



# **HIV & AIDS IN THE SAARC REGION**

**An Update 2008**

**SAARC Tuberculosis and HIV/AIDS Centre (STAC)**

Thimi, Bhaktapur,

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

Tel: 6631048, 6632477, 6632601 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)

2008





# **HIV & AIDS IN THE SAARC REGION**

**An Update 2008**

**SAARC Tuberculosis and HIV/AIDS Centre (STAC)**

Thimi, Bhaktapur,

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

Tel: 6631048, 6632477, 6632601 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)

2008



# Foreword

The STAC has been coordinating the National efforts of SAARC Member States in the fight against TB and HIV/AIDS. Along with other regular activities the Centre brings out epidemiological reports and publications with a view to disseminate information in the field of TB and HIV/AIDS.

Present document HIV & AIDS in the SAARC Region – An Update 2008 incorporates updated information on HIV and AIDS. This is the Sixth annual report on HIV & AIDS in the SAARC Region.

It includes general information on HIV and AIDS globally, Asia, SAARC region and each member countries. It has highlighted the epidemiological analysis of reported data on HIV infection year wise from SAARC Member States. I hope this information will help Member States and workers who are engaged in the field of HIV/AIDS control. It is an additional medium for sharing the information regarding HIV/AIDS in the region.

STAC is grateful to SAARC Member States for their cooperation and support in compilation of this report. I am very much thankful to Professionals and the General Services Staff of STAC for their commitment and contribution in preparation of this report.

Dr. Kashi Kant Jha  
Director  
SAARC TB and HIV/AIDS Centre



# Table of Contents

*Foreword*

*List of tables*

*List of figures*

*Abbreviation and Acronyms*

<b>1. Introduction</b>	<b>1</b>
<b>2. Global and Regional Situation of HIV and AIDS</b>	<b>2</b>
2.1. Global HIV Epidemic	2
2.2. Regional Variations	4
2.3. HIV and AIDS in Asia	5
2.4. HIV and AIDS in the SAARC Region	6
2.5. Reported HIV and AIDS in the SAARC Member Countries	7
<b>3. Progress in HIV/AIDS Control</b>	<b>9</b>
3.1 HIV Prevention	9
3.2 HIV Testing and Counseling	13
3.3 Treatment and Care Support	14
3.4 Strategic Information	16
3.5 Programme Management	19
<b>4. TB/HIV Co-infection</b>	<b>20</b>
<b>5. STAC support to HIV control in the Region</b>	<b>24</b>
5.1 Coordination and collaboration	24
5.2 Advocacy and Planning	25
5.3 Capacity building	25
5.4 Technical Support	25
5.5 Research Activities	25
5.6 Epidemiological Networking	25
5.7 TB/HIV Collaborative efforts	25
<b>6. Country Status</b>	
Afghanistan	29
Bangladesh	31
Bhutan	36
India	40
Maldives	48
Nepal	51
Pakistan	60
Sri-Lanka	65
<b>7. Impact of HIV</b>	<b>68</b>
<b>8. Impact on Women</b>	<b>70</b>

## List of Tables

Table No.	Title	Page No.
1	Global HIV/AIDS estimates, end of 2007	4
2	Regional statistics for HIV & AIDS, end of 2007	5
3	HIV & AIDS Estimates in Asia, 2004, 2005, 2006 and 2007	6
4	Estimated number of people living with HIV in SAARC Region, end 2007	7
5	Cumulative No. of Reported HIV & AIDS Cases by SAARC Member States	8
6	Status of Implementation of second generation surveillance in SAARC region, 2006	17
7	Number of Sentinel Sites by Year and Type from 1998 to 2006, India	17
8	Status of Implementation of strategic Planning and Review Activities in the SAARC Region, 2005 (WHO 2007)	19
9	Results of HIV Sentinel Survey 2000 - 2006 for TB Patients	22
10	HIV Prevalence in Incident TB cases, 2006	23
11	Workshop, Meetings and Seminar conducted by STAC	24
12	Training on ART Treatment in Member states of SAARC	26
13	Status of HIV and AIDS in Bangladesh, 2007	31
14	Sex Distribution of newly infected HIV cases, 2007	32
15	Age-Distribution of the HIV/AIDS Positive Cases, 2007	32
16	Marital status of HIV Positive Cases, 2007	32
17	Educational Status of the HIV positive Cases, 2007	33
18	Probable route of HIV Transmission among the cases, 2007	33
19	CD4 Status of New positive Cases (n = 333)	33
20	Result of CD4 Count (n=147)	33
21	HIV positives detected by Different methods, 2008	37
22	National Summary information on HIV/AIDS, as of April, 2008: (NCASC, programme)	51
23	Estimated no. of HIV Cases by Risk Groups	52
24	Reported HIV and AIDS cases in Nepal as of April 2008	52
25	Cumulative No. of Reported HIV and AIDS cases, Pakistan, Sept/2000 – 2007	61
26	Cumulative No. of reported HIV & AIDS Cases, Sri-Lanka, 2008	65

## List of Figures

Figure No.	Title	Page No.
1	Adults and children estimated to be living With HIV in 2007	2
2	Estimated Number of Adult and child deaths due to AIDS Globally, 1990-2007	3
3	Estimated number of People newly infected with Globally, 1990-2007	3
4	HIV Prevalence in member Countries of SAARC, 2007	8
5	Year-wise Progress in STI Services in India, 2002-2007	9
6	Incidence of Sexually Transmitted Infections, Sri-Lanka	10
7	Retail Off-take of Condoms - All India	11
8	Expansion of PPCT services (2005-07)	12
9	Expansion of Numbers of PMTCT Sites in Nepal	12
10	Progress in Integrated Counseling and Testing Services in India, 2001 – 2007	14



11	Number of Patients on ART Treatment in India (Jan/05-March/2008)	15
12	Trend of ART Centers (April2004 - March2008)	15
13	Trend of ART Centers in Nepal (2004 – 2008)	16
14	HIV-TB Cross Referrals- 2005 to 2007	21
15	HIV among TB Patients 1993-2007	22
16	Cumulative HIV/AIDS cases reported	31
17	Trend on Reported Number of HIV/AIDS cases (1993-March 2008)	36
18	Cumulative Number of Reported HIV Cases, 1993-2008	37
19	Age and sex distribution of Reported HIV cases in March, 2008	37
20	Cumulative HIV Infection by Mode of transmission, till 2007	38
21	Number of sentinel sites in populations with high-risk behaviors, India, 1998-200	41
22	Trends of Adult HIV prevalence and Number of PLHA, 2002-2006	42
23	Sex distribution in HIV estimates (2002-2006)	42
24	Distribution of PLHA among High Burden States of India: 2006	43
25	HIV Prevalence among different Population Groups: 2007	43
26	Age-wise Distribution of Reported AIDS Cases -2007 (%)	43
27	Modes of Transmission of HIV/AIDS-2007 (%)	44
28	Trends in HIV Prevalence among Different High Risk Groups, 2003-2006	44
29	HIV Positive cases –Yearly distribution	49
30	Routes of HIV Transmission by sex	49
31	Sex distribution of Reported HIV positive cases in Nepal, as of April 2008	52
32	Age and sex distribution of Reported HIV positive cases in Nepal, as of April 2008	53
33	Cumulative HIV positives among Sub group of population, as of April 2008	53
34	Year Wise trend of Sex distribution of total Reported HIV positive cases	54
35	Trend of Proportion of HIV infected Groups among Total Reported Cases	54
36	Percentage of HIV infected Subgroups among Reported New Cases	55
37	HIV Prevalence in female Sex workers in Different areas, Nepal (2004 & 2006)	55
38	HIV prevalence in High Risk Groups in Terai Highway districts, 2006	56
39	HIV Prevalence in IDUs (2002-2005)	56
40	HIV Prevalence among MSM, Kathmandu, Nepal	57
41	Cumulative number of Reported HIV/AIDS 2000-2007	61
42	Reported HIV/AIDS cases by mode of transmission, Pakistan, 2007	61
43	Prevalence of HIV among High Risk Groups in Pakistan, 2005 & 2006/07	62
44	Year wise Cumulative HIV/AIDS Cases, AIDS and AIDS deaths	66
45	Trend of Reported HIV Cases by Gender, 2004-2007	66
46	Female to male Ratio among Reported HIV/AIDS cases in Sri-Lanka	66
47	Impacts of AIDS on life expectancy in five African Countries, 1970-2010	68
48	Impact of HIV/AIDS on Rural Households in Asia (UNAIDS - Asia)	69
49	Life time risk of tuberculosis among HIV positive & HIV negative individuals	71

# Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Anti Retroviral Therapy
CPT	Cotrimoxazole Prophylaxis Therapy
CSW	Commercial Sex Worker
DNA	Deoxyribonucleic Acid
DOTS	Directly Observed treatment Short course
F	Female
FSW	Female Sex Worker
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
ICTC	Integrated Counseling Treatment center
IDU	Injecting Drug User
M	Male
MSM	Man having Sex with Man
MSW	Male Sex Worker
MTCT	Mother to Child Transmission
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NASP	National AIDS STD Programme
NCASC	National Center for AIDS and STD control
NGO	Non Governmental Organization
NTP	National TB Programme
PITC	Provider initiated Testing and counseling
PLWH	People Living with HIV
PMTCT	Prevention of Mother to Child transmission
RNTCP	Revised National Tuberculosis Control Programme
SAARC	South Asian Association for Regional Cooperation
STC	SAARC TB and HIV/AIDS Centre
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infection
TB	Tuberculosis
UN	United Nations
UNAIDS	United Nation's Programme for AIDS
USA	United States of America
VCT	Voluntary counseling and Testing
WB	World Bank
WHO	World Health Organization

## Introduction

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

SAARC Tuberculosis and HIV/AIDS Centre (STAC) is one of the Regional Centres of SAARC, located in Kathmandu, Nepal. 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 that SAARC Tuberculosis Centre would be set up in Nepal. It was established in 1992 and became fully functional in 1994. The initial mandate of the centre was to work for prevention and control of TB & HIV related TB in the Region. But later on its mandate has been extended to work for prevention & control of HIV/AIDS and TB/HIV co infection in the Region. The Centre has been renamed as SAARC TB & HIV/AIDS centre in November 2005. Since then the centre has been working for prevention and control of TB and HIV/AIDS in the Region by coordinating the efforts of the National Tuberculosis Control Programs (NTPs) and National AIDS Control Programs (NACPs) of Member States.

One of the main functions of this centre is to collect, analyze and disseminate latest relevant information in the field of TB and HIV/AIDS control in the region and elsewhere. In this regard the Centre has started to prepare and publish annual SAARC Regional Epidemiological Reports on HIV/AIDS (& TB) since 2003. This particular report is on the HIV/AIDS and TB/HIV situation in the SAARC region and is the sixth one of its kind.

The global HIV epidemic has emerged as a formidable challenge to public health, development and human rights. Sub-Saharan Africa continues to bear the burnt of the global epidemic.

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

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

The HIV epidemic is heterogeneously distributed within the region and within countries. Some countries are more affected than others and at country level there are variations in infection levels between different provinces, states or districts and between urban and rural areas. Actually the national picture is made up of a series of epidemics with their own characteristics and dynamics. (Source: AIDS epidemic, update Dec 2007 UNAIDS)

This report presents an overview of the HIV pandemic and a more detailed description of its epidemiology within the SAARC region. In addition, this report also contains progress in HIV/AIDS control in the region, impact of HIV and AIDS.

## 2. Global and Regional Situation of HIV and AIDS

### 2.1 Global HIV Epidemic

The global HIV epidemic has emerged as a formidable challenge to public health, development and human rights. In most of the countries affected by HIV, it has eroded improvements in life expectancy and mortality.

In just 25 years, HIV has spread relentlessly from a few widely scattered “hot spots” to virtually every country in the world. 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.

The estimated number of persons living with HIV worldwide in 2007 was 33.2 million [30.6–36.1 million], a reduction of 16% compared with the estimate published in 2006, 39.5 million [34.7–47.1 million]). These differences between estimates published in 2006 and those published in 2007 result largely from refinements in methodology, rather than trends in the pandemic itself. The highest burden was in Sub Saharan Africa followed by South and South East Asia. More than 95% of these were in low and middle income countries.

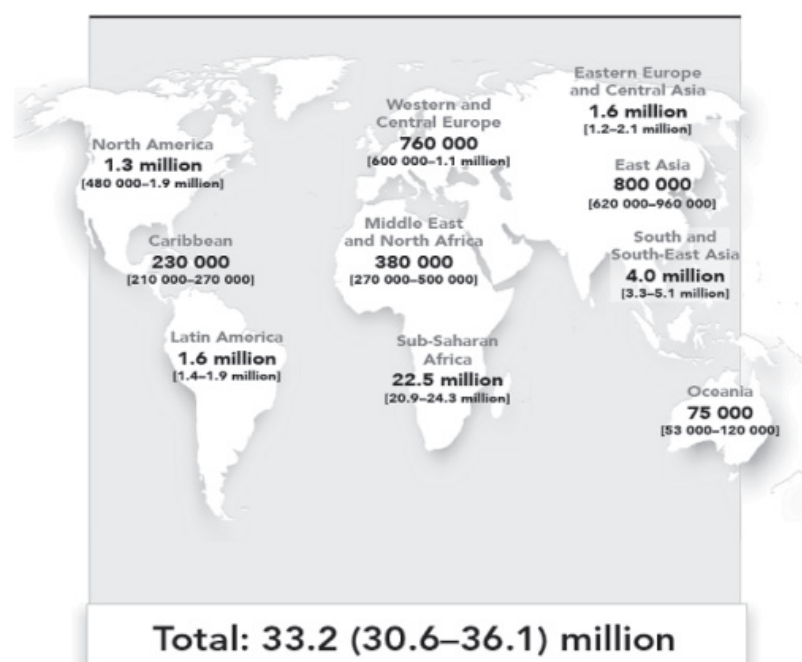
#### Epidemic update 2007—essential findings

Every day, over 6800 persons become infected with HIV and over 5700 persons die from AIDS, mostly because of inadequate access to HIV prevention and treatment services. The HIV pandemic remains the most serious of infectious disease challenges to public health.

- the global prevalence of HIV infection (percentage of persons infected with HIV) is remaining at the same level, although the global number of persons living with HIV is increasing because of ongoing accumulation of new infections with longer survival times, measured over a continuously growing general population;
- there are localized reductions in prevalence in specific countries;
- reduction in HIV-associated deaths, partly attributable to the recent scaling up of treatment access; and
- reduction in the number of annual new HIV infections globally.

(Source: AIDS epidemic, update Dec 2007 UNAIDS)

**Figure 1: Adults and children estimated to be living With HIV in 2007**

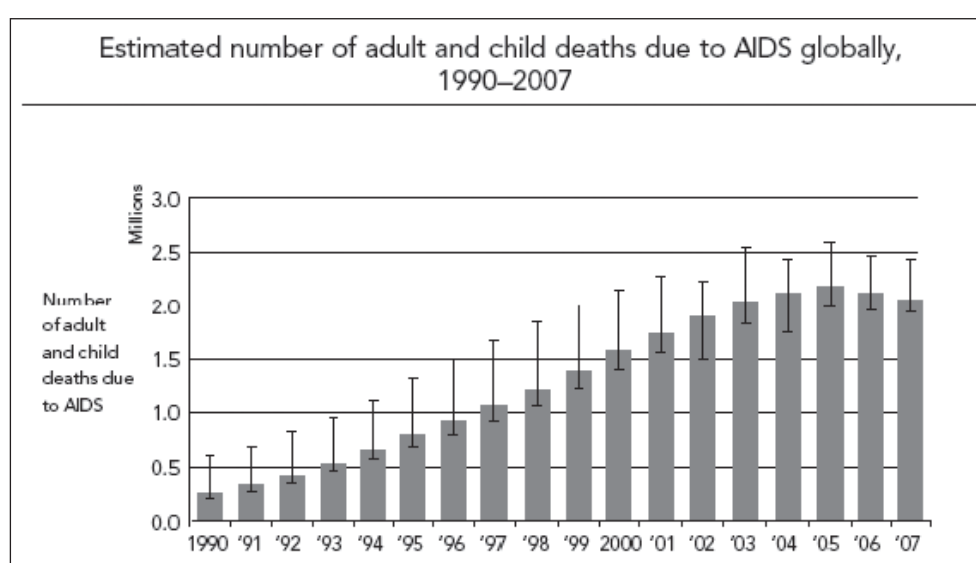


The estimated number of deaths due to AIDS in 2007 was 2.1 million [1.9–2.4 million] worldwide, of which 76% occurred in sub-Saharan Africa. It was estimated to be 2.5 million [1.8–4.1 million] new infections in 2007 of which over two thirds (68%) occurred in sub-Saharan Africa.

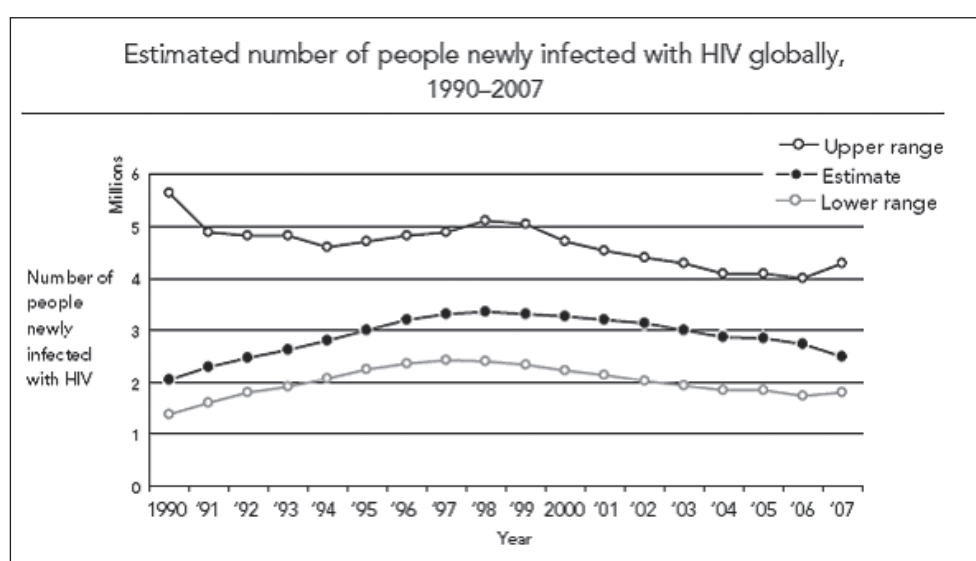
The estimated 15.4 million [13.9–16.6 million] women living with HIV in 2007 numbered 1.6 million more than the 13.8 million [12.7–15.2 million] in 2001. For men, the 15.4 million [14.3–17.0 million] estimated to be living with HIV in 2007 compared with 13.7 million [12.6–15.2 million] in 2001.

Globally the number of children living with HIV increased from 1.5 million [1.3–1.9 million] in 2001 to 2.5 million [2.2–2.6 million] in 2007. However, estimated new infections among children declined from 460 000 [420 000–510 000] in 2001 to 420 000 [390 000–470 000] in 2007

**Figure: 2**



**Figure: 3**



HIV and sexual behavior trends among young people can offer a window onto recent developments in, and the likely evolution of countries' HIV epidemics. Trends in HIV prevalence among 15–24-year-olds are believed to reflect trends in HIV incidence. A review of the most recent, available information shows that HIV prevalence among young pregnant women (15–24 years) attending antenatal clinics has declined since 2000/2001 in 11 of 15 countries with sufficient data (prevalence data from three different years) to analyze recent trends among young people in the most affected countries. World's epidemic hinges in many respects on the behaviors young people adopt and contextual factor that affect those choices.

(Source: AIDS epidemic, update Dec 2007, UNAIDS)

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.

According to latest estimates the total number people living with HIV, globally are shown in table 1.

**Table 1: Global HIV/AIDS estimates, end of 2007**

People living with HIV/AIDS in 2007	33.2 million	30.6-36.1 million
Adults living with HIV/AIDS in 2007	30.8 million	28.2-33.6 million
Women living with HIV/AIDS in 2007	15.4 million	13.9-16.6 million
Children living with HIV/AIDS in 2007	2.5 million	2.2-2.6 million
People newly infected with HIV in 2007	2.5 million	1.8-4.1 million
Adults newly infected with HIV in 2007	2.1 million	1.4-3.6 million
Children newly infected with HIV in 2007	0.42 million	0.35-0.54 million
AIDS deaths in 2007	2.1 million	1.9-2.4 million
Adult AIDS deaths in 2007	1.7 million	1.6-2.1 million
Child AIDS deaths in 2007	0.33 million	0.31-0.38 million

(Source: AIDS epidemic, update Dec 2007 UNAIDS)

## 2.2 Regional Variations:

Sub-Saharan Africa remains the most affected region in the global AIDS epidemic. More than two thirds (68%) of all people HIV-positive live in this region where more than three quarters (76%) of all AIDS deaths in 2007 occurred. It is estimated that 1.7 million [1.4 million–2.4 million] people were newly infected with HIV in 2007, bringing to 22.5 million [20.9 million–24.3 million] the total number of people living with the virus. Unlike other regions, the majority of people living with HIV in sub-Saharan Africa (61%) are women.

In Asia, national HIV prevalence is highest in South-East Asia, with wide variation in epidemic trends between different countries. While the epidemics in Cambodia, Myanmar and Thailand all show declines in HIV prevalence, those in Indonesia (especially in the Papua province) and Viet Nam are growing. Although the proportion of people living with HIV in India is lower than previously estimated, its epidemic continues to affect large numbers of people. Overall in Asia, an estimated 4.9 million [3.7 million–6.7 million] people were living with HIV in 2007, including the 440 000 [210 000–1.0 million] people who became newly infected in the past year. Approximately 300 000 [250 000–470 000] died from AIDS-related illnesses in 2007.

An estimated 150 000 [70 000–290 000] people were newly infected with HIV in 2007 bringing the number of people living with HIV in Eastern Europe and Central Asia to 1.6 million [1.2 million– 2.1 million] compared to 630 000 [490 000–1.1 million] in 2001, a 150% increase over that time period.

Adult HIV prevalence in the Caribbean is estimated at 1.0% [0.9%–1.2%] in 2007. Prevalence in this region is highest in the Dominican Republic and Haiti.

The HIV epidemics in Latin America remain generally stable, and HIV transmission continues to occur among populations at higher risk of exposure, including sex workers and men who have sex with men. The estimated number of new HIV infections in Latin America in 2007 was 100 000 [47 000–220 000], bringing to 1.6 million [1.4 million–1.9 million] the total number of people living with HIV in this region.

Overall, approximately 2.1 million [1.1 million–3.0 million] people in North America, Western and Central Europe were living with HIV in 2007. In these regions; the total number of people living with HIV is increasing. This increase is due mainly to the life prolonging effects of antiretroviral therapy and an increase in the number of new HIV diagnoses in Western Europe since 2002, combined with a relatively stable number of new HIV infections each year in North America.

In Middle East and North Africa it is estimated that 35 000 [16 000–65 000] people acquired HIV in 2007, bringing to 380 000 [270 000–500 000] the total number of people living with HIV in the region.

An estimated 14 000 [11 000–26 000] people acquired HIV in Oceania in 2007, bringing to 75 000 [53 000–120 000] the number of people living with the virus in this region.

(Source: AIDS epidemic, update Dec 2007 UNAIDS)

**Table 2: Regional statistics for HIV & AIDS, end of 2007**

Region	Adults & children living with HIV/AIDS	Adults & children newly infect	Adult prevalence*	Deaths of adults & children
Sub-Saharan Africa	22.5 million	1.7 million	5.0%	1.6 million
North Africa & Middle East	380,000	35,000	0.3%	25,000
South and South-East Asia	4.0 million	340,000	0.3%	270,000
East Asia	800,000	92,000	0.1%	32,000
Oceania	75,000	14,000	0.4%	1200
Latin America	1.6 million	100,000	0.5%	58,000
Caribbean	230,000	17,000	1.0%	11,000
Eastern Europe & Central Asia	1.6 million	150,000	0.9%	55,000
Western & Central Europe	760,000	31,000	0.3%	12,000
North America	1.3 million	46,000	0.6%	21,000
Global Total	33.2 million	2.5 million	0.8%	2.1 million

\* *Proportion of adults aged 15–49 who were living with HIV/AIDS*

(Source: AIDS epidemic, update Dec 2007, UNAIDS)

## 2.3 HIV and AIDS in Asia

In relation to HIV/AIDS, now Asia is second hardest hit after Africa. Although overall national HIV infection levels in Asia are low compared with some other continents, notably Africa, but the populations of many Asian nations are so large that even low national HIV prevalence means large number of people are living with HIV.

Overall in Asia, an estimated 4.9 million [3.7 million–6.7 million] people were living with HIV in 2007.

The highest national HIV infection levels in Asia continue to be found in South East Asia, where combinations of unprotected paid sex and sex between men, along with unsafe injecting drug use are sustaining the epidemics.

In addition there is considerable speculation about the impact of large scale migration and population movements on the evolution of current HIV epidemic of Asia.



**Table 3: HIV & AIDS Estimates in Asia, 2004, 2005, 2006 and 2007**

Year	Adults(15+)and children living with HIV	Adults (15-49) prevalence (%)	Adults(15+)and children newly infected with HIV	Adults(15+) & child deaths due to AIDS
2007	4.9 million (3.7-6.7 Million)	0.25(0.1-0.4)	440 000 (210 000-1.0 million)	300 000 (250 000-470 000)
2006	8.6million(6.0-13.0 million)	0.7(0.4-1.0)	0.96 million (0.64-2.5 million)	0.63million (0.43-0.90 million)
2005	8.3(5.7-12.5 million)	0.4(0.3-0.6)	0.93million (0.62-2.4 million)	0.60 (0.40-0.85million)
2004	7.6(5.2-11.3 million)	0.4(0.2-0.6)	0.86million (0.56-2.3 million)	0.50million (0.34-0.71 million)

(Source: Global-AIDS epidemic, update Dec 2007 UNAIDS)

HIV epidemic in this region remains largely concentrated among injecting drug users, sex workers, men who have sex with men, clients of sex workers and their sexual partners. But the region is also under threat of generalization of the epidemic.

The number of new annual HIV infections in **Thailand** continues to decline, although the decline in HIV prevalence has been slowing in recent years as more people are receiving antiretroviral therapy.

Despite the overall achievements in reversing the HIV epidemic in Thailand, prevalence among injecting drug users has remained high over the past 15 years, ranging between 30% and 50% (WHO, 2007). Similarly, recent studies show increasing HIV prevalence among men who have sex with men (e.g. in Bangkok from 17% in 2003 to 28% in 2005) (van Griensven, 2006).

## 2.4 HIV and AIDS in the SAARC Region

All the SAARC countries are reporting cases of HIV and AIDS and the epidemic is spreading rapidly in most. On the basis of available information recently it can be assumed that around 2.6 million estimated HIV infected people are living within the region.

High risk practices, such as sex work and injecting drug use, drive the epidemic in the region. HIV prevalence among vulnerable and often marginalized groups is high throughout the region and rapidly increasing in some places.

In India, 2.47 million people are estimated to be living with HIV and AIDS. India's HIV epidemic is highly heterogeneous and appears to be stable or diminishing in some parts of the country while growing in others. The highest numbers of PLHA are in Andhra Pradesh and Maharashtra, with nearly 0.5 PLHA each. Overall, six high prevalence states-Andhra Pradesh, Maharashtra, Tamil Nadu, Karnataka, Nagaland and Manipur contribute 65% of all PLHA in the country.

In Bangladesh, Nepal, Pakistan, and Sri Lanka, HIV prevalence is low among the general population but significantly higher among those who engage in high-risk behaviors, such as injecting drugs with contaminated needles and engaging in the selling and buying of sex. These concentrated epidemics are extensive and affect a large proportion of vulnerable populations at high risk. As a result, HIV is spreading rapidly in some parts of the region.

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

HIV outbreaks among men who have sex with men are now becoming evident in India, Nepal and Pakistan. HIV outbreaks particularly among injecting drug users are being found in Afghanistan and Pakistan currently.



Significant structural and socioeconomic factors across the region put many people at risk of HIV infection:

- More than 35% of the population lives below the poverty line
- Low levels of literacy
- Porous borders
- Rural to urban and intrastate migration of male populations
- Trafficking of women and girls into prostitution
- Stigma related to sex, sexuality and HIV
- Structured commercial sex and casual sex with non-regular partners
- Male resistance to condom use
- High prevalence of sexually transmitted infections (STIs)
- Low status of women, leading to an inability to negotiate safe sex.

The country specific HIV/AIDS estimates are given in Table 4.

**Table 4: Estimated number of people living with HIV in SAARC Region, end 2007**

Country	HIV Prevalence Rate (%) among Adults	Estimated No. of PLWHA Adult (15+)	PLWH	Women (15+) PLWH
Afghanistan	<0.1	2000	<2000	<100
Bangladesh	<1	7500	-	-
Bhutan	<1	500	400 (<500)	100 (<200)
India	0.36	2.47 million (2-3.1million)	-	-
Maldives	<0.1	52	-	-
Nepal	0.48	70 256	64 180	18 942
Pakistan	0.1(0.1– 0.2)	85000 (46000– 150000)	-	-
Sri- Lanka	<0.1	4000 (3000–8300)	4000 (2000–5300)	<1000
Regional		2639308		

Source: Country data on HIV/AIDS - 2007

## 2.5 Reported HIV and AIDS Cases by SAARC Member Countries

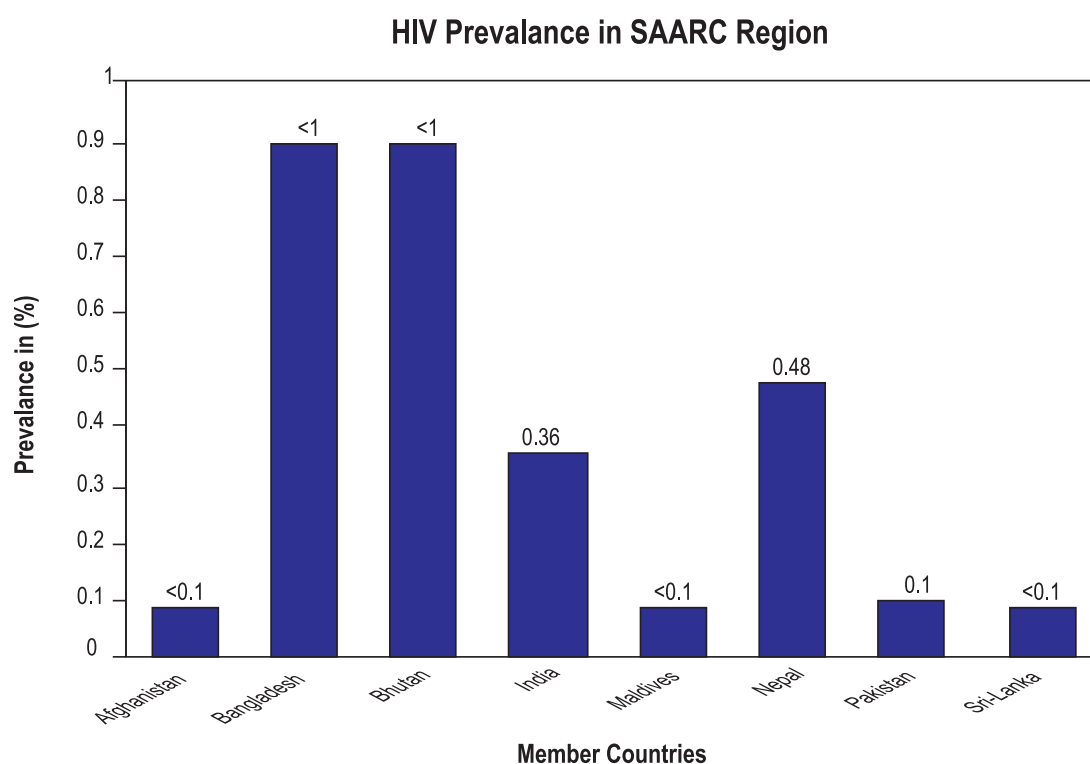
In the SAARC region first HIV/AIDS cases were reported in 1986 in India and Pakistan. By 1993 all SAARC countries started reporting these cases. Update available information on cumulative number of reported HIV and AIDS cases by SAARC countries is given in Table 5.

**Table 5: Cumulative No. of Reported HIV & AIDS Cases by SAARC Member States**

Country	HIV positive including AIDS	AIDS out of total HIV+	Death due to AIDS	As of	1st case detected
Afghanistan	435	-	-	June/2007	Not available
Bangladesh	1207	365	123	Dec. 2007	1989 (HIV +)
Bhutan	144	....	26	March 2008	1993 (AIDS)
India	-	194697	-	October 2007	1986 (AIDS)
Maldives	13	11	10	Dec 2007	1991 (AIDS)
Nepal	11234	1754	457	April 2008	1988 (AIDS)
Pakistan	4047	455	182	Dec 2007	1986 (AIDS)
Sri Lanka	973	268	177	April 2008	1987 (HIV +)

(Source: country report on HIV/AIDS-2007)

Figure 4 shows that in all SAARC member countries HIV prevalence among adults is less than 1%. Nepal has high prevalence than India (0.36) on the basis of recent data. Though in other remaining member countries prevalence seems to be relatively low problem seems hidden and on the way of spreading towards general population as risk factors are lying with the community of all countries. (Table 5 and Fig 4)

**Figure 4: HIV Prevalence in member Countries of SAARC, 2007**

### 3. Progress in HIV/AIDS Control

Progress in HIV/AIDS control could be measured by the achievements in following components of the programme.

1. HIV Prevention
2. HIV Testing and Counseling
3. Treatment, Care and Support
4. Strategic Information
5. Programme management

#### 3.1 HIV Prevention

All member countries are committed for HIV prevention. In all countries different effective interventions as mentioned below were on place, which help to decrease the burden from the ground level.

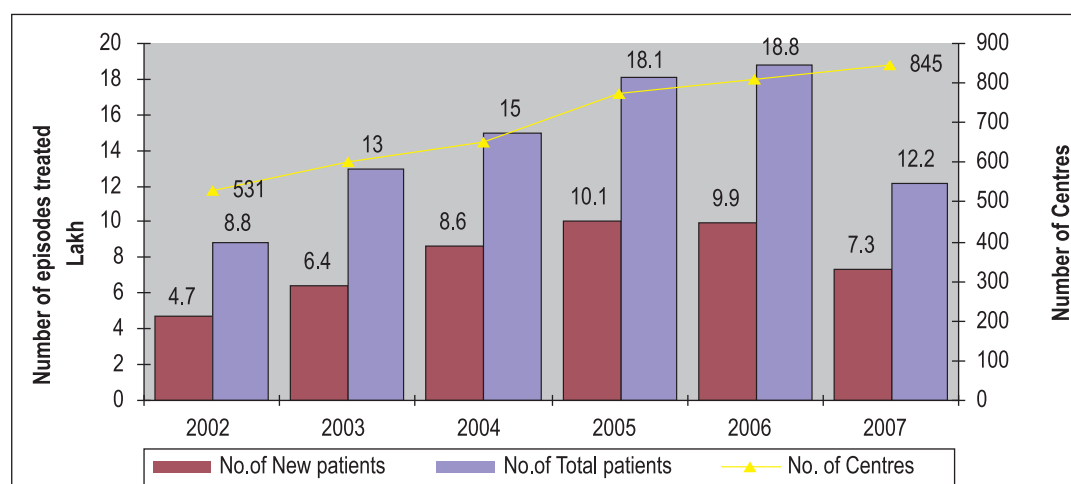
- I) Control of sexually transmitted infections
- II ) Condom use
- III) Prevention of mother to child transmission
- IV) Harm reduction
- V) Safe Blood supply
- VI) Infection Prevention and Post exposure prophylaxis
- VII) Advocacy and awareness

#### 1. Control of Sexually Transmitted Infections

To control sexually transmitted infections and prevention of its transmission both as an important public health issue in its own right and as part of efforts to reduce the HIV transmission, National HIV/AIDS strategic framework of all member states has given priority to control this infection to tackle HIV/AIDS problem.

In India, numbers of sentinel STD clinics increased from 76 in 1998 to 845 till Sept 2007.<sup>1</sup> India has begun to report a decrease in sexually transmitted infections (STI) since they began the scale up of STI interventions among sex workers and migrants. Under NACP-III, a demand for STD services is generated through its awareness on one hand and on the other STD services are expanded through its integration with the Reproductive and Child Health Programme. Fig 5 shows the gradual expansion of STI services since 2002.

**Figure 5: Year-wise Progress in STI Services in India, 2002-2007**

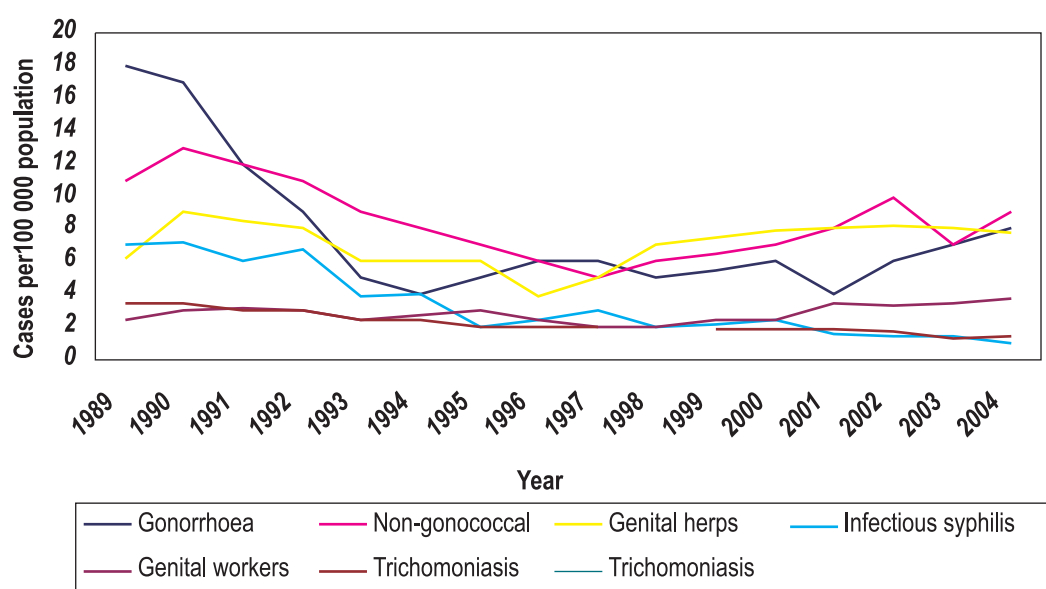


In Pakistan, Expanded NACP programme focused on excess use of high quality STI services from adult populations.

In Nepal, 59,700 clients were treated for STIs in 2007 (40060 treated in NGO sector and 19640 by the public sector).

Similarly, in Sri-Lanka data from sentinel STD clinics showed a steady decrease in infectious syphilis despite increase in clinic attendance 2 (figure 6).

**Figure 6: Incidence of Sexually Transmitted Infections, Sri-Lanka**



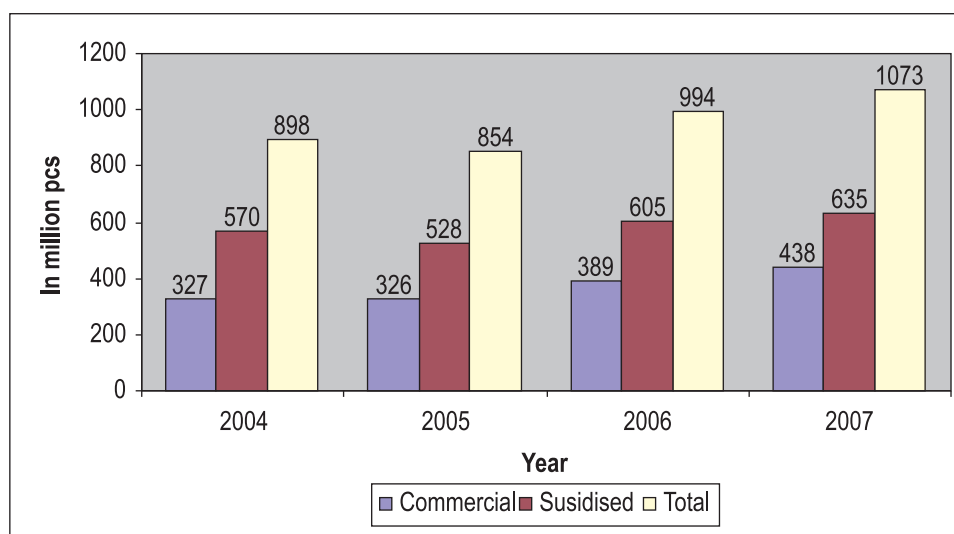
In SAARC region, surveillance of sexually transmitted infections has not so far been undertaken in a manner that enables establishment of proper trends.

Available evidence from countries of the SAARC suggest that STIs can be controlled using a combination of approaches. These include scaling-up clinical services for the management of STIs, promoting 100% condom use in commercial networks and the involvement of targeted population in the implementation of the programme.

### Promotion of 100% condom use

To decrease the transmission of HIV among commercial sex networks, it is imperative to achieve high rates of condom use among clients of sex workers. When condom usage rates among clients of sex workers reach >80%, transmission of STIs and HIV decreases markedly. For example, 100% Condom use Programme in Thailand. There is limited data available regarding condom use in different member countries of the region.

In India, with nearly 86 percent HIV transmission through unsafe sex in the country, NACO advocates and promotes condom use as a safe sex practice for prevention of STI/RTI and HIV, in addition to protection from unwanted pregnancy. Condom promotion under NACP-I & II led to an increase in the awareness about its consistent use in HIV/AIDS prevention. NACO has launched a number of innovative approaches in promotion of condom use. Among them are: Condom Vending Machines (CVM), Female Condoms (FC), Thicker and more lubricated condoms. The availability of free supply, subsidised and commercial brands of condoms was also increased during the years (2004-2006).<sup>3</sup> (Fig 7)

**Figure7: Retail Off-take of Condoms - All India**

In Sri Lanka condoms have been promoted through the Maternal and child health programs focusing on family planning. Condoms are available through the network of STD clinics to clinic attendees. NGOs working with the National Program too are supplied with condoms through the national program or the closest STD clinic. The level of usage among high risk groups in any sexual exposure has not been assessed. Plans are underway for behavioral surveys of this nature directed to high risk and vulnerable groups.

### **Empowerment of targeted populations**

It is important to engage sex workers, IDUs, MSM in outreach and other activities to build a sense of common norms and behaviors. In Sonagachi, one of the oldest and largest “red light” areas of Kolkata, India empowerment of sex workers has made a difference.<sup>3</sup>

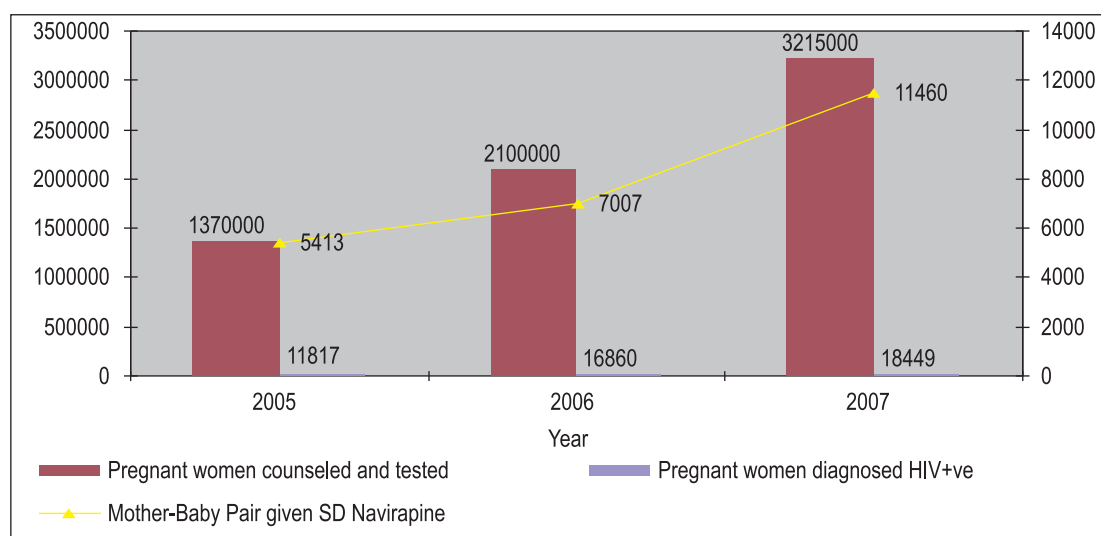
### **Prevention of Mother-to Child Transmission (PMTCT)**

Pregnant women infected with HIV are likely to transmit HIV to their infants during pregnancy, birth, or while breast feeding, without interventions 20-45% of infants born to HIV-infected women may become infected. To reach the ultimate goal of eliminating HIV infection in infants and young children, a standard package of services is required. These include HIV primary prevention services, prevention of unintended pregnancies among HIV infected women, antiretroviral drugs for prevention of mother – to-child transmission (PMTCT), safer delivery practices, infant feeding counseling and support, sexual and reproductive health services for HIV-infected women and linkages with ongoing care and support services.

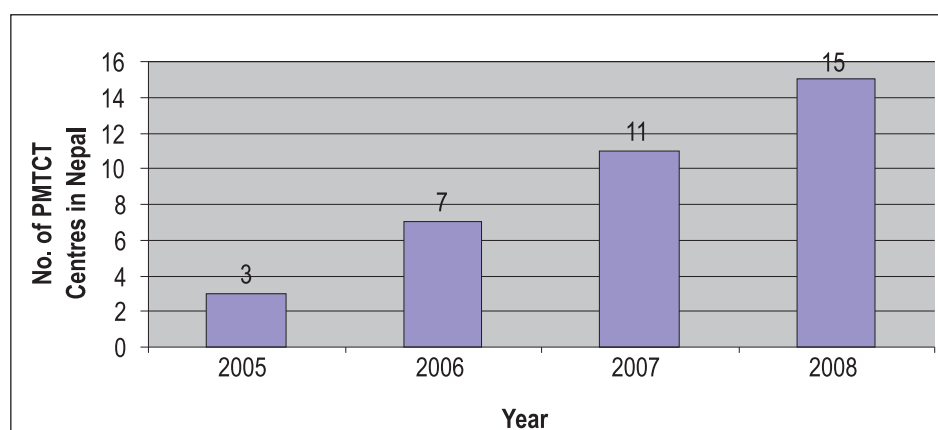
The coverage of PMTCT programmes in the SAARC region is very low; overall, less than 5% of pregnant women are offered HIV counseling and testing of an estimated 67 million births annually.<sup>2</sup>

In India and in Nepal, the PMTCT programme includes HIV testing and counseling, administration of a single dose of Nevirapine to the mother and the baby, safe delivery practices as well as infant feeding counseling.

Prevention of Parent-to-child transmission (PPTCT) of HIV, or perinatal transmission, accounts for 2.72 percent of the total HIV infection load in India. More than 27 million women, including over 92,000 HIV infected women, give birth in India every year. By March 2008, in India PPTCT services were being offered at 2,360 health facilities in India. Number of pregnant women counseled and tested and positive mothers gradually increased as PPTCT service facilities increased.<sup>3</sup> (Fig 8)

**Figure 8: Expansion of PPCT services in India (2005-07)**

In Nepal, by March 2008, 15 PMTCT sites were established. (Fig 9) In these sites, 81.47% pregnant women received HIV counseling and testing; of them 54 women found to be positive, 42.60% received antiretroviral therapy.<sup>4</sup>

**Figure 9: Expansion of Numbers of PMTCT Sites in Nepal**

In Pakistan, by the end of 2007, there were 5 PMTCT centers where 3249 pregnant women were counseled for testing and only 7 were found positive.<sup>4</sup>

In Bangladesh, Bhutan, Sri Lanka and Maldives have started PMTCT programmes on small scale. <sup>4</sup>

In Bhutan there were 13 babies who got infection by mother to child transmission in 2007. <sup>4</sup>

### Harm reduction

Harm reduction programme is the essential programme to control HIV infection among Intravenous Drug Users (IDUs). Majority of the harm reduction programmes in the region have had limited impact because they were implemented on a small scale.

Since 1998 CARE Bangladesh, a non governmental organization (NGO), began harm reduction programmes including needle/syringe exchange, condom distribution, abscess management and advocacy. By the end of 2004, the needle/syringe exchange programme covered 3900 IDUs in 19 districts of Bangladesh. However, this programme had little impact at the national level, as HIV sero prevalence continued to increase among IDUs from 1.4% in 1999 to 4.0% in 2002 to 4.9% in 2005. Under the GFATM

round 6, Injecting Drug Users interventions have been undertaken by CARE Bangladesh under National HIV/AIDS Control programme. National Harm Reduction Strategy has been developed as an response to HIV/AIDS problem in Bangladesh.<sup>5</sup>

In Nepal, harm reduction has remained the mainstay of the national programme for IDUs. However, the coverage of the programme is very low. According to an NGO working on harm reduction in Kathmandu valley, approximately 200 (<30%) of 6500 IDUs made use of the needle/syringe exchange programme. HIV prevalence among IDUs was estimated to be 40% in 1999 and after four years it was found to have declined to 38.4%. By 2005 it further declined to 32.7%.<sup>4</sup>

Ongoing key actions that ongoing under the harm reduction programmes in Nepal are:

Needle exchange programme, Peer outreach programme, Drug treatment and rehabilitation services, Drug Substitution therapy, Condom and other commodities distribution outlets.

### **Prevention of HIV in health care settings including blood safety and post exposure prophylaxis for accidental occupational exposure**

#### **Safe blood supply**

Safe blood supply is also one of the important interventions to prevent the transmission of HIV. With the improvement in blood safety intervention in the Region, there has been a steady decrease in HIV in screened blood units.

In India access to safe blood is mandated by law, and is the primary responsibility of NACO. There is a serious mismatch between demand and availability of blood in the country: against 8.5 million units/year requirement, the availability is only 4.4 million units/year. Another concern is that voluntary blood donation is only 52 percent. NACO is committed to bridge the gap in the availability and improve quality of blood under NACP-III. By 31st August 2007, number of licensed blood banks was 2343.<sup>3</sup>

In Bangladesh, legislation on safe blood transfusion has been enacted in 2002, 98 blood screening centers are already established, where screening of HIV, Syphilis, Malaria, Hepatitis B Virus and Hepatitis C virus is done. Under the HIV/AIDS Prevention Project (HAPP), Blood safety component builds upon GOBs Safe Blood Transfusion Programme.<sup>5</sup>

Red Cross societies manage national blood transfusion services in Nepal, Sri-Lanka. Blood transfusion services lack adequate resources to update their technology. Moreover, they need to increase their reach to enhance their donor base.

In Pakistan existing services at Federal level in relation to Support for Safe Blood Transfusion are; support for screenings HIV, Hepatitis B and C, logistic support to Blood Transfusion Agent, National Blood Policy Strategic Framework revised. By end of 2007, number of blood units collected is 632500 and HIV prevalence in donors found to be 0.012%.<sup>4</sup>

#### **HIV Prevention and Post-exposure prophylaxis**

Infection control has received considerable attention during recent years. The majority of large hospitals in the region have developed infection control teams. Clean needles, syringes, gloves and sharp containers are available in most of the health care facilities. However, only few countries such as Bhutan, Maldives have considerably provided these commodities at all levels of the health care system. Several countries such as India, Nepal, Bhutan and Sri Lanka have introduced antiretroviral post exposure prophylaxis for occupational exposure.

### **3.2 HIV Testing and Counseling**

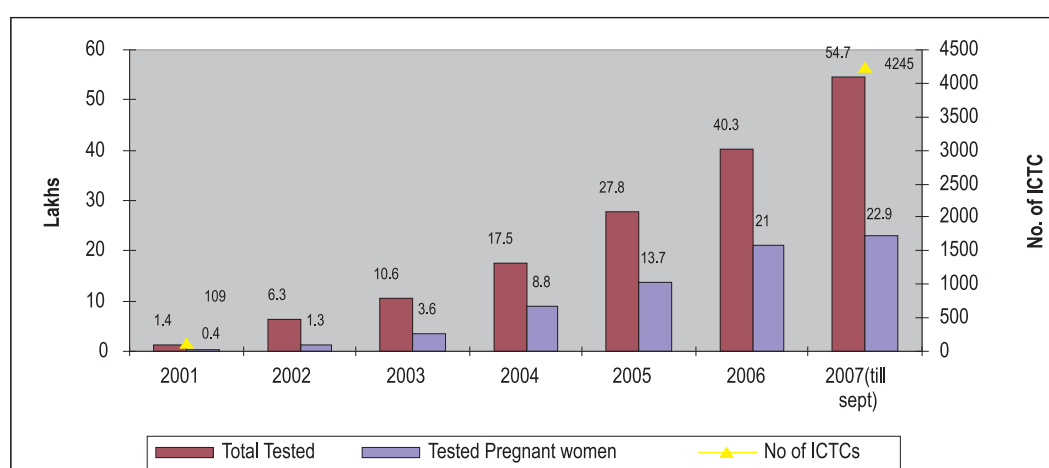
HIV testing and counseling is an essential service for both prevention and treatment. Early detection of HIV status allows the health system to provide appropriate information, care, support and treatment to the individual. This not only improves the quality of the life and longevity of the individual but also decreases further spread of infection from this individual to his/her partner(s). HIV testing and counseling is also an entry point for preventing mother to child transmission of HIV. Due to

the HIV associated stigma and limited access to HIV testing and counseling services, population coverage of HIV testing and counseling services remains very low in SAARC region.

Most countries in the region are providing client initiated HIV counseling and testing. There is a need of scaling up of access to HIV counseling and testing in the countries of the region as a means of enhancing access to comprehensive HIV prevention, care and treatment. Now the concept of provider initiated HIV counseling and testing is coming forward and most other countries had implemented this approach also.

HIV counselling and testing services were started in India in 1997. Under NACP-III, Voluntary Counselling and Testing Centres (VCTC) and facilities providing Prevention of Parent to Child Transmission of HIV/AIDS (PPTCT) services are remodelled as a hub or 'Integrated Counselling and Testing Centre' (ICTC) to provide services to all clients under one roof. There are 4245 ICTC centres by Sept 2007. Under NACP-III, the target is to counsel and test 22 million clients annually by the year 2012<sup>3</sup>. Figure 10 shows there are gradual increase in number of people tested for HIV infection.

**Figure 10: Progress in Integrated Counseling and Testing Services in India, 2001-2007**



In Sri Lanka voluntary services and counseling is offered throughout the network of STD clinics. There are 26 STD clinics operating thorough the country. Other sectors such as Prison, Army and Navy too have attempted to adopt VCT. VCT is also promoted through other NGOs for which capacity building is carried out by the National Programme.

In Nepal Number of VCT centres increase from 7 in 2005 to 125 by December 2007.<sup>4</sup>

In Bangladesh 7 VCT centres have been established in different institutions through out the country.<sup>4</sup>

In Bhutan by end of 2007 HIV counseling and testing facilities are available in all districts hospitals.<sup>4</sup>

In Pakistan, 16 VCT centers nationwide are operational for general and bridging populations, situated within or near existing public sector testing facilities and are operated through local NGOs. Number of patients getting counseling under VCT are 38,464 till end of 2007.<sup>4</sup>

### 3.3 Treatment, Care and Support

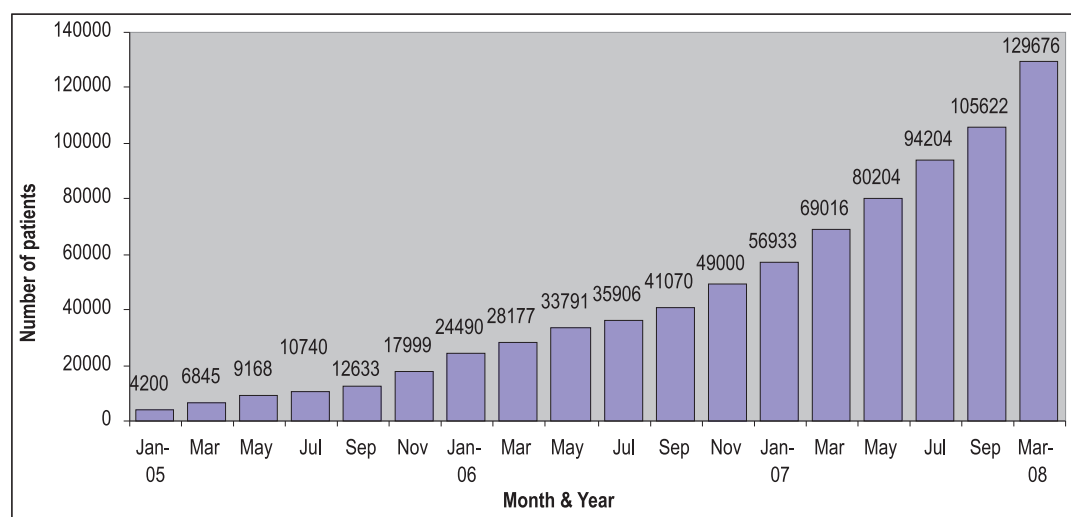
#### Antiretroviral Treatment

Remarkable progress has been made in the region on scaling up HIV antiretroviral treatment since November 2003 when the WHO '3 by 5' initiative was launched. Over three years, the number of people started on treatment increased from 18000 to 178000; almost a ten fold increase. However, there are wide variations in coverage rates among member countries.

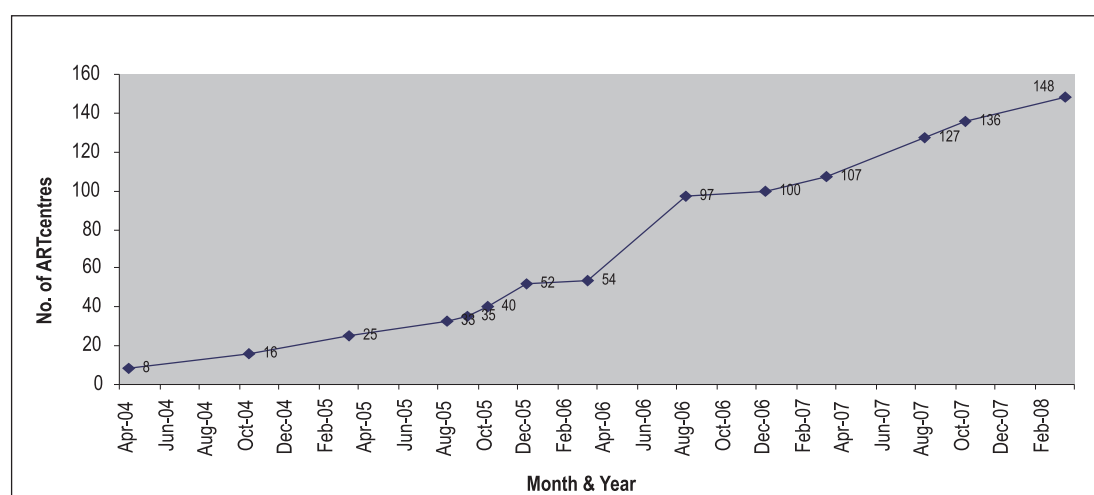


With full political and administrative commitment, the Government of India launched the free antiretroviral treatment programme in April 2004 in eight antiretroviral treatment centres; by March 2008, antiretroviral treatment delivery was scaled up to 148 centers and 129676 patients have been placed on free antiretroviral treatment programme. (Fig 11 and 12) In addition, a large and unknown number of patients are being treated in the private sector. Operational research is planned to better understand the quantity and quality of antiretroviral treatment in the private sector. India's National Programme has been highly effective so far and analysis of treatment outcomes of a cohort of patients in the initial period of the programme showed high survival rates. It is planned that free ART will be provided to 300,000 patients by 2011 in 250 centers across the country.<sup>3</sup>

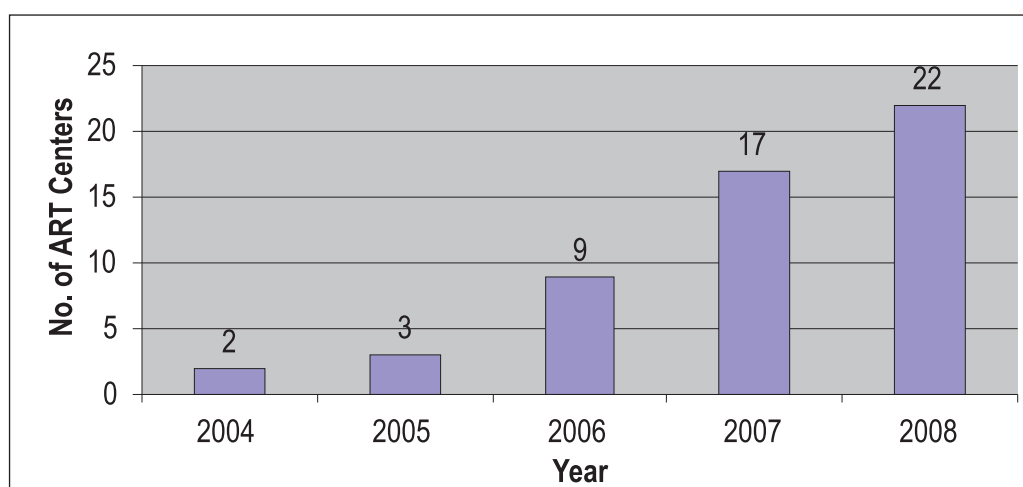
**Figure 11: Number of Patients on ART Treatment in India (Jan/05-March/2008)**



**Figure 12: Trend of ART Centres in India (April 2004-March 2008)**



In Nepal, Government of Nepal had launched the free antiretroviral treatment programme in 2004 in one Infectious disease Hospital in Kathmandu. Till December 2007 there are 17 ART treatment centers in Nepal and 1301 people receiving ART treatment. By March 2008, number of ART centers increased to 22.<sup>4</sup> (Fig 13)

**Figure 13: Trend of ART Centers in Nepal (2004-2008)**

In Pakistan in 2007 there are 11 ART treatment centers operational and providing HIV care services including ART to PLWHA. Numbers of HIV positives under ART treatment were 523 by end of 2007. <sup>4</sup>

In Maldives one HIV positive received ART treatment at central hospital of Male.

In Sri Lanka ARV treatment is offered at the National STD / AIDS Control Programme Central Clinic. Sri Lanka has been able to provide free ARV treatment to HIV patients since end 2004 through the World Bank project. Up to November 2006, 82 patients have received treatment. <sup>6</sup>

In Bangladesh, there are 4 (NGOs), CAPP, MAB, AITAM are providing ART service for altogether 150 HIV positives by end of 2007. <sup>4</sup>

In Bhutan, there are 3 ART sites established in 3 regional hospitals. Number of HIV positives on ART treatment are 20 by the end of 2007. <sup>4</sup>

### 3.4 Strategic Information

Strategic information is the information and knowledge to influence policy making, programme development and action. Strategic information is required for advocacy and resource mobilization, targeting resources to vulnerable population groups and high transmission geographical areas, measuring progress against planned programme objectives, measuring the impact of interventions and for being accountable to the donors, policy makers and the civil society.

**Key components of strategic information include the following priority interventions:**

- Second generation surveillance including surveillance of HIV/AIDS, STIs and risk behaviors
- HIV drug resistance surveillance
- Monitoring and evaluation
- Operational research

**Second generation HIV/AIDS, STI surveillance and behavioral surveillance:**

Data generated through systematic collection of behavioral and serological information, including STI surveillance, is the basis for estimating the burden of HIV/AIDS in the country and track the impact of the national response to HIV/AIDS. For much of the early part of the epidemic, HIV surveillance consisted mainly of case reporting and, in some areas, unlinked anonymous sero-surveys. The status of implementation of second generation surveillance systems in the Region is given in Table below:

**Table 6: Status of Implementation of second generation surveillance in SAARC region, 2006**

Country	HIV/AIDS Cases reporting	HIV sentinel Surveillance	STI surveillance	Behavior surveillance	HIV incidence surveillance
Bangladesh	Under reporting	√	Weak	√	NA*
Bhutan	√	√	Weak	Planned	NA
India	Under reporting	√	Weak	√	Planned
Maldives	√	√	Weak	Planned	NA
Nepal	Under reporting	Patchy	Weak	√	NA
Pakistan	Under reporting	√	Weak	√	NA
Sri-lanka	Under reporting	√	Weak	Planned	NA

Source: HIV/AIDS in South East Asia region March 2007, WHO (Note: information about Afghanistan not available in this)

\*NA-not Available

India, Nepal, Bangladesh, Pakistan and Sri Lanka have initiated second generation surveillance and conducted series of behavioral surveillance.

In Nepal since 2001 serological and behavioral surveillance activities have been carried out among population at risk such as IDUs, Sex workers, MSM and migrant workers. Since 2003, Integrated Bio-Behavioral Surveillance has been expanded to include different population groups like IDUs, FSWs, CSWs, MSM, and Migrants.

The National HIV surveillance system in Bangladesh has been active since 1998. It has completed seven rounds of serological surveillance based on WHO/UNAIDS guidelines for Second Generation HIV Surveillance.<sup>8</sup>

In Pakistan, HIV and AIDS Second generation Surveillance system (SGS) was established with Canadian support in 2003 as a part of Enhanced HIV and AIDS Control programme (EHACP). Initially started as pilot project in two cities and by 2007 completed two rounds of HIV Second Generation Surveillance.<sup>9</sup>

HIV Surveillance in India started from the year 1985. After NACO was established in 1992, sentinel surveillance for HIV/AIDS had been initiated with sentinel sites confined to selected cities. Over the years, the numbers of sentinel sites were increased from 180 in 1998 to 1122 in 2006 to cover all the districts of the country.<sup>2</sup> (Table 7)

**Table 7: Number of Sentinel Sites by Year and Type from 1998 to 2006, India**

Site type/year	1998	1999	2000	2001	2002	2003	2004	2005	2006
STD	76	75	98	133	166	163	171	175	251
ANC	92	93	111	172	200	266	268	267	470
IDU	5	6	10	10	13	18	24	30	51
MSM	-	-	3	3	3	9	15	18	31
FSW	1	1	2	2	2	32	42	83	138
ANC (Rural)	-	-	-	-	-	210	122	124	158
TB	2	2	-	-	-	-	7	4	-
Migrant	-	-	-	-	-	-	-	1	6
Eunuchs	-	-	-	-	-	-	-	1	1
Truckers	-	-	-	-	-	-	-	-	15
Fisher Folk	-	-	-	-	-	-	-	-	1
Others (Seamen)	-	-	-	-	-	1	-	-	-
Total	176* (180)	177* (180)	224* (232)	320	384	699	649	703	1122

\*Number of sites of which data is available with NIHFWS.

In Sri Lanka National STD / AIDS Control Program has been annually conducting HIV Sentinel sero-surveillance since 1993. These sentinel institutions routinely draw blood for other purposes. The usual method of HIV testing for sentinel survey is known as Unlinked Anonymous Testing. The Purpose of unlinked anonymous testing is not to detect infected individuals of case finding. The objective is public health surveillance of HIV infection. Sri Lanka initialized behavioral surveillance for the first time in 2006.<sup>6</sup>

### **HIV drug resistance surveillance and monitoring**

HIV drug resistance is the ability of HIV to enter human cells and multiply in the presence of antiretroviral drugs. HIV drug resistance (HIVDR) will inevitably emerge as seen with scale-up of antiretroviral treatment programmes and because HIV treatment must be lifelong, and there is no cure, as seen in countries where antiretroviral treatment is already widely available.

While HIV drug resistance is difficult to avoid, it can be contained with adopting different elements under National programme as national HIV drug resistance prevention programme. Different programme activities need to be undertaken by all member country HIV/AIDS control programme in planning and implementation of activities on HIV Drug resistance. In India, HIV drug resistance national working groups have been established.

### **Monitoring and evaluation**

Comprehensive monitoring and evaluation of modalities to address the epidemic, and tracking the impact of activities implemented by National AIDS programmes is imperative for a country to understand, mitigate and control its HIV/AIDS epidemic.

Monitoring and evaluation are often cited as weak elements of the health sector that need strengthening.

Some essential elements of a functioning monitoring and evaluation system, include monitoring and evaluation plans and guidelines related to health sector; data collection tools, such as registers, cards, and other forms; a system for reporting relevant data; equipment necessary to store and manage data; capacity to analyze data and evaluate the health sector response to HIV/AIDS; as well as appropriate human resources and capacity strengthen.

Major regional activities during 2005-2006 include: developing recording and reporting tools and training materials for antiretroviral treatment ; developing recording and reporting tools for VCT; advocating for and facilitating harmonization of national and international indicators; helping countries in the developing national guidelines and training related to monitoring and evaluation; reporting on national/regional antiretroviral treatment progress.

At the national level, there has been a concerted effort to strengthen the monitoring and evaluation system by harmonizing information needs of various partners, improving the collection of data, up gradation of hardware and software for data processing and use and dissemination of data.

### **Operational research**

Operational research comprises the use of analytical techniques to define optimal processes of delivery, to achieve better outcomes through evidence-based approach, and to provide more cost-effective care.

Operational research needs to firmly root in multi-disciplinary approaches and build on ownership by local partners, especially national control programmes who ensure its sustainability and integrate its results into policies and programs.

Limited progress has been made in this area due to competing priorities. Moreover, there is lack of harmonization of research activities among independent researchers and academia and national programmes.

### 3.5 Programme Management

To implement effective strategies in HIV/AIDS prevention, care and treatment, governments need to draw up a national HIV/AIDS strategic plan, including the health-sector response. The strategic planning and policy dialogue should be carried out with full participation of all stakeholders, including PLHA and other vulnerable populations.

The strategic plan serves as a guide to government ministers and agencies and all partners involved in leadership, roles and responsibilities, principles, goals and targets, priorities, programme intervention to be put in place, mechanism for acceptability, monitoring and evaluation, as well as recording and budgeting.

Most of the Countries in the Region have developed a mid-term strategic plan on HIV/AIDS. However, some of these need to be revised or re-developed as shown in table below:

**Table 8: Status of Implementation of strategic Planning and Review Activities in the SAARC Region, 20057**

Country	Existing National Strategic Plan (NSP)	Operational Plan
Afghanistan	National Strategic framework for HIV/AIDS 2006-2010	
Bangladesh	NSP 2004-2010 developed	A consolidated and budgeted Operational Plan 2006-2010 is intended
Bhutan	NSP 2007-2011 developed	A consolidated and budgeted Operational Plan 2007-2011 is intended
India	NSP 2006-2011 developed	
Maldives	NSP 2007-2011 developed	
Nepal	NSP 2006-2011	
Pakistan	National Strategic Framework 2007	
Sri-Lanka	NSP (2007-2011) developed	

Source: HIV/AIDS in South East Asia region March 2007

#### References:

1. HIV sentinel surveillance and HIV estimation, NACO, 2006
2. HIV/AIDS in South East Asia region, WHO-SEARO, March 2007
3. Retrieved from website: [www.nacoonline.org](http://www.nacoonline.org) on 7/25/2008
4. Country report of National TB control programme and National AIDS control programme of member countries of SAARC
5. Report of Joint WHO/UNICEF/UNAIDS Technical consultation on scaling up HIV counseling and testing in Asia and the Pacific
6. Briefing paper on HIV/AIDS in Bangladesh and National response, 27/05/08
7. Retrieved from website of national STD/AIDS control programme , Sri Lanka-[www.aidcontrol.gov.lk](http://www.aidcontrol.gov.lk) on 8/4/08
8. National HIV Serological Surveillance, 2006 Bangladesh , NASP
9. HIV Second Generation Surveillance in Pakistan, 2006-07

## 4. TB/HIV Co-infection

Globally there were an estimated 709 000 new HIV positive TB cases in 2006. The African region accounts for 85% of estimated cases, India for 3.3 %, the European region for 1.8% and other countries for 9.4%<sup>5</sup>. In South east Asia only 4% of notified TB cases were tested for HIV. <sup>5</sup>

The South-east Asia Region carries the highest burden of tuberculosis and the second highest burden of HIV in the world. TB is the most common opportunistic infection among HIV infected cases and a leading cause of death among AIDS patients. The proportion of TB patients infected with HIV varies between districts within each country.

With the large number of HIV infected persons and high rates of TB transmission and latent TB infection, the HIV epidemic could cause a substantial impact on TB control in the Region which can be observed by increasing case fatality rates among TB patients in many areas. Collaborative TB/HIV activities are essential to ensure that HIV positive TB patients are identified and treated appropriately, and to prevent TB in HIV positive people.

HIV Testing for TB patients is a critical entry point to interventions for both treatment and prevention. There was a substantial increase in provision of HIV testing for TB patients between 2002 and 2006.

### **Afghanistan:**

AS per NTP, HIV/TB services for the period 2007-2010 is needed to decrease the burden of TB in the persons at greatest risk for HIV-TB co-infection, including TB patients in Grade 1 TB Provinces (Kabul, Ghazni, Kandahar, Herat, Mazari Sharif, Kunduz, Badakhshan and Nangarhar) with access to VCT center ( Kabul, Herat, Mazari Sharif, Badakhshan and Nangarhar) and the people in contained setting, such as prisons.

Preparatory work for a TB/HIV action plan and task force has been carried out.

### **Bangladesh:**

Although the overall prevalence of HIV infection is very low, HIV surveillance among high-risk groups has reported pockets of rapidly increasing HIV prevalence. The National Tuberculosis Programme of Bangladesh is engaged in many partnerships with NGOs who are becoming increasingly involved in implementing TB/HIV collaborative activities. A survey of HIV infection among TB patients has been recently completed by the International Centre for Diarrhea Disease Research, Bangladesh. A national TB and HIV coordinating body have been established and national policy to link the NTP and NAP for collaborative TB/HIV activities is under process. <sup>4</sup>

### **Bhutan:**

Number of HIV infected persons reported to have Pulmonary TB disease are 11 cases by end of 2007. All TB patients are offered HIV Testing.

### **India- National Framework for joint TB/HIV Collaborative activities (February-2008)**

Active TB disease is the commonest opportunistic infection amongst HIV-infected individuals. A low cost and high quality cure for TB is provided under the Revised National TB Control Programme (RNTCP), which is implementing the DOTS strategy of diagnosis and treatment for TB nationwide. Standard short-course anti-TB regimens have been shown to be effective in TB patients with or without HIV infection.

TB-HIV collaborative activities started initially in the year 2001, in the six states with high prevalence of HIV/AIDS i.e. Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu. The collaborative activities were extended to eight additional States - Delhi, Gujarat, Himachal Pradesh, Kerala, Orissa, Punjab, Rajasthan and West Bengal in the year 2004.

In 2007-08, TB-HIV collaborative activities are to be extended to the entire country and have been included as an integral part of NACP III and RNTCP II.

Key activities identified under TB/HIV coordination include:

1. Establishment of coordination mechanisms at national, state and district level.
2. Service delivery coordination and cross-referrals, through training of the programme officials and the field staff and establishment of linkages between service delivery sites of NACP i.e. ART centres, ICTCs, care and support centers and RNTCP diagnostic and treatment services.
3. Involvement of NGOs working in NACP and RNTCP in TB/HIV collaborative activities.
4. Operational research to improve the implemented of TB/HIV collaborative activities.
5. Implementation of feasible and effective infection control measures.

#### Status of activities on TB/HIV collaboration:

Routine training of programme staff in both TB and HIV/AIDS programmes has been implemented since 2002, using jointly developed training modules.

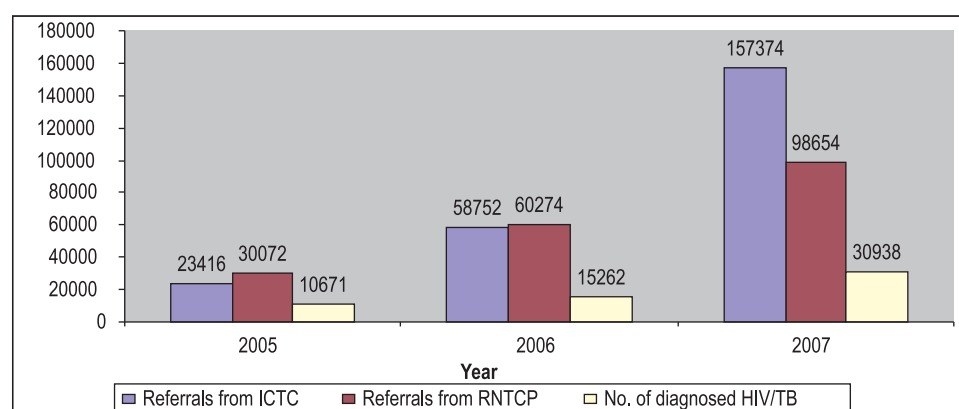
The periodic HIV survey in TB patients for the year 2006-07 demonstrated a wide distribution of HIV prevalence among TB patients across the country. Central TB Division (CTD) & National AIDS Control Organization (NACO) have adopted the policy of providing an "Intensified TB/HIV package" for States with the highest estimated sero-prevalence of HIV infection.<sup>1</sup>

CTD and NACO have developed a standardized cross-referral mechanism for linkages between ICTCs and RNTCP services. This mechanism is applied at all ICTCs nationwide. All ICTC clients screened by the ICTC Counselors for the presence of the symptoms of TB disease (at pre, post, and follow-up counseling), who have symptoms or signs of TB disease, irrespective of their HIV status, referred to the nearest facility providing RNTCP diagnostic and treatment services. Generally these were located within the same facility as that in which the ICTC is sited. For better coordination in the field between the two programmes it is suggested that when the network of ICTC facilities is being expanded, consideration should be taken of establishing the new ICTCs in sites which already have an RNTCP designated microscopy centers in the respective sites.<sup>3</sup>

ART-DOTS linkages are being established at all the ART centers of HIV/AIDS control programme to ensure optimal access to TB diagnostic and treatment services by HIV infected persons attending these centers. In the year 2007 alone more than 1,10,000 TB suspects were referred from ICTCs to RNTCP and of them 22057 were diagnosed as having TB. More than 77,000 TB patients were tested for HIV and of them 9,471 were HIV positive. The quantum of cross-referrals across the programmes has shown more than 300% Increase in comparison to 2004-05. The periodic HIV survey in TB patients, which was carried out in 4 districts in 2005-06 was scaled –up to 15 districts in 2006/07.<sup>6</sup>

As a result of cross referral mechanism, detection of TB-HIV co infected patients gradually increasing in India.<sup>3</sup> (Fig 14)

**Figure 14: HIV-TB Cross Referrals- 2005 to 2007**



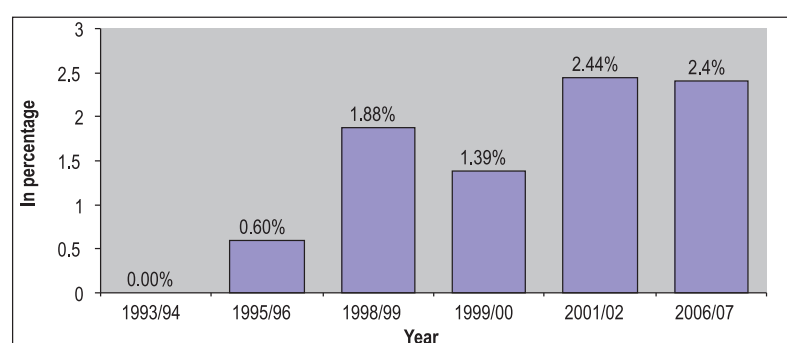
**Maldives:**

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

**Nepal:**

Established TB/HIV technical working team comprising of senior staff from both TB/HIV programmes and major partner agencies at national level during 2006. Situation analysis on TB/HIV collaborative activities under National HIV/AIDS control programme has been completed. HIV Surveillance among TB patients is going on since 1993 at 5 sentinel sites under National Tuberculosis control programme. Six rounds of Sentinel Surveillance have been completed. Findings are shown in bar diagram below. <sup>7</sup>

**Figure 15: HIV among TB Patients 1993-2007**



Source: Annual report: National Tuberculosis Control Programme, Nepal; 2006/07

**Pakistan:**

Collaborative TB/HIV is Established board at federal level, under National AIDS Control Programme of Pakistan. NACP and Tuberculosis Control Programme are collaborating for training of staff and are establishing referral systems for diagnosis and treatment of HIV in Tuberculosis patients co-infected with HIV.

**Sri-Lanka:**

HIV Surveillance among TB patients started from 1993 in few districts, and since 2000 it started in 8 districts annually under National Tuberculosis control programme and report is shown as below:

**Table 9: Results of HIV Sentinel Survey 2000 - 2006 for TB Patients**

Places	2000	2001	2002	2003	2004	2005	2006
Colombo (WP)	0/223	0/276	0/287	1/282 (0.3%)	0/256	1/259 (0.4%)	1/238 (0.4%)
Kandy (CP)	0/269	1/363 (0.3%)	0/324	0/282	0/304	0/258	0/234
Galle (SP)	0/174	0/250	0/289	0/143	0/152	1/109 (0.9%)	0/221
Rathanpura (Sab.P)	0/94	-	0/242	0/254	0/212	0/196	0/248
Anuradhapura (NCP)	0/165	-	0/194	0/220	0/275	0/234	0/219
Kurunegala (NWP)	0/75	-	0/199	0/167	0/216	0/256	0/162
Badulla (UP)	0/111	-	0/187	0/152	0/77	0/152	0/59
<b>N &amp; E P</b>	-	-	<b>0/2</b>	<b>0/66</b>	<b>0/164</b>	<b>0/64</b>	<b>0/41</b>
<b>Total</b>	<b>0/901</b>	<b>1/889</b>	<b>0/1724</b>	<b>1/1556</b>	<b>0/1456</b>	<b>2/1538</b>	<b>1/1392</b>
<b>Percentage</b>	--	<b>0.1%</b>	--	<b>0.06%</b>	--	<b>0.2%</b>	<b>0.07%</b>



To address the issues of TB/HIV in a comprehensive way, NTP, Sri-Lanka had reflected the need of development of policies / strategies and implementation of activities linked to those, to effectively address TB/HIV in the Strategic Plan (2006-2015) of NTP and following are the key proposed interventions:

- Establishment of a formal mechanism for collaboration at the central level and at other levels, where appropriate;
- Support by NPTCCD for the HIV programme in its campaigns to prevent HIV;
- Continuation of the periodic surveillance activities for HIV among TB patients and monitoring of trends in the years ahead;
- Intensification of efforts to diagnose TB in people known to be HIV-positive;
- Ensuring TB infection control in all health care and congregate settings;
- Designation of the district chest clinics as focal place for the management of HIV-positive TB patients; this includes training of core team members in TB/HIV and establish a referral system to voluntary counseling and testing(VCT) centers, as well as centers for HIV/AIDS care and support;
- Formulation of a policy for the treatment of TB in HIV-positive patients, and especially when treated concomitantly with anti-retroviral drugs, based on evidence made available at the international level;
- Providing isoniazid preventive therapy to known HIV-positive people, who are infected with TB;
- Referring TB patients at risk of HIV, to VCT services.

Several countries are now embarking on regular surveillance for HIV infection among TB patients and more precise data will be available in the coming years. However, according to WHO Global report on tuberculosis 2008, estimates for SAARC countries is given in table below.

**Table 10: HIV Prevalence in Incident TB cases, 2006**

Country	HIV Prevalence in Incident TB cases (%)
Afghanistan	<0.05
Bangladesh	<0.05
Bhutan	0.3
India	1.2
Maldives	2.0
Nepal	1.4
Pakistan	0.3
Sri Lanka	0.2

Source: WHO Global Report on TB 2008

#### References:

1. National Framework for joint TB/HIV Collaborative activities, India, February 2008
2. Country presentation by Nepal, Bhutan, Maldives and Sri Lanka in Workshop to develop SAARC Regional Guideline for Diagnosis and treatment of MDR-TB, in Bhutan on September 2007.
3. Retrieved from website: [www.nacoonline.org](http://www.nacoonline.org) on 7/25/2008
4. National AIDS Control programme, Country report of 2007
5. WHO Global Report on TB 2008
6. RNTCP India, Report 2008
7. Annual report: National Tuberculosis Control Programme, Nepal; 2006/07
8. HIV Situation in India, NACO 2007 An Update

## 5. STAC support to HIV control in the Region

SAARC TB and HIV/AIDS center is the nodal regional center to coordinate and collaborate the response for HIV/AIDS control. Since its inception It has been actively involved in coordinating the efforts of national HIV/AIDS control programme of the region and also supports the activities in relation to HIV control in the region.

It has continued to focus on different issues relevant to better implementation of HIV control in the region.

STAC is contributing the support in following components in relation to HIV control in region:

### 5.1 Coordination and collaboration

### 5.2 Advocacy and planning

### 5.3 Capacity building

### 5.4 Technical support

### 5.5 Research activities

### 5.6 Epidemiological Networking

### 5.7 TB/HIV Collaborative efforts

### 5.1 Coordination and Collaboration

STAC is coordinating with National HIV/AIDS control programmes of member countries for Information collection and sharing, also in collaboration with these programmes conducting different activities to support in enhancing the response of national programme towards HIV/AIDS epidemic. It has been conducting meetings and seminars for HIV/AIDS Programme managers which continue to provide a very useful forum for exchange of information and sharing of experiences with member countries.

The great achievement after renaming the center was development of the SAARC regional strategy on HIV/AIDS, which was developed through an extensive consultative process, taking into consideration the uniqueness of the SAARC region including lessons learnt from countries that have halted the epidemic, in April 2005 in the joint SAARC-UNAIDS Expert Group meeting of National HIV/AIDS Programme Managers and endorsed during Thirteen SAARC Summit (Dhaka, 12-13 November 2005). This strategy helps to strengthen work at the regional level through improved coordination, collaboration and partnership between regional organization and national programmes. The strength of this strategy is not only judged by its breadth of reach but also its conduciveness to timely implementation.

The collaboration of this regional center on TB and HIV/AIDS was strengthened and through various activities conducted as shown in table below in different member countries involving TB and HIV/AIDS programme managers.

**Table 11: Workshop, Meetings and Seminar conducted by STAC:**

Title of Activity	Date & Duration	Venue	Level of Participation
<b>Workshop</b>			
SAARC-CIDA workshop on TB & HIV/AIDS control	Mar. 1999, three days	Kathmandu	National level TB programme managers
Regional Workshop to Develop SAARC Regional TB/HIV Co-infection Strategy	Oct. 2003, Two days	Kathmandu	National Level NTP Managers
SAARC Regional Workshop to develop/strengthen Mechanism for Cross boarder activities in Controlling TB and HIV/AIDS.	3 days , 2007	New Delhi, India	NTP & HIV/AIDS Managers

3 <sup>rd</sup> SAARC Regional Workshop on TB/HIV Co infection	2 days, 2007	Bang lore, India	National Level NTP Managers
SAARC Workshop on involvement of Media (Public/private) for public Awareness and advocacy on TB and HIV/AIDS.	2007	Nepal, pakistan	National Level NTP/HIV/AIDS Managers, Media people
<b>Meetings</b>			
SAARC consultative meeting on TB & HIV/AIDS	Sept. 1996, two days	Kathmandu	National level TB and HIV/AIDS programme managers
SAARC consultative meeting for TB & HIV/AIDS programme Managers	Nov. 2002, one day	Kathmandu	National Level Programme Managers
Joint SAARC-UNAIDS Regional Expert Group Meeting to Develop SAARC Regional Strategy on HIV/AIDS	April 2005 three days	Dhaka	National level managers from NACP
SAARC Regional Meeting of National HIV/AIDS Control Programme Managers	April 2005 One day	Dhaka	National level managers from NACP
SAARC Regional Consultative and Strategic Planning Meeting of HIV/AIDS Programme Managers	2 days, 2007	Maldives	HIV/AIDS Managers
<b>Seminar</b>			
SAARC seminar on compilation and updating advocacy and IEC materials related to TB and HIV/AIDS	Sept. 2000, two days	Kathmandu	National level TB and HIV/AIDS programme managers
SAARC Regional Training on Computer based Data Management Applications for TB and HIV/AIDS Data Managers	2006	Pakistan	National level TB and HIV/AIDS programme representatives

## 5.2 Advocacy and planning

Advocacy is the main focused and important area for increasing the awareness about TB and HIV/AIDS, which will help to implement the programme activities. Through advocacy, communication, and social mobilization activities the messages on Tuberculosis and HIV/AIDS can spread/propagate and its control and prevention among peer groups, families and community at large and mobilize demand for TB and HIV/AIDS services.

Recognizing the gravity of problems on TB and HIV/AIDS, 12th SAARC Summit held in January 4-6, 2004 in Islamabad declared Year 2004, as SAARC Awareness Year for TB and HIV/AIDS.

With this background STAC is focusing on partnership developments with different target groups through which it aims to advocate to the people in relation to TB and HIV/AIDS. In this regard STAC had developed different guidelines for partnership developments like Guidelines for partnership programmes with Media, school, Industries, Man Power Agencies and pharmacist. These guidelines covered not only TB but in detail about HIV/AIDS also. With the view of advocacy, STAC has been conducting Partnership Programmes with different target groups as orientation on TB and HIV/AIDS in the member countries based on the demand. This programme will help to facilitate political, legal and social changes for better care of all TB and HIV/AIDS patients under the health facilities within the communities in member states.

Information sharing was also supported through the publication and dissemination of various technical and advocacy materials. These included guidelines for partnership programmes, World AIDS Day report, HIV/AIDS update, IEC materials and articles in STAC journal.

## 5.3 Capacity building

Human resource development is one of the important areas where STAC is contributing since long back by conducting trainings on different areas of HIV/AIDS control and planned for 2 trainings on ART for 2008, detail is explained in table below.

**Table 12: Trainings on ART Treatment in Member states of SAARC**

Title of Activity	Date & Duration	Venue	Level of Participation
<b>Training</b>			
SAARC Training on Technical and Operational Aspects of Anti Retro Viral Therapy	20-24 <sup>th</sup> August	Sri Lanka	Health Personals involved in care and treatment for HIV Infected people
SAARC Training on Technical and Operational Aspects of Anti Retro Viral Therapy	10 <sup>th</sup> 14 <sup>th</sup> November	Bangladesh	Health Personals involved in care and treatment for HIV Infected people

## 5.4 Technical support

STAC continues to work closely with national HIV/AIDS control programmes of all member countries to provide technical assistance as required. Though STAC is not providing technical support by recruiting the staff at national programs, but it is supporting indirectly through workshop, seminars and meetings by sharing the epidemiological and other information with different member countries.

## 5.5 Research activities

In collaboration with TB and HIV/AIDS National programmes, STAC supports to undertake specific research activities in different member countries, reflecting programme priorities.

## 5.6 Epidemiological Networking

To promote regional cooperation in the area of prevention and control of TB and HIV/AIDS, epidemiological networking plays a vital role. The strong epidemiological networking can ensure collection of good quality data in time and thereby compilation and preparation of quality regional epidemiological reports that can support advocacy, planning, and policy development for the control and prevention of TB and HIV/AIDS in the region.

In this regard, STAC is in the process for strengthening SAARC Regional Epidemiological Networking by developing software for TB & HIV/AIDS data management which would help to improve information sharing, support regional analysis and provide effective support from the STAC to regional advocacy and policy development with respect to TB and HIV/AIDS.

In addition to this, STAC has been developing TB and HIV/AIDS Update document annually since 2004 and distributing these to all TB and HIV/AIDS programme of member countries.

## 5.7 TB/HIV Collaborative efforts

HIV epidemic has started affecting the global tuberculosis burden and hence, STAC focused attention on the need to strengthen links between TB and HIV/AIDS programmes in order to tackle these public health emergencies more effectively.

In relation to initiation of TB/HIV collaborative efforts the first SAARC Regional workshop to develop SAARC Regional Strategy for TB/HIV co-infection was held in October 2003, Kathmandu & developed SAARC Regional Strategy on TB/HIV Co-infection.

Second SAARC Regional Workshop on TB/HIV Co-infection to identify research areas & to develop research protocol on the identified areas & study visit to TB/HIV programme implementation sites was organised in Pune, India, 28-31 December 2005. and developed research protocols on identified priority areas.

Third SAARC Regional Workshop on TB/HIV Co-infection organized from 5-6th Sept/2007 in Bangalore, India to discuss about emerging issues in this area and participants were acquainted with emerging issues in relation TB/HIV co infection, got to know about collaborative approach to tackle the dual epidemic. Also-new research areas pertaining to TB/HIV co infection identify based on the common issues of SAARC region.

# Country profiles



# Afghanistan

Afghanistan is among the countries of central and south Asia, bounded by Pakistan and Iran. Country population is 24.5 million (NTP, country report, 2008). Almost 23 million people in Afghanistan suffered 25 years of war, conflict, displacement, tremendous human loss and severe impoverishment.

Despite the reported low HIV Prevalence it faces serious threat of HIV epidemic mainly due to most at incidence of injecting drug use (IDU) that partially intersects with sex work (SW). The absence of surveillance system on HIV and STIs, and therefore, current reliance on sporadic and unsystematic data available for some of the most at risk groups makes it difficult to:

- a) determining the magnitude of the actual epidemic,
- b) understand the dynamics of transmission, and
- c) Asses the potential for its further diffusion.

Currently (June, 2008) the official reported number of HIV cases is 435, including both women and men. The estimated number of people living with HIV/AIDS is 2,000.

Variety of other structural determinants of amplifiers of HIV has been also reported in Afghanistan, such as:

- a) limited blood safety,
- b) unsafe surgical practices and basic physical care
- c) limited awareness and correct knowledge about HIV/AIDS among the general population
- d) almost no use of preventive measures, including condoms
- e) extreme poverty
- f) illiteracy, especially among women
- g) prevalence of TB, Malaria, Hepatitis A,B,C in context of
- h) limited health care services and competing health priorities
- i) serious deterioration of key human development indicators, additionally, lack of income-generating opportunity

In the absence of an effective surveillance system and robust prevention programmes, the transmission of HIV may become a serious threat among the country's most at risk groups such as i) injecting drug users (IDUs) ii) sex workers (SWs) iii) men who have sex with men iv) prisoners and v) sexual partners/clients of these population.

The HIV epidemic is at an early stage in Afghanistan, and is concentrated among high risk groups, mainly injecting drug users (IDU) and their partners. Afghanistan's emerging epidemic likely hinges on a combination of injecting drug use and unsafe paid sex. The vulnerabilities that trigger an epidemic and the risk factors that fuel it are sufficiently prevalent in today's Afghanistan. There is a large number of injecting drug users, refugees returning from Pakistan and Iran, Internally displaced people, sex workers, homosexuals and others.

Afghanistan has expressed its intention to act early through facilitating a rigorous and comprehensive multi-sector response under Afghanistan National AIDS Strategic framework (2006). The goal of the strategy is prevent the transmission of HIV within most at risk groups, to vulnerable groups, and the general population while avoiding stigmatization of the most at risk groups and people living with HIV

One study among IDUs in Kabul indicates HIV prevalence of 3% (2006). Another study among TB patients indicates HIV prevalence of 0.2% (Final Report, MOPH, 2006).

### *Risk Factor*

Knowledge is increasing about the factors that influence the spread of HIV in Afghanistan. Risks and vulnerabilities that play a role and which require further investigation include:

- **Injecting Drug Use:** Afghanistan is the world's largest producer of opium, which is used to make heroin. A 2005 survey estimated that Afghanistan had almost one million drug users including 200,000 opium users and 19,000 drug injectors of whom 12,000 inject prescription drugs and 7,000 inject heroin. A 2006 survey in Kabul estimated that several categories of drug use had increased by more than 200 percent in 12 months. The intensification of the war on drugs, by reducing the availability of heroin, can cause drug users to turn to injecting drugs as a more cost-effective option. These factors, combined with poverty and the lack of information, can lead to widespread injecting drug use and the sharing of needles. The use of non-sterile injecting equipment can jumpstart an epidemic and lead to rapid increase in HIV prevalence.
- **Large Numbers of Refugees and Displaced People:** Approximately eight million Afghans spent some time living abroad as refugees, in Pakistan (5 million) and Iran (3 million). Today, about one million widows and 1.6 million orphans, four million returnees and 500,000 internally displaced people live in Afghanistan, while almost four million Afghan refugees still live in Pakistan and Iran. These countries have rapidly growing IDU driven HIV epidemics. Although little is known about the HIV risk behaviors of Afghan refugees and displaced people, such groups generally have little access to information about HIV. They are also at risk due to isolation from their families and lack of means to support themselves.
- **High Levels of Illiteracy:** Illiteracy presents a barrier to HIV awareness and prevention. The literacy rate in the general population is very low (36 percent) and lowest among women (13 percent) with little awareness about HIV/AIDS and almost no condom use.
- **Competing Health Priorities:** Afghanistan has one of the worst maternal mortality rates in the world, with an estimated 15,000 Afghan women dying every year from pregnancy-related causes. One in four children dies before its fifth birthday; more than half the deaths are due to acute respiratory tract infections, diarrhea, and vaccine-preventable diseases. Early attention and response to HIV and AIDS risks getting lost amid the focus on these other urgent health issues.
- **Low Status of Women:** Women in Afghanistan experience one of the lowest social positions in the world. Denied access to education and jobs and often not allowed to leave their homes without a male relative, they lack access to information on how to protect themselves.
- **Weak Health System:** Much of the population lacks access to basic health services. There is also an acute shortage of health facilities and trained staff, particularly female staff, in most rural areas. Of the facilities that exist, most are ill-equipped and unable to treat opportunistic infections, or prevent mother-to-child transmission of HIV. Unsafe blood transfusion adds to the risk of HIV spread to the general population, with only 30 percent of transfused blood being tested for HIV. People engaged in high risk behaviors often have limited access to health care.

### **References:**

1. Brief overview of NACP, Afghanistan, reported to STAC on 30th August 2007
2. World bank report on HIV/AIDS , Afghanistan on 4/16/2008
3. HIV/AIDS and STI National Strategic Plan for Afghanistan, 2003-2007



# Bangladesh

Bangladesh is a relatively small coastal country in south central Asia. To the South, Bangladesh has an irregular coastline fronting the Bay of Bengal and shares land borders with India and Myanmar. With a population of more than 140 million, It is one of the most densely populated countries in the world, with the highest densities occurring in and around the capital city of Dhaka. It is also a predominantly rural country, with only about one-quarter of the population living in urban areas. The estimated total population of the country in 2007 was about 142,967,095. (NTP, Bangladesh report, 2008)

*Although Bangladesh is still a low prevalence country for overall HIV rates (less than 1%), there are risk factors that could fuel the spread of HIV among high-risk groups and general population. It is clear that this situation may not continue if the risky behavior that increases vulnerability is not reduced among the high risk group, vulnerable group and also among general population.*

## State of the epidemic on HIV/AIDS

*The first HIV positive case in this country was detected in 1989.*

Within the Southeast Asian region, Bangladesh continues to appear to have one of the lowest HIV prevalence rates, considerably less than one percent. It is, however, generally accepted that in the absence of a comprehensive case reporting system, Bangladesh has more HIV cases than is officially reported. Many risk factors that prevalent in country make it more vulnerable to HIV infection. In addition factors like religious and cultural values, family bondage which helps Bangladesh to remain a low prevalent country for HIV.

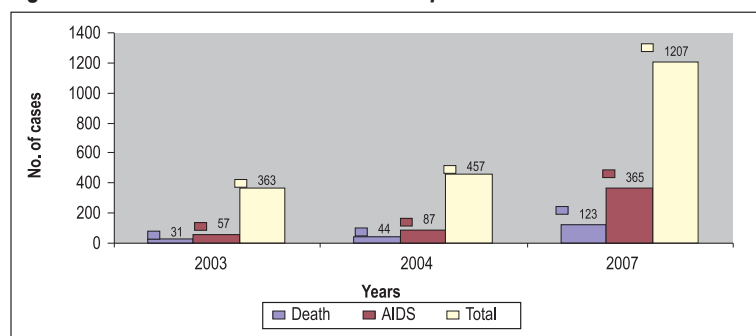
A cumulative total 1207 cases of HIV/AIDS have been confirmed and reported as of 1st December 2007. A total of 365 AIDS cases were detected so far of which 123 have already died. However the estimate of HIV/AIDS remains at 7500 as of 2007.

Among the possible reasons for the low HIV prevalence are: high levels of circumcision among men; until recently, low levels of injecting drug use (IDU); a history of NGO targeted interventions with high risk groups; and relatively low risk behaviors. There is however consensus that risk factors for the spread of HIV are present in Bangladesh: a significant but somewhat hidden sex industry; low levels of condom use; increasing injecting drug use and persistent sharing practices; and rising HIV prevalence levels among IDU.

**Table 13: Status Of HIV /AIDS in Bangladesh, 2007**

People living with HIV	1207
AIDS Cases	365
Death Cases	123
Newly infected	333

**Figure 16: Cumulative HIV/AIDS cases reported**



By the end of 2003, only 363 cases of HIV had been reported but there has been more than a three-fold increase in the four years since, to 1207 by the end of 2007. This indicates both the likelihood of incomplete reporting and the potential for a rapid growth in the epidemic. (Fig-16)

HIV/AIDS: New HIV/AIDS cases in 2007

<b>Identified Cases:</b>	<b>Total</b>
HIV Cases	333
AIDS Cases	125
AIDS Death	14

**Table 14: Sex Distribution of newly infected HIV cases, 2007**

<b>SN</b>	<b>Sex</b>	<b>No. of cases</b>	<b>%</b>
<b>1</b>	<b>Male</b>	<b>223</b>	<b>67</b>
<b>2</b>	<b>Female</b>	<b>106</b>	<b>32</b>
<b>3</b>	<b>TG</b>	<b>4</b>	<b>1</b>
	<b>Total</b>	<b>333</b>	<b>100</b>

Table 14 shows that male occupies higher than female.

**Table 15: Age-Distribution of the HIV/AIDS Positive Cases, 2007**

<b>SN</b>	<b>Age-Group</b>	<b>Number</b>	<b>%</b>
1	0-12	11	3
2	13-25	59	18
3	26-35	127	38
4	36-45	89	27
5	>46	37	11
6	N/A	10	3
	<b>Total</b>	<b>333</b>	<b>100</b>

Table 15 shows that 38% of HIV positive cases lies with the age group of 26-35, which is productive group, followed by age group of 36-45 years.

**Table 16: Marital status of HIV Positive Cases, 2007**

<b>SN</b>	<b>Marital Status</b>	<b>Number</b>	<b>%</b>
1	Married	267	80.2
2	Unmarried	51	15.3
3	TG	4	1.2
4	N/A	11	3.3
	<b>Total</b>	<b>333</b>	<b>100</b>

Among the total HIV positive cases reported, 80.2% were married and 15.2% unmarried. (Table 16)

**Table 17: Educational Status of the HIV positive Cases, 2007**

SN	Educational Level	Number	%
1	Illiterate	73	21.92
2	Primary(1-5yrs)	77	23.12
3	Secondary (6-10yrs)	50	15.01
4	SSC	31	9.31
5	HSC	50	15.01
6	Graduate	5	1.5
7	Master's	5	1.5
8	N/A	42	12.61
	<b>Total</b>	<b>333</b>	<b>99.98</b>

Among the total positive cases reported, maximum (23.1%) have primary education and 21.9% were illiterate. Higher the level of education number of cases found to be decreased. (Table 17)

**Table 18: Probable route of HIV Transmission among the cases, 2007**

SN	Risk Behavior	Number	%
1	IDU	30	9.01
2	Sex	282	84.68
3	MSM	8	2.4
4	Blood recipient	2	0.6
5	PTCT	11	3.3
	<b>Total</b>	<b>333</b>	<b>99.99</b>

Regarding route of transmission, 84.68 % of positive cases got infection through sexual transmission and 9.5 % through intravenous drug using. 3.3% of cases acquired infection through mother to child transmission. Blood transfusion occupies least percentage compared to other route of transmission. (Table 18)

**Table 19: CD4 Status of New positive Cases (n = 333)**

SN	Status	No. of cases	%
1	Done	147	44.14
2	Not Done	93	27.93
3	N/A	93	27.93
	<b>Total</b>	<b>333</b>	<b>100</b>

**Table 20: Result of CD4 Count (n=147)**

SN	CD4 Count	No. of cases	%
1	< 200	101	68.71
2	> 200	46	31.29
	<b>Total</b>	<b>147</b>	<b>100</b>

Among the positive cases (333) 44 % had done CD4 count test and 27.9 % hadn't done this test. Among those who had done test, 68.7% had CD4 count level less than 200 and 31.2 % had more than 200. (Table 19 & 20)

The National HIV Serological Surveillance conducted in 2006 covered a larger geographical area than previous surveys. It showed that the epidemic continues to be confined within certain risk groups, most particularly injecting drug users (IDU). The 2006 survey found that the prevalence of HIV among IDUs in Dhaka City had risen to 7.0 percent, and in one particular neighborhood to 10.5 percent. The 2006 sero-surveillance survey of sex workers and MSM found that overall HIV prevalence in these groups remained below 1 percent.

National HIV programmes have so far focused on targeted interventions for most-at-risk groups, principally prevention activities, but increasingly they are working across the continuum of needs to treatment, care and support.

It is crucial to learn the lessons and the best practices from the rest of the world. The quality and coverage of prevention initiatives aimed at reducing transmission through injecting drug use and commercial sex require strengthening. Given the high risk behavior in the country, HIV doesn't remain only within the drug injecting community, it had entered other risk groups and endanger of invading in general population.

### RISK AND VULNERABILITY

Bangladesh is vulnerable to an expanded HIV/AIDS epidemic due to the prevalence of behavior patterns and risk factors that facilitate the rapid spread of HIV. Risk factors include:

**Large Commercial Sex Industry:** There are over 105,000 male and female sex workers in Bangladesh. Brothel-based female sex workers reportedly see around 18 clients per week, while street-based and hotel-based workers see an average of 17 and 44 clients per week respectively.

**Low Levels of Consistent Condom Use:** 5th round BSS (2003-2004) data indicate that between 24 percent (street based) – 40 percent (brothel based) of sex workers reported using a condom with their most recent (during past one week) clients. The rate of condom use is even lower with regular clients. MSW showed the highest rate of condom use (44 percent), and transgender showed the lowest rate of condom use (15.6 percent).

**Sexually Transmitted Infections:** 7th round sentinel surveillance data show that syphilis rates varied from as low as 0 to as high as 9.9% among IDU in different cities and highest rate was recorded in the combined group of female IDU and heroin smokers. There were no changes in the prevalence rates of HIV and syphilis over the rounds in these groups. This confirms the low level of condom use and the presence of other risky sexual behaviors that facilitate the spread of the HIV infection. Whereas, active syphilis rates declined significantly in street based sex workers and casual female sex workers and among hotel based sex workers, no changes over the rounds.

**Needle-sharing among Injecting Drug Users:** The 7th round sentinel surveillance data show that there is a concentrated epidemic among IDUs in one neighborhood of Dhaka with an HIV prevalence of 7.1 percent. This level of infection among IDUs poses a significant risk as the infection can spread rapidly – and is spreading – within the group, then through their sexual partners and their clients into the general population.

**Lack of Knowledge among General Population:** Data on knowledge and behavior indicates that only 17 percent of the most-at-risk populations have correct knowledge about prevention and misconceptions on HIV/AIDS. Furthermore, a 2005 population-based survey among adolescents and young people (15-24 years) indicated that only one out of three males in

urban and one out of four in rural areas had correct knowledge of HIV and AIDS. Hence knowledge of HIV is low among sex workers and their clients; it is inadequate among the general population.

**High level of stigma associated** with people living with HIV and AIDS.

**References:**

1. Bangladesh's sixth round of sentinel surveillance (2004-2005)
2. National HIV Serological and Behavioral Surveillance, third round report, 2000-2001, Bangladesh
3. Background documents for the dissemination of the fourth round(2002) of national HIV and behavioral surveillance
4. Bangladesh's fifth round of sentinel surveillance (2003-2004)
5. Country Report (Bangladesh ), on HIV/AIDS presented in the work shop for development of SAARC regional strategy on HIV/AIDS in Dhaka, Bangladesh on 4-6 April 2005.
6. Global TB Report – WHO 2008
7. National HIV Serological Surveillance, 7th Round, 2006, Bangladesh
8. 2008 UNGASS COUNTRY PROGRESS REPORT, Bangladesh, JANUARY 2006- DECEMBER 2007
8. World bank Report on HIV/AIDS, Bangladesh (updated 2007-08-15)
9. HIV and AIDS in SAARC Region, an Update of 2007 of SAARC TB and HIV/AIDS Center
10. Briefing paper on HIV/AIDS in Bangladesh and National response, 27/05/08

# Bhutan

Bhutan is a land locked country situated in the Himalayas, it has border with China and India. Bhutan has an area of 38,394 sq.km and the altitude varying from 180m to 7,550 m above sea level. The total population of Bhutan is 6, 42,599 with a population density of 16.36 person/km.

*The Himalayan Kingdom of Bhutan, though isolated geographically, is not impervious to HIV/AIDS. Increasing cross-border migration and international travel, combined with behavioral risk factors of the population, Bhutan could face rapid growth of HIV. As the epidemic is at a very early stage, there is still time for vigorous action to stop its spread.*

## State of the epidemic on HIV/AIDS

The first case of HIV in Bhutan was reported in 1993.

UNAIDS estimates that about 500 people were living with HIV/AIDS at the end of 2007 which would amount to a prevalence of less than 0.1 percent of the population. Though the country is in low prevalence at present, it is under stage of moving towards generalized epidemic as data on reported cases shows that there are increasing numbers of housewives and children are getting infection year-wise.

## Reported HIV Positive cases

As of March 2008, a total of 144 cases have been detected and confirmed. Out of the reported cases 26 have died and 3 children orphaned. (Table 21)

Fig 17 shows reported cases of HIV after its first detection in 1993. The numbers of HIV cases are added in each year except during 1995, 1998 and 1999. Highest numbers of HIV positives reported during 2006-2007. Before that there are fluctuation in reported numbers.

**Figure 17: Trend on Reported Number of HIV/AIDS cases (1993-March 2008)**

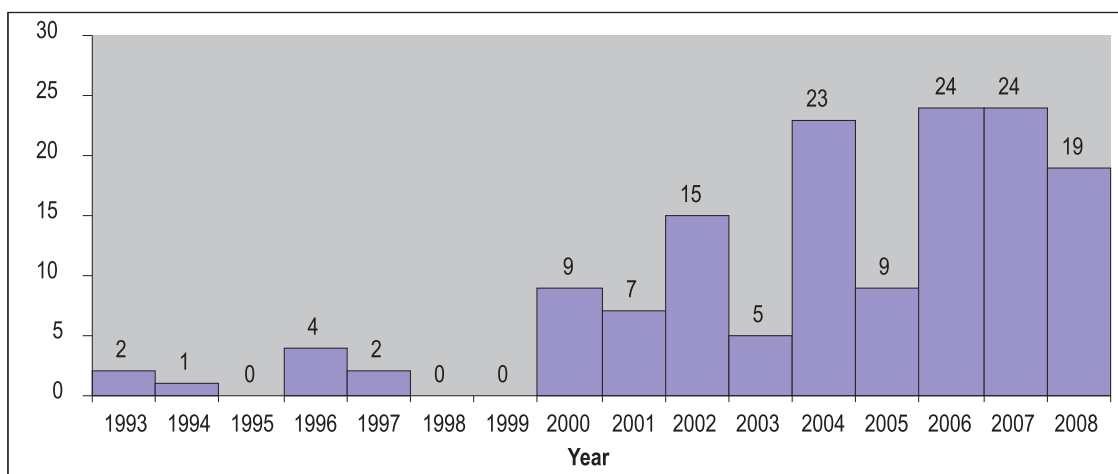
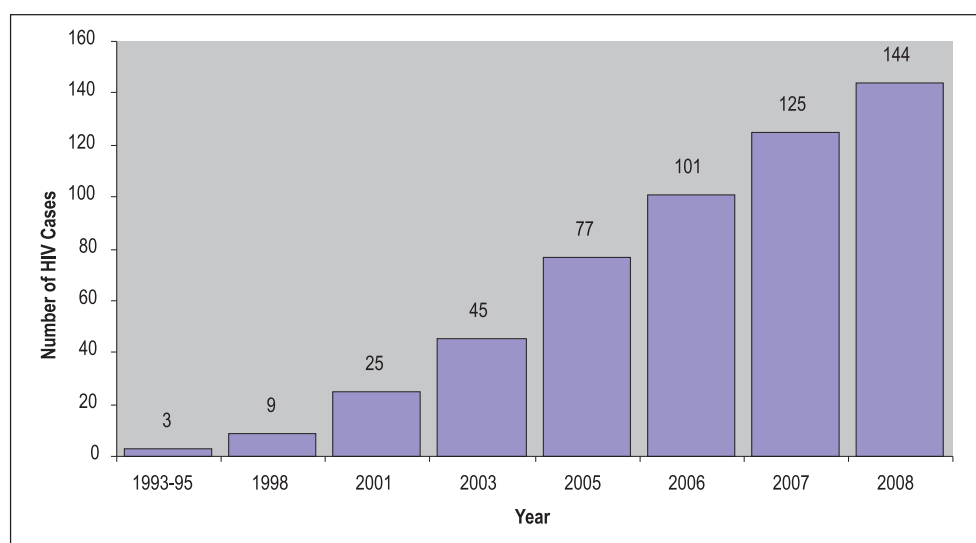


Figure 18 shows there are gradual increasing in cumulative numbers of HIV infection.

**Figure 18: Cumulative Number of Reported HIV Cases, 1993-2008**



**Figure 19: Age and sex distribution of Reported HIV cases in March, 2008**

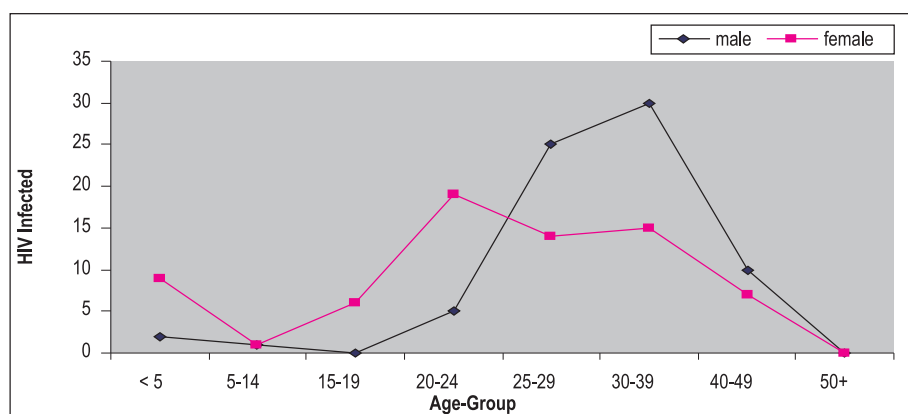


Fig 19 shows that maximum HIV infected persons are in age group from 25 to 39 years, with men slightly outnumbering women after 24 years whereas below 24 years females outnumber men. The average age of infected women is about 23 years which is lower than the average age for infected men, which is 32 years.

**Table 21: HIV positives detected by different methods, 2008**

Detection Methods	Number
Medical Check up	38
Blood Donor	15
Sentinel Surveillance	36
Voluntary Testing	18
Contact Tracing	26
Vertical Transmission	11
<b>Total</b>	<b>144</b>

Table 21 shows that maximum HIV positives were detected through medical check up followed by sentinel surveillance and contact tracing. 11 children are found to be infected through vertical transmission.

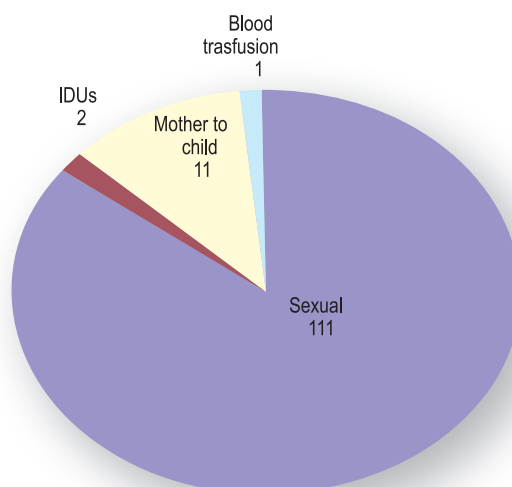
**Figure 20: Cumulative HIV infection by Mode of Transmission, till 2007**

Fig 20 diagram shows that heterosexual route is the primary mode of transmission among reported cases. Interestingly only 2 got infected through intravenous drug using and one through blood transfusion.

There are 11 HIV infected people who are co-infected with TB, among them 4 are females and 7 are males. Till now 5 patients had died because of TB.

People living with HIV in Bhutan come from diverse occupational backgrounds. They are farmers, government servants, and female sex workers, in addition to those returning from other countries. Half the infections are reported from Thimphu, the capital, and Phuentsholing, a bustling commercial town bordering the Indian state of West Bengal.

Fig 20 diagram shows that heterosexual route is the primary mode of transmission among reported cases. Interestingly only 2 got infected through intravenous drug using and one through blood transfusion.

There are 11 HIV infected people who are co-infected with TB, among them 4 are females and 7 are males. Till now 5 patients had died because of TB.

People living with HIV in Bhutan come from diverse occupational backgrounds. They are farmers, government servants, and female sex workers, in addition to those returning from other countries. Half the infections are reported from Thimphu, the capital, and Phuentsholing, a bustling commercial town bordering the Indian state of West Bengal.

## RISK AND VULNERABILITY

Despite Bhutan's low HIV prevalence, a number of factors give rise for concern:

- **Prevalence of Sexually Transmitted Infections (STIs):** The presence of STIs among the population increases the risk of HIV infection. Although the exact magnitude of STIs in the country is not known, gonorrhea, the most common, has an estimated annual incidence of about 2% among the adult population. Syphilis, on the other hand, for which all blood donors and pregnant women are screened, shows a slightly lower rate. Despite this, 72% of a sample of sex workers in Phuentsholing tested positive for syphilis infection.



- **Spread of Commercial Sex Work:** In the border town of Phuentsholing, with commercial sex, remains a high-transmission zone. Sex work is perceived to be spreading to Bhutan's interior districts of Paro, Tongsa, and Mongar. The construction of hydropower plants and the expansion of road networks has led to a growing number of migrant laborers, truckers, and transport workers whose living conditions are often conducive to commercial and casual sex.
- **Risk of Substance Abuse:** Substance abuse is also associated with a higher risk of HIV infection as certain drugs can increase HIV transmission due to their impact on sexual risk-taking behavior. Although there are no studies on substance abuse in Bhutan, alcohol consumption in the country is extensive, and there are indications of the growing use of amphetamines, particularly among young people.
- **Less Rigid Sexual Norms:** Sexual norms for both men and women are perceived to be less stringent in Bhutan than in other South Asian countries. Multiple concurrent relationships and casual sexual encounters are thought to be common among the general population. On the other hand, the Bhutanese Government's open discussion of sexual health issues, unlike in other countries of the region, is a positive factor.
- **High Mobility:** Mobility, especially of unattached men, leads to increased risks for HIV transmission through commercial and casual sex. Four groups of mobile populations are the focus of HIV-prevention efforts. These include international travellers, such as students and businessmen; military personnel; migrant workers from neighboring countries; and mobile professionals, such as truck drivers and traders. However, the extent to which these groups engage in risk behavior and their level of exposure to HIV is unknown and requires further study.
- **Porous Borders:** Although Bhutan is geographically isolated, its growing trade with neighboring China, northeastern India, Nepal, and Bangladesh has rendered its borders increasingly porous. The high levels of mobility across these borders point to an urgent need for the countries to share information and collaborate on HIV/AIDS prevention efforts.

## References

1. Country presentation in SAARC regional workshop among HIV/AIDS control managers in Maldives, 2007 and in Kathmandu, Nepal 2008.
2. Country report on HIV/AIDS provided by National HIV/AIDS Control Programme of Bhutan to STC on 16th July 2007
3. National, Health Bulletin, Bhutan – 2006.
4. World Bank Report on HIV/AIDS, Bhutan (4/16/2008)
5. Global TB Report – WHO 2007
6. HIV and AIDS in SAARC Region, an Update of 2004, 2005 and 2006 of SAARC TB and HIV/AIDS Center

# India

India is one of the largest countries in southern Asia. Geographically it is the seventh largest and second most populous nation in the world. Its estimated total population in 2007 was 1,131,000,000 (RNTCP report, 2007) with over half a billion in the 15-49 year-old age group. India shares land borders with Bangladesh, Bhutan, China, Nepal, and Pakistan. The shift of population from rural to urban areas is slower in India than in most developing countries, but one-fourth of the total population is in urban areas.

*The surveillance data shows that there are multiple and diverse HIV sub-epidemics in the country. Heterosexual route is the predominant mode of transmission, followed by injecting drug use. A significant proportion of new infections are occurring in women who are married and who have been infected by husbands. A major challenge is to strengthen and decentralize the program to the state and district levels to enhance commitment, coverage and effectiveness of program for sex workers and their clients, men who have sex with men and injecting drug users. Based on recent information it could be said that only by controlling the epidemic among the vulnerable groups can the dynamic of the epidemic be broken*

## State of the epidemic on HIV/AIDS

The evidence of HIV was first documented in Chennai in southern India in 1986. From then, by the end of 2006, there were an estimated 2.47 million (2.0-3.1 million) people living with HIV in the country. If an average figure is taken, this comes to 2.5 million people living with HIV and AIDS; almost 50 percent of the previous estimate of 5.2 million.

More men are HIV positive than women. Nationally, the prevalence rate for adult females is 0.29 percent, while for males it is 0.43 percent. This means that for every 100 people living with HIV and AIDS (PLHAs), 61 are men and 39 women. Prevalence is also high in the 15-49 age group (88.7 percent of all infections), indicating that AIDS still threatens the cream of society, those in the prime of their working life.

While adult HIV prevalence among the general population is 0.36 percent, high-risk groups, inevitably, show higher numbers. Among Injecting Drug Users (IDUs), it is as high as 8.71 percent, while it is 5.69 percent and 5.38 percent among Men who have Sex with Men (MSM) and Female Sex Workers (FSWs), respectively.

The 2006 estimates indicate that In the southern high prevalence states, (Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu), the HIV epidemic may have begun to decline as indicated by a consistent decline in HIV prevalence among younger women (aged 15-24 years) attending ANCs.

New areas have seen a rise in HIV prevalence, particularly in the northern and eastern regions. Twenty-six districts have been identified with high prevalence, largely in the states of Madhya Pradesh, Uttar Pradesh, West Bengal, Orissa, Rajasthan and Bihar. Here the dual HIV epidemic driven by unsafe sex and Injecting drug use is highly concerning.

Overall, 118 districts in the country have HIV prevalence >1% in lower-risk populations represented by women attending antenatal clinics (ANCs).

HIV remains uncontrolled among men who have sex with men (MSM). The average HIV seropositivity among MSM in selected sentinel sites in southern and northeastern states has remained at around 10% in the past few years. Overall, HIV prevalence was higher among urban than rural populations. HIV prevalence was highest among women whose spouses were employed in the transport industry.

Recent surveillance data suggests there are signs of a decline in HIV prevalence levels among sex workers in areas where focused prevention efforts have been implemented, particularly in the southern states although overall prevalence levels among this group continues to be high.

These data indicate the need to sustain targeted prevention interventions in the southern and north-eastern states and to intensify the scale-up of similar prevention interventions in the northern states.

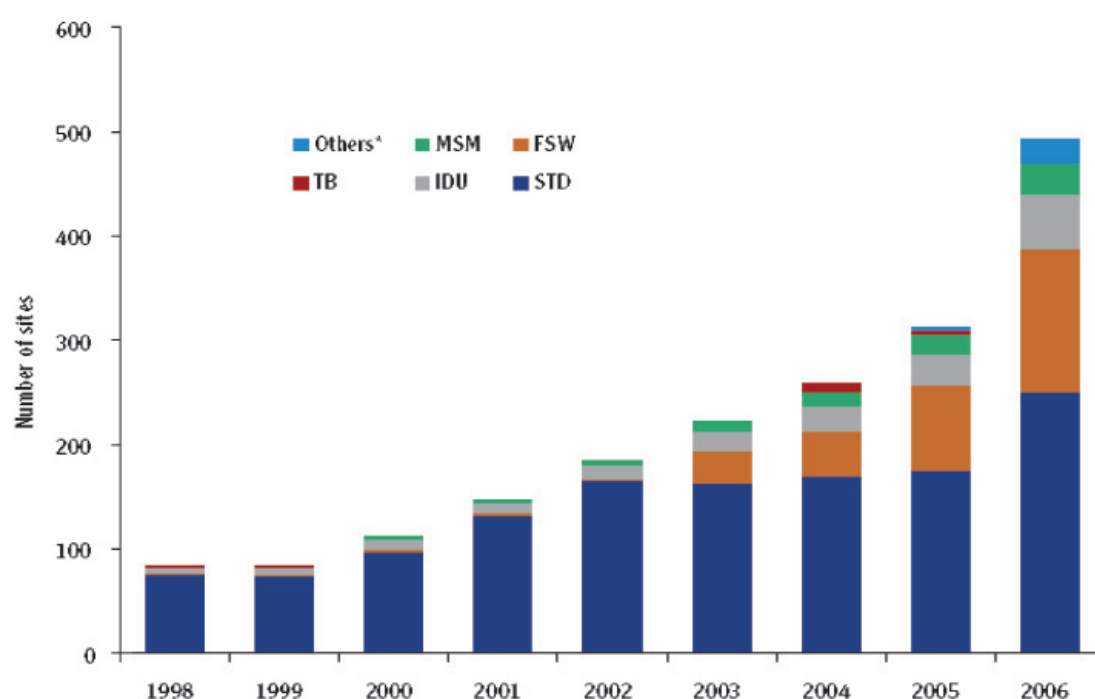
The Indian epidemic continues to be concentrated in populations with high risk behavior characterized by unprotected paid sex, anal sex and injecting drug use with contaminated injecting equipment. Commercial sex is the major driver of the epidemic in most parts of the country. In addition, in the north-eastern states, injecting drug use is a prominent mode of transmission. Recently, high HIV transmission among MSM is being increasingly recognized in the country. In areas with long standing epidemics in high risk groups, HIV has now penetrated the low risk general population.

## HIV Surveillance and its Estimates

Since 1998, data from the HIV surveillance is used to estimate the number of HIV infections in the country, by taking into account certain assumptions. These assumptions were evolved after a series of consultations with national and international experts.

Since 1998, HIV sentinel surveillance has been conducted annually to track the HIV epidemic in the country. Generating high quality HIV surveillance data has been a top priority for the National AIDS Control Programme. Over the years, the numbers of sentinel sites were increased from 180 in 1998 to 703 in 2005. This was expanded greatly for 2006 surveillance round to a total of 1,122 sites, to cover all the districts of the country. (Fig 21)

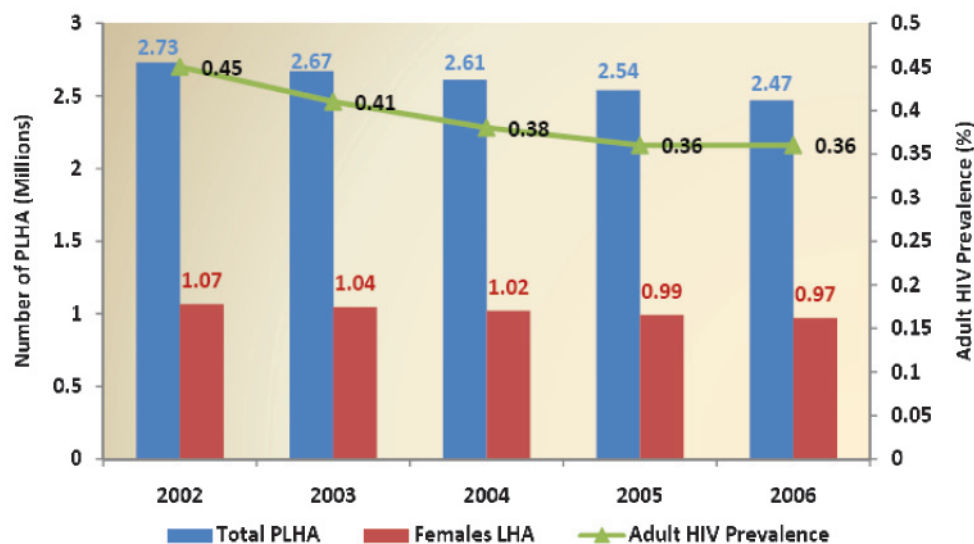
**Figure 21: Number of sentinel sites in populations with high-risk behaviors, India, 1998-2006**



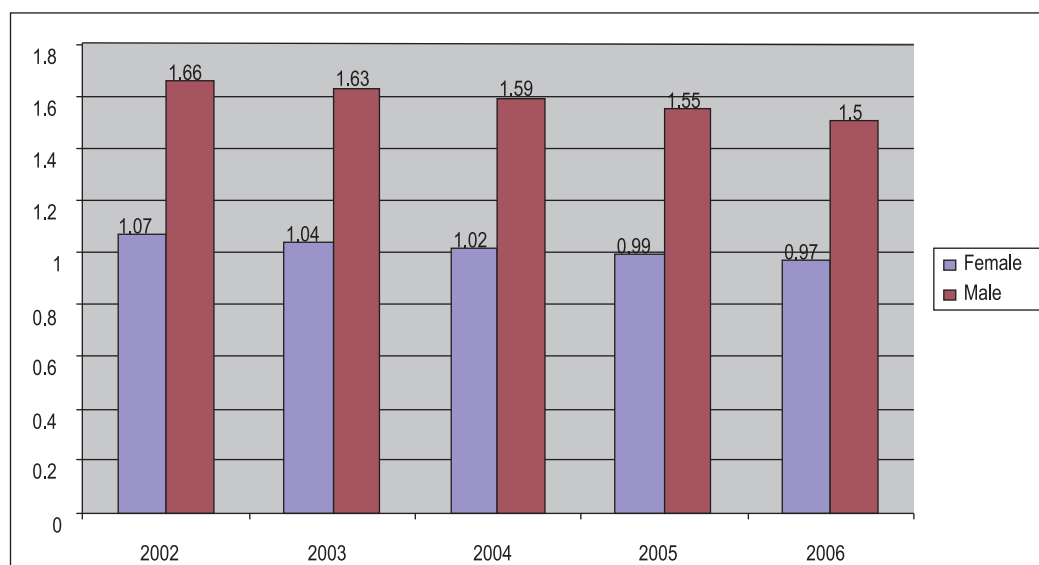
\*Includes seamen (1 site), fisher folk (1 site), eunuchs (2 sites), and truckers (15 sites).

The estimated adult HIV prevalence in the country has declined from 0.45% in 2002 to 0.36% in 2006. The total number of PLHA in the country is also declining from 2.73 million in 2002 to 2.47 million in 2006. The percent of PLHA who are females continues to be around 39%. (Fig 22)

**Figure 22: Trends of Adult HIV prevalence and Number of PLHA, 2002-2006**

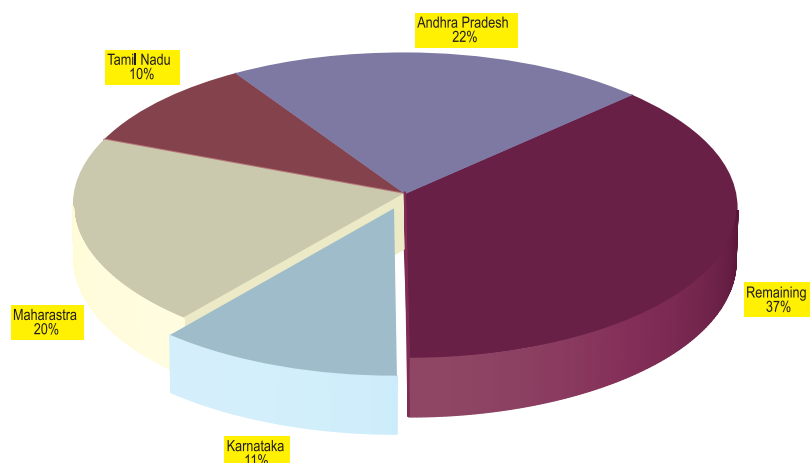
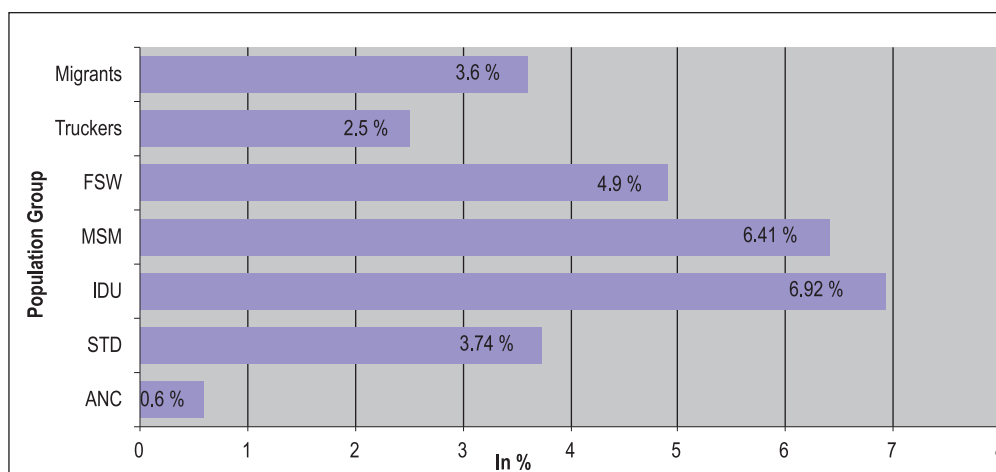


**Figure 23: Sex distribution in HIV estimates (2002-2006)**



The HIV estimates from 2002-2006 depict that there is decreasing trend among women as well as men. (Fig 23)

Fig 24 shows that the number of people living with HIV/AIDS in the country is estimated to be 2.47 million. The highest number of PLHA are in Andhra Pradesh and Maharashtra, with nearly 0.5 million PLHA each. Along with Tamil Nadu and Karnataka the four south Indian states contribute 63% of all PLHA in the country.

**Figure 24: Distribution of PLHA among High Burden States of India: 2006****Fig 25: HIV Prevalence among different Population Groups: 2007**

A total of 3,60,848 samples were tested during HIV Sentinel Surveillance 2007. Fig 25 shows that highest prevalence among MSM and IDUs and lowest prevalence among ANC attendees.

Total AIDS cases reported from January to October 2007 is 17,231. Among these cases age distribution and modes of transmission is shown in Fig 26 and Fig 27 respectively.

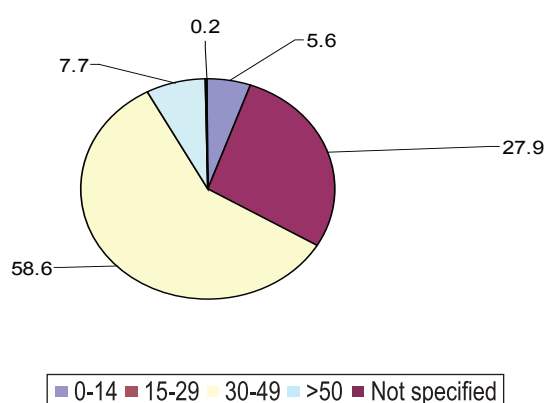
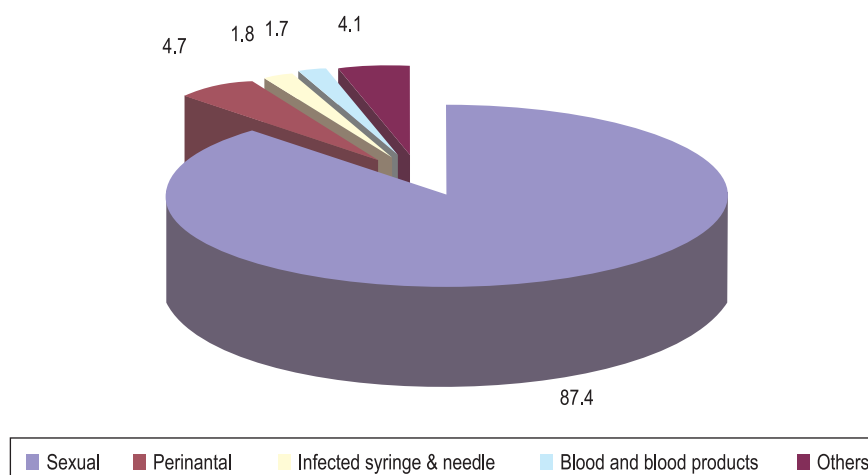
**Figure 26: Age-wise Distribution of Reported AIDS Cases -2007 (%)**

Fig 27 shows that predominate mode of transmission is sexual route followed by perinatal transmission.

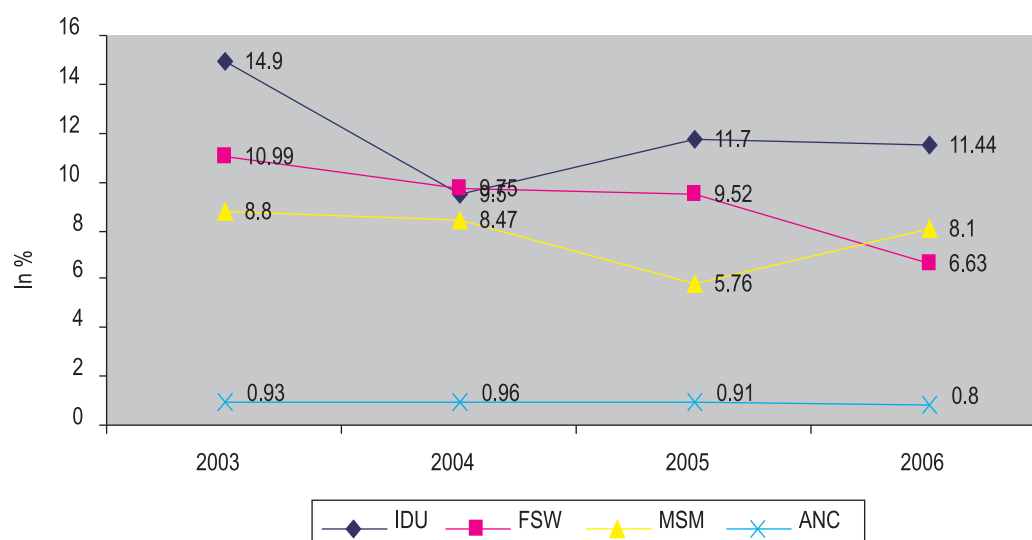
**Figure 27: Modes of Transmission of HIV/AIDS-2007 (%)**



### HIV Prevalence trend in Different High risk groups:

Trends among different high risk population group at National as well as state levels are derived based on the HIV prevalence at consistent sites from 2003 to 2006. At all India level the trends of HIV prevalence among ANC clinic attendees as well as among IDU and FSW show a decline, while among MSM, it is increased in comparison to previous year. (Fig 28)

**Figure 28: Trends in HIV Prevalence among Different High Risk Groups, 2003-2006**



(Based on Consistent sites: ANC-361, IDU-14, MSM-6, FSW-25)

Decline in the HIV prevalence among ANC clinic attendees in most of the high burden states reflect the impact of interventions. (Fig 28)

## Key findings of HIV Sentinel Surveillance, 2006

- HIV prevalence among populations at lower risk, All India**  
 HIV surveillance was carried out among pregnant women attending antenatal clinics in 453 districts. A total of 118 districts had HIV prevalence > 1% among antenatal attendees.
- HIV prevalence among High Risk Groups (HRG) populations All India**  
 Of 326 districts with HRG site, 81 had sero-positivity >5%; in all, 283 districts did not have surveillance among high-risk groups.
- HIV epidemic in northeastern states**  
 HIV prevalence in the northeastern states remains high. Among injecting drug users, HIV prevalence has decreased significantly in Manipur and Nagaland; the decrease is particularly noted in younger IDUs, suggesting a reduction in new infections among IDUs.
- HIV epidemic in southern states**  
 Overall, the HIV epidemic may have begun to decline in the southern states. Andhra Pradesh had the highest HIV prevalence and Tamil Nadu, the lowest. HIV prevalence is decreasing in the 15-24 year old age group, indicating a reduction in the number of new infections. Most notably, HIV prevalence among female sex workers has reduced by about one-third from 2003-2006.
- Newly emerging hotspots**  
 Injecting drug users may fuel new epidemics in urban areas in Delhi, Chandigarh and Punjab in the north as well as in West Bengal and Orissa in the east.
- HIV remains uncontrolled among men who have sex with men (MSM).**  
 The average HIV sero-positivity among MSM in selected sentinel sites in southern and northeastern states has remained at around 10% in the past few years. Moreover, other urban areas across the country recorded high HIV prevalence among MSM, including Delhi, Kolkata, Rajkot, Surat and Vadodara.
- HIV prevalence was highest among women whose spouses were employed in the transport industry.**  
 HIV epidemic in India is a dual epidemic driven by sexual and IDU route of transmission, concentrated in nature with high HIV prevalence among high risk groups and hetero-genous in spread with pockets of infection found in various districts of the country.

## RISK AND VULNERABILITY <sup>2</sup>

Several factors put India in danger of experiencing rapid spread of HIV if effective prevention and control measures are not scaled up throughout the country. These risk factors include:

- Unsafe Sex and Low Condom Use:**

In India, sexual transmission is responsible for 84 percent of reported HIV cases and HIV prevalence is high among sex workers (both male and female) and their clients. In Mumbai and Pune, for example, 54 percent and 49 percent of sex workers, respectively, were found to be HIV-positive (NACO, 2005). A large proportion of women with HIV appear to have acquired the virus from regular partners who were infected during paid sex. HIV prevention efforts targeted at sex workers are being implemented in India. However, the context of sex work is complex and enforcement of laws formed in past often act as a barrier against effective HIV prevention and treatment efforts. Indeed, condom use is limited especially when

commercial encounters take place in 'risky' locations with low police tolerance for this activity. In addition, interventions tend to primarily target brothel-based sex workers, who represent a minority of sex workers. HIV information and awareness among sex workers appears to be low, especially among those working in the streets. Some prevention programs run by sex workers' cooperatives—in Sonagachi, Kolkata, for example—have encouraged safe paid sex practices and have been associated with lower HIV prevalence.

- **Men Who Have Sex with Men (MSM):**

Relatively little is known about the role of sex between men in India's HIV epidemic, but the few studies that have examined this subject have found that a significant proportion of men in India do have sex with other men. In two states where data have been collected, HIV prevalence of 6.8 percent and 9.6 percent were found among MSM in Chennai and Mumbai, respectively (NACO, 2004). More recently, HIV prevalence of 12 percent was found among MSM seeking voluntary counseling and testing services in Mumbai, and 18 percent prevalence was found at 10 clinics in Andhra Pradesh. In some areas, a substantial proportion of MSM also sell sex. Poor knowledge of HIV has been found in groups of MSM. The extent and effectiveness of India's efforts to increase safe sex practices between MSM (and their other sex partners) will play a significant role in determining the scale and development of India's HIV epidemic.

- **Injecting Drug Use (IDU):**

Injecting drug use is the main risk factor for HIV infection in the north-east (especially in the states of Manipur, Mizoram and Nagaland), and features increasingly in the epidemics of major cities elsewhere, including in Chennai, Mumbai and New Delhi (MAP, 2005; NACO, 2005). Using shared injecting drug equipment is the main risk factor for HIV infection in the north-east, and features increasingly in the epidemics of cities in other states. Products injected include legal pharmaceuticals (e.g. buprenorphine, pentazocine and diazepam), in addition to heroin. Current interventions targeting IDU tend to be inconsistent, and too small and infrequent to yield demonstrable results. Harm reduction programs need to be extended and expanded as a matter of urgency in those parts of India with serious drug injecting-related HIV epidemics.

- **Migration and Mobility:**

Migration for work takes people away from the social environment of their families and community. This can lead to an increased likelihood to engage in risky behavior. Concerted efforts are needed to address the vulnerabilities of the large migrant population. Furthermore, a high proportion of female sex workers in India are mobile. The mobility of sex workers is likely a major factor contributing to HIV transmission by connecting high-risk sexual networks.

- **Low Status of Women:**

Infection rates have been on the increase among women and infants in some states as the epidemic spreads through bridging population groups. As in many other countries, unequal power relations and the low status of women, as expressed by limited access to human, financial, and economic assets, weakens the ability of women to protect themselves and negotiate safer sex both within and outside of marriage, thereby increasing their vulnerability.

- **Widespread Stigma and discrimination:**

Stigma towards people living with HIV is widespread. The misconception that AIDS only affects men who have sex with men, sex workers, and injecting drug users strengthens and perpetuates existing discrimination. The most affected groups, often marginalized, have little or no access to legal protection of their basic human rights. Addressing the issue of human rights violations and creating an enabling environment that increases knowledge and encourages behavior change are thus extremely important to the fight against HIV/AIDS.



**References:**

1. Global TB Report – WHO 2008
2. World bank Report on HIV/AIDS, India (updated 2008-02-26)
3. HIV and AIDS in SAARC Region, an Update of 2004, 2005, 2006 and 2007 of SAARC TB and HIV/AIDS Center
4. Annual HIV Sentinel Surveillance Country Report 2006
5. Ministry of Health & Family Welfare. NACO, India. Facts & Figures (HIV Estimates- 2005,2006). Available at: [.http://www.naco.nic.in](http://www.naco.nic.in). Accessed 7/4/2007 and in 15/07/2008
6. Country presentation in Joint WHO/UNICEF/UNAIDS Technical Consultation on scale up of HIV teasing and counseling, 4-6 June,2007
7. HIV/AIDS epidemiological surveillance & Estimation report for the year 2006, November 2007
8. Country presentation “ An overview of national AIDS Control programme in India” in “SAARC Seminar to Collaborate and Support Cross Border Activities in controlling TB and HIV/AIDS” on 25-26 June 2008 in Pakistan, Jointly organized by: SAARC TB & HIV /AIDS Centre (STAC) Kathmandu and National Tuberculosis Control Programme, Islamabad, Pakistan
9. HIV Sentinel Surveillance (HSS) 2007, Available at: [.http://www.naco.nic.in](http://www.naco.nic.in). Accessed in 15/07/2008
10. HIV Situation in India, NACO 2007, An Update

# Maldives

The Maldives is a small independent island nation consisting of a chain of about 1,300 small coral islands and sand banks (roughly 202 of which are inhabited), grouped in clusters, or atolls in the Indian Ocean. Tourism, fisheries, shipping and construction are the major industries. Tourism is a fast growing sector of the economy. Resort islands, and modern hotels in Male attract increasing numbers of tourists during the winter months. Its population was estimated as 298,968 in 2007. (Country Report 2008)

*Maldives took action against HIV/AIDS before the first domestic case was reported in 1987 and, as a result, has so far kept the threat to a minimum. With few resources currently required for treatment, Maldives has the opportunity to focus on better understanding risk factors, such as sexual practices and drug use and accessibility to health services, and translating this knowledge into improved action in the ongoing HIV/AIDS program.*

## State of the epidemic on HIV/AIDS

The estimated prevalence among adult population (15-49) was less than 0.1%. This suggests that Maldives is a low HIV prevalence country with a very small magnitude of HIV epidemic. But despite this low level of HIV epidemic the country is not free of risk or vulnerability factors that may worsen the situation if proper attention is not given.

The important risk factors that can worsen the HIV/AIDS situation in Maldives are:

- High mobility of the Maldivian for search of work-both internal and external
- Mobility of students for higher education in abroad
- High proportion (about 1/3rd) of population below 35 years of age
- High level of tourism and large number of expatriate workers
- Presence of High Risk Behavior such as drug abuse and multiple sex partners with low condom use
- High rate of divorce and marriage also indicates increase number of sex partner exchange
- High prevalence of thalassemia requiring frequent blood transfusions
- Prevalence of STI

## Reported HIV positive cases of Maldives

From 1991 to June 2007, 223 HIV positive cases have been documented in Maldives. Expatriate workers account for most of the documented infections. Among 223, expatriates are 210, 13 are Maldivian (11 male & 2 female). All HIV positive cases detected so far were in the age group of 20-45 years.

## Perspective on HIV/AIDS in Maldives;

- Still remain low HIV prevalent < 1 %
- Presence of High Potential factors to spread
- The first case of HIV/AIDS detected in 1991.
- Since then a total cumulative of 13 HIV positives among local reported as of Nov- 2007.
- Of them 12 have developed AIDS, out of whom 10 have died.

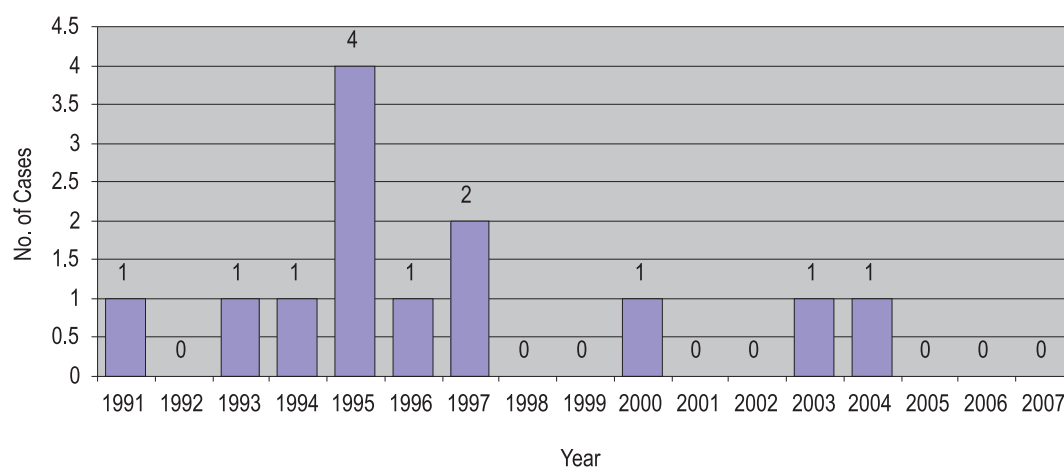
**Figure 29: HIV Positive cases –Yearly distribution:**

Fig 29 shows that since 1991 yearly one patient added except in 1995 and for last three years no HIV positives have been added.

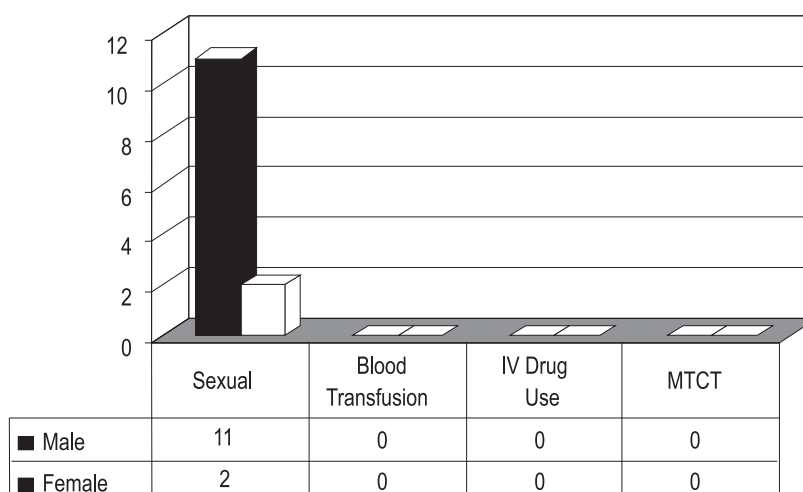
**Figure 30: Routes of HIV Transmission by sex**

Fig 30 shows that sexual transmission is the one route of transmission for HIV infection in Maldives. No other route for transmission has been identified. Through sexual transmission males are found to be infected more than females.

## RISK AND VULNERABILITY

### Mobility:

Many Maldivian citizens go abroad for education and work and are away from their families for long periods of time. More information is needed on the risk behaviors that these citizens may engage in while they are away from the support of their families.

### Sexual Practices:

High rates of divorce and remarriage in the Maldives create exposure to large sexual networks capable of transmitting HIV and other STDs. Since HIV symptoms often do not appear for many years, people who are unaware that they are infected may infect many of their serial spouses and casual sex partners.

### Drug Use:

Drug-related arrests have increased 40 times from 1977 to 1995 in the Maldives, most likely paralleling an increase in drug use. Drug use is a risk factor for HIV/AIDS in Maldives.

### Dispersed Population:

Maldivians inhabit about 200 of the 1,200 islands in the country. This dispersed population creates barriers to educating people on HIV/AIDS, distributing condoms, and treating people for STDs that increase transmission of AIDS. A UN study in 2000 revealed that in the smaller islands 55 percent of the population has no radio, and 86 percent have no television in the home. Many small islands have no bookstore, and access to newspapers is irregular.

### Tourism Employment:

The Maldivians tourist economy employs about 5,000 immigrant workers, mainly from India and Sri Lanka. These workers, far from their support systems, families, and usual sexual partners, are vulnerable to participating in high-risk behaviors such as sex without a condom and sex with commercial sex workers.

### External Tourism:

In 1998, almost 400,000 tourists visited the Maldives, one and a half times the entire population of the Maldives. The great influx of people from all over the world represents a potential route of introduction of HIV and high-risk behaviors such as injecting drug use and unsafe sex.

### References:

1. World bank Report on HIV/AIDS, Maldives (updated 2008-03-15)
2. HIV and AIDS in SAARC Region, an Update of 2004, 2005 and 2006 of SAARC TB and HIV/AIDS Center
3. Country presentation in SAARC regional workshop among HIV/AIDS control managers in Maldives, 2007
4. Country report on HIV/AIDS provided by National HIV/AIDS Control Programme of Maldives to STAC on May 2008
5. Country Report (Maldives), on HIV/AIDS presented in the work shop for development of SAARC regional strategy on HIV/AIDS in Dhaka, Bangladesh on 4-6 April 2005.
6. Country presentation in SAARC regional workshop among TB and HIV/AIDS control managers in Kathmandu, Nepal 2007

# Nepal

Nepal is a landlocked country sharing borders with India and China. It is made up of 75 districts divided into five different development regions (Far-Western, Mid-Western, Western, Central and Eastern). The population of Nepal is 26,284,018 (NTP Report – 06/07). The urban population in Nepal is mostly concentrated in the Kathmandu valley. Nepal has a market economy largely based on agriculture and tourism.

In Nepal, the topography, environmental degradation, poverty and economic migration are linked and they combine with other factors to increase the vulnerability to HIV.

*Maldives took action against HIV/AIDS before the first domestic case was reported in 1987 and, as a result, has so far kept the threat to a minimum. With few resources currently required for treatment, Maldives has the opportunity to focus on better understanding risk factors, such as sexual practices and drug use and accessibility to health services, and translating this knowledge into improved action in the ongoing HIV/AIDS program.*

## State of the epidemic on HIV/AIDS

### The first HIV infection in Nepal was identified in 1988.

During the early 1990s, HIV sero-prevalence surveys detected HIV infections among STI patients and FSW throughout most regions in Nepal. IDUs in Nepal were initially believed to share injection equipment in relatively small and isolated networks. However, since the mid-1990s, an explosive increase in HIV infection (infecting about one-half of all IDUs throughout the country and nearly about two-third in the Kathmandu valley) has occurred.

Nepal's HIV epidemic is largely concentrated in high-risk groups, especially sex workers (SW) and IDUs. Injection drug use appears to be extensive in Nepal and to significantly overlap with commercial sex. Another important factor is the high number of sex workers who migrate or are trafficked for work, thereby increasing HIV prevalence in the sex workers' network in Nepal more rapidly. There are many risk factors that put Nepal in danger of experiencing a widespread epidemic. Some of these include cultural, social and economic constraints to condom use, especially with commercial sex workers, and large number of internal and external migrants within Nepal and neighboring countries.

By 2007, the number of People Living with HIV/AIDS (PLHA) in Nepal was estimated at 70,256 persons.

**Table 22: National Summary information on HIV/AIDS, as of April, 2008: (NCASC, programme)**

Estimated number of adult living with HIV/AIDS	70,256 (2007)
Reported HIV Cases	11234(April-08)
Reported AIDS Cases	1754(April-08)
HIV Prevalence rate in IDUs	32.7%(2005)
HIV Prevalence rate in SW	3.8%(2005)
HIV Prevalence rate in CSW	2.1%(2005)
HIV Prevalence rate in MSM	3.6%(2005)

**Table 23: Estimated no. of HIV Cases by Risk Groups, 2007**

Risk Group	Total	% of Total cases
Population at higher risk		
IDU	6,493	9.2
MSM	2,517	3.6
Sex workers	1,118	1.6
Clients of sex workers	13,595	19.4
Seasonal labour migrant	32,341	46.0
Sub-total		79.8
Population at lower-risk		
Urban female low risk Population	1,886	2.7
Rural female low risk population	12,306	17.5
Sub-total		20.2
Total	70,256	100.0

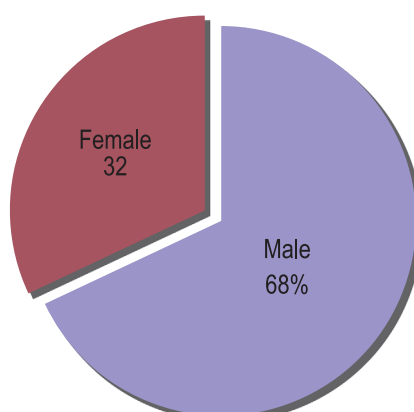
Table 23 shows that 46% of total estimated cases belongs to seasonal labor migrants and 20.2% urban/rural female belonging to low risk population.

### Reported HIV cases, April 2008

As reported to the National Centre for AIDS and STD control (NCASC), Teku, Kathmandu, Nepal and the cumulative number of HIV positive cases including AIDS as of April 2008, was 11234. (Table 24) Among them 68.10% were males and 31.9% were females. (Fig 31) Out of total HIV positive cases, 1754 were full blown AIDS cases. 232 new cases were added with in April 2008.

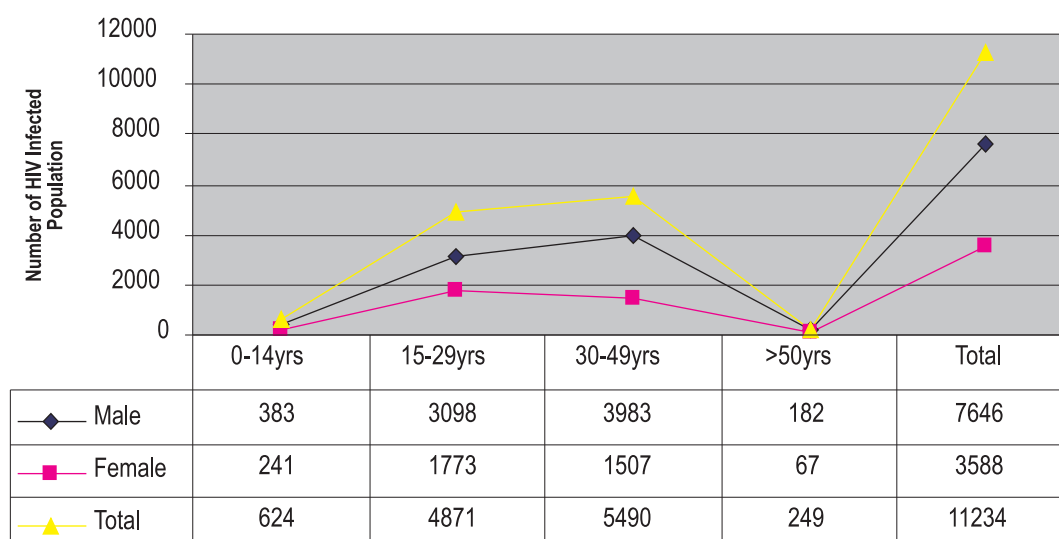
**Table 24: Reported HIV and AIDS cases in Nepal as of April 2008**

Condition	Male	Female	Total	New cases in April 2008
HIV positive including AIDS	7646	3588	11234	232
AIDS out of total HIV+	1259	495	1754	45

**Figure 31: Sex distribution of Reported HIV positive cases in Nepal, as of April 2008**

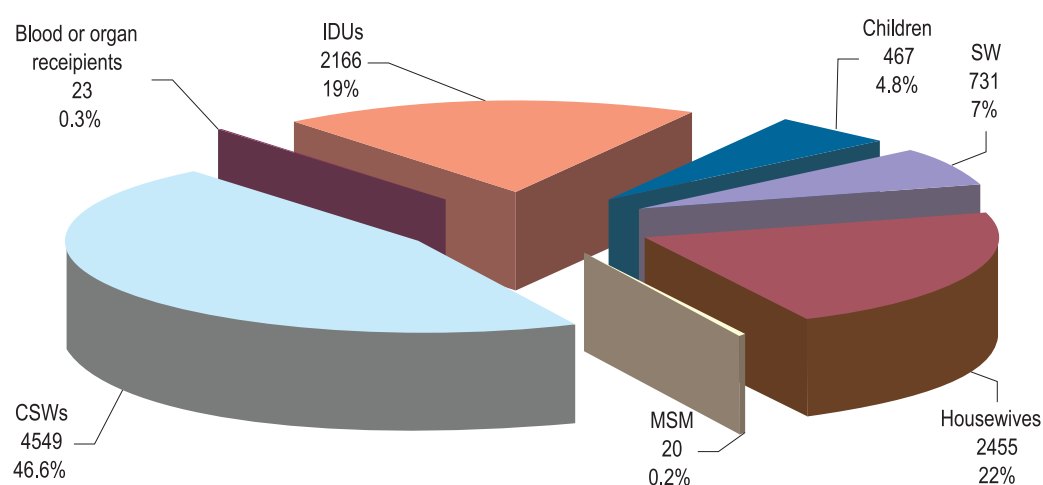
Disease is affecting mainly the people in sexually active age group of 15-49 years. Nearly 92.2 % of the cases are in the age group of 15-49 years (Figure 32). 63 % of men and 34 % of women were 15 to 29 years old, while 73 % of men and 27 % of women were 30 to 49 years old.

**Figure 32: Age and sex distribution of Reported HIV positive cases in Nepal, as of April 2008**



About 46.6% of the reported HIV positive cases belong to clients of sex workers followed by Housewives (22.0%), IDUs (19.0%) and Sex Workers (7.0 %). (Figure 33). This shows that the number of infected housewives is about three times higher than the number of sex workers.

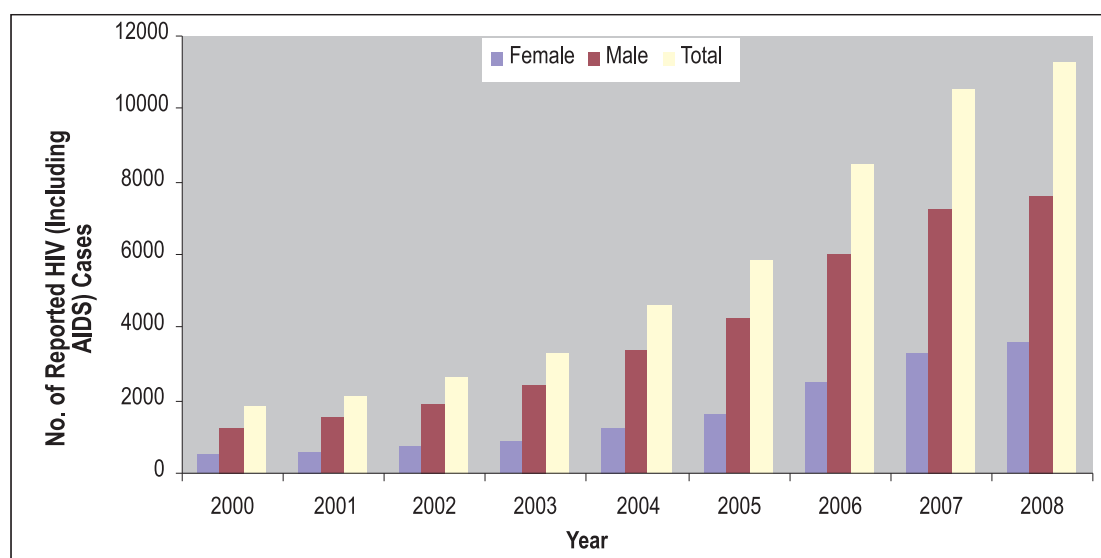
**Figure 33: Cumulative HIV positives among Sub group of population, as of April 2008**



### Epidemiological analysis of reported HIV positive cases reveals that:

- On year wise analysis of data on reported cases of male and female, it reflected that there is gradual increasing trend of infection among females as well as males. (Fig 34). Proportions of males and females among total reported cases were increasing till 2005, after this there is decline among male proportion and slightly increase in female proportion. (Fig 35). Proportions of Housewives infected among total HIV infected cases start increasing from 2003 onwards gradually though female proportion among total start increasing from 2005. Similarly proportion of HIV infected children start increasing from 2004. (Fig 36)

**Figure 34: Year Wise trend of Sex distribution of total Reported HIV positive cases**



**Figure 35: Trend of Proportion of HIV infected Groups among Total Reported Cases**

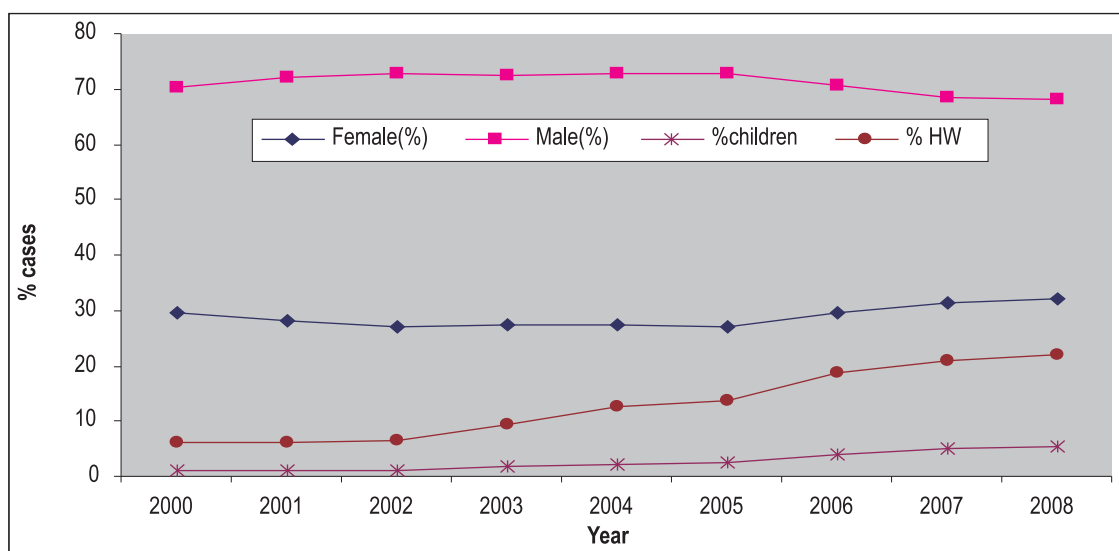
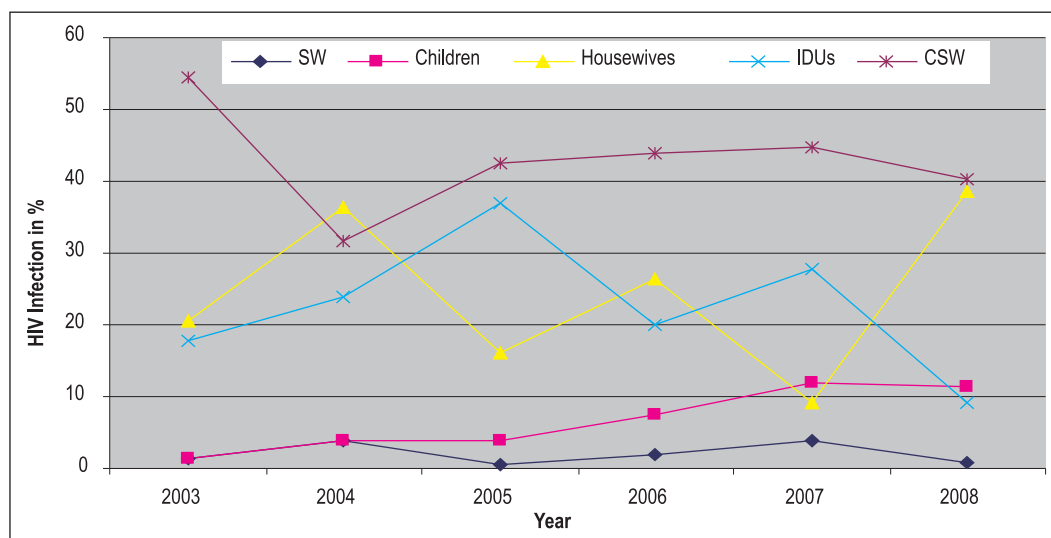


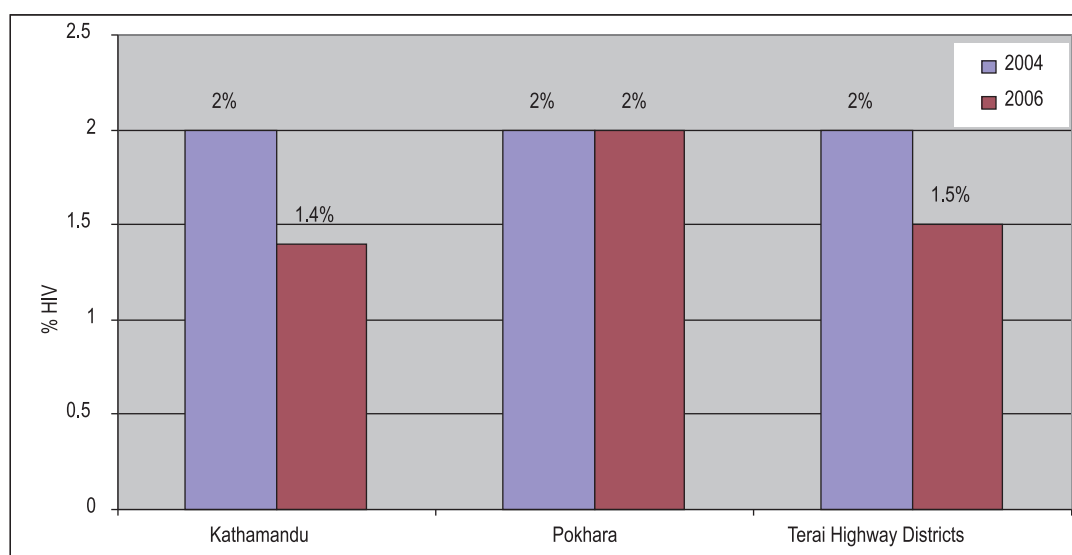
Fig 36 shows that among the reported new cases, proportion of reported cases of CSWs, SW and children start increase from 2005 to 2007 and decrease on 2008. While about housewives, there is fluctuation till 2007 and drastically increased on 2008. This reflects the expansion of condom promotion and harm reduction program or possible changes in access to services for SW and IDUs.



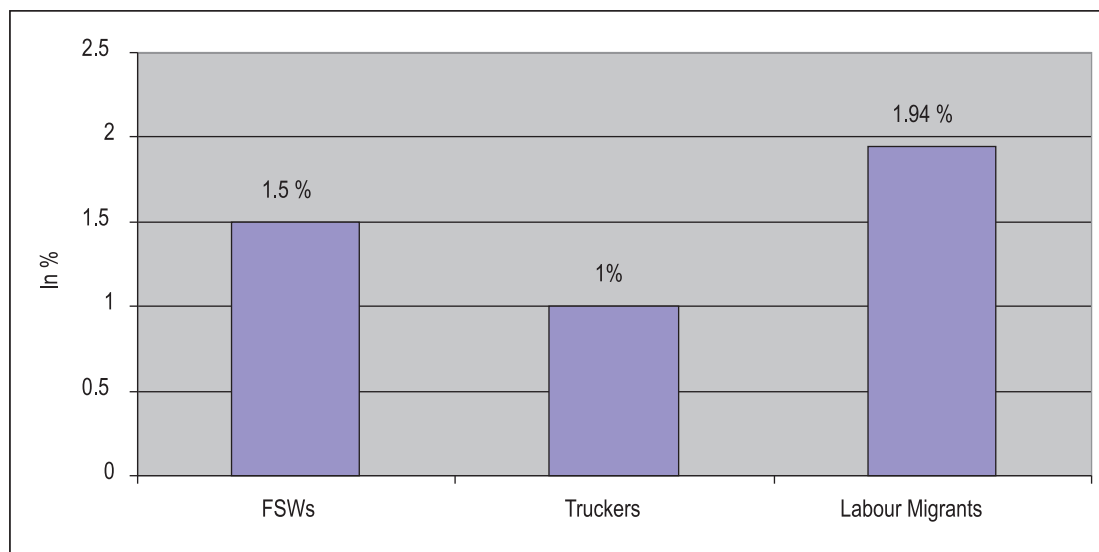
**Figure 36: Percentage of HIV infected Subgroups among Reported New Cases**

### HIV Prevalence trends in Different risk groups

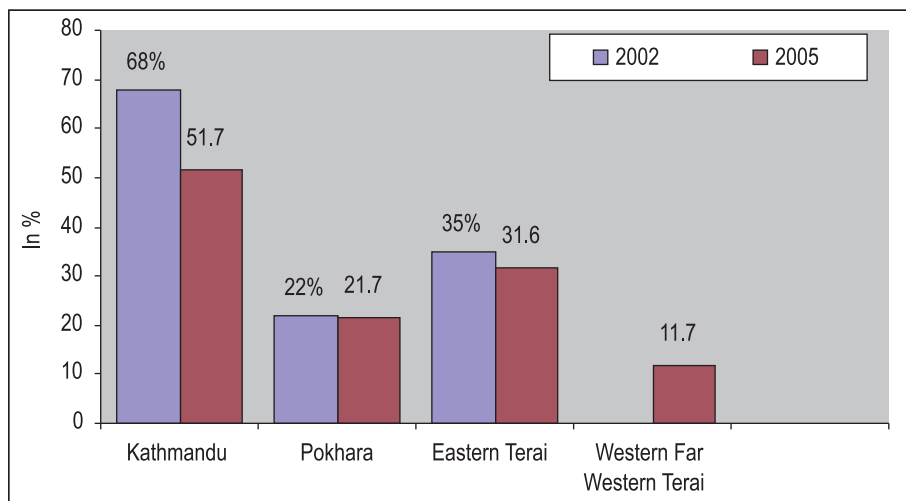
Although the absolute number of HIV infected population has increased over the years, the HIV prevalence has declined among some groups while among others it has increased unabated.

**Figure 37: HIV Prevalence in female Sex workers in Different areas, Nepal (2004 & 2006)**

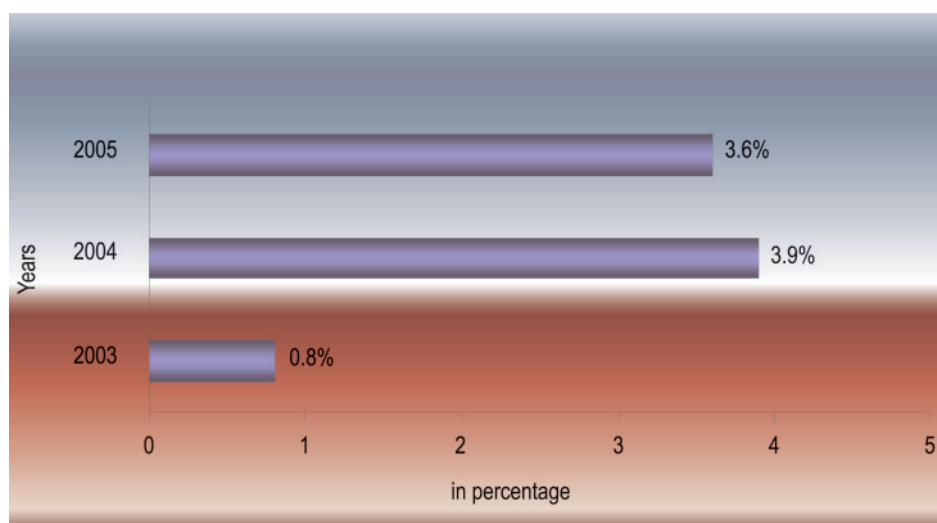
HIV Prevalence among sex workers in Katmandu and Terai highway districts decrease from 2% to around 1.5% in 2006. (Fig 37)

**Figure 38: HIV prevalence in High Risk Groups in Terai Highway districts, 2006**

Terai highway districts are border areas with India. Fig 38 shows that HIV prevalence is more among labour migrants than in other high risk groups in Terai highway districts.

**Figure 39: HIV Prevalence in IDUs (2002-2005)**

HIV prevalence among Intravenous drug users was 68% in Kathmandu in 2002 and declined to 51.7% in 2005. Slightly decrease in Pokhara and Eastern Terai in 2005 compare to 2002. (Fig 39)

**Figure 40: HIV Prevalence among MSM, Kathmandu, Nepal**

The surveys carried out in different years in Kathmandu showed HIV prevalence among Men who have sex with Men was worse over the years. It was 0.8% in 2003 and after that over two years it shoots up to 3.6%. (Fig 40)

Among the subgroups the proportion of children and housewives are in increasing trends, indicating the spread of HIV infection from high-risk groups to general population. The clients of sex workers comprising bigger proportion of the HIV infected people are the major contributors in transmitting the infection from sex workers to house wives (mothers) and then to children. Fortunately, the proportion of IDU, the most badly affected high-risk group in Nepal is showing decreasing trend. These IDUs some of whom visits sex workers and also lead conjugal lives are the substantial transmitter of HIV infection to mother & children.

Since Migrants constitute the bigger proportion of CSWs, there might be increase in HIV prevalence among CWSs. This might be the reason for increasing trend among housewives and children.

Based on this background, It can be seen that Nepal is experiencing transition of HIV epidemic from a high risk behavior groups to low risk behavior population. Current report shows that housewives have acquired HIV three times more than the female sex workers in absolute numbers. It can be seen that the concern need to be raised from all those working in HIV/AIDS.

### Risk and Vulnerability

Nepal's epidemic will continue to grow if immediate and vigorous action is not taken and will be largely driven by injection drug use, sex work and migration. Major risk factors are as follows:

#### Continued Spread among Injecting Drug Users :

In most Asian countries, IDUs are the first community to be affected by HIV. Nepal was the first developing country to establish a Harm Reduction Program with needle exchange for IDUs. However, due to the program's limited coverage, the impact on HIV spread among this group is also limited.

### **Trafficking of Female Sex Workers :**

Due to their highly marginalized status in society, female sex workers in Nepal have limited access to proper information about reproductive health and safe sex practices. Cultural, social, and economic constraints bar them from negotiating condom use with their clients or obtaining legal protection and medical services. Almost 60 percent of their clients, who are mainly transport workers, members of the police or military, wage earners, and migrant workers, do not use condoms.

A major challenge to HIV control in the country is the trafficking of Nepalese girls and women into commercial sex work in India, and their return to Nepal. About 50 percent of Nepal's FSWs previously worked in Mumbai, India, and some 100,000 Nepalese women continue to engage in the practice there.

### **Changing Values among Young People :**

Young people are increasingly vulnerable to HIV due to changing values, group norms, and independence. Girls, even if they have knowledge about HIV/AIDS and other Sexually Transmitted Infections (STIs), do not have the means of protecting themselves due to their traditionally lower social status. Teenagers, although apparently highly aware of the HIV risk (based on behavioral surveys), do not necessarily translate this awareness into safe sex practices. A high prevalence of premarital sex exists, with 20 percent of teenagers considering it acceptable among young people.

### **High Rates of Migration and Mobility :**

Estimates of internal and external migration for seasonal and long-term labor range from 1.5 to 2 million people. It is necessary for the economic survival of many households in both rural and urban areas. Removal from traditional social structures, such as family, has been shown to promote unsafe sexual practices, such as having multiple sexual partners and engaging in commercial sex.

Studies carried out in far western districts neighboring India have revealed that 3 to 10 percent of male migrants are HIV positive. Since HIV prevalence among CSWs is static till 2005 and we can think that major proportion of them will be migrant workers, there is creating of good source of transmitting the infection to low risk population.

### **Low Awareness among Men Who Have Sex with Men (MSM) :**

A recent report suggests that MSM activity in Nepal is not different from the MSM activities of the rest of the South Asia region. The knowledge of safe sex and condom use is low among this community. Furthermore, many men who have sex with men are also married, which puts their spouses at risk of becoming infected with HIV. Survey in Kathmandu in different years showed HIV prevalence in this group is increasing. The Blue Diamond Society is a Non-governmental Organization (NGO) founded in 2001 to address the needs of Nepal's sexual minorities. It provides community-based sexual health, HIV/AIDS, and advocacy services for local networks of sexual minorities. (Source; World Bank report - April 2008 )

### **References:**

1. Country report on HIV/AIDS provided by National Centre for AIDS and STD control to STC on April 2008
2. World Bank Report on HIV/AIDS, Nepal, retrieved from internet on April 2008
3. HIV and AIDS in SAARC Region, an Update of 2004, 2005, 2006 and 2007 of SAARC TB and HIV/AIDS Center
4. HIV Prevalence among Diagnosed TB Patients – A cross Sectional Study in Nepal – 2005 by SAARC TB and HIV/AIDS Centre.

5. STC. 2006. Situation analysis of TB control activities and observation of HIV/AIDS control activities in Nepal, Aug 2006.
6. National HIV/AIDS strategy (2006-2011), Nepal , HMG Nepal, MoHP, National Centre for AIDS & STD Control, October 2007
7. A Rapid Assessment on HIV/AIDS Related Community Coping mechanisms with a Focus on Children and Families Affected by HIV/AIDS in Selected Districts in Nepal April 15 2007

# Pakistan

Pakistan is Asia's seventh largest country occupying the northwestern portion of the Indian subcontinent. It is bounded to the west by Iran, to the north by Afghanistan, to the northeast by China, to the east and southeast by India, and to the south by the Arabian Sea. The estimated population is 164289000 (NTP, Report - 2008).

*While Pakistan does not yet have a high number of reported HIV/AIDS cases, a number of vulnerabilities and pattern of risky behaviors signal the need to accelerate the action in speed. Pakistan's HIV epidemic is concentrated among a few population subgroups and has a low prevalence among the general population.*

## State of the epidemic on HIV/AIDS

The evidence of HIV was first documented in Pakistan in 1986.

As of end 2005, UNAIDS had an estimated 85000 people (adults and children) living with HIV with 0.1% HIV prevalence level that can be considered low.

Pakistan, which is second largest country in South Asia, stands only a few steps behind India and Nepal in terms of HIV epidemic<sup>1</sup>. Despite many efforts the HIV infection rate has increased significantly in last few years and infact, the country has moved from a low prevalent situation to concentrated epidemic with HIV prevalence of more than 5% among two high risk groups, Injecting drugs users (IDUs) and Men who have sex with Men (MSMs).

In 2004, a concentrated outbreak of HIV was found among Injecting Drug Users (IDUs) in Karachi, where over 20 percent (one in four) of those tested were found to be infected. High levels of HIV infection - 7 percent - were also found among men who have sex with men (MSM) in this city in 2005. In addition based on the report recent study conducted among high risk groups in all provinces under National AIDS Control Programme, Pakistan, it can be said that although the estimated HIV burden is still low-around 0.1 percent of the adult population-the country is facing a concentrated epidemic among injecting drug users with HIV prevalence above 5 percent among IDUs in five provinces of six provinces.

Given the linkages between IDUs and other high risk populations including male and female sex workers, Pakistan needs to scale up targeted intervention urgently to prevent rapid increase in HIV among vulnerable groups and also to prevent the spills over to general population. The combination of high levels of risk behavior and limited knowledge about HIV among injecting drug users and sex workers could lead to the rapid spread of HIV.

## Reported HIV cases as of April 2007 with epidemiological analysis :

By December 2007 the cumulative number of total reported HIV/AIDS cases was 4047 among them 455 were AIDS cases. (Table 25)

Fig 41 shows that there is increasing trend in cumulative HIV/AIDS reported cases. Although overall HIV prevalence is low in Pakistan, this increasing trend in reported cases shows awareness on HIV/AIDS among general population is increasing.

**Table 25: Cumulative No. of Reported HIV and AIDS cases, Pakistan, Sept/2000 – 2007**

As of	Total HIV+ cases	AIDS cases out of HIV+ cases
6 Sept. 2000	1 699	Data not available
Dec. 2002	1 998	233
June 2004	2 462	286
Dec. 2004	2 741	310
Sept 2005	3073	332
Dec 2006	3753	372
Dec 2007	4047	455

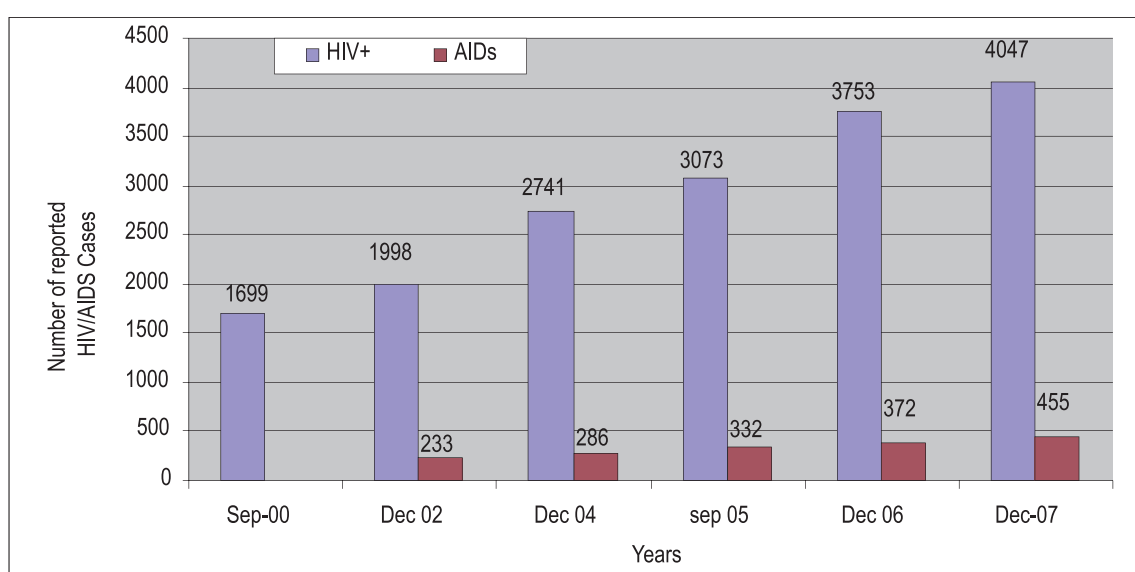
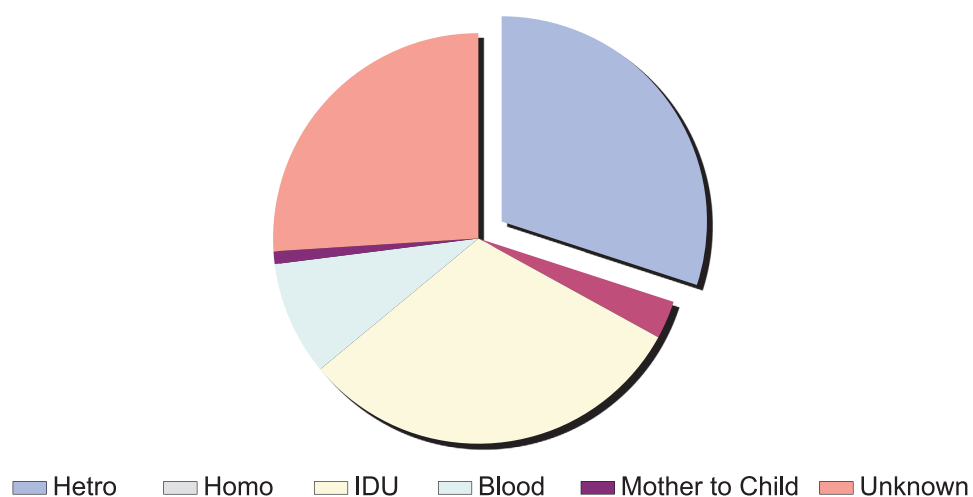
**Figure 41: Cumulative number of Reported HIV/AIDS, 2000-2007**

Fig 38 shows that among total reported cases the predominant mode of transmission is Intravenous Drug users (IDUs) followed by hetero-sexual transmission. Transmission through perinatal is the lowest 1.0% and through homosexual transmission is 3.0%.

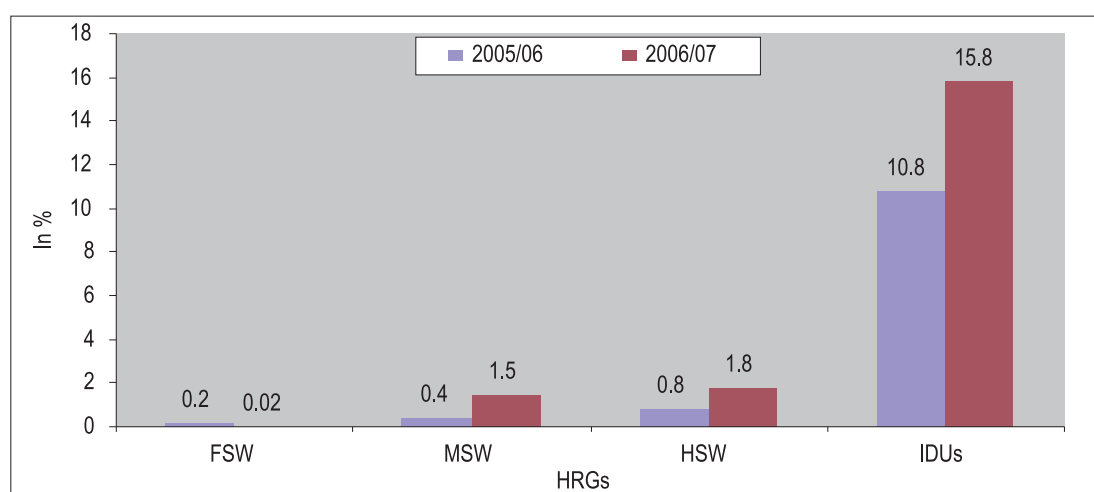
**Figure 42: Reported HIV/AIDS cases by mode of transmission, Pakistan, 2007**

## HIV Infection among High Risk Groups

Survey conducted among high risk groups like Female sex workers (FSW), Hijra's, Male sex workers (MSW) and IDUs in 2005 and in 2006/07 under National AIDS control programme, Pakistan in different cities as HIV first and second generation surveillance in Pakistan respectively.

The overall sero-prevalence of HIV among IDUs was 15.8% in 2006/07 with high variability between cities. This was more than previous round surveillance (2005). HIV prevalence among Hijras ranges from 0.8% to 1.8%, among FSWs ranges from 0.02% to 0.2% and among MSW 0.4% to 1.5%. This shows that the epidemic is expanding in IDU population. MSW and (Hijra Sex workers)HSWs are also getting infected more than FSW. IDUs are the most high risk group followed by HSWs. (Fig 39)

**Figure 43: Prevalence of HIV among High Risk Groups in Pakistan, 2005 & 2006/07**



## RISK FACTORS AND VULNERABILITY

There are serious risk factors that put Pakistan in danger of facing a rapid spread of the epidemic if immediate and vigorous action is not taken:

### Outbreaks Among Injecting Drug Users (IDUs) :

The number of drug dependents in Pakistan is currently estimated to be about 500,000, of whom an estimated 60,000 inject drugs. An outbreak of HIV was discovered among injecting drug users in Larkana, Sindh, where, out of 170 people tested, more than 20 were found HIV positive. In Karachi, a 2004 survey of Sexually Transmitted Infections among high risk groups found that more than one in five IDUs was infected with HIV. These represent the first documented epidemics of HIV in well-defined vulnerable populations in Pakistan.

### HIV Infection Among Men who have Sex with men (MSM) :

Lahore had an estimated 38,000 MSM in 2002. The MSM community is heterogeneous and includes Hijras (biological males who are usually fully castrated), Zenanas (transvestites who usually dress as women) and masseurs. Many sell sex and have multiple sexual partners. The 2004 STI survey found that 4 percent of MSMs in Karachi were infected with HIV, as were 2 percent of the Hijras in the city.



**Unsafe Practices among Commercial Sex Workers (CSW) :**

Commercial sex is prevalent in major cities and on truck routes. Behavioral and mapping studies in three large cities found a CSW population of 100,000 with limited understanding of safe sexual practices. Furthermore, sex workers often lack the power to negotiate safe sex or seek treatment for STIs. Recent findings indicate that although HIV prevalence remains below 1 percent, female sex workers (FSWs) and their clients report low condom use. Less than half the FSWs in Lahore and about a quarter in Karachi had used condoms with their last regular client.

**Inadequate Blood Transfusion Screening and High Level of Professional Donors :**

It is estimated that 40 percent of the 1.5 million annual blood transfusions in Pakistan are not screened for HIV. In 1998, the AIDS Surveillance Center in Karachi conducted a study of professional blood donors—people who are typically very poor, often drug users, who give blood for money. The study found that 20 percent were infected with Hepatitis C, 10 percent with Hepatitis B, and 1 percent with HIV. About 20 percent of the blood transfused comes from professional donors.

**Large Numbers of Migrants and Refugees :**

Large numbers of workers leave their villages to seek work in larger cities, in the armed forces, or on industrial sites. A significant number (around 4 million) are employed overseas. Away from their homes for extended periods of time, they become exposed to unprotected sex and are at risk for HIV/AIDS.

**Unsafe Medical Injection Practices :**

Pakistan has a high rate of medical injections - around 4.5 per capita per year. Studies indicate that 94 percent of injections are administered with used injection equipment. Use of unsterilized needles at medical facilities is also widespread. According to WHO estimates, unsafe injections account for 62 percent of Hepatitis B, 84 percent of Hepatitis C, and 3 percent of new HIV cases.

**Low Levels of Literacy and Education :**

Efforts to increase awareness about HIV among the general population are hampered by low literacy levels and cultural influences. In 2001, the illiteracy rate of Pakistani women over 15 years old was 71 percent.

**Vulnerability Due to Social and Economic Disadvantages :**

Restrictions on women's and girls' mobility limits access to information and preventive and support services. Young people are vulnerable to influence by peers, unemployment frustrations, and the availability of drugs. In addition, some groups of young men are especially vulnerable due to the sexual services they provide, notably in the transport sector. Both men and women from impoverished households may be forced into the sex industry for income.

**References :**

1. World bank Report on HIV/AIDS, Pakistan (updated 2008-02-20)
2. HIV and AIDS in SAARC Region, an Update of 2004, 2005, 2006 and 2007 of SAARC TB and HIV/AIDS Center
3. Country presentation in SAARC regional workshop to develop strategy Mechanism for cross border activities in controlling TB and HIV/AIDS, Sept 2007
4. UNAIDS. AIDS epidemic update: December 2006.

5. Integrated Biological and Behavioral surveillance, A Pilot Study in Karachi & Rawalpindi, 2004-05 National AIDS Control Program, Ministry of Health The National Strategic Framework for HIV treatment, care and Support in Pakistan, 2007
6. Country presentation in Joint WHO/UNICEF/UNAIDS Technical Consultation on scale up of HIV testing and counseling, 4-6 June,2007
8. UNGASS shadow reports 2006, PANOS, Pakistan
9. National AIDS Control Programme report on HIV/AIDS in April 2007
10. HIV second Generation surveillance in Pakistan Round I and Round II

# Sri-Lanka

Sri-Lanka is an island country in the Indian Ocean, separated from the south- eastern coast of peninsular India. Its estimated population is 20,256,909 (NTP, Report - 2008), with about 54% within the 15-49 year old age group. The Sinhalese are the predominant ethnic group, constituting about there quarters of the population. Other ethnic groups include the Tamils and the Muslims.

*The estimated number of people living with HIV/AIDS in Sri Lanka in 2007 is 4000 and country has been classified as a low prevalence country with an estimated adult prevalence rate of less than 0.1%. Heterosexual transmission is the most common mode of transmission followed by homosexual/bisexual transmission.*

## State of the epidemic on HIV/AIDS

The first Sri- Lankan infected with HIV was reported in 1987 and the first indigenously transmitted HIV case was reported in 1989.

The estimated number of People Living with HIV/AIDS in Sri Lanka as of 2007 is 4000.

## Reported HIV/AIDS cases with epidemiological analysis

As of March 2008, the cumulative number of HIV positive cases reported to the National STD/AIDS control Programme (NSACP) was 973; 563 (57.8%) males and 410 (42.2%) females (Table 26). Among them, 268 persons were reported as having AIDS. Reported number of AIDS deaths was 177.

**Table 26: Cumulative No. of reported HIV & AIDS Cases, Sri-Lanka, 2008**

Condition	Male	Female	Total
Cumulative HIV cases	563(57.8%)	410(42.2%)	973
AIDS	182(68%)	86(32%)	268
Death due to AIDS	-	-	177

The yearly reported cases on HIV and AIDS including deaths due to AIDS clearly show an fluctuation trend (Figure 40). Figure 41 indicates a gradual increase in the number of female and male HIV positive cases year wise. Although HIV prevalence among women is lower than men, women are increasingly being infected. The proportion of female among reported HIV/AIDS cases has increased from 40.3% in 2003 to 42.1% in 2008. The increasing trend of female to male ratio shown in fig 42 also supported this issue.

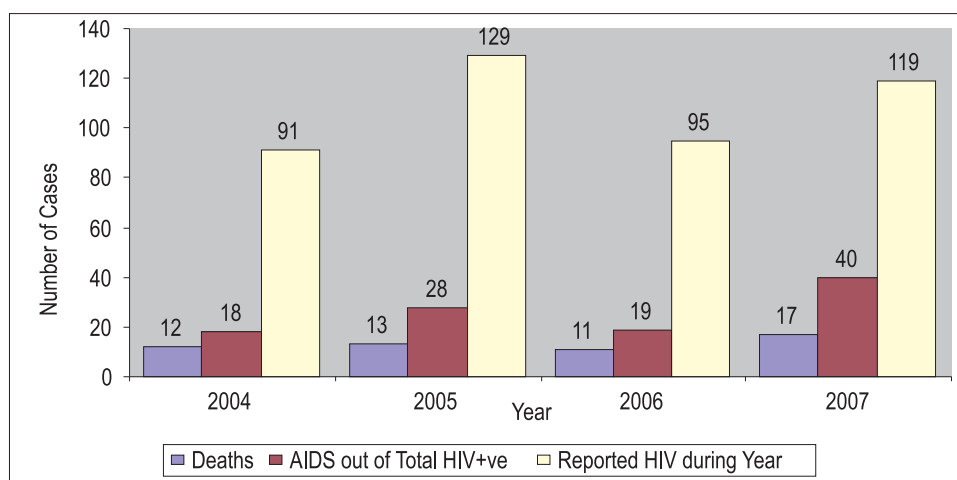
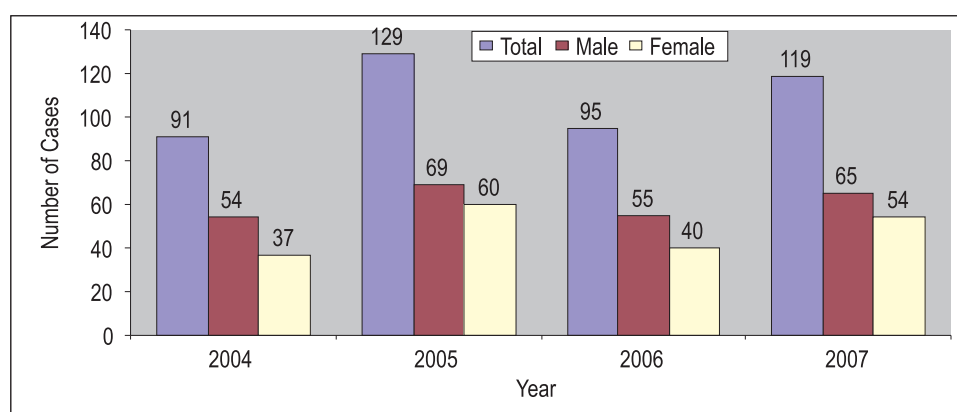
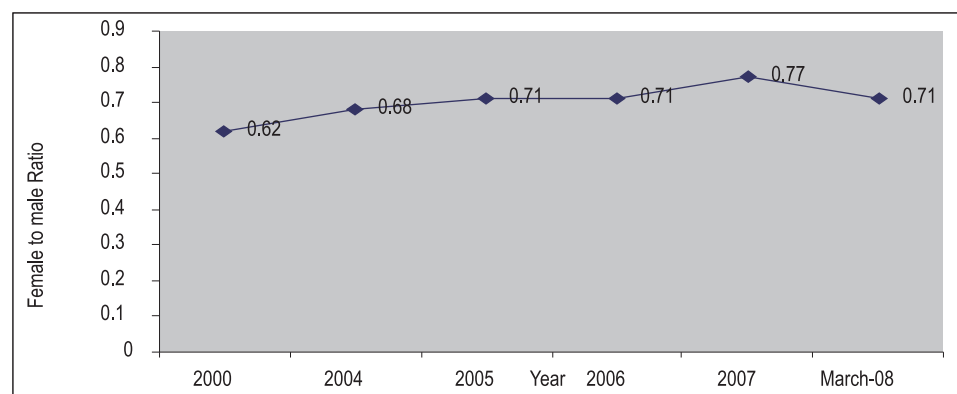
**Figure 44: Year wise Reported HIV, AIDS and AIDS deaths in Sri-Lanka****Figure 45: Trend of Reported HIV Cases by Gender (2004 - 2007) in Sri-Lanka**

Fig 42 shows that year wise there increasing trend in female to male ratio which indicates that the infection among females increasing along with infection among male. The increased number of infection in women will lead to increased mother-to- child transmission of the virus.

**Figure 46: Female to male Ratio among Reported HIV/AIDS cases in Sri-Lanka**

## Trend of HIV infection

Though the reported data may suffer from under-reporting, these data do indicate an increasing trend in HIV infection in Sri Lanka and number of female cases is gradually increasing. Although this country is considered a low HIV prevalence country within the South Asia region, there is no room for complacency. Prevention activities have to be intensified and sustained to prevent further spread of HIV.

### References:

1. World bank Report on HIV/AIDS, Sri Lanka (updated 2008-02-15)
2. HIV and AIDS in SAARC Region, an Update of 2004, 2005, 2006 and 2007 of SAARC TB and HIV/AIDS Center
3. Country presentation in SAARC regional workshop among HIV/AIDS control managers in Maldives, 2007
4. Country report on HIV/AIDS provided by National HIV/AIDS Control Programme of Sri Lanka to STC on April 2008
5. Country presentation in SAARC regional workshop to develop Third SAARC Regional Workshop on TB/HIV Co-infection, Sept 2007
6. UNGASS shadow reports 2006, PANOS, Sri Lanka

# Impact of HIV

In the approximately 25 years since AIDS emerged as a major health emergency, the epidemic has had a serious, and in many places devastating, effect on human development.

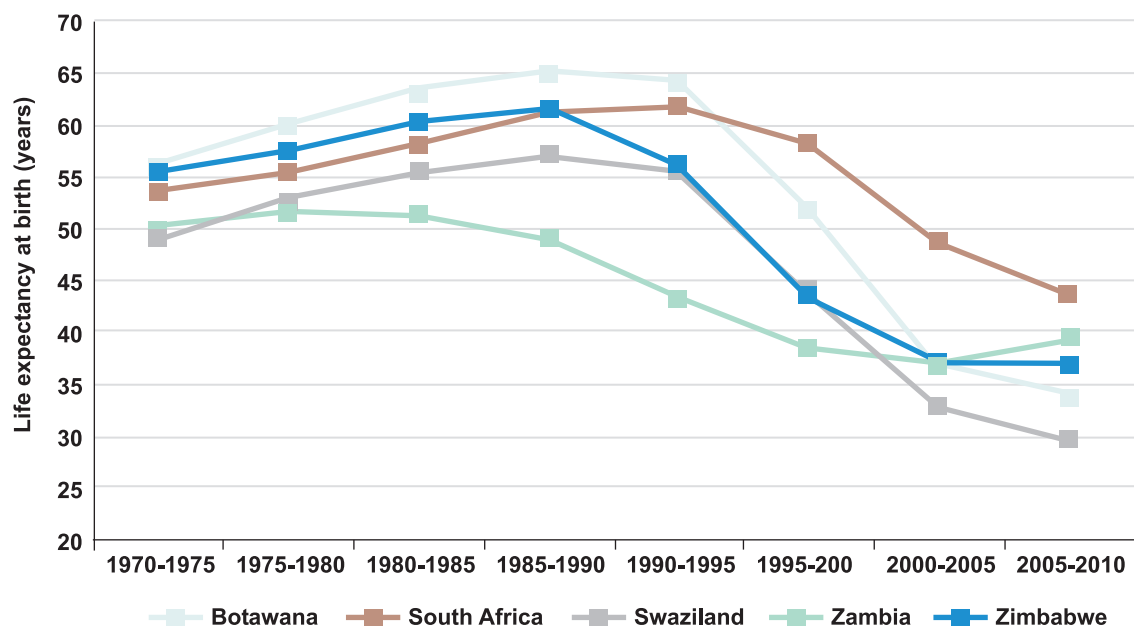
Countries that fail to bring the epidemic under control risk becoming locked in a vicious circle as worsening socioeconomic conditions render people, enterprises and communities even more vulnerable to the epidemic.

The epidemic comes in successive waves, with the first wave being HIV infection, followed several years later by a wave of opportunistic diseases, and later still by a wave of AIDS illness and then death<sup>2</sup>. The final wave affects societies and economies at various levels, from the family and community to the national and international levels. None of the highly affected countries have yet hit the peak of the third wave nor advanced very far into the fourth, and as one study put it <sup>3</sup>. Below a brief depiction of the impacts of HIV is given.

## Impact on Population and population structure

Current projections suggest that by 2015, in the 60 countries most affected by AIDS, the total population will be 115 million less than it would be in the absence of AIDS. Africa will account for nearly three-quarters of this difference in 2050, and although life expectancy for the entire continent will have risen to 65.4 years from the current 49.1 years, it will still be almost 12 to 17 years less than life expectancy in other regions of the world (UN Population Division, 2005b). The modeled impact on life expectancy in some of the hardest-hit countries can be seen in Figure below.

**Figure 47 : Impact of AIDS on life expectancy in the African Countries, 1970-2010**



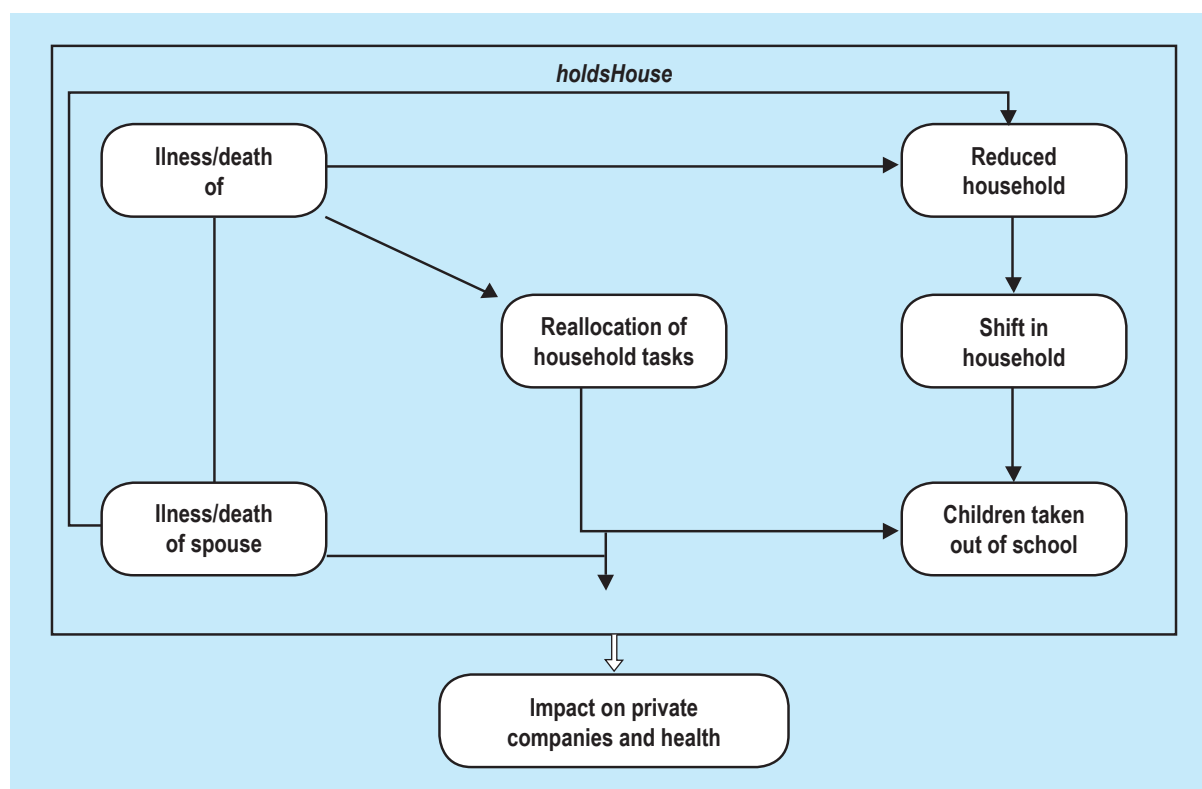
## Impact on household:

### Impact of HIV and AIDS on households can be very severe

- a. Presence of HIV and AIDS will dissolve the household - as parents die children are sent to relatives for care and up-bringing
- b. Loss of family income
  - i. Affected person cannot earn
  - ii. Other persons also have to direct more time and effort away from income generating activities.
  - iii. Care related expense and
  - iv. Funeral related expense collectively push affected household deeper into poverty
- c. Children especially girls are removed from schools as school uniforms and fees become unaffordable and their (children) labor and income-generating potential are required in the household
- d. Savings are used up or assets are sold
- e. Composition of household tends to change with fewer adults of prime working age

Implications of having 'AIDS in the family' have been documented in many parts of the world. They range from increased medical costs and expenditures on funerals to withdrawal of family members from work or school to look after those who are ill. Research in New Delhi, India, found that average monthly expenditures exceeded income among families of people living with HIV, partly because of a doubling in purchases of medicines. While these families spent less on entertainment and on children's education to cope with rising care, support and treatment costs due to HIV, most were also forced to sell assets and borrow from friends and relatives (ILO, 2003).

**Figure 48: Impact of HIV/AIDS on Rural Households in Asia (UNAIDS - Asia)**



### Impact on household food security :

HIV/AIDS poses a potentially major threat to food security and nutrition, mainly

- f. By diminishing the availability of food (due to falling production, and loss of family labour, land, live stock and other assets) and
- g. By reducing access to food as households have less money

### Impact on health sector :

- h. In all affected countries HIV epidemic is bringing additional pressure to bear on the health sector. In countries where per capita health expenditure is low, extending prevention and care for STIs, counseling and testing, prevention of mother-to-child transmission services and HIV treatment and care strain health budgets and systems.
- i. Health – care services face different levels of strain, depending on the number of people who seek services, the nature of the demands for health care, and capacity to deliver that care.
- i. In early stages, HIV infected person (often experiencing common bacterial infections) tend to use primary health care and outpatient services.
- ii. As HIV infection progresses to AIDS, there is an increase in total hospitalizations related to HIV/AIDS.
- iii. Demands for community rooted home-based care. This needs also extra training and manpower.

### Impact on Education sector :

Deduction in school enrolment is one of the most visible effects due to

- j. Removal of children from school to care for parents and family members
- k. Inability to afford school fees and other expenses
- l. Increased child mortality due to AIDS
- m. Decreased birth rate due to AIDS related infertility
- n. Less number of teachers due to death of teachers both male and female due to AIDS
- o. Skilled and experienced teachers are not easily replaced
- p. Death of administrator
- q. Demands on the health and welfare services might divert resources from education to other sectors.

The latest UNESCO report on progress towards the EFA goals set at the World Education

Forum in Dakar in 2000 indicates that, despite steady improvement, current rates of progress in school enrolments need to quadruple in sub-Saharan Africa and double in south Asia to reach the 2015 goal. Currently, only 64% of children in Africa and 83% of children in south and west Asia are enrolled in primary school (UNESCO, 2006).

### Impact on enterprises and workplaces :

HIV epidemic causes declining profit and productivity in the affected enterprises and workplaces.

### Impact on Women :

Women in sub-Saharan Africa are infected with HIV more often and earlier in their lives than men. Young women aged 15–24 are between two and six times as likely to be HIV-positive than men of a similar age. This evens out in older age groups, but it highlights the vulnerability of young women and girls and unequal power relations in many societies.



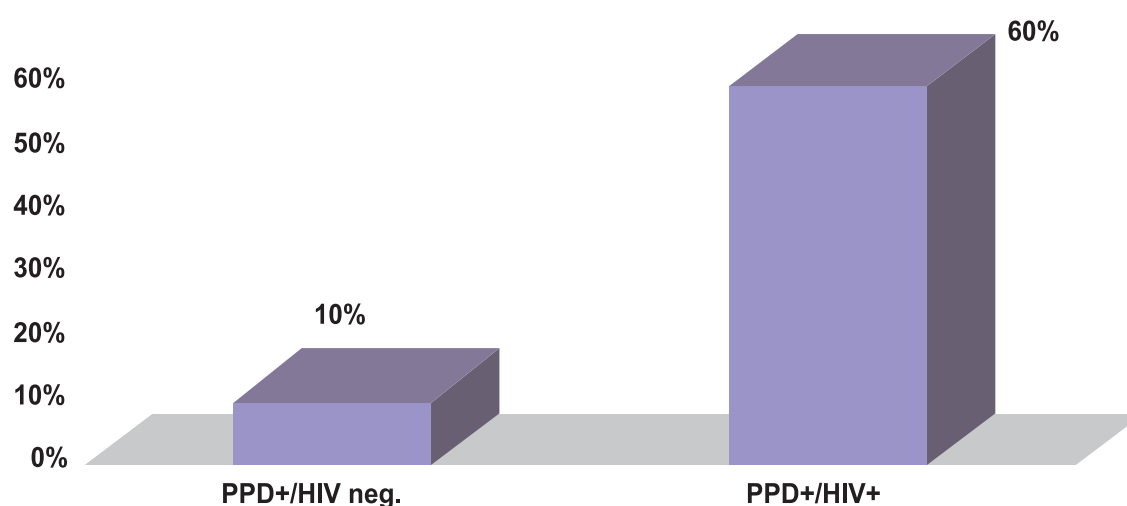
Although in most parts of the world women live longer than men, AIDS has driven female life expectancy below that of men in four countries: Kenya, Malawi, Zambia and Zimbabwe (UN Population Division, 2005b). Empirical evidence supports the existence of gender differences in mortality. For example, a recent three-year study in Zambia, which involved almost 19 000 people between the ages of 15 and 59, found that 61% of all deaths (i.e. for any cause) occurred among women, and that women on average died at younger ages than did men (Chapoto and Jayne, 2005). In addition HIV affects women's fertility, reducing it as much as 25–40%. This may be for a variety of reasons, from co infection with other sexually transmitted infections to increased rates of spontaneous abortion (UN Population Division, 2005a).

### Impact on TB epidemiology and TB control :

HIV drives the TB epidemic in several ways. HIV infection enhances and promotes the progression of both recently acquired and latent TB infection to clinical TB disease. HIV has become the most potent risk factor for reactivation of latent tuberculosis infection to active clinical disease. If HIV status is negative, lifetime risk of developing active TB is 5-10%; but if positive with HIV, then lifetime TB risk may be up to 60% (Figure 45). Consequently the TB control programme has to face the following difficulties:

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

**Figure 49: Life time risk of tuberculosis among HIV positive & HIV negative individuals**



TB/HIV co-epidemic exerts negative impact not only on TB control programme but also on existing AIDS control programme; the impacts (on AIDS control programme) are as follows:

- o Increased case load of active TB among people living with HIV
- o TB may accelerate the progression of HIV-related immuno-suppression.
- o Increased morbidity and mortality from TB among PLHIV
- o Difficulties with diagnosing TB among PLWH owing to the different clinical presentations of HIV related TB
- o Increased burden on HIV services.

The fact is that while each infection delivers debilitating impacts, the personal and societal burden of the TB/HIV co-infection surpasses either disease on its own. However, the impact of this co epidemic can be dealt. For this, both programmes need to be keen to cultivate opportunities for collaboration, and a joint effort employing different but complementary strategies.

**References:**

1. UNAIDS. Report on Global HIV/AIDS epidemic, 2002.
2. TB/HIV Strategic Framework to Decrease the Burden of TB/HIV. Stop TB department, WHO, 2002. Maher D, Floyd K, Raviglione M.
3. Tuberculosis Epidemiology and Control. Ed. JP Narain. . World Health Organization, Regional Office for South –East Asia, New Delhi, India, 2002. Ch. 6.
4. Regional strategic plan on HIV/TB. World Health Organization, Regional Office for South –East Asia, October 2003; p11.
5. STC. 2003. TB/HIV Co-epidemic in the SAARC region.