



SAARC GUIDELINES  
FOR PARTNERSHIP WITH

# School

in

PREVENTION & CONTROL OF  
TUBERCULOSIS  
AND HIV/AIDS

## SAARC Tuberculosis and HIV/AIDS Centre

Thimi, Bhaktapur, Kathmandu, Nepal

G. P. O. Box No. 9517, Tel: 00977-1-6631048, 6632601, 6632477

Fax: 00977-1-6634379

e-mail: [saarctb@mos.com.np](mailto:saarctb@mos.com.np), website: [www.saarctb.com.np](http://www.saarctb.com.np)





SAARC GUIDELINES FOR  
PARTNERSHIP WITH

# School

IN  
PREVENTION & CONTROL  
OF  
TUBERCULOSIS AND HIV/AIDS

SAARC Tuberculosis and HIV/AIDS Centre

Thimi, Bhaktapur, Kathmandu, Nepal

G. P. O. Box No. 9517, Tel: 00977-1-6631048, 6632601, 6632477

Fax: 00977-1-6634379

e-mail: [saarctb@mos.com.np](mailto:saarctb@mos.com.np), website: [www.saarctb.com.np](http://www.saarctb.com.np)

## Second Edition: 2006

Copyright © SAARC Tuberculosis & HIV/AIDS Centre

---

This document may be reviewed, abstracted, reproduced or translated  
but is not for sale or for commercial purpose.  
It is for information or for educational purposes  
but acknowledgement is desirable.

## **CONTENTS**

---

**Foreword**

**Abbreviations and Acronyms**

**PART-I. HISTORY OF TUBERCULOSIS AND HIV/AIDS**

**Chapter-1 Tuberculosis**

**Chapter-2 HIV/AIDS**

**PART-II. SITUATION OF TUBERCULOSIS AND HIV/AIDS**

**Chapter-3 Situation of Tuberculosis**

3.1 Global

3.2 SAARC

**Chapter-4 Situation of HIV/AIDS**

4.1 Global

4.2 SAARC

**Chapter-5 Facts and Figures on Tuberculosis and HIV/AIDS**

5.1 TB

5.2 HIV/AIDS

**PART- III. GENERAL INFORMATION TO THE SCHOOL  
ON TUBERCULOSIS AND HIV/AIDS**

**Chapter-6 General Information- Tuberculosis**

6.1 What is Tuberculosis (TB)?

6.2 How Does TB spread?

6.3 What is a case of TB?

6.4 How many types of TB are there?

6.5 What are the symptoms of Pulmonary TB?

6.6 Who are vulnerable to TB?

6.7 How TB is diagnosed?

## **Chapter-7 General Information-HIV/AIDS**

- 7.1 What is HIV?
- 7.2 What is AIDS?
- 7.3 What are the symptoms of HIV Infection?
- 7.4 When does person have AIDS?
- 7.5 How HIV is transmitted?
- 7.6 How HIV is not transmitted?
- 7.7 Prevention of HIV Transmission
- 7.8 How HIV is diagnosed?
- 7.9 Who are vulnerable to HIV?

## **Chapter-8 TB/HIV co-infection**

- 8.1 HIV and TB relation
- 8.2 Impact of HIV/AIDS on TB control
- 8.3 Impact of TB on HIV
- 8.4 Facts on TB/HIV co-infection

## **Chapter-9 Treatment of Tuberculosis**

- 9.1 How TB disease is treated?
- 9.2 Available effective anti TB Drugs.
- 9.3 What are the adverse effects of anti-TB drugs?
- 9.4 How one can help TB patients understand more about their disease?

## **Chapter-10 Directly Observed Treatment Short-Course: DOTS Strategy**

- 10.1 What is DOTS?
- 10.2 What are the essential elements of DOTS strategy?
- 10.3 What is the evidence that DOTS works?
- 10.4 What are the benefits of DOTS?

## **Chapter-11 Drug Resistance to Anti TB Drugs and MDR-TB**

- 11.1 What is drug resistance and MDR-TB?

- 11.2 How MDR-TB is produced?
- 11.3 Treatment of MDR-TB
- 11.4 What is DOTS Plus?

## **Chapter–12 Treatments of HIV/AIDS – ARV**

- 12.1 Antiretroviral Therapy (ART) on HIV/AIDS
- 12.2 When & who need ARV therapy
- 12.3 What ART are available ?

## **PART -IV GENERAL INFORMATION ON POLICIES AND STRATEGIES**

### **Chapter-13 Millennium Development Goals (2000-2015)**

- 13.1 Millennium Development Goal No. 6 (Combat HIV/AIDS, Malaria and other Diseases)

### **Chapter–14 Stop TB Partnership Strategy**

### **Chapter–15 SAARC Regional Strategies for TB/HIV co-infection**

### **Chapter–16 SAARC Regional Strategies on HIV/AIDS**

## **PART -V National TB Control Programme and National AIDS control programme**

### **Chapter–17 National TB Control Programme (NTP)**

- 17.1 The aims of the NTP
- 17.2 The goal of the NTP
- 17.3 The activities of the NTP

### **Chapter–18 National AIDS control Programme (NACP)**

- 18.1 The aims of NACP
- 18.2 The activities of NACP

**PART –VI GUIDELINES FOR PARTNERSHIP  
PROGRAMME WITH SCHOOL**

**Chapter–19 Partnership is the most essential to stop TB and  
HIV/AIDS**

**Chapter–20 SAARC/ STC partnership programme with schools  
to control and prevention of TB & HIV/AIDS**

**Chapter–21 Guidelines for partnership programme with School  
For NTP/HIV/AIDS Programme Managers to conduct  
partnership programme**

**Chapter–22 For School to participate in the Partnership  
programme**

22.1 Keep in priority of General Information on TB and  
HIV/AIDS

22.2 Ensure for the contribution

22.3 Teachers/School Management can play the vital role?

22.4 Utilize Home-School Communication System

22.5 Family Involvement

22.6 How to aware Students/Parents/Individuals

22.7 Its impact on households/families

22.8 Special Days/Occasions inter School competitions  
among the students

22.9 What Student can do?

**Chapter –23 Outcome of the partnership programme with School**

# Foreword

Tuberculosis and HIV/AIDS Programmes are the priority programmes of Member States of SAARC Region. The Heads of State or Government of Member Countries of SAARC at their Fifth Summit held in Male from 22 to 23 November 1990 decided to establish SAARC Tuberculosis Centre in Nepal with objectives to work for prevention and control of TB in the Region by coordinating the efforts of the National Tuberculosis Control Programmes of the Member Countries. The Centre was established in 1992 and is working to meet the objectives.

Considering the role played by the center through its activities, the thirty-first Session of Standing Committee, November 9-10, 2005, Dhaka, during Thirteenth SAARC Summit renamed the Centre as SAARC Tuberculosis and HIV/AIDS Centre (STC).

Tuberculosis still is a global problem. SAARC Region bears 22% of global population with 27.9% of the global burden of TB. The situation of HIV/AIDS is also a great challenge in the public health for SAARC Region. So multi-sectoral approach is needed to fight against it.

The Governing Board of the Centre had recommended to involve new partners for strengthening the efforts on control activities. The new partners identified are School, Media, Industry, Private Sector, Medical Colleges, Pharmacists, Manpower Agency and Travel Agency.

School is one of the potential partners to play significant role in control of TB and HIV/AIDS. School Children make up a significant proportion of a country's population and they are in the process of learning. Therefore school children regarded as a potential group who could spread/propagate the messages on tuberculosis and HIV/AIDS among peer groups, families and community at large and mobilize demand for TB and HIV/AIDS services. Therefore, STC has identified School as one of the most potential partners to be involved in this mission and published a Guideline in 2003 for the Partnership Programme with School for Control of Tuberculosis as first edition.

In Compliance to the decision of the Fifteenth Meeting of the Governing Board of the Centre, first edition of Guideline is updated and produced this guideline as second edition.

I hope, the information contained in this Guideline will provide technical information on TB and HIV/AIDS to update students knowledge. This guideline will also help to develop close collaboration and partnership between NTP/NACP and School to implement the control activities on TB and HIV/AIDS.

I would like to appreciate the efforts made by Dr. Lochana Shrestha, Epidemiologist and Mrs. Meena K. Dhakal, PA of STC to prepare this Guidelines. I would also like to give thanks to all other Staff of STC for providing valuable inputs to bring this document.

---

Dr. Kashi Kant Jha  
Director



## Abbreviations and Acronyms

AIDS	Acquired Immunodeficiency Syndrome
CSW	Commercial Sex Workers
DOTS	Directly Observed Treatment Short-cours
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
IDU	Injecting Drug Users
INGOs	International Non-Governmental Organizations
MDR	Multi Drug Resistance
NTP	National Tuberculosis Control Programme
NGOs	Non-Governmental Organizations
INGOs	International Non-Governmental Organizations
STC	SAARC TB and HIV/AIDS Centre
SAARC	South Asian Association for Regional Cooperation
STIs	Sexually Transmitted Infections
SS+	Sputum Smear Positive
TB	Tuberculosis
TB/HIV	TB and HIV co-infection
TV	Television
WHO	World Health Organization
G P O	General Post Office

PART – I

HISTORY  
OF TUBERCULOSIS  
&  
HIV/ AIDS



## CHAPTER-1

# TUBERCULOSIS

Tuberculosis as a killer disease has probably been recognized since the Stone Age. Traces of tuberculosis lesions have been found in the lungs of 3000-year-old Egyptian mummies. In classic Greek times it was known as Phthisis, from the verb Phthinein meaning, to waste away. It was commonly called “**consumption**”- for the same reason.

It was in the 17<sup>th</sup> century that a Dutchman, Franciscus Silvious of Leyden, first used term “tubercle” to describe the knobby lesions found in the lungs of people who had died of the wasting disease. The name Tuberculosis appears to have been first used in 1839 by Johann Schonlein.

When Dr, Robert Koch announced his discovery of the TB bacillus on 24<sup>th</sup> March 1882 in Berlin, TB was raging through Europe and the Americas, killing one in seven people. Koch’s discovery paved the way for the potential elimination of this fearsome disease.

Since that landmark discovery, many great technological developments like invention of BCG vaccine, tuberculin, and many anti-TB drugs, implementation of principles of National TB Control Programme as well as Directly Observed Treatment Short-course (DOTS) have taken place. However, TB is still the leading infectious cause of mortality among adults and has claimed the lives of more than 200 million people since 1882.

&

## HAPTER-2

# HIV/AIDS

Some physicians *in California and New York came across* unusual opportunistic infections among homosexual men. These infections did not respond to medication and patients could not live longer and eventually died. It became evident that medical science has a new illness to be treated. This new disease was named Acquired Immuno Deficiency Syndrome (AIDS) and first case was detected in the United States in 1981.

Acquired Immuno-Deficiency Syndrome (AIDS), a pattern of devastating infections caused by a virus, which attacks and destroys certain white blood cells that are essential to the body's immune (defense) system. As the virus attacks and causes destruction and weakening of the body's immune (defense) system it is known as Human Immunodeficiency virus (HIV). AIDS represents the late clinical stage of HIV infection.

In fact when HIV infects a cell, it may lie inactive for years and most of the people infected with HIV does not show any symptoms or may show only minor illness for 7-10 years. These people are infected with HIV, they can spread the infection to others but still they do not have AIDS.

Gradually the virus becomes activated and breaks down the human body's natural defense mechanisms leaving it a prey to other opportunistic infections (among which TB is the most common) and other conditions including cancers that characterize AIDS.

Till now there is neither any vaccine to prevent the AIDS nor any treatment to cure AIDS, presently available treatment can only extend life. So prevention of transmission of infection remains the only method of control.

&

PART – II

SITUATION  
OF TUBERCULOSIS  
& HIV/AIDS



## CHAPTER- 3

# SITUATION OF TUBERCULOSIS

### 3.1 GLOBAL

An estimated 8.9 million new cases of TB occurred in 2004 at the rate of 140/ 100000 population, of which 3.9 million (62/100000 pop) were smear positive and 741000 were in adults infected with the human immunodeficiency virus (HIV). 14.6 million were estimated to be prevalent TB cases at the rate of 229/100000 pop, of which 6.1 million were smear positive (95/100000 pop). More than 80% of all new TB patients in 2004 was in the African, South East Asia and Western Pacific Region. An estimated 1.7 million people (27/100000 pop) died from TB in 2004, including those co infected with HIV (248000).

A total of 183 countries and territories were implementing the DOTS strategy during 2004. By the end of 2004, 83% of the World's population lived in countries, or parts of countries, covered by DOTS.

At the end of 2004, DOTS expansion was complete in nine High Burden Countries (HBCs) and nearing completion in five others. Pakistan reported full DOTS coverage by the end of 2005, and coverage has increased considerably in Afghanistan, Brazil & the Russian Federation.

DOTS programs notified 4.4 million new and relapsed TB cases in 2004, of which 2.1 million were new smear positive. In total, 21.5 million TB patients, and 10.7 million new smear positive patients, were treated in DOTS programs over the 10 years 1995-2004.



The 2.1 million smear-positive cases notified by DOTS program in 2004 represent 53% of the estimated incidence. The increment in smear-positive cases notified under DOTS between 2003 and 2004 (350000) was greater than ever before (the average annual increment from 1995 to 2000 was 134000).

Treatment success in the 2003 DOTS cohort of 1.7 million patients was 82% on average, edging closer to the 85% target. As in previous DOTS cohorts, treatment success was substantially below average in the African Region (72%) and the European Region (75%). The relatively poor outcomes in these two Regions can be attributed, in part, to the complications of HIV co infection and drug resistance, respectively.

Based on case reports and WHO estimates, 26 countries had reached the targets for case detection and treatment success by the end of 2004.

WHO best estimates are that prevalence fell from 297/100000 pop globally in 1990 to 229/100000 pop in 2004 (including HIV-positive TB patients), partly as a consequence of DOTS expansion. TB mortality declined from 29 per 100000 in 1990 to 27 per 100000 in 2004. But for the strongly adverse trends in Africa, prevalence and death rates would be falling more quickly worldwide. The epidemiological forecast for 2005 and beyond is set out in the Global Plan to Stop TB, 2006-2015.

### **3.2 SAARC**

Almost 50% the adult population of this Region has already been infected with Mycobacterium tuberculosis and is at risk of developing tuberculosis disease. In the year 2004 an estimated 2.5 million people newly developed TB disease (174/100 000 population), of which about 1.11 million (78/100000) were smear positive and capable for spreading the disease to others.

According to this estimate SAARC Region was bearing 27.9% of the total global new TB cases with 22.4% of population share. India, Bangladesh and Pakistan are occupying the 1<sup>st</sup>, 6<sup>th</sup> and 7<sup>th</sup> position in the list of 22 high burden nations {according to estimated incidence (absolute number) of TB: high burden countries.2004} with India revealing the highest (20.45%) global absolute burden of TB. These three SAARC nations account for 27.18% of the total global new TB cases.

An estimated 470888 people (36/ 100 000) died from TB in 2004, including those co-infected with HIV (20912). More than 75% of these cases and deaths occur among 15-54 years age group, economically the most productive age group. As a result the social and economic losses due to TB are huge.

### **TB Burden in SAARC Region**

- ? 50% the adult population infected with MTB ( 2004)
  
- ? India, Bangladesh & Pakistan (Rank 1st, 6th & 7th) are among high burden countries
  
- ? An estimated 2.5 million people developed TB disease (174/100 000 population)- 2004
  
- ? About 1.11 million (78/100000) smear positive
  
- ? An estimated 470,888 people (36/100000) died from TB including those co-infected with HIV (20,912) 4.4%

TB notifications and case Detection rate in SAARC Region,  
2004 (DOTS & Non DOTS Area)

Countries	Population	No. of Notified TB cases		No. of Estimated TB		Case detection rate (%)	
		All cases	New SS+	All cases	New SS+	All cases	New SS+
Bangladesh	139215000	98234	62500	319252	143637	31	44
Bhutan	2116000	1002	356	2265	1019	44	35
India	1087124000	1275998	489031	1824395	814570	70	60
Maldives	321000	119	66	157	71	76	93
Nepal	26591000	32678	14614	48834	21868	70	67
Pakistan	154794000	104842	33746	280597	126155	37	27
Sri- Lanka	20570000	8952	4302	12445	5597	72	77
<b>Region</b>	<b>1430731000</b>	<b>1530825</b>	<b>604615</b>	<b>2487945</b>	<b>1112917</b>	<b>62</b>	<b>54</b>

Source: Global Tuberculosis Control-WHO Reports 2006

Note: Estimation for all cases reported by WHO Regional Office for South-East Asia for Bangladesh (360767), Bhutan (2492), India (1788043), Maldives (142), Nepal (53139) and Sri Lanka (11530) differ from estimation reported by WHO Geneva. This could be due difference in parameters applied for estimation

&

## CHAPTER-4

# SITUATION OF HIV/AIDS

### 4.1 GLOBAL

In just 25 years, HIV has spread relentlessly from a few widely scattered “hot spots” to virtually every country in the world, infecting 65 million people and killing 25 million. Nearly twenty-five years of experience with HIV prevention and ten years of experience with effective antiretroviral therapy have produced mountains of evidence about how to prevent and treat HIV.

Current estimates suggest that at the end of 2005, 38.6 (33.4-46.0) million people around the world were living with HIV. An estimated 4.1 (3.4-6.2) million people acquired the HIV virus (infection) in 2005. The AIDS epidemic claimed 2.8 (2.4-3.3) million lives in 2005 (The UNAIDS & WHO estimates published in 2006 Report on the Global AIDS Epidemic are lower than those published in the AIDS epidemic update-December 2005).

The epidemic remains extremely dynamic, growing and changing character as the virus exploits new opportunities for transmission. There is no room for complacency anywhere. Virtually no country in the world remains unaffected. Overall, the HIV incidence rate (the proportion of people who have become infected with HIV) is believed to have peaked in the late 1990s and to have stabilized subsequently, notwithstanding increasing incidence in several countries.

The number of people living with HIV continues to rise, despite the fact that effective prevention exist. All the estimates using the following

table and also in this report are based on updated estimation methodologies and the latest available data unless otherwise mentioned. Hence current estimates cannot be compared directly with that of previously published reports. According to latest estimates the total number people living with HIV, globally are shown in Table I & II.

*Table I:  
Adults (15+) and children living with HIV, end 2003 and end 2005 globally by region (according to new estimate)<sup>8</sup>*

Region	2005		2003	
	Adults (15+) and children living with HIV	Adult (15-49) Prevalence (%)	Adults (15+) and children living with HIV	Adult (15-49) Prevalence (%)
Sub-Saharan Africa	24.5 (21.6-27.4) million	6.1 (5.4-6.8)	23.5 (20.8- 26.3 million)	6.2 (5.5-7.0)
North Africa & Middle East	440 000 (250 000-720 000 million)	0.2 (0.1-0.4)	380 000 (220 000- 620 000 million)	0.2 (0.1-0.3)
Asia	8.3 (5.7-12.5) million	0.4 (0.3-0.6)	7.6 (5.2-11.3) million	0.4 (0.2-0.6)
Oceania	78 000 (48 000- 170 000)	0.3 (0.2-0.8)	66 000 (41 000-140 000)	0.3 (0.2-0.7)
Latin America	1.6 (1.2-2.4) million	0.5 (0.4-1.2)	1.4 (1.1-2.0) million	0.5 (0.4-0.7)
Caribbean	330 000 (240 000-420 000)	1.6 (1.1-2.2)	310 000 (230 000-400 000)	1.5 (1.1-2.0)
Eastern Europe & Central Asia	1.5 million (1.0 – 2.3 million)	0.8 (0.6-1.4)	1.1 million (790 000-1.7 million)	0.6 (0.4-1.0)
North America Western & Central Europe	2.0 (1.4-2.9 million)	0.5 (0.4-0.7)	1.8 (1.3-2.7 million)	0.5 (0.3-0.6)
<b>Total</b>	<b>38.6 (33.4-46.0) million</b>	<b>1.1 (0.9-1.2)</b>	<b>36.2 (31.4-42.9) million</b>	<b>1.0 (0.8-1.2)</b>

Source: HIV/AIDS in the SAARC Region an update 2006

Note: The ranges around the estimates in this table define the boundaries (low to high estimates) within which the actual numbers lie, based on the best available information. These ranges are more precise than those of previous years' estimate. These are all according to latest estimate.

*Table II*

*Adults and children newly infected with HIV, and deaths due to AIDS in 2003 and in 2005 globally by region (according to latest estimate)<sup>8</sup>*

Region	Adults (15+) and children newly infected with HIV		Adult (15+) & Child deaths due to AIDS	
	2005	2003	2005	2003
Sub-Saharan Africa	2.7 (2.3-3.1) million	2.6 (2.3-3.0) million	2.0 (1.7-2.3) million	1.9 (1.7-2.3) million
North Africa & Middle East	64 000 (38 000-210 000)	54 000 (31 000-150 000)	37 000 (20 000-62 000)	34 000 (18000-57 000)
Asia	930 000 (624 000-2.4 million)	860 000 (560 000-2.3 million)	600 000 (400 000-850 000)	500 000 (340 000-710 000)
Oceania	7 200 (3 500-55 000)	9 000 (4 300-69 000)	3400 (1 900- 5 500)	2 300 (1 300-3 600)
Latin America	140 000 (100 000-420 000)	130 000 (95 000-310 000)	59 000 (47 000-76 000)	51 000 (40 000- 67 000)
Caribbean	37 000 (26 000—54 000)	34 000 (24 000-47 000)	27 000 (19 000-36000)	28 000 (19 000-38 000)
Eastern Europe & Central Asia	220 000 (150 000-650 000)	160 000 (110 000- 440 000)	53 000 (36 000-75 000)	28 000 (19 000-39 000)
North America Western & Central Europe	65 000 (52 000-98 000)	65 000 (52 000-98 000)	30 000 (24 000-45 000)	30 000 (24 000-45 000)
<b>Total</b>	<b>4.1 (3.4-6.2) million</b>	<b>3.9 (3.3-5.8) million</b>	<b>2.8 (2.4-3.3) million</b>	<b>2.6 (2.2-3.1) million</b>

Source: HIV and AIDS in the SAARC Region an update 2006

Note: The ranges around the estimates in this table define the boundaries (low to high estimates) within which the actual numbers lie, based on the best available information. These ranges are more precise than those of previous years' estimate. These are all according to latest estimate.

## 4.2 SAARC

All the SAARC countries are reporting cases of HIV and AIDS and the epidemic is spreading rapidly in most of the countries. India has the single largest proportion of HIV positive cases within its border. On the basis of available information it can be assumed that around 6 (5.87) million estimated HIV infected people are living within the region second highest after Sub Saharan Africa. <sup>1</sup>

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 farther and faster than in any other region globally. The existence of high-risk group behaviours, migrant workers, truckers, mobile populations in search of sexual pleasure, drugs, and commerce, the unequal status of women, the lack of population awareness of ‘basic’ risks and prevention strategies, the trafficking of women and young girls within the sex trade, the high rates of STIs etc., all make for an explosion of HIV epidemic within the region.

### **HIV/AIDS Burden in SAARC Region**

- ? Over 5.87 million estimated HIV infected
- ? Second highest after Sub-Saharan Africa
- ? Over 1.6 are women above aged 15 years
- ? Adult HIV prevalence < 1% (concentrated epidemic)

*Estimated number of people living with HIV in SAARC Region, end 2005,  
Country*

Country	Estimated Population (Approximately)	HIV Prevalence Rate (%) among Adults	No. of PLWH	Adult (15+) PLWH	Women (15+) PLWH	AIDS Deaths
Bangladesh	141822000	<0.1 (<0.2)	11000 (6400- 18000)	11000 (6400- 18000)	1400 (710- 2500)	500 (<1000)
*Bhutan	2163000	<0.1 (<0.2)	500 (<2000)	500 (<2000)	100 (<200)	100 (<200)
**India	1103371000	0.9(0.5- 1.5)	5700000 (3400000-9400000)	5600000 (3400000-9300000)	1600000 (820000-2800000)	(270000-680000)
***Maldives	329000	<0.2	***60	60	12	12
Nepal	27133000	0.5(0.3- 1.3)	75000 (41000- 180000)	74000 (40000 - 180000)	16000 (7500- 40000)	5100 (2800- 8400)
Pakistan	157935000	0.1(0.1- 0.2)	85000 (46000- 210000)	84000 (45000- 210000)	14000 (6600- 36000)	3000 (1700- 4900)
Sri- Lanka	20743000	<0.1 (<0.2)	5000 (3000- 8300)	5000 (3000- 8300)	1000 (<1000)	500 (<1000)
Regional	1453496000	<0.9	5876560	5774560	1632512	-

\* Population of Bhutan as per country report is 6,98,950

\*\* Estimated number of adults (15-49) living with HIV end of 2005 was 5.206 million with prevalence of 0.91% in estimated adult population of 571.76 million (Source: HIV/Aids Epidemiological, Surveillance and Estimation report for the year 2005, published in April 2006 by National AIDS Control Organization, Ministry of health & Family Welfare, Govt. of India)

\*\*\* On assumption from previous data

&



## CHAPTER-5

## FACTS &amp; FIGURES ON TB &amp; HIV/AIDS

**5.1 Tuberculosis**

- Ø TB is caused by bacteria
- Ø TB spreads by air
- Ø TB is curable
- Ø TB kills more youth and adults than other curable infectious disease.
- Ø TB in Children (New smear positive case notification in 2004) in SAARC Region – 2748
- Ø TB is a contagious disease but only people that are sick with pulmonary tuberculosis are infectious.
- Ø Like the common colds, TB spreads through the air when infectious people cough, spit, talk or sneeze.
- Ø Left untreated, a person with active TB can infect between 10 and 15 people every year.
- Ø TB usually kills a person by gradually making holes in the lungs.
- Ø Poverty increases the risk of tuberculosis; impoverishes its victims.
- Ø 80 percent of victims are aged between 15-49 and are in the most economically productive years of their lives.
- Ø DOTS restore health to young people who are in their most economically productive years.
- Ø More than 90% of TB cases and deaths occur in low and middle-income countries.
- Ø TB carries a direct cost to the health services (diagnosis, treatment and control)
- Ø TB carries an indirect cost to the society, family and community.
- Ø DOTS can add two year of life to an HIV positive person and 25-30 years to an HIV negative person.

- Ø TB is the leading cause of death among people who are HIV positive.
- Ø Someone who is HIV positive and infected with TB is 30 times more likely to become sick with TB than someone who is HIV negative.
- Ø TB can be readily and inexpensively cured with DOTS.
- Ø Every infectious patient cured reduced the risk to everyone of contracting TB.
- Ø DOTS prevent new infections and the development of MDR-TB.
- Ø There is no cure affordable to developing countries for some multi drug-resistant TB.
- Ø From a public health prospective, poorly supervised, incomplete treatment of TB is worse than no treatment at all.
- Ø Drug-resistant TB is more difficult and more expensive to treat and more likely to be fatal in developing countries.
- Ø TB is the biggest infectious killer of young women.
- Ø Women of reproductive age are more susceptible to sickness once infected with TB than are men of the same age.
- Ø Women in this age group are also at great risk from HIV infection.
- Ø TB kills more women than any single cause of maternal mortality.
- Ø In some parts of the world, the stigma attached to TB leads to isolation, abandonment and divorce of women.
- Ø Around 16 million people suffering from active TB in the World
- Ø Around 8.9 million people developing active TB each year in the World.
- Ø Around 1.7 million deaths occur due to TB in each year.
- Ø More than 27.9 % of global burden of TB in the SAARC Region.
- Ø Around 2.5 million new TB Cases occurs each year in the SAARC Region.
- Ø More than 0.5 million deaths due to TB in the SAARC Region.

## 5.2 HIV/AIDS

- Ø There is treatment available in the world to prolong the life of HIV/AIDS people
- Ø There is no vaccine available in the world to prevent HIV infection
- Ø Currently, HIV/AIDS is known as preventable & manageable chronic disease
- Ø HIV is the fastest growing serious health condition
- Ø The number of HIV infections per year is increasing rapidly.
- Ø The number of AIDS related deaths per year is rising
- Ø There are about 40 million people in world having HIV infection or AIDS (2005)
- Ø People having HIV infection may show manifestation of AIDS only after 5-10 years
- Ø Even though the HIV infected individual seems healthy, he or she is capable of spreading HIV to others
- Ø People Living with HIV around 40.3 Million in the world
- Ø New Infections (2005) around 4.9 million in the World
- Ø Deaths due to AIDS (2005) around 3.1 million in the world
- Ø Around 14 million people are co-infected with TB and HIV in the world
- Ø People Living with HIV around 5.87 million in the Region
- Ø New Infections (2005) around 930,00 million in the Asia
- Ø 5 million adults and children living with HIV are estimated in the SAARC Region

&

## PART – III

# GENERAL INFORMATION TO THE SCHOOL STUDENTS ON TB AND HIV/AIDS



## CHAPTER-6

# GENERAL INFORMATION ON TB

### 6.1. What is Tuberculosis (TB)?

Tuberculosis is a communicable disease caused by an organism called *Mycobacterium tuberculosis*. This organism is also called as tubercle bacilli. Usually they affect the lungs.

### 6.2. How does TB spread?

When a person with pulmonary TB coughs, sneezes, laughs, or talks tubercle bacilli are spread into the air in tiny droplets. People who are in close contact can breathe in these droplets and become infected.

### 6.3. What is a case of TB?

A patient in whom TB has been bacteriologically confirmed or diagnosed by a clinician.

### 6.4. How many types of TB are there?

There are two types of TB (according to organ/parts of the body affected):

#### **Pulmonary TB-**

When tuberculosis occurs in the lungs then it is called as pulmonary TB.

#### **Extra-Pulmonary TB-**

If TB affects organs other than lungs, such as lymph nodes, bones and joints, genitourinary tract, meninges, pleura, intestines etc. it is called as Extra Pulmonary TB.

### **6.5. What are the symptoms of pulmonary TB?**

Symptoms of pulmonary TB include:

- ? Cough more than two weeks
- ? Chest pain
- ? Low-grade fever, especially in the evening.
- ? Loss of weight
- ? Loss of appetite
- ? Blood stained sputum
- ? Night sweat

### **6.6. Who are vulnerable to TB?**

Following individuals are at risk of contracting infections and developing the disease because of their exposure to a patient with TB.

- ? Family and close contacts of the patients
- ? The elderly
- ? People who inject illicit drugs
- ? People who live or work in certain setting, such as nursing homes, prisons, shelters for the homeless or TB treatment centres
- ? People with HIV infection
- ? People addicted to alcohol
- ? Malnourished people
- ? People with poorly controlled Diabetes
- ? People having chronic lung diseases
- ? Smokers
- ? People suffering from cancers

### **6.7. How is TB detected?**

Pulmonary TB can be detected by sputum examination. At present, microscopic examination of sputum is the best method for diagnosis of pulmonary TB. Chest X-ray may help in diagnosis of TB of the lungs. The smear microscopy is better method of diagnosis than X-ray because it is simple, easy to perform; less expensive and more reliable. Microscopy services are provided free of cost.

&

## CHAPTER-7

**GENERAL INFORMATION ON HIV/AIDS****7.1. What is HIV?**

HIV stands for “Human Immuno deficiency Virus” which infects cells of the human immune system and impairs their function.

**7.2. What is AIDS?**

AIDS stands for ‘Acquired Immuno Deficiency Syndrome’ and describes the collection of symptoms and infections associated with acquired deficiency of the immune system. Infection with HIV has been established as the underlying cause of AIDS and it applies to the most advanced stage of HIV infection.

**7.3. What are the symptoms of HIV infection?**

Most people infected with HIV do not know that they have become infected, because no symptoms develop immediately after the initial infection. Some people have a glandular fever-like illness (with fever, rash, joint pains and enlarged lymph nodes), which can occur at the time of seroconversion. Seroconversion refers to the development of antibodies to HIV and usually takes place between 45 and 90 days after an infection has occurred.

The only way to determine whether HIV is present in a person’s body is by doing an HIV test.

**7.4 When does a Person have AIDS?**

After the initial asymptomatic period, the virus gradually becomes activated and breaks down the human body’s natural defense mechanisms leaving it a prey to other opportunistic infections and other conditions including cancers that characterize AIDS.



### 7.5. How HIV is Transmitted?

The main modes of HIV transmission are:

- Unprotected sexual intercourse (anal and vaginal) and oral sex;



- Contaminated blood and blood products, tissues and organs;



- Mother to child transmission (MTCT).



### 7.6. How HIV is not transmitted?

The following activities will not transmit the virus:

- ? Shaking hands, hugging or kissing;
- ? Coughing or sneezing;
- ? Sharing food, eating or drinking utensils;

- ? Visiting a hospital;
- ? Using common toilets or swimming pools;
- ? Getting bites of mosquitoes or other insects.
- ? Caring of AIDS patients also does not carry risk of HIV transmission.

### **7.7. HIV and AIDS can be PREVENTED**

- ? By being mutually faithful to sex partner
- ? By using only HIV screened blood or blood products when required
- ? By using new Needles, Syringes, Blades, Razor
- ? By avoiding injectable drugs and needle sharing
- ? By using a condom (consistently and correctly) for safer sex
- ? By participating in Prevention of Mother to Child Transmission (PMTCT) program for delivery of baby from HIV infected mother

### **7.8. How HIV is diagnosed?**

HIV is diagnosed by clinical assessment and HIV testing. The usual HIV test is one that detects antibodies to HIV in the blood. Rarely, a single HIV test for an individual person may not be reliable. The usual recommendation in diagnosing HIV infection is therefore to perform two tests. Both should be positive for a diagnosis of HIV infection. When a person gets infected with HIV, the virus will start to attack his/her immune system.

### **7.9 Who are vulnerable to HIV?**

Following Sub-Populations are at higher risk (PHR) of getting HIV infection of contracting infections and developing the disease because of their exposure to a patient with HIV.

- ? Intravenous Drug Users (IDU)
- ? Sex workers : Street based and Non-street (institute) based
- ? Clients of sex workers
- ? Labor migrant / Transport workers
- ? Men Sex with Men (MSM)
- ? Partners of migrants / house wives
- ? Street children
- ? Uniform service

&

## CHAPTER-8

## TB/HIV CO-INFECTION

TB and HIV are closely interlinked. TB is a leading cause of HIV-related morbidity and mortality. HIV is the most important factor fuelling the TB epidemic in populations with a high HIV prevalence. Collaboration between TB and HIV/AIDS programmes is crucial in supporting general health services providers. These providers need support in delivering the full range of HIV and TB prevention and care interventions. To counteract the impact of HIV on TB, other interventions are required apart from effective TB case-finding and cure. These interventions include:

- ? Measures to decrease HIV transmission (e.g. promotion of condoms, treatment of sexually transmitted infections, voluntary counseling and HIV testing, safe intravenous drug use, reduction in the number of sexual partners, prevention of mother to child HIV transmission, HIV screening of blood for transfusion and application of universal HIV precautions by health care workers).
- ? Antiretroviral therapy (ART) (to improve or maintain immune function in people living with HIV infection)
- ? Care for people living with HIV infection (e.g. treatment of HIV-related diseases, prevention of HIV-related infections, TB prevention, palliative care and nutritional support).

### 8.1. HIV and TB-relation

HIV is the most potent risk factor for progression to active TB both in people with recently acquired infection and those with latent MTB infection. The annual risk of developing TB in HIV infected individuals co-infected with MTB is 5-10 %. Lifetime risk of development of active TB among co infected people (latent MTB and HIV) is 60% and among latent MTB infected individuals is 10%. HIV-positive TB patients also suffer from other HIV related diseases.

- ? Increasing TB cases among PLWHA augment the risk of TB transmission to the general community whether or not HIV infected.
- ? TB is the most common causes of HIV related illness and death. HIV not only increases the number of TB cases, but also alters the clinical course of TB disease.

- ? TB notifications have increased in population where both HIV infection and *M. tuberculosis* are common.

## **8.2 Impact of HIV/AIDS on TB control:**

- ? Increased case load of active TB attributable to HIV
- ? Increased HIV related morbidity and mortality in TB patients
- ? Increased emergence of drug resistance
- ? Higher default rates and lower cure rates
- ? High rates of adverse drug reactions during TB treatment
- ? Increased risk of TB transmission (including nosocomial transmission)
- ? Increased burden on TB services
- ? Delay of access to health services for TB suspects due to the stigma of HIV/AIDS

## **8.3 Impact of TB on HIV:**

- ? Increased case load of active TB among PLWHA
- ? TB may accelerate the progression of HIV-related immuno suppression
- ? Increased morbidity and mortality from TB among PLWHA
- ? Difficulties with diagnosing TB among PLWHA owing to the different clinical presentations of HIV related TB
- ? Increased burden on HIV services

## **8.4. Facts on TB/HIV Co-infection:**

- ? HIV increases a person's susceptibility to infection with *Mycobacterium tuberculosis*.
- ? In a person infected with *M. Tuberculosis*, HIV is a potential cause of progression of tuberculosis infection to active diseases.
- ? An individual infected with HIV, has a 30-50 times increased risk of developing TB, than a person who is not infected with HIV.

&

## CHAPTER-9

**TREATMENT OF TUBERCULOSIS****9.1 How TB disease is treated?**

Tuberculosis is curable disease and treated with the oral drugs sometimes together with injections. TB drugs are available at free of cost in all government health facilities. The total duration of treatment is 6 to 8 months. Treatment should not be discontinued before completion of full course. If treatment is interrupted before completion of full course the drug resistance will develop which is dangerous to patient as well as to the community. Drug resistance TB is difficult to treat.

**9.2 Available effective anti-TB drugs:**

Following are the main anti -TB drugs available everywhere.

- ? Isoniazid (INH)
- ? Rifampicin (RFP)
- ? Pyrazinamide (PZA)
- ? Ethambutol (EB)
- ? Streptomycin (SM) - Injection

**9.3 What are the adverse effects of anti-TB drugs?**

Drugs used in the treatment of tuberculosis may cause adverse effects. These may be dangerous to the patient, or cause the patients to stop taking medicines. Most TB patients complete their treatment without any significant adverse effects of drugs. However, a few patients do experience adverse effects. It is therefore important that patients be clinically monitored during treatment so that adverse effects can be detected promptly and

managed properly. Health personnel can monitor adverse effects of drugs by teaching patients how to recognize symptoms of common adverse effects.

#### **9.4 How one can help TB patients understand more about their disease?**

Patients are more likely to successfully complete their treatment if they understand about their disease and treatment. Patients are often afraid when they learn of their diagnosis, because they harbor misbeliefs such as TB is a incurable disease. Reassure them and provide them with proper and relevant information. Talking to individual patients or patients in groups and distribution of pamphlets and brochures containing basic TB information, should help to improve the patients knowledge on TB.

&

## CHAPTER-10

## DIRECTLY OBSERVED TREATMENT SHORT-COURSE (DOTS) STRATEGY

### 10.1 What is DOTS?

DOTS stands for Directly Observed Treatment, Short-course, which is the strategy to control TB by giving drugs to patients under direct observation of health workers. DOTS has been found 100% effective to cure TB and to prevent multi-drug resistance. Only DOTS ensures cure of diagnosed TB patients. It can also prevent relapse and death.

### 10.2 What are the essential elements of DOTS strategy?

- ? Government commitment to sustain TB control
- ? Sputum smear microscopy to detect the infectious cases among those people attending health care facilities with symptoms of pulmonary TB.
- ? Standardized short-course anti- TB treatment with direct observation.
- ? Uninterrupted supply of anti-TB drugs and diagnostics, and
- ? Monitoring and accountability.

### 10.3 What is the evidence that DOTS works?

In areas where DOTS was implemented, cure rates of up to 95% have been recorded, even in very poor countries. More over DOTS prevents transmission of new infections and the development of multi-drug resistant TB. The DOTS strategy has been ranked by the World Bank as one of the most cost-effective of all health interventions.

### 10.4 What are the benefits of DOTS?

The benefits for patients themselves are the increasing treatment completion resulting in rapid cure. Furthermore, case management under DOTS strategy can prevent death, sequel & relapse. Moreover, DOTS can reduce community transmission of tubercle bacilli as well as emergence of drug resistance strains. DOTS can;

- ? Prolong life and improve its quality
- ? Stop the spread of TB
- ? Prevent emergence of multi-drug resistance TB
- ? Reverse the trend of multi-drug resistance TB

&

## CHAPTER -11

**DRUG RESISTANCE TO ANTI TB  
DRUGS & MDR TB****11.1 What is Drug Resistance?**

Drug resistant bacilli are the Mycobacterium tuberculosis bacilli, which are resistant to anti-tuberculosis drug and Multi-Drug resistant (MDR) bacilli are the bacilli that are resistant to more than one anti-tuberculosis drugs, specially the two main drugs- Isoniazid and Rifampicin. MDR is currently the most severe form of bacterial resistance.

**11.2 How is MDR TB produced?**

As with other forms of drug resistance, the phenomenon of MDR tuberculosis is entirely man-made.

Drug resistant bacilli are the consequences of human error in any of the following:

- ? Prescription of chemotherapy
- ? Management of drug supply
- ? Case management
- ? Process of drug delivery to the patient

**11.3 Treatment of MDR TB**

Treatment of patients with MDR tuberculosis may have to involve second-line (reserve) drugs. These are drugs other than the standard essential anti-TB drugs. These reserve drugs are much more expensive, less effective and have many more side





## CHAPTER -12

**TREATMENT OF HIV/AIDS - ARV****12.1 Antiretroviral Therapy (ART) on HIV and AIDS**

ART is the available treatment for HIV/AIDS with following purpose:

- ? Reduce the viral load as much as possible
- ? Achieve immune reconstitution
- ? Reduce HIV-related morbidity and mortality
- ? Prolong and improve the quality of life for PLHA
- ? Reduce mother-to-child transmission
- ? Reduce post exposure transmission of HIV

**12.2. When and who need ARV therapy:**

HIV positive individual needs ART only when he or she is symptomatic and/or there is evidence of significant immune system damage on clinical assessment.

**12.3. What ART are available:**

There are currently 20 approved ART drugs agents for the treatment of HIV infection. Approved antiretroviral drugs are grouped into four categories:

1. A. Nucleoside analog reverse transcriptase inhibitors (NsRTI).  
B. Nucleotide analog reverse transcriptase inhibitors (NtRTI).
2. Non-nucleoside analog reverse transcriptase inhibitors (NNRTIs)
3. Protease inhibitors (PIs)
4. Fusion inhibitors (FI)

Complete cure of HIV infection is not possible with presently available ARV drugs. Therefore, the aim of the treatment is to prolong and improve the quality of life by suppressing viral replication as long as possible.

The only regimens potent enough to reduce viral replication drastically and to prevent the emergence of resistance and treatment failure for a significant amount of time involve a combination of at least three antiretroviral drugs.

In co-infection with other diseases, treatment of Tuberculosis and other opportunistic infection may be more important than antiretroviral therapy

&

PART – IV

GENERAL INFORMATION  
ON  
POLICIES  
&  
STRATEGIES



## CHAPTER-13

# MILLENNIUM DEVELOPMENT GOALS (2000-2015)

### **Background**

In September 2000, 147 heads of State and Government, and 189 nations in total, in the United Nations Millennium Declaration [A/RES/55/2] committed themselves to making the right to development a reality for everyone and to freeing the entire human race from want. They acknowledged that progress is based on sustainable economic growth, which must focus on the poor, with human rights at the centre. The objective of the Declaration is to promote "a comprehensive approach and a coordinated strategy, tackling many problems simultaneously across a broad front."

The Declaration calls for halving by the year 2015, the number of people who live on less than one dollar a day. This effort also involves finding solutions to hunger, malnutrition and disease, promoting gender equality and the empowerment of women, guaranteeing a basic education for everyone, and supporting the Agenda 21 principles of sustainable development. Direct support from the richer countries, in the form of aid, trade, debt relief and investment is to be provided to help the developing countries.

### **The Millennium Development Goals**

#### **Goal -1. Eradicate Extreme poverty and Hunger**

- Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day
- Target 2 : Halve, between 1990 and 2015, the proportion of people who suffer from hunger

**Goal- 2. Achieve Universal Primary Education**

Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

**Goal -3. Promote Gender Equality and Empower women**

Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015

**Goal- 4. Reduce Child Mortality**

Target 5: Reduce by two third, between 1990 and 2015, the under-five mortality rate

**Goal- 5. Improve Maternal Health**

Target 6: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

**Goal- 6. Combat HIV/AIDS, Malaria and other Diseases**

Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

**Goal- 7. Ensure environmental sustainability**

Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Target 10: Halve, by 2015, the proportion of people without sustainable to safe drinking water and sanitation

Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

**Goal-8. Develop a Global partnership for development**

Target 12: Develop further an open, rule-based predictable, non-discriminatory trading and financial system

Includes a commitment to good governance, development and poverty reduction-both nationally and internationally.

Target 13 : Address the special needs of the least developed countries.

Includes traffic and quota-free access for least developed countries' exports: enhanced programmes of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt: and more generous ODA for countries committed to poverty reduction.

Target 14: Address the special needs of landlocked developing countries and small island developing States ( through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly )

Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

Target 16 : In cooperation with developing countries , develop and implement strategies for decent and productive work for youth

Target 17: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries

Target 18: In cooperation with the private sector, make available the benefits of news technologies, especially information and communications.

&



## CHAPTER-14

# STOP TB PARTNERSHIP STRATEGY

### COMPONENTS OF THE STOP TB STRATEGY

- 14.1. PURSUE HIGH-QUALITY DOTS EXPANSION AND ENHANCEMENT
  - Political commitment with increased and sustained financing
  - Case detection through quality-assured bacteriology
  - Standardized treatment with supervision and patient support
  - An effective drug supply and management system
  - Monitoring and evaluation system, and impact measurement
- 14.2. ADDRESS TB/HIV, MDR-TB AND OTHER CHALLENGES
  - Implement collaborative TB/HIV activities
  - Prevent and control multi-drug-resistant TB
  - Address prisoners, refugees and other high-risk groups and special situations
- 14.3. CONTRIBUTE TO HEALTH SYSTEM STRENGTHENING
  - Actively participate in efforts to improve system-wide policy, human resources, financing, management, service delivery, and information systems
  - Share innovations that strengthen systems, including the Practical Approach to Lung Health (PAL)
  - Adapt innovations from other fields
- 14.4. ENGAGE ALL CARE PROVIDERS
  - Public-Public, and Public-Private Mix (PPM) approaches
  - International Standards for TB Care (ISTC)

14.5. EMPOWER PEOPLE WITH TB, AND COMMUNITIES

- Advocacy, communication and social mobilization
- Community participation in TB care
- Patients' Charter for Tuberculosis Care

14.6. ENABLE AND PROMOTE RESEARCH

- Programme-based operational research
- Research to develop new diagnostics, drugs and vaccines

&

CHAPTER-15

**SAARC REGIONAL STRATEGIES  
FOR  
TB/HIV CO-INFECTION**

The STC has developed the SAARC Regional Strategy for TB/HIV Co-infection in 2003 under SAARC-Canada Regional TB and HIV/AIDS Project which was endorsed by the Twelfth SAARC Summit for implementation by the SAARC Member States. The action plan for implementation, was developed in 2004 for implementation in the all Member States.

&

CHAPTER – 16

**SAARC REGIONAL STRATEGIES  
ON  
HIV/AIDS**

On the directive of 12<sup>th</sup> SAARC Summit SAARC Regional Strategies on HIV/AIDS was developed with Vision, Guiding Principles, Goals & Strategic Objectives under the UNAIDS support to SAARC which was approved by the competent authority of SAARC during the Thirteenth SAARC summit for implementation in all the Member States.

&

PART – V

NATIONAL TB CONTROL  
PROGRAMME (NTP)

&

NATIONAL AIDS CONTROL  
PROGRAMME (NACP)



## CHAPTER-17

**NATIONAL TB CONTROL  
PROGRAMME (NTP)**

The NTP is an approach within the national health system to control TB. It has policies, plans and activities to achieve good case finding and treatment of tuberculosis patients. The NTP must be countrywide, continuous, permanent and integrated with the general health services. It must be relevant to the needs of the population.

**17.1 The Aims of the NTP:**

The Aims of the National Tuberculosis Programme are;

- (i) to decrease the spread of TB infection in the community, thereby expediting the elimination of TB from society.
- (ii) to cure the individual patients effectively, restore their capacity for activities of daily living, and to allow them to remain within their family and community enabling them to lead a active productive life.

**17.2. The Goal of the NTP:**

The goal of the NTP is to reduce the mortality, morbidity and transmission of tuberculosis, until it is no longer a public health problem.

**17.3. The Activities of the NTP**

- Provide effective chemotherapy to all TB patients, in accordance with national treatment policies.
- Promote early diagnosis of people with infectious pulmonary TB by sputum smear examination

- Establish a network of microscopy centres, and a system of quality control of sputum smear examination.
- Organise and expand DOTS treatment centres within the existing primary health care system.
- Provide a continuous drug supply to treatment centres,
- Maintain a standard system for recording and reporting.
- Monitor the results of the treatment and evaluate progress of the programme.
- Provide regular training and supervision for all staff involved in the NTP, at different level.
- Develop IEC materials and methods to improve community awareness about TB.
- Strengthen cooperation between I/NGOs
- Carry out research activities regarding TB.
- Develop partnership with other sectors

&

## CHAPTER-18

# NATIONAL AIDS CONTROL PROGRAMME

The NACP is an approach within the National Health System to control and prevent HIV and AIDS

### 18.1 The aims of NACP

The aims of NACP are:

1. To control the spread of HIV in the community and country.
2. To provide treatment, care and support services to PLWHA.

### 18.2 The activities of NACP

#### ∨ **Prevention aspect:**

- Advocacy and Raising Awareness
- Behavioral change communication
- Condom promotion
- STI diagnosis and treatment
- Voluntary Counseling and testing (VCT)
- PMTCT programme
- Mobilizing and unifying national and international efforts
- Surveillance

#### ∨ **Treatment:**

- ART programme
- Interrupted drug supply with good logistic management
- Effective and efficient monitoring and evaluation



v **Care and support:**

- Community based Organization-care and support
- Development of good Network and Linkages

v **Others:**

- Regular training and supervision
- Strengthen coordination and cooperation with INGOs and NGOs
- Carry out research activities
- Develop partnership with other sectors.

&

PART – VI

GUIDELINES

FOR  
PARTNERSHIP PROGRAMME  
WITH SCHOOL

FOR  
CONTROL AND PREVENTION OF  
TB and HIV/AIDS



## CHAPTER-19

# PARTNERSHIP IS MOST ESSENTIAL TO STOP TB and HIV/AIDS

A substantial period has been spent since the discovery of tuberculosis bacillus in 1882, invention of first anti-TB drugs in 1944, implementation of National Tuberculosis Programme in 1960s, declaring TB as a global emergency in 1993 and introduction of DOTS. However, TB still remains a serious health problem in South Asia. We can not afford to be complacent as if we continue with poorly functioning TB control programmes; we will be facing a serious problem of MDR TB and HIV/AIDS in TB Control.

The HIV/AIDS epidemic is different from most other epidemics and diseases, There are many difficult factors prevalent in the World, which are the main hurdles for the governmental and non governmental organizations working for the control and prevention of HIV/AIDS. Those factors are extensive poverty & Illiteracy, high mobility, low status of women, trafficking of women & girls into sex work, injecting drug users etc. Since the most of the people in the community are unaware about the mode of transmission of HIV/AIDS, they are becoming vulnerable towards HIV/AIDS.

Our experience shows that it may not be possible to achieve desired success in increasing the awareness on TB and HIV/AIDS alone without partnership development with different stakeholders. Therefore, building Partnership with School is the most effective component for Control and prevention of TB and HIV/AIDS in the community, as members of school are the active members of the community. School play the key role to make the community aware about TB and HIV/AIDS through lectures, formal and informal consultations with the family members of the students Also students of school play a role as media to transfer the update information to others.

## **WHY SCHOOLS ARE IMPORTANT FOR PARTNERSHIP**

School is the foundation of all literate people and first entrance of their success in the life mission. Health and Education are the priority sectors of every person, family, as well as nation. School is a place, where two parties work hard only for the purpose of delivering the education by teachers and education gain by the students.

Schools are the focal points of the community, specially in the remote and rural areas to discuss the issue on different matters. Therefore, it is the suitable sector to build the partnership to make the community aware on tuberculosis and HIV/AIDS.

Regarding the HIV/AIDS, still many young people cannot talk about AIDS either at home or in the community. Nor they can talk about the risk behaviours which lead to HIV infection. However, most young people do attend school at some point. Hence school can be considered as an entry point where these topics can be addressed. The strengths of a school setting are that children have an education curriculum, teachers, and a peer group for discussion. School can also help to shape the attitudes of children towards positive directions.

### **19.1 Objectives of the Partnership with School :**

1. To make school (students, teachers along with management) aware about situation of TB & HIV/AIDS, natural history of TB & HIV/AIDS, its spread and social and economic impacts on individual, family and community and benefits of prevention of TB & HIV/AIDS infection and control of these disease to individuals, family, community, country, region and world at large.
2. To build a cadre of child ambassadors through Programme Managers/School Teachers committed to spread messages on TB and HIV/AIDS to the community.
3. To convince the teachers and students to be part of solution to fight against TB/HIV/AIDS.

&

## CHAPTER -20

SAARC/STC PARTNERSHIP PROGRAMME WITH SCHOOLS  
TO CONTROL AND PREVENTION OF TB & HIV/AIDS

## Partnership Programme

## of TB &amp; HIV/AIDS

- 20.1. The first time:** Partnership with school was started by STC in 2000 as a Pilot study, which was performed in Kendriya Vidyalaya, Kathmandu. The results encouraged to conduct this type of programme in schools of SAARC Member Countries. Depending upon the available resources; STC is expanding the programme gradually. The awareness and advocacy programme is one of the priority programmes in TB, HIV/AIDS control and prevention activities in SAARC Member Countries. To fulfill this requirement, partnership programmes have been developed with certain potential segments of the society in order to raise public awareness on TB and its control. In this regard, school students have been identified as potential group who could propagate the message on TB among their friends, family, neighbors and in the community at large. The programme is implemented in two phases.
- In first phase, Kendriya Vidyalaya, Kathmandu selected and programme organized on March 2000 in the school.
  - After getting an excellent experience from the pilot site at KVK, it was thought to expand the activity in other schools.
- 20.2 On 23<sup>rd</sup> October 2000 a partnership programme with different five schools organized at Kanya Mandir Higher Secondary School in order to prepare school children to create awareness about TB and HIV/AIDS and its control and prevention in the community.
- 20.3 A briefing programme was organized for the school students under the partnership programme on 22 March 2001 at STC.

Students from different schools of Kathmandu valley participated and visited the STC and explained the role of students in TB and HIV/AIDS control and prevention.

- 20.4 In order to expand the programme out of the valley, a partnership programme organized in Dhangadhi, (a densely populated city) on 18<sup>th</sup> April 2001 in Far-western Region of Nepal.
- 20.5 Considering the burden of TB and HIV/AIDS in the society, STC organized a partnership programme with school students on 18 September 2002 from 6 schools in Kathmandu Valley. All students and teachers participated actively and joining their hands together to gesture their solidarity to support the TB and HIV/AIDS control and prevention programme.
- 20.6 STC organized a partnership programme by involving four different recognize schools of Lalitpur district on August 8, 2003 at STC training building. Interaction between TB experts and students was very interesting. They were very enthusiastic in asking the questions and all the teachers and students committed to propagate the information to their friends and family.
- 20.7 STC organized a partnership programme with seven different schools of Kavrepalanchowk district, at Banepa in January 29, 2004. In order to expand the programme another partnership programme was held at Chitwan District on June 27 2004. The participants from different four well known high school and middle school were participated in the programme.
- 20.8 An Interaction programme was organized with the Master-level students of Nepal Commerce Campus, Minbhawan, Kathmandu on April 11, 2004 as the year 2004 - SAARC awareness year for TB and HIV/AIDS.
- 20.9 To expand the programme and promote the awareness campaign in TB and HIV/AIDS control and prevention at

the higher-level students, STC organized a partnership programme at Nursing College, Mohakhali, Dhaka, Bangladesh in May 13, 2004. To spread the messages about SAARC Awareness Year for TB and HIV/AIDS, STC organized a programme at Manipal Medical College, Pokhara, Nepal on July 11, 2004

- 20.10 Partnership programme with school in Bhutan organized jointly by STC and DPH, MoH, Royal Govt. of Bhutan on May 28, 2005. Students of class 11 and 12 along with teachers participated in the programme.
- 20.11 Partnership Programme with Medical Colleges organized jointly by STC and National TB Control Programme, Govt. of Pakistan on July 15, 2005 in Karachi, Sindh Pakistan.
- 20.12 STC organized a partnership programme with school on creating awareness on TB and HIV/AIDS at Shri Mahabir Prasad Raghubir Ram Madhyamik Bidyalaya, Birgunj, Nepal on Dec. 2, 2005.
- 20.13 An interaction programme with school students in control and prevention of TB and HIV/AIDS organized at Govt. Himayat-ul-Islam Girls High School, Hyderabad, Sindh, Pakistan on Dec. 23, 2005 jointly by STC and Govt. of Pakistan.
- 20.14 An interaction programme with school students in control and prevention of TB and HIV/AIDS organized at SOS Herman Gmeiner School, Sano Thimi, Bhaktapur on 29 November, 2006 on the occasion of World AIDS Day.

&



## CHAPTER-21

# GUIDELINES FOR PARTNERSHIP PROGRAMME WITH SCHOOL

Advocacy and Awareness among the public through the School for welfare of TB patients and HIV/AIDS and for the success of programmes with saving their lives is the essential component which is possible with the development of partnerships and coordination between related Programmes and School.

For NTP/HIV/AIDS Programme Managers to conduct partnership

- 21.1. Plan the yearly list of activities for partnership Programme with Schools:
  - Identify the Coordinator/s in local/district level.
  - Organize information and education meetings
  - Organize awareness-raising and "infotainment" events
  - Organize interaction programmes
- 21.2. Establish a contact list of schools (participants/invitees) involved & to be involved
  - Name, address, phone number, fax number etc.
- 21.3. Supply of Education Materials;  
Programme Managers (Local/regional/national level) may manage to send their Publications to the schools regularly.
- 21.4. Prepare materials  
Presentations/speeches with symptoms and transmission of disease, current situation, Government policies and strategies, financial burden for the country, its impacts in the family, community and country, its impact in the economy, videos documentaries etc.
- 21.5. Identify the suitable place/venue, appropriate time/occasion/week to organize the programme. The NTP/NACP and School can utilize the following Occasions of the International Commemorative days, SAARC CHARTER DAY to focus the issues on TB and

HIV/AIDS to get the attention of students and teachers with hope from them to aware their family as well as community more effectively.

I.	8 March	—	UN Day for Women’s Rights and International Peace
II.	24 March	—	World TB Day (A special events for TB)
III.	7 April	—	World Health Day
IV.	1 May	—	Labor Day
V.	8 May	—	World Red cross Day
VI.	15 May	—	International Day of Families
VII.	31 May	—	World No–Tobacco Day
VIII.	11 July	—	World Population Day
IX.	1 October	—	International Day of Older Persons
X.	17 October	—	International Day for the Eradication of Poverty
XI.	16 November	—	International Day for Tolerance
XII.	20 November	—	Universal Children’s Day
XIII.	1 December	—	World AIDS Day ( A specialty event for HIV/AIDS)
XIV.	10 December	—	Human Rights Day

- 21.6 Send the invite/discuss with School about planned activity with agenda and background materials. It will help them to review the materials, raise questions and discuss within their management.
- 21.7 Identify the experts for presentation and brief awareness raising programmes for school children and teachers.  
Arrange for pre- test and post- test – a questionnaire with 10-15 multiple choice questions on general information on TB and HIV/AIDS should be given prior to and at the end of the programme.
- 21.8 Highlight achievements of your programme
- 21.9 Get further commitment from the partners for the continued collaboration.
- 21.10. Organize Essay/Poem/Painting competitions among the School Students

After completion of awareness raising programmes, organize various competitions such as drawing, essay, and quiz for school children on the theme of prevention and control of TB and HIV/AIDS.

**Participants:**

School children of secondary/higher secondary level.

**Topics:**

Topics may be finalized by the Programme Managers and School Managements

**Theme:**

General knowledge on Tuberculosis and HIV/AIDS

**Procedure:**

**First Phase:**

At District Level: Selection of students/schools from each District will be selected randomly. The school authority will nominate competent student from each school.

Winners of 1st, 2nd & 3rd places would be awarded certificates with cash/material prizes

Rest of the participants would be awarded certificates for participation.

**Second Phase:**

First winner at the district level competition will be qualified to enter the Provincial/Regional level competition.

Winners of 1st, 2nd & 3rd places would be awarded certificates with cash/material prizes

Rest of the participants would be awarded certificates for participation

**Third Phase**

First and 2nd winner at the Provincial/State/Regional level competition will be qualified to enter the National level competition.

**Venue: Capital**

Winners of 1st, 2nd & 3rd places would be awarded certificates with cash/material prizes

Rest of the participants would be awarded certificates for participation.

## CHAPTER-22

## FOR SCHOOL TO PARTICIPATE IN THE PARTNERSHIP PROGRAMME

### 22.1 Keep in priority of General Information on TB and HIV/AIDS.

Update the knowledge on TB and HIV/AIDS through the interaction programme, meeting, interview, publication etc. about the TB and HIV/AIDS.

- symptoms, way of transmission of the diseases,
- Current situation of TB and HIV/AIDS in the World, SAARC Region, Country or any specific area/s of the country.
- control and preventive policy and strategy of the country,
- diagnosis and treatment facilities in the community etc.

### 22.2 Ensure for the contribution

Ensure your commitment to use your brain and voice to save the life of huge number of people from the Tuberculosis and HIV/AIDS through the awareness and advocacy.

### 22.3 Teachers/School Management can play the vital role?

- i. Teachers can gain knowledge on TB and HIV/AIDS through interaction, consultation and study of the Reports, Press Release, Bulletin related to Tuberculosis and HIV/AIDS.
- ii. Teachers/Management of School can allocate the time for the class/es in their academic calendar to educate Students on general information on TB and HIV/AIDS, with request them to play the role to aware their family and community.
- iii. The School Management can put the issues on TB and HIV/AIDS in the parents meetings and other functions of School with request to all about increasing the awareness on these diseases.
- iv. Teachers can help symptomatic patients of the community by guiding them for contact with the health facilities for the treatment and social/moral support to diagnosed patients.

## **22.4 Utilize Home-School Communication System**

Effective communication between parents and teachers for better education and care of children can strengthen parent's involvement in a burning issue of human life. Through open and honest communication between parents and teachers will able to convince to parents for little bit contribution on the burning issues as a profession and a citizen of the nation.

## **22.5 Family Involvement**

Family involvement efforts are most successful when teachers and schools assume that all parents want to do their best for their children and can make important contributions to their children's education and knowledge in health sectors. Teachers need to understand the benefits of family involvement. Teacher preparation can equip teachers with the knowledge and skills to encourage participation from parents, especially those who may seem difficult to involve.

## **22.6 How to aware Students/Parents/individuals**

The school will make TB & AIDS issues a interactive topics among the students in the class and Teachers/Students can gain the knowledge and disseminate information on;

- Human interest stories on TB and HIV/AIDS
- Gender issues on TB and HIV/AIDS
- Human Rights on treatment for TB and HIV/AIDS
- Children and TB /HIV-AIDS
- Youth and TB / HIV-AIDS
- Density of population and TB / HIV-AIDS
- Poverty and TB/HIV-AIDS
- Literacy and TB/HIV-AIDS
- Un-safety Blood and HIV/AIDS
- Injecting Drug users and HIV/AIDS
- Commercial Sex workers and HIV/AID
- Workers and TB/HIV-AIDS

### **For example:**

Socio & Economic impact on HIV/AIDS: HIV/AIDS is not just a health problem; it has grave social and economic consequences as well.

- AIDS is primarily a sexually transmitted disease; it mainly strikes adolescents, young adults and those in early middle age, killing the very people on whom society relies for production and reproduction.
- AIDS kills people in the prime stage of life, people who labour in the field and factories, who run important services like schools, hospitals, corporations and governments.
- Growing absenteeism and replacements (usually by unskilled ones) due to death from AIDS among the workforce strike at the root of industrial productivity and profitability.
- Actually HIV/AIDS is an important issue for workplace and challenge for development.
- How HIV/AIDS affects economic growth and social development in work place:
  - F Reduced supply of labour
  - F Loss of skilled and experienced workers
  - F Absenteeism and early retirement
  - F Stigmatization and discrimination against workers with HIV
  - F Increased labour costs for employees, from health insurance to retraining
  - F Reduced productivity leading to negative impact on economic growth
  - F Social protection systems and health services under pressure
  - F Loss of family income and household productivity, exacerbating poverty
  - F Early entry of children into active employment
  - F Pressure on girls and women to resort to providing sexual favours in order to survive

### **22.7 Its impact on households/families:**

Presence of HIV/AIDS will dissolve the family. As parents die children are sent to relatives for care and upbringing.

- Loss of Family income: affected person cannot earn. Others person also has to divert more time and effort away from income generating activities.
- Care related expenses and expense after death (funeral expense) push affected house deeper into poverty.
- Household suffer from food security

Children (especially the girls) are removed from schools because of inability to bear the expenses of education and also to take care of the affected parents.

## **22.8 Special Days/Occasions inter School competitions among the students:**

24 March- **World TB Day** is a special day for advocacy and awareness for Tuberculosis and 1 December -**World AIDS Day for HIV/AIDS**.

The Schools put debates, poem, essay, painting competitions among the students on the following occasion “Topics like Poverty, Tuberculosis and HIV/AIDS, Children and Tuberculosis” to aware the students and highlight the issues.

- UN Day for Women’s Rights and International Peace
- World Health Day
- May Day
- World Red Cross Day
- International Day of Families
- World No–Tobacco Day
- World Population Day
- International Day of Older Persons
- International Day for the Eradication of Poverty
- International Day for Tolerance
- Universal Children’s Day
- Human Rights Day
- International Education Day
- SAARC CHARTER DAY

## **22.9 What Student can do?**

- They can educate the family
- They can educate the community specially in the rural area
- They can support as little doctor in increasing the awareness on prevention and control of TB and HIV/AIDS.

&

## CHAPTER-23

# OUTCOME OF THE PARTNERSHIP PROGRAMME WITH SCHOOL

The partnership programme with School will help to establish close collaboration between NTP/NACP, School to implement control activities on TB and HIV/AIDS.

The Teachers and Students will be able to inform the community about the situation of TB and HIV/AIDS, diagnosis & treatment facilities and prevention & control efforts correctly.

The School will be able to create demand for quality service and mobilizing national and international interest and resources for priority diseases such as TB and HIV/AIDS.

The school will be able to facilitate political, legal and social changes for better care of all TB and HIV/AIDS patients under the health facilities within the communities

---

For recent National data/information please contact your country Managers  
National Tuberculosis Control Programme  
National HIV/AIDS Control Programme

**For SAARC Regional Information on TB and HIV/AIDS Please visit the  
Centre's Web site : [www.saarctb.com.np](http://www.saarctb.com.np)**

**Or**

**Contact;**

**Director,**

**SAARC Tuberculosis & HIV/AIDS Centre**

Thimi, Bhaktapur,

P.O. Box No. 9517, Kathmandu Nepal.

Telephone No. 00977-1-6631048, 6632601

Email: [saarctb@mos.com.np](mailto:saarctb@mos.com.np)



**References:**

1. History of Tuberculosis in the SAARC Region-2005
2. SAARC Regional Poverty Profile 2004
3. Role of SAARC Tuberculosis Centre in TB Control
4. Report of SAARC Workshop on Formulation of Guidelines of coordination on Government and private Sector/NGOs initiatives of TB control-1997.
5. Involvement of Medical colleges and Private Sectors in TB & HIV/AIDS.
6. The Regional strategic plan for TB control (2006-2015) WHO/SEARO.
7. World TB Day Reports of STC
8. Guidelines for Partnership programme with Media for TB Control (1<sup>st</sup> edition)
9. Millennium Development Goal report
10. TB and HIV/AIDS update 2005 in the SAARC Region
11. SAARC Tuberculosis and HIV/AIDS Centre at a Glance
12. SAARC Regional Strategy on HIV/AIDS
13. Special publication on TB and HIV/AIDS-STC
14. Database Profile on Microeconomic and HRD Indicators in the SAARC Region (1990-2002)