded the scope of interventions beyond DOTS to include prevention and control of TB/HIV co-infection, MDR TB, improving quality, and enhancing equity in diagnosis and treatment of TB.

In line with STOP TB Partnership Strategy, STAC has developed SAARC Regional Strategy for Control/Elimination of TB for achieving MDG of reducing disease burden of TB to half by 2015, and finally its elimination by 2050. The strategy will be implemented for a period of Five years, 2013-2017. The SAARC Regional Strategy is developed with the joint efforts and inputs of all the SAARC Member States to address the challenges and issues in the context of the region and member countries.

The next five years are crucial as 2015 is the year of achieving some of the indicator of MDG. The scientific community in the world is engaged in research to develop new technology and interventions for an effective control of the menace of TB. In view of the MDG target year of 2015 and much wanted new technology, the SAARC Strategy for Control/Elimination of TB will be reviewed in the mid-term and will be revised to incorporate the changes in the global strategies post MDG 2015.



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TUBERCULOSIS: A GLOBAL SCENARIO

Tuberculosis (TB) continues to be a major public health problem in the world as well as in SAARC Region. TB is the second highest cause of disease burden only next to HIV infection among communicable diseases. It is projected that by 2020 TB will be top most leading cause of high disease burden globally. The World Health Organization (WHO) declared TB epidemic as global public health emergency in 1993. Global epidemic of HIV has further compounded the problem. According to WHO's recent Global Tuberculosis Report 2012, there were estimated 8.7 million new cases of TB in 2011 with about 0.99 million deaths due to tuberculosis. Of all the new cases, an estimated 0.5 million were children and 2.9 million occurred among women. The five countries with the largest number of incident cases in 2011 were India, China, South Africa, Indonesia and Pakistan. India and China alone accounted for 26 percent and 12 percent of global cases, respectively. There are 22 high disease burden countries which account for 82 percent all new incident TB cases globally. Incidentally, 4 of these high disease burden countries, Afghanistan, Bangladesh, India and Pakistan, are in the SAARC Region.

Co-infection with HIV is a fast emerging threat. According to WHO, about 13 percent, almost 1.1 million, of TB cases, were co-infected with HIV. Among people who died of TB in 2011 globally, one-third of them were HIV positive. The proportion of TB cases co-infected with HIV was highest in countries in the African Region. About 39 percent of TB cases were estimated to be co-infected with HIV in this region, which accounted for 79% of TB cases among people living with HIV worldwide. TB is among the major killers among women. In 2011, about 500,000 women died of TB of which 200,000 were co-infected with HIV.

Multi Drug Resistance TB (MDR TB) is a fast emerging public health problem that has started stifling the achievements in TB control worldwide. MDR TB has posed a serious threat to the success of the TB Control programs. It is reported that 3.7 percent of new cases of TB and about 20 percent previously treated cases were estimated to be Multi Drug Resistant (MDR), globally. There are 27 countries with high MDR TB burden. India and the Russian Federation combined with China contributed to almost 60 percent MDR TB cases. Inadequate MDR surveillance in most countries has resulted in poor notification of MDR TB cases as evident from the fact that only about 60,000 have been reported out of an estimated 310,000 cases MDR TB during 2011.

Persons affected with HIV are at greater risk of developing tuberculosis. About 13 percent (1.1 million) of 8.7 million TB cases in 2011 were HIV positive. About a four-fifth of HIV positive cases (70 percent) were in the African region. Globally, there were an estimated 0.4 million HIV-associated TB deaths in 2011. Increased risk of HIV infection in the SAARC region is likely to compound the problem of TB. Co-infection with HIV among TB cases is fast emerging as an important problem in the region. India, which has about 2.5 million infected persons, is at higher risk of TB-HIV co-infection. Among 480,752 TB patients in whom HIV test results were known, 9 percent were found to positive for HIV.

TUBERCULOSIS IN SAARC REGION

The SAARC Member States have more than an estimated 2.0 million TB cases accounting for close to one-third of the total cases of TB in the world. India alone had almost one-fifth of the global disease burden due to TB. India, Pakistan and Bangladesh followed by Afghanistan are the major contributors of disease burden of TB in the SAARC Region. They are countries that have a dubious distinction of being on the list of 22 TB High Disease Countries in the world.

Table 1 provides prevalence, mortality and incidence estimates of tuberculosis in the SAARC member countries (WHO 2012). There were an estimated 4.54 million prevalent cases in the SAARC Region. The Member States, namely, India, Pakistan, Bangladesh and Afghanistan have high prevalence of TB, with India having highest number of cases (3.1 million) in the region, followed by Pakistan (620,000), Bangladesh (620,000) and Afghanistan (110000). Bhutan, Maldives and Sri Lanka had low prevalence of TB. Nepal though had an estimated 74,000 cases, yet TB is one of the major health problems in the country.

There were 3.07 million new cases in the region with India being the largest contributor (2.2 million cases) followed by Pakistan (410,000) and Bangladesh (340,000).

TB is a major cause of mortality in the SAARC Member States. Figure 1 provides the estimates of TB deaths in the Member States in 2005 and 2011. While, India, Pakistan, Sri Lanka, Bangladesh and Bhutan have shown a decline in TB deaths, the other Member States, Afghanistan and Nepal have shown a rise in TB deaths. In Maldives, the situation is stationary and number of TB deaths remained at the same level of 2005.

Majority of TB deaths (95 percent) occur in India, Pakistan and Bangladesh. India alone contributed 67 percent of TB deaths in the region (Figure 2).

PROGRESS OF TB CONTROL IN SAARC REGION

Reduction in TB incidence, prevalence and deaths is an important goal among UN's Millennium Development Goals (MDGs). Though TB remained a major public health problem in the SAARC Region, it has shown a downward trend in TB related MDGs in the SAARC Region.

The two major contributors, India and Pakistan have registered a decline in prevalence in since 2005, in addition to Bhutan and Maldives. The prevalence of TB has shown an increase in Afghanistan, Nepal and Sri Lanka. The prevalence is, however, unchanged in Bangladesh and remained at the same level as that of 2005 (Figure 3).

Similarly, all the Member States have shown a downward trend in mortality due to tuberculosis, except Afghanistan and Nepal during the period 2005 through 2011.

The performance of the TB Control Programs in the Member States was fairly considered satisfactory in SAARC Region. However, much remains to be done to achieve targets of MDGs and Stop TB Partnership.

The case detection rate is still far below in Afghanistan and Bangladesh, being 46 and 45 percent, respectively (Table 1). The case detection in India (59 percent), and Pakistan (64 percent), was also below the targeted 70 percent case detection rate. The cure rate was below the targeted cure rate of 85 percent in Maldives, Pakistan and Sri Lanka, though marginally. The other Member States have successfully achieved a cure rate of 85 percent and above.

Table I. Key Indicators of TB Prevention and Control in SAARC Member Countries, 2011

Indicators	SAARC Countries							
	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
Deaths (ex HIV)	13,000	68,000	130	300,000	10	7,000	59,000	1100
Mortality Rate per 100,000	39	45	17	24	2.5	23	33	5.4
Prevalence (Cases)	110,000	620,000	1,700	3,100,000	140	74,000	620,000	21000
Prevalence Rate per 100,000	351	411	230	249	44	243	350	101
Incidence (Cases)	61,000	340,000	1,400	2,200,000	110	50,000	410,000	14,000
Incidence Rate	189	225	192	181	34	163	231	66
Notified New and Relapse Cases	27,983	150899	1235	1,323,949	87	35,434	261,041	9,755
Case Detection (%)	46	45	87	59	81	71	64	70
Smear +ve among new pulmonary cases (%)	69	82	63	65	80	61	50	65
Cured (% of Cohort 2010)	86	90	87	85	82	88	75	83
Estimated cases of MDR TB	1100	3800	24	66000	1.4	1100	10000	21
Total Confirmed cases of MDR TB	19	509	21	4237	0	213	344	13
% of Notified Tested for MDR-TB	0	10	37	0	0	0	0	100
M:F Ratio for New-Smear Positive Cases	0.51	2.00	1.20	2.20	2.60	2.20	1.10	2.70

Source: Global Tuberculosis Report. World Health Organization, 2012.

Table 2: Estimates of TB disease incidence, prevalence and mortality in the SAARC Region 2011

Country	Population	Estimated Incidence		Estimated Sputum		Estimated Incidence		Estimated Prevalence		Death Rate per 100000 pop. All forms of TB
		All types (Number)	Rate per 100000 population	New Sputum Smear +ve (Number)	Rate per 100000 population	All types (Number)	Rate per 100000 population	All types (Number)	Rate per 100000 population	
Afghanistan	27000000	61000	189	27983	104	110000	351	38		
Bangladesh	150050000	340000	225	150899	101	620000	411	45		
Bhutan	708265	1069	151	382	54	1282	181	09		
India	1210190000	2000000	165	850000	70	1515872	249	23		
Maldives	330652	110	33	13	04	88	13	03		
Nepal	27498585	41108	149	20554	75	71000	238	21		
Pakistan	180808000	417666	231	175383	97	632828	350	33		
Sri Lanka	21309040	14064	66	4490	21	21522	100	09		
Total	1617894542	2875017	178	1229704	76	2972592	184	-		

Source: NTP Reports, 2011 (SAARC Member States)

Figure 1: Estimated Number of TB Deaths (Mortality) in SAARC Member Countries – 2011

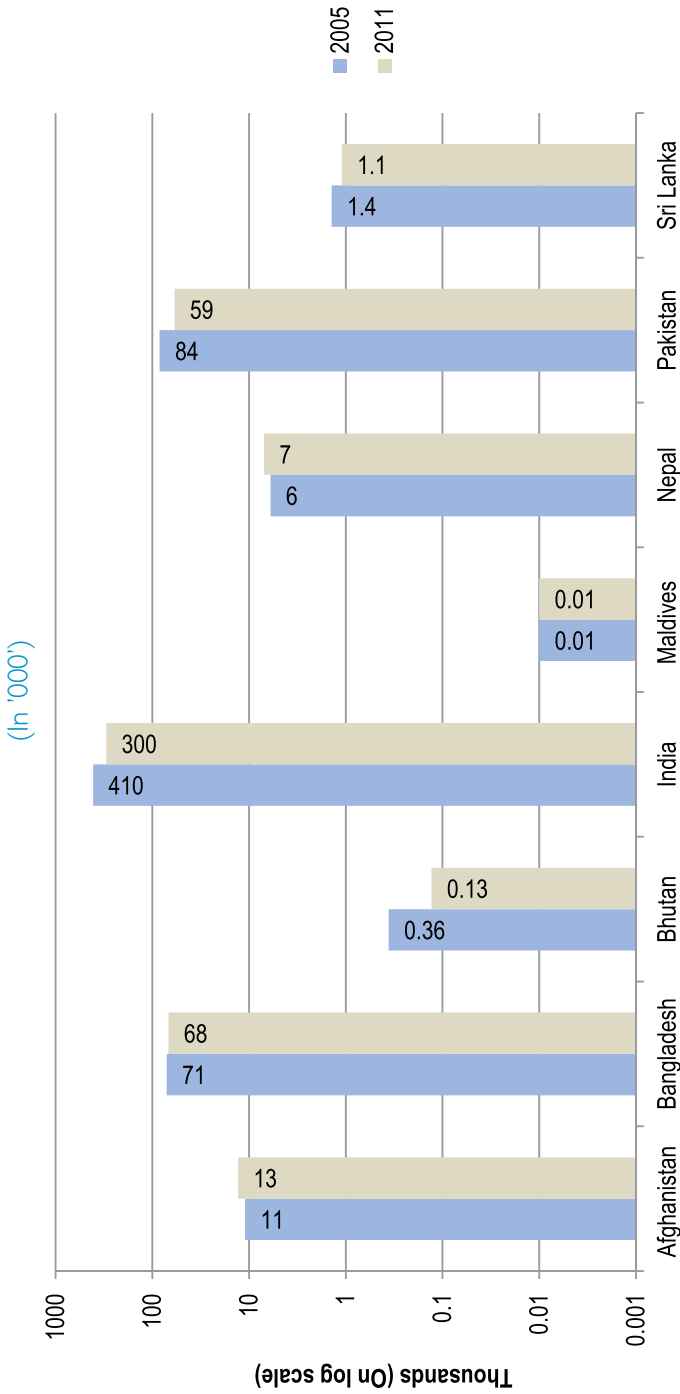


Figure 2: Percentage Distribution TB Mortality SAARC Member Countries, 2011

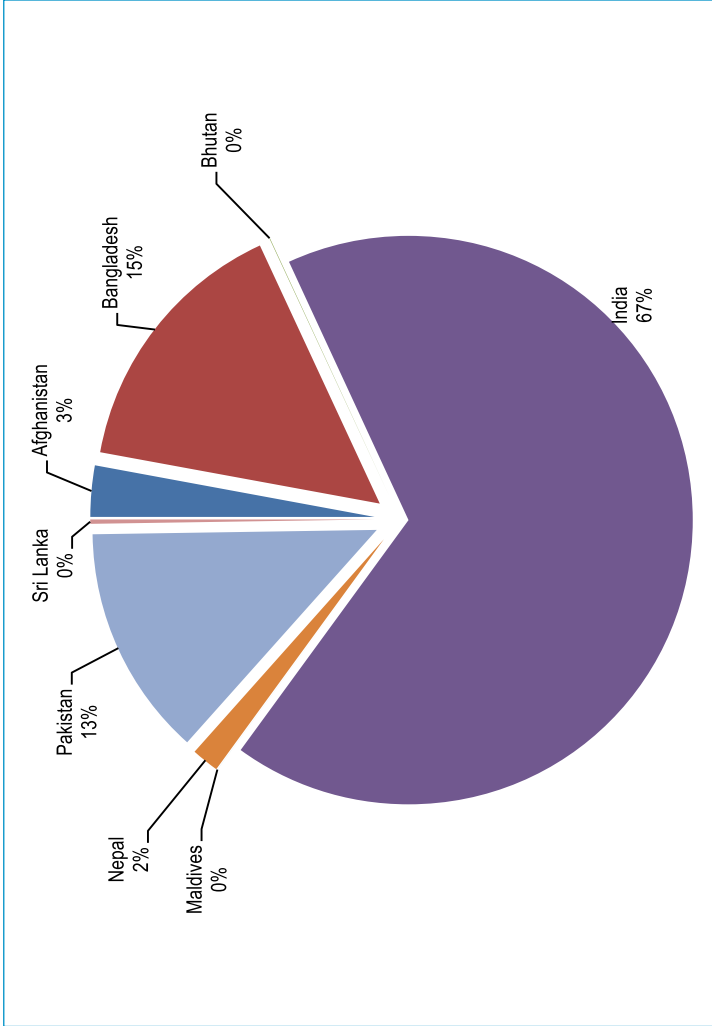
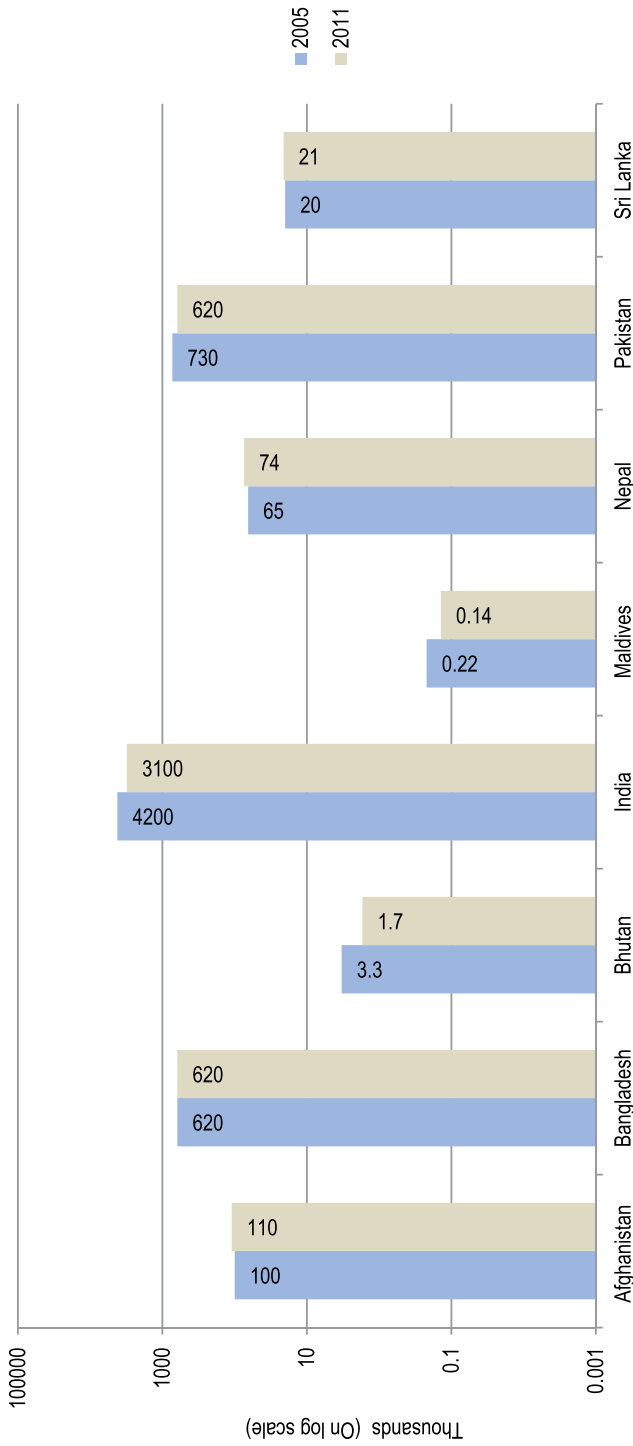


Figure 3: Estimated Prevalence of Tuberculosis in SAARC Member Countries, 2011 (In '000')



WHO STRATEGY: STOP TB PARTNERSHIP

The goal of Stop TB Strategy is to dramatically reduce the global burden of TB by 2015 in line with the Millennium Development Goals (MDGs) and the Stop TB Partnership targets

Targets set under Stop TB Strategy for 2015 and 2050:

- By 2015: Reduce prevalence and death rates by 50%, compared with their levels in 1990
- By 2050: Reduce the global incidence of active TB cases to <1 case per 1 million population per year

Objectives Stop TB Strategy:

- Achieve universal access to high-quality care for all people with TB
- Reduce the human suffering and socioeconomic burden associated with TB
- Protect vulnerable populations from TB, TB/HIV and drug-resistant TB
- Support development of new tools and enable their timely and effective use
- Protect and promote human rights in TB prevention, care and control

Components:

Pursue high-quality DOTS expansion and enhancement

- a. Secure political commitment, with adequate and sustained financing
- b. Ensure early case detection, and diagnosis through quality-assured bacteriology
- c. Provide standardized treatment with supervision, and patient support
- d. Ensure effective drug supply and management
- e. Monitor and evaluate performance and impact

Address TB/HIV, MDR-TB, and the needs of poor and vulnerable populations

- a. Scale-up collaborative TB/HIV activities
- b. Scale-up prevention and management of multidrug-resistant TB (MDR-TB)
- c. Address the needs of TB contacts, and of poor and vulnerable populations

Contribute to health system strengthening based on primary health care

- a. Help improve health policies, human resource development, financing, supplies, service delivery and information
- b. Strengthen infection control in health services, other congregate settings and households
- c. Upgrade laboratory networks, and implement the Practical Approach to Lung Health

- d. Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health

Engage all care providers

- a. Involve all public, voluntary, corporate and private providers through public–private mix approaches
- b. Promote use of the International Standards for Tuberculosis Care

Empower people with TB, and communities through partnership

- a. Pursue advocacy, communication and social mobilization
- b. Foster community participation in TB care, prevention and health promotion
- c. Promote use of the Patients' Charter for Tuberculosis Care

Enable and promote research

- a. Conduct program-based operational research
- b. Advocate for and participate in research to develop new diagnostics, drugs and vaccines

Targets for the scale-up of interventions for TB care and control set in the Global Plan to Stop TB 2011–2015 PLAN COMPONENT AND INDICATORS 2015 TARGET

Diagnosis and treatment of drug-susceptible TB	Global
Number of cases diagnosed, notified and treated according to the DOTS approach (per year) (in Millions)	6.9
Treatment success rate (in annual cohort)	90%
Number of countries with ≥ 1 laboratory with sputum-smear microscopy services per 100 000 population	149
Diagnosis and treatment of drug-resistant TB	
Percentage of previously treated TB patients tested for MDR-TB	100%
Percentage of new bacteriologically positive TB patients tested for MDR-TB	20%
Number of countries among the 22 HBCs and 27 high MDR-TB burden countries with ≥ 1 culture laboratory per 5 million populations.	36
Percentage of confirmed cases of MDR-TB enrolled on treatment according to international guidelines.	100%
Number of confirmed cases of MDR-TB enrolled on treatment according to international guidelines	~270,000
Treatment success rate among confirmed cases of MDR-TB	$\geq 75\%$
Collaborative TB/HIV activities	
Percentage of TB patients tested for HIV	100%
Percentage of HIV-positive TB patients treated with CPT	100%
Percentage of HIV-positive TB patients treated with ART	100%
Percentage of people living with HIV attending HIV care services who were screened for TB at their last visit	100%
Percentage of people living with HIV attending HIV care services who were enrolled on IPT, among those eligible	100%
Laboratory strengthening (additional to those above)	
Percentage of national reference laboratories implementing a quality management system (QMS) according to international standards	$\geq 50\%$

ART, antiretroviral therapy; CPT, co-trimoxazole preventive therapy; HBC, high TB burden country; HIV, human immunodeficiency virus; IPT, isoniazid preventive therapy; MDR-TB, multidrug-resistant tuberculosis

CHALLENGES AND ISSUES IN TB CONTROL IN SAARC REGION

A significant progress has been made towards achieving the goals of MDGs and Stop TB Partnership in the SAARC Region. However, TB remains a major cause of disease burden and mortality in SAARC Region. The goal and target of MDG 6: Target 6 c. to halt and begin to reverse the incidence of TB by 2015, which were endorsed by the Stop TB Partnership to reduce prevalence and death rates by 50%, by 2015 compared with their levels in 1990; and reduce the global incidence of active TB cases to <1 case per 1 million population (elimination of TB as a public health problem) per year by 2050 are far reaching goals.

The TB control programs in SAARC member countries are faced with several challenges and issues, summarized below:

Sub-optimal performance of TB Control Program

Despite the fact that the incidence of TB has shown declining trends, yet it is the cause of high disease burden and mortality. While the coverage with DOTS was 100 percent in the Region, the case detection rates varied from 45 to 87 percent of the estimated incident cases among the Member States. The case detection rate was low, between 45 and 64 percent, in Bangladesh, India and Pakistan which account for major part of the TB disease burden. While most countries have achieved targeted 85 percent cure rate, the defaulter rate are high thus jeopardizing treatment success and increasing probability of MDR TB. Default tracing mechanisms need to be strengthened in view of the considerable internal migration among patients registered with the national program. Particularly challenging has been efforts to address the issue of cross-border migration of patients enrolled in the NTP.

Poor access and inequities

There were wide social disparities among poor and disadvantaged section of the society. There were wide inequities in case detection, coverage with DOTS and continuation of treatment among disadvantaged and marginalized population in rural and tribal areas. These inequities exist in vulnerable population of women and children, especially those poor. Expansion to the more inaccessible areas poses a challenge. Ensuring quality DOTS services to marginalized groups such as migrant and tribal populations remains challenging.

Co-Infection with HIV

Co-Infection of TB with HIV has emerged as an important issue, although the prevalence of HIV less than 1 percent in the member states in the region. Less than 50 percent TB patients were tested for HIV. There was increasing number of TB patients that acquired HIV infection that would affect adversely the treatment outcomes of DOTS.

Drug Resistance

Drug resistance to TB has emerged globally and poses a serious threat to achievement of MDG and Stop TB Partnership. Among all new TB cases, 3.6 percent are estimated to be drug resistant. About 50 percent MDR TB cases were estimated to occur in India and China. The MDR TB surveillance is grossly inadequate in the member countries. Only about 2 percent new TB patients are tested for MDR TB. The major constraint in diagnosis and treatment of MDR TB is the gross lack of laboratory facilities for diagnosis and treatment. DOTS-Plus is also rife with programmatic challenges, including ensuring supply of quality assured second-line drugs.

Emerging risk groups

There is now substantial evidence that ageing, tobacco and diabetes are emerging risk factors for tuberculosis. These conditions would need to be addressed as part of a TB co-morbidity package (along with HIV) in the context of health systems strengthening agenda at primary-care level.

Human Resources

Presently there are the constraints of lack of HRD planning, lack of adequate numbers of staff at state level, rapid turnover of staff at all levels, untrained staff, staff not being posted at the required stations, and a lack of complete information on availability and training status of staff.

Health System's Preparedness

Weak management of health systems is a major issue that has affected the efficiency and effective health care in almost all Member States. Various areas of management, such as drugs procurement, logistics and supply management, information systems and management, human resources management, quality assurance are weak. There is no effective coordination between district health systems and TB Control Programs, thus lacking mainstreaming. Urban tuberculosis control has largely remained a challenging area due to poorly developed urban public health infrastructure. This sector and other health facilities, currently treating a substantial proportion of patients with TB, have been inadequate. The challenge is to further scaling up and strengthening PPP in tuberculosis control.

Monitoring and Evaluation

TB Control indicators are not captured in main health information system. There is a need for integration. The other areas that need to be addressed are establishment of regular recording and reporting from the district to the central level. Lack of sufficient supportive supervision of TB care activities affected efficiency of health workers. On-going analysis of the available data and information at all levels needs to be a routine activity of staff involved in TB control activities, with regular feedback to the reporting units.

Logistics and drug supply

Timely procurement, distribution and supply of drugs, equipment and other supply is one of the major constraints. These relate to an unpredictable lead time for procurement, slow decentralization of distribution systems, and inability to maintain adequate buffer stocks. Ensuring secure anti-tubercular drugs requires streamlining of procurement procedures. Internal and external quality assurance of drugs needs to be strengthened, while simultaneously strengthening logistics to ensure uninterrupted supplies of drugs and equipment to all treatment centres.

Low priority for operational research

There is a paucity of operational research in the region to identify local problems and solutions in order to improve access and availability of the diagnostic and treatment services, test alternate interventions and socio-cultural behavior in TB control programs.

Cross border migration

The Member States have common and porous borders with each other. There are migrant populations across the borders that influence the TB control and prevention activities.

SAARC REGIONAL STRATEGY
FOR
CONTROL / ELIMINATION OF
TUBERCULOSIS

SAARC REGIONAL STRATEGY FOR CONTROL / ELIMINATION OF TUBERCULOSIS

SAARC has adopted WHO's Global Stop TB Partnership strategy which envisions a TB-free world and elimination of TB by 2050.

1. GUIDING PRINCIPLES & SAARC TB CONTROL STRATEGY

The strategic directions for TB Control are grounded in six principles, which will guide achievements of the strategic goals as follows:

Inclusiveness

Working in partnership with all stakeholders will be at the core of the TB Control Strategies in the SAARC Region. The stakeholders would include governments, private sector, non-governmental organization and civil society, researchers, academia, policy-makers, professional bodies, national and international development agencies.

Equitable access to effective interventions

The TB Control strategy would endeavor to ensure equity in access, availability and utilization of the quality TB Control services for all sections of the populations including poor and marginalized, special populations such tribal, people living in slums, and distant and inaccessible rural areas and terrains.

Flexibility

All the SAARC Member States have their National Tuberculosis Programs and follow a general framework of DOTS and STOP TB partnership. However, each country may have specific and peculiar circumstances that would require adaptation of broad strategies to their own.

Quality

Commitment to high quality DOTS that would provide diagnostic services and treatment with effective anti-tubercular drugs will be an integral part of the strategy.

High Impact Interventions

High priority to research and innovation that have the greatest potential to improve and enhance performance and impact in reducing inequities, high cure rates, and contribute to achieving the Millennium Development Goals (MDGs) in the Region.

Ethics and Human Rights

Strategy would be based on the core values of equity, fairness and integrity, and promoting the utilization of scientific evidence and respect for gender and human rights.

2. TARGETS FOR SAARC REGION

SAARC Region Targets for the scale-up of interventions for TB care and control set in line with the Global Plan to Stop TB 2011–2015

- By 2015: Reduce prevalence and death rates by 50%, compared with their levels in 1990
- By 2050: Reduce the global incidence of active TB cases to <1 case per 1 million population per year

Diagnosis and treatment of drug-susceptible TB		SAARC
Number of cases diagnosed, notified and treated according to the DOTS approach (per year) (in millions)		2.5
Treatment success rate (in annual cohort)		90%
Number of countries with ≥1 laboratory with sputum-smear microscopy services per 100 000 population		8
Diagnosis and treatment of drug-resistant TB		
Percentage of previously treated TB patients tested for MDR-TB		100%
Percentage of new bacteriologically-positive TB patients tested for MDR-TB		20%
Number of Member States would have adequate facilities for diagnosis of drug resistant TB.		8
Number of HBCs have ≥1 culture laboratory per 5 million population.		4
Percentage of confirmed cases of MDR-TB enrolled on treatment according to international guidelines.		100%
Number of confirmed cases of MDR-TB enrolled on treatment according to international guidelines		~82054
Treatment success rate among confirmed cases of MDR-TB		≥75%
Collaborative TB/HIV activities		
Percentage of TB patients tested for HIV		100%
Percentage of HIV-positive TB patients treated with CPT		100%
Percentage of HIV-positive TB patients treated with ART		100%
Percentage of people living with HIV attending HIV care services who were screened for TB at their last visit		100%
Percentage of people living with HIV attending HIV care services who were enrolled on IPT, among those eligible		100%
Laboratory strengthening (additional to those above)		
Percentage of national reference laboratories implementing a quality management system (QMS) according to international standards		≥50%

3. STRATEGIC OBJECTIVES

Objectives of the SAARC Regional Strategy are in line with Stop TB Partnership strategy.

- i. Achieve universal access to high-quality care for all people with TB
- ii. Reduce the human suffering and socioeconomic burden associated with TB
- iii. Protect vulnerable populations from TB, TB/HIV and drug-resistant TB
- iv. Support development of new tools and enable their timely and effective use
- v. Protect and promote human rights in TB prevention, care and control

4. STRATEGIC INTERVENTIONS

4.1 Expanding Access and Availability of high-quality DOTS

DOTS coverage is almost 100 percent in all the Member States, however, there is a need for improving the quality of DOTS through enhancing access and availability of diagnosis and treatment facilities in the region, especially difficult and distant areas, special populations, and women and children. This is critical to success of the program as most Member States could not achieve the targeted case detection rate. It has become more important as the targets of case detection and treatment success rates have been revised upward to 80 percent and 90 percent, respectively.

Enhance Case Detection

The program will focus on increasing case detection through improved quality of microscopy: early case detection; active identification and tracking of suspected cases seeking treatment at the health facilities through the health care providers and technicians; and regular follow up with the defaulters.

Several Member States have adopted mobile camps approach in delivery of health care to inaccessible, difficult and distant areas in their respective countries. Diagnosis and treatment of TB may be included in the package of services and the mobile vans are equipped with facilities for sputum microscopy to expand the reach of DOTS and enhance case detection and treatment activities.

Local communities and community based organization will be involved in creating awareness and mobilizing local population to come to mobile camps.

Training of health and paramedical workers in primary and secondary level health care in identification, diagnosis, treatment and follow up will be emphasized for improving performance and effectiveness of DOTS.

Provide Standardized Treatment with Supervision, and Patient support

A standardized drug regimen for various categories of TB patients has been provided under DOTS. The main requirements for adequate treatment are: appropriate combination of anti-tuberculosis drugs and regularity of treatment by the patient for the prescribed period of time under direct observation of the DOT provider.

The Member States will take appropriate measures to implement and ensure use of standard anti-tubercular drug regimen for the TB patients at the government health facilities as well private sector. These measures will include training of medical professional, paramedical workers and private practitioners in standard treatment regimen imposing restrictions on sale of anti-tubercular drugs without prescription, and building a consensus in use of prescribed treatment for TB patients.

Follow up and supervision by the DOT provider will be emphasized to ensure the continuity of treatment and reduce defaulters.

Ensure effective drug supply and management

Efficient procurement and supply chain management of drugs in other supplies are critical for program success. The Member States have, though developed system of procurement, storage, distribution and supply of anti tuberculosis drugs, it will be further strengthened and efficiently managed in order to ensure uninterrupted supply of quality anti-tuberculosis drugs to the TB patient. Countries will improve procurement practices of quality drugs, their storage and distribution. Further the SAARC Regional TB Centre would design and develop training programs for managers in drug procurement and supply chain management. It is proposed that all the Member Countries have a web-based procurement management information system to streamline the procurement and inventory management.

Monitor and evaluate performance and impact

Member Countries will further strengthen monitoring and evaluations of NTPs performance, especially DOTS, in order to track performance and make mid-course correction.

4.2 Implement Collaborative TB/HIV Interventions

The emergence of HIV epidemic globally and in the South East Asia Region has caused major challenges to TB Control program. The annual risk of developing TB in HIV positive people ranges from 5-15 percent. HIV increases the rate of recurrent Tuberculosis. Increasing TB cases in HIV cases caused an increased risk to TB transmission to the general community.

SAARC has developed a separate strategy for TB and HIV collaborative interventions. The core strategy for collaborative TB and HIV activities would promote and establish effective mechanism between the TB control program and HIV control program in the SAARC countries for effective coordination and synergistic actions. The main objective of collaborative activities is to decrease the burden of HIV in TB patients and TB in PLHA (including four “I”s).

The main strategies of the collaborative activities will include:

- Promotion of political and administrative commitment to TB and HIV collaborative action at the national and sub-national levels, mainly through advocacy.
- Support and strengthening HIV surveillance among TB patients, and TB surveillance among PLHA at National/Sub-National level.
- Support Regional and National capacity building including training and research.
- Strengthening monitoring and evaluation of collaborative TB and HIV control activities.

4.3 Control and Prevention of MDR TB

MDR TB has caused serious challenges to TB control program across the Region. There were estimated 82000 cases of MDR TB among notified TB patients in SAARC Region. Only 6.5 percent of them are confirmed as MDR TB. Measures will be taken to improve and upscale MDR TB surveillance, testing of MDR, strengthen laboratory facilities and building capacity in bacteriology and drug testing.

The key strategic action for confronting the emerging threat of MDR TB is to prevent development of drug resistance to anti-tubercular drugs by enhancing compliance to DOTS regimen, uninterrupted supply of anti-tubercular drugs and reduce defaulter rates among TB patients.

The important strategies for control of MDR TB would include:

- Establish and support MDR TB surveillance system
- Develop laboratory network and services, and ensure quality of laboratory diagnosis.
- Train human resources in MDR Surveillance and microbiology for identification and diagnosis of drug resistance.

4.4. Strengthen Health System and Health Care Delivery

Strengthening health systems and efficient delivery of health care are quintessential for implementing TB control activities and services. The strategies to strengthen health system include:

- Building leadership and strategic managerial skills among the national and sub-national program managers in the Member States

- Strengthen management systems and processes in key areas such as logistic and supply chain management, human resources management and information system, especially monitoring and evaluation.
- Promote and strengthen infection control practices in health services through training in infection control
- Upgrade laboratory networks and improve quality of laboratory services in diagnosis, and MDR TB
- Incorporate component of Lung Health in primary health care
- Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health.

4.5. Engage all Care Providers

Public-private mix (PPM) has been an important component of strategic approach to TB control. Involvement of potential providers of DOTS and expanding the network of TB control partners are crucial to improve access to TB care, enhance early detection of TB cases, rational use of anti-tubercular treatment.

Professional associations, corporate social responsibility (CSR) initiatives in the industrial and commercial sectors, medical colleges, voluntary organizations and non-governmental organizations (NGO) and other stakeholders will be involved in TB Control activities in the Member States.

SAARC will formulate a framework for involvement of the private sector in TB control activities in the Member States. SAARC TB and HIV/AIDS Centre will actively pursue and provide technical support to Member States to accelerate implementation of the PPM strategy.

4.6. Advocacy, Communication and Social Mobilization

Advocacy to various stakeholders will be an important component of the TB control strategy in the SAARC Region. In order to promote advocacy, stakeholders meetings and seminars will be conducted; and advocacy material will be developed and disseminated. Training in advocacy will be an important strategic action.

Communication, which is crucial for creating awareness and improving utilization of TB services, is a weak link in the program. It is also critical for enhancing social mobilization.

SAARC TB and HIV/AIDS Centre will engage professionals in developing advocacy and communication planning strategies for SAARC Region.

Building capacity in communication planning and management at the national, provincial and district levels through training will be an important strategic action in Member Countries.

4.7 Political Commitment and Support

Ensuring political commitment for TB control will be an important strategic direction. Political commitment and administrative support have played a crucial role in success of the TB control programs in the SAARC Member States. The financial requirements have been increasing to effectively operate the TB control programs and expand DOTS to the unreached, special populations such as women and pediatric age group, geriatric groups, and migrant populations. There are serious challenges ahead in the form of emerging drug resistance to anti-tubercular drugs) MDR TB, Co-infection with HIV and rising incidence of diabetes which is more frequent among TB patients.

SAARC TB and HIV/AIDS Centre and along with NTPs will work on mobilizing political and support for the TB control program, especially for raising budget provisions and legislative measures to ban on the over-the-counter sale of anti-tubercular drugs. Ministries of Health in the Member States will be persuaded to declare TB as a nationally notifiable disease.

4.8. Promote Operational Research

Operational Research will be encouraged in the Member States. Operational research is an important strategy for testing new and alternative approaches for improving access, availability and utilization of DOTS; problem solving and decision making; and enhancing effectiveness and efficiency of TB Control program.

In order to promote Operational Research in the Member States, following priority strategic actions are proposed:

- Capacity building in planning, designing,, implementation, monitoring and evaluation of operational research
- Encourage Member States to allocate sufficient funds for operations research in solving problems and decision making Conduct program-based operational research

5. ACTION PLAN

STRATEGIC AREA		ACTIVITY/TIME LINE	2013- 2015	2016- 2017
Expanding Access and Availability of high-quality DOTS				
<i>a. Enhance Case Detection</i>				
	<ul style="list-style-type: none"> • Conduct advocacy to make TB a notifiable disease • Conduct orientation of private practitioners in TB control and their role • Capacity development of health care providers in the health systems in diagnosis and treatment of TB. • Develop sputum collection centers and system for transportation of samples. • Organize programs for creating awareness among people about signs and symptoms of TB and availability services • Proper screening of TB Suspects 	X	X	
<i>b. Ensure effective drug supply and management</i>				
	<ul style="list-style-type: none"> • Ensure stocks of anti-tuberculosis drugs including second line drugs by individual patient for at least three months in all Member States. • Training of health staff in need estimation and requisition for drugs. • Establishment of quality assurance system for anti-tubercular drugs at all levels. 	X	X	

STRATEGIC AREA	ACTIVITY/TIME LINE	2013- 2015	2016- 2017
c. <i>Provide Standardized Treatment with Supervision, and Patient support</i>	<ul style="list-style-type: none"> • Ensure standard treatment regimen under DOTS • Private sector to adopt STG for TB treatment 	X X	X X
d. <i>Monitor and evaluate performance and impact</i>	<ul style="list-style-type: none"> • Regular review of case detection and treatment in monthly meetings at all levels • Concurrent evaluation of performance and quality of TB control activities 	X X	X X
E. <i>Extend DOTS to inaccessible areas and special population</i>	<ul style="list-style-type: none"> • Leverage mobile clinics in case detection and treatment of TB • Social mobilization and Screening for TB among High risk groups such as diabetes, immune-compromised patients, geriatric and pediatric population, special populations such migrants and prisoners • Initiative for urban health care specially slums • Screening of children below 5 years among the patient contact and start chemoprophylaxis 	X X X X	X X X X
Implement Collaborative TB/HIV Interventions			
a. <i>Support and strengthening HIV surveillance among TB patients, and TB surveillance among PLHA at National/Sub-National level</i>	<ul style="list-style-type: none"> • Develop mechanism for all TB patients to be screened for HIV testing at ICT • District health facilities to start HIV testing among TB patients • Develop Mechanism for TB testing among all HIV positive cases • ART facilities for TB patients found positive for HIV and vice –versa 	X X X X	

STRATEGIC AREA		ACTIVITY/TIME LINE	2013- 2015	2016- 2017	
<p>b. Support Regional and National capacity building including training and research.</p> <p>c. Strengthening monitoring and evaluation of collaborative TB and HIV prevention and control activities</p>		<ul style="list-style-type: none"> Conduct training programs in Collaborative TB/ HIV Interventions. 	X		
		<ul style="list-style-type: none"> Develop a system for cross reporting and recording between TB and HIV control program 	X		
	Control and Prevention of MDR TB				
<p>a. Establish and support MDR TB surveillance system</p>		<ul style="list-style-type: none"> Develop Drug Resistance Surveillance System at the national level 	X		
		<ul style="list-style-type: none"> Develop a mechanism for detection of MDR TB 	X		
<p>b. Develop laboratory network and services, and ensure quality of laboratory diagnosis.</p>		<ul style="list-style-type: none"> Establish supranational TB/HIV Reference laboratory at STAC 	X		
		<ul style="list-style-type: none"> Develop national and regional reference laboratories in each Member State 	X		
		<ul style="list-style-type: none"> HBCs and high MDR-TB burden Member States establish ≥ 1 culture laboratory per 5 million population. 		X	
		<ul style="list-style-type: none"> Newer diagnostic test such as molecular test, liquid culture laboratories established 		X	
		<ul style="list-style-type: none"> Facilities for second line drug culture sensitivity to be developed and established 	X		
		<ul style="list-style-type: none"> Develop mechanism for cooperation among the Member States for laboratory testing 	X		
		<ul style="list-style-type: none"> Establish networking and quality assurance in laboratory services 	X		

STRATEGIC AREA	ACTIVITY/TIME LINE	2013- 2015	2016- 2017
c. <i>Train human resources in MDR Surveillance and microbiology for identification and diagnosis of drug resistance</i>	<ul style="list-style-type: none"> Organize SAARC Regional Training program in MDR Surveillance and microbiology for identification and diagnosis of drug resistance 	X	X
Strengthen Health System and Health Care Delivery			
a. <i>Building leadership and strategic managerial skills among the national and sub-national program managers in the Member States</i>	<ul style="list-style-type: none"> Organize Training program in Leadership and Strategic Management in each Member State 	X	
b. <i>Strengthen management systems and processes in key areas such as logistic and supply chain management, human resources management and information system, especially monitoring and evaluation.</i>	<ul style="list-style-type: none"> Organize training in management skills for logistics and supply chain management, supervision, monitoring and evaluation at the national and district levels in each Member State. Joint SAARC Monitoring Missions for appraisal of TB control programs in the region. 	X	X
c. <i>Promote and strengthen infection control practices in health services through training in infection control</i>	<ul style="list-style-type: none"> Develop Guidelines for Infection Control in the health settings. Integrate infection control training in other trainings such as hospital and laboratory waste management 	X	
d. <i>Upgrade laboratory networks and improve quality of laboratory services in diagnosis, and MDR TB</i>	<ul style="list-style-type: none"> Develop criteria and standards for quality of laboratory services and monitoring system for quality assurance. Organize training in quality assurance in laboratory services Develop network between SAARC Supranational Laboratory and National Reference Laboratories in the Member States 	X	X

STRATEGIC AREA	ACTIVITY/TIME LINE	2013- 2015	2016- 2017
	<ul style="list-style-type: none"> • Develop intra-country network of regional and national reference laboratories within the Member States • Develop mechanism for sharing expertise and support among the Member States 	X X	X
e. <i>Incorporate component of Lung Health in primary health care</i>	<ul style="list-style-type: none"> • Develop training module for Lung Health • Organize national workshops on Lung Health and linkages with TB control activities 	X X	
f. <i>Adapt successful approaches from other fields and sectors, and foster action on the social determinants of health.</i>	<ul style="list-style-type: none"> • Develop applications of ICT in TB Control, especially, digital communication of reports, training in distance education mode, monitoring and data management. • Alternative approaches for early case detection and treatment 	X X	X X
Engage all Care Providers			
	<ul style="list-style-type: none"> • Develop framework and guidelines for public-private mix • Develop guidelines and training programs for NGO and Civil Society • Develop guidelines and programs for industrial interface under Corporate Social Responsibility (CSR) • Develop Guidelines and training module of practitioners of indigenous systems of medicine in IEC, support case detection and referral, and act as DOTS provider 	X X X X	

STRATEGIC AREA	ACTIVITY/TIME LINE	2013- 2015	2016- 2017
	<ul style="list-style-type: none"> • Engage professional bodies and associations for commitment to TB Control activities • Engage medical colleges, nursing and paramedical schools and colleges, rehabilitation centers etc in TB Control activities 	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	
Advocacy, Communication and Social Mobilization	<ul style="list-style-type: none"> • Develop a Regional Strategy for Advocacy, Communication and Social Mobilization. • Advocacy by Good will ambassador for the SAARC Region • Organize SAARC TB/HIV and respiratory disease conference every third year. • Build capacity in ACSM through training and workshops at the regional and national level • Regional meeting on cross border issues and other emerging issues in TB control • Establish Web-based resource centre for communication and advocacy material 	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	
Political Commitment and Support	<ul style="list-style-type: none"> • Prepare framework and guidelines for political • Organize orientation programs for parliamentarians at the national level in the Member States within the NTP 	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	

STRATEGIC AREA	ACTIVITY/TIME LINE	2013- 2015	2016- 2017
	<ul style="list-style-type: none"> Inclusion of TB Agenda in Health Ministers meeting of SAARC Member States for commitment of domestic financial resources towards self-reliance Commitment to address cross border issues between and among the Member States 	X	
<p>Promote Operational Research</p> <ul style="list-style-type: none"> <i>Capacity building in planning, designing,, implementation, monitoring and evaluation of operational research</i> <i>allocate sufficient funds for operations research</i> <i>Conduct program-based operational research</i> 	<ul style="list-style-type: none"> Develop agenda for operational research in TB Control in the SAARC Region Organize training program in planning, designing,, implementation, monitoring and evaluation of operational research Invite proposals from the Member States and Institutions for Operational Research Multi-country Operational Research in access, availability and quality of TB Control. 	X X X X	

NOTE:

The Member States will adapt SAARC Strategy to their country specific strategies

The Member States will develop monitoring indicators specific to their country program and activities to monitor the progress of implementation of the Action Plan



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SAARC Regional Strategy for Control/Elimination of Tuberculosis

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