HIV & AIDS
SAARC Region

UPDATE - 2009

SAARC Tuberculosis & HIV/AIDS Centre (STAC)
Nepal

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SAARC Tuberculosis & HIV/AIDS Centre (STAC)
(Thimi, Bhaktapur),
P. O. Box No. 9517, Kathmandu, Nepal.
Tel: 6631048, 6632477, 6632601 Fax: 00977-1-6634379
E-mail: saarctb@mos.com.np Website: www.saarctb.com.np

Foreword

HIV epidemic is the single major reversal in human development in modern history. In most heavily affected countries, HIV has drastically reduced life expectancy even by more than 20 years. The estimated number of persons living with HIV in the world in 2007 was 33 million (30 million –36million). The highest burden was in Sub Saharan Africa (67%) followed by South and South East Asia.

The global HIV epidemic has emerged as a formidable challenge to public health and development of the SAARC Region too. SAARC Region has an estimated 2.49 million People Living with HIV/AIDS (PLHA) and India alone bears an estimated 2.31 million of that. HIV epidemic in the SAARC Region is a collection of different epidemics in Member States with their own characteristics and dynamics. The diversity existing in the region needs to be fully addressed and defined, in order to achieve the success in prevention and control activities.

The SAARC TB and HIV/AIDS Centre (STAC) in Kathmandu, Nepal has been coordinating the national efforts of Member States in combating HIV/AIDS epidemic. Along with the other regular activities, STAC brings out reports and publications regularly in order to disseminate information related to TB and HIV/AIDS.

HIV & AIDS, SAARC Region Update 2009 incorporates updated information on HIV/AIDS. This is the seventh annual report on HIV/AIDS situation in the SAARC Region. It includes general information on HIV/AIDS and describes global, regional and SAARC Member States' HIV/AIDS situation in 2007 -2008. I hope the information given in this report will help the SAARC Member States and the stakeholders who are engaged in the field of HIV/AIDS prevention and control in the region.

STAC is grateful to SAARC Member States for their cooperation and support extended in providing relevant information timely to compile this report in time. STAC acknowledges with thanks the assistance provided by the professionals and general services staff of the centre for preparation for this report.

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

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Anti Retroviral Therapy
BCC	Behavior Change Communication
BSS	Behavioral Surveillance Surveys
CPT	Cotrimoxazole Prophylaxis Therapy
CSW	Commercial Sex Worker
CVM	Condom Vending Machines
DNA	Deoxyribonucleic Acid
DOTS	Directly Observed treatment Short course
ICRC	International committee of red cross
FSW	Female Sex Worker
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
ICTC	Integrated Counseling Treatment center
IDU	Injecting Drug User
M/F	Male/Female
MSM	Men having Sex with Men
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
PLHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
RNTCP	Revised National Tuberculosis Control Programme

SAARC	South Asian Association for Regional Cooperation
STAC	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

Chapter 01

Introduction

The South Asian Association for Regional Cooperation (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 also to create an order based on mutual respect, equity and shared benefits. SAARC comprises of eight countries in South Asia namely Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri-Lanka.

SAARC Tuberculosis and HIV/AIDS Centre (STAC) is one of the Regional Centres of SAARC, located in Kathmandu, Nepal. The Heads of Member States of SAARC, at their Fifth Summit held in Male from 22nd to 23rd 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, which was to work for the prevention and control of TB in the Region, has been extended to include the prevention & control of both 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 November 2005, STAC has been geared for prevention and control of TB and HIV/AIDS in the Region by coordinating the efforts of the National Tuberculosis Control Programms (NTPs) and National AIDS Control Programms (NACPs) of Member States.

The global HIV epidemic has emerged as a formidable challenge to public health, development and human rights. South –East Asia with an estimated 3.6 million People Living with HIV/AIDS (PLHA) has the second highest burden of HIV in the world. India, a Member State of the SAARC Region alone bears an estimated 2.31 million PLHA. HIV epidemic in the SAARC Region is a collection of different epidemics in Member States with their own characteristics and dynamics. The diversity existing in the region needs to be fully addressed and defined, in order to achieve the success in prevention and control activities. The first HIV infected person in the SAARC Region was detected in India in 1986. Since then, the HIV epidemic has posed a considerable and variable impact on the Member States in the region. All the Member States in the SAARC Region have a low-level epidemic, however, vulnerability and prevailing risk factors with high rates of other Sexually Transmitted Infections create a conducive environment for spreading the virus. Despite of these diversities, the region also has extremely diverse capabilities in developing successful and sustainable joint public health interventions to contain HIV/AIDS epidemic in SAARC Region.

In order to contain the HIV/AIDS epidemic in the region, STAC has planned and executed series of important activities. One of them is collection, compilation and dissemination of the latest information in the field of HIV/AIDS in the region and elsewhere. In this connection, the Centre has been preparing and publishing Annual SAARC Regional Epidemiological Reports on HIV/AIDS & TB since 2003. This report is the **Sixth Annual Update on HIV/AIDS Situation in the SAARC Region**.

Sixth Annual Update on HIV & AIDS Situation in the SAARC Region presents an overview of the HIV pandemic and a more detailed description of its epidemiology within the SAARC region. The progress in HIV/AIDS prevention and control efforts in the region, impact of HIV/AIDS and the contribution of STAC towards the prevention and control of HIV/AIDS in the region were also included.

Chapter 02

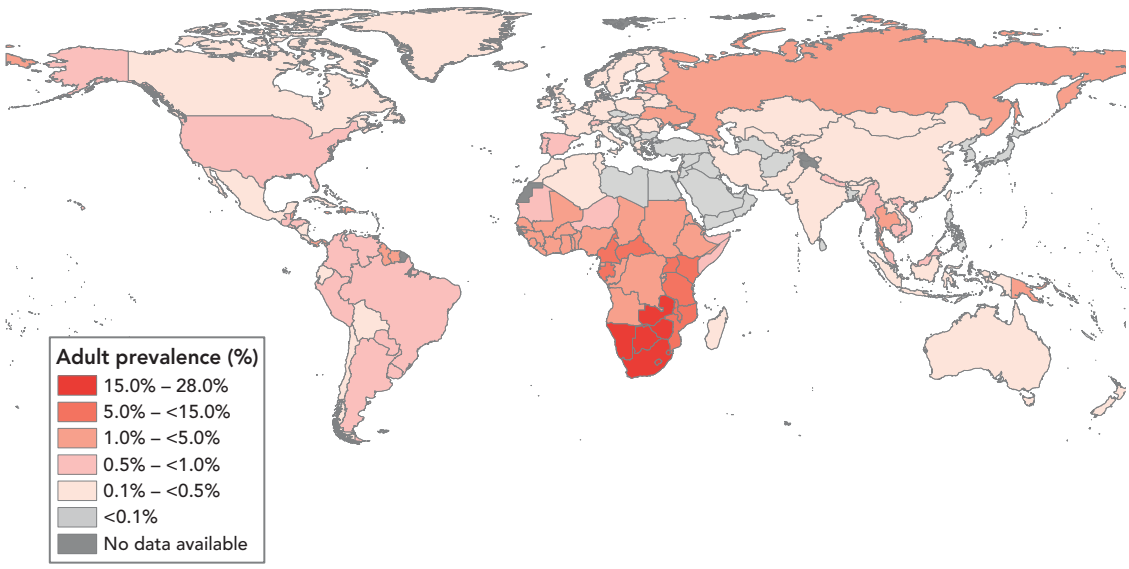
Global and Regional Situation of HIV and AIDS

2.1 Global Situation of HIV Epidemic

HIV epidemic is the single greatest reversal in human development in modern history. In most heavily affected countries, HIV has drastically reduced life expectancy even by more than 20 years. The recent stabilization of the global epidemic can not obscure its most important aspect, the profound human toll. Since the beginning of the epidemic 25 million people have lost their lives due to HIV related causes. These deaths mean an incalculable loss of human potential and each individual death is associated with enduring trauma for the community, particularly for the loved ones in the individual households.

The estimated number of persons living with HIV in the world in 2008 was 33.4 million (31.1 million – 35.8 million). The highest burden was in Sub Saharan Africa (67%) followed by South and South East Asia. More than 95% of these were in low and middle income countries. An estimated number of 2.7 million (2.4 million – 3.0 million) uninfected persons became infected with the virus during the year 2008. Of which, over two third (68%) occurred in Sub-Saharan Africa. Figure 01 illustrates the prevalence among adults and children in the world in 2007.

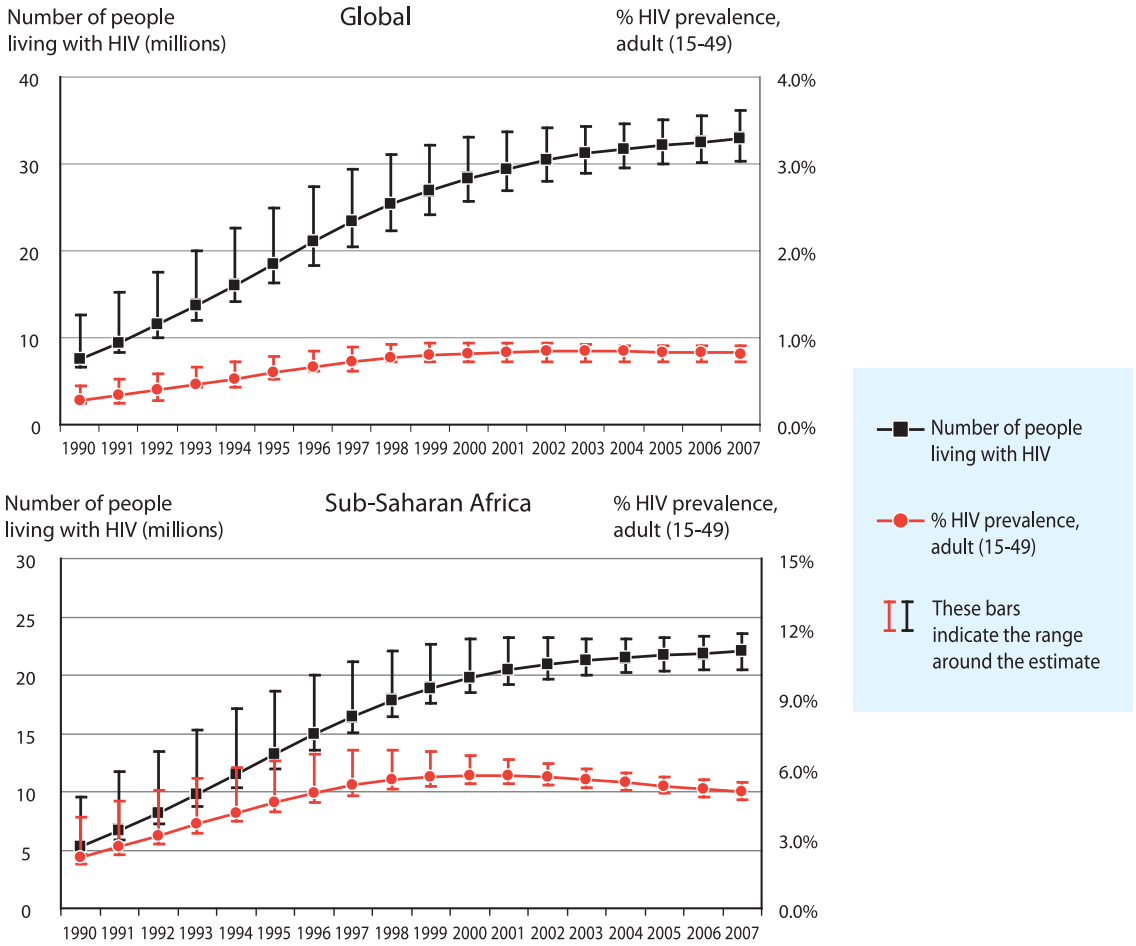
Figure 01: Prevalence of HIV among Adults and children in the World in 2007



(Source: Global HIV Report 2008, UNAIDS)

An estimated 15.7 million (14.2 million –17.2 million) women were living with HIV in 2008 and the figure was 1.9 million more than that of 2001 (13.8 million). Globally, the number of children living with HIV increased from 1.5 million (1.3–1.9 million) in 2001 to 2.1 million (1.2 million –2.9 million) in 2008. However, the estimated new infections among children declined from 460 000 (420 000–510 000) in 2001 to 430,000 (240,000–610,000) in 2008.

Figure 02: Global HIV Epidemic & HIV Epidemic of Sub-Saharan Africa 1990 -2007

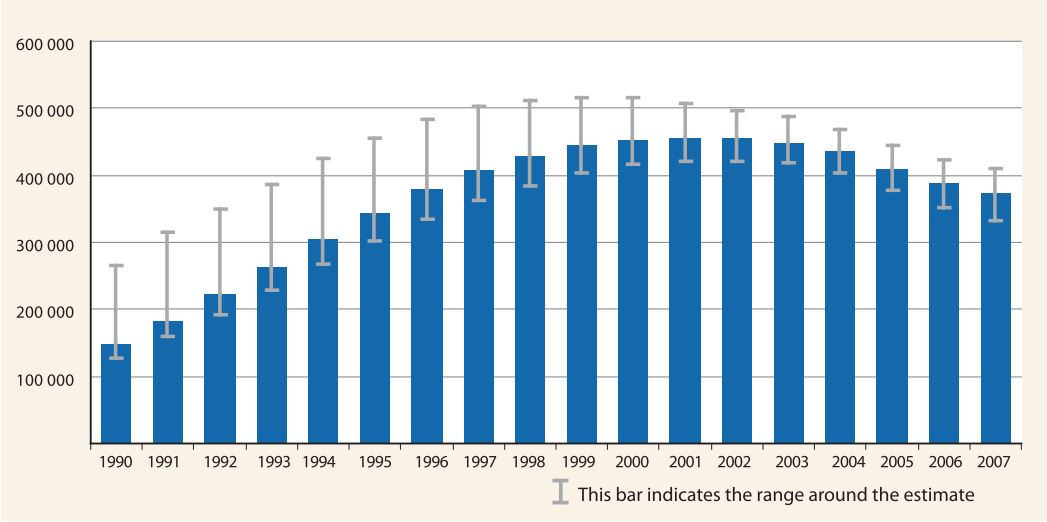


Note: Even though the HIV prevalence stabilized in sub-Saharan Africa, the actual number of people infected continues to grow because of ongoing new infections and increasing access to antiretroviral therapy.

(Source: Global HIV Report 2008, UNAIDS)

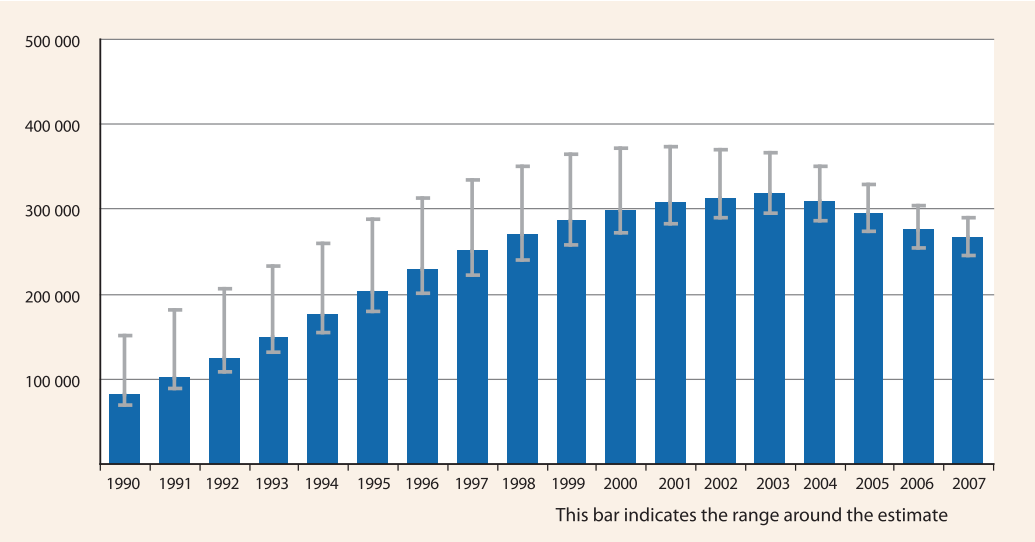
An estimated figure of 2 million (1.7 million – 2.4 million) people living with HIV/AIDS died of HIV related causes during the year 2008. Of which, 72% occurred in sub-Saharan Africa. The estimated number of deaths among HIV infected under 15 children were 280,000 (150,000 – 410,000).

Figure 03: New HIV Infections among Children 1990 -2007



(Source: Global HIV Report 2008, UNAIDS)

Figure 04: HIV/AIDS Related Deaths among Children 1990 -2007



(Source: Global HIV Report 2008, UNAIDS)

The AIDS epidemic has orphaned several millions of children under the 18 years of age particularly in the Sub-Saharan Africa (12 million) with potentially perilous consequences for the transfer of knowledge and values from one generation to the next.

Key Findings of Global AIDS Update 2008

- The global percentage of adults living with HIV has leveled off since 2000.
- In 2008, there were 2.7 million new HIV infections and 2 million HIV-related deaths.
- The rate of new HIV infections has fallen in several countries, but globally these favourable trends are at least partially offset by increases in new infections in other countries.
- In 14 of 17 African countries with adequate survey data, the percentage of young pregnant women (ages 15–24) who are living with HIV has declined since 2000-2001. In 7 countries, the drop in infections has remained same or exceeded the 25% target decline for 2010.
- As treatment access has increased over the last ten years the annual number of AIDS deaths has fallen.
- Sub-Saharan Africa remains the region most heavily affected by HIV, accounting for 67% of all people living with HIV and for 72% of AIDS deaths in 2008. However, some of the most worrisome increases in new infections are now occurring in populous countries in other regions, such as Indonesia, the Russian Federation, and various high-income countries.
- Globally, the percentage of women among people living with HIV has remained stable (at 50%) for several years, although women's share of infections is increasing in several countries.
- In virtually all regions outside sub-Saharan Africa, HIV disproportionately affects injecting drug users, men who have sex with men, and sex workers.

HIV has spread relentlessly from a few widely scattered geographical locations to virtually every country in the world. Twenty-seven years of experience with HIV prevention and about a decade's experience with effective antiretroviral therapy have produced mountains of evidence about epidemiology, the ways of effective prevention strategies and successful treatment options for HIV.

Furthermore, global HIV epidemic slowed the economic growth, deepened the household poverty and escalated the individual suffering. In Asia HIV causes the greater loss of productivity than any other disease and alarmingly pushing many more millions of households into poverty during the next decade unless international responses are scaled up with strong determination. International HIV response is one of the overriding priorities of the 21st Century in order to secure future health and well-being of the whole world.

Table 01: Global Summary of HIV/AIDS Estimates for 2008

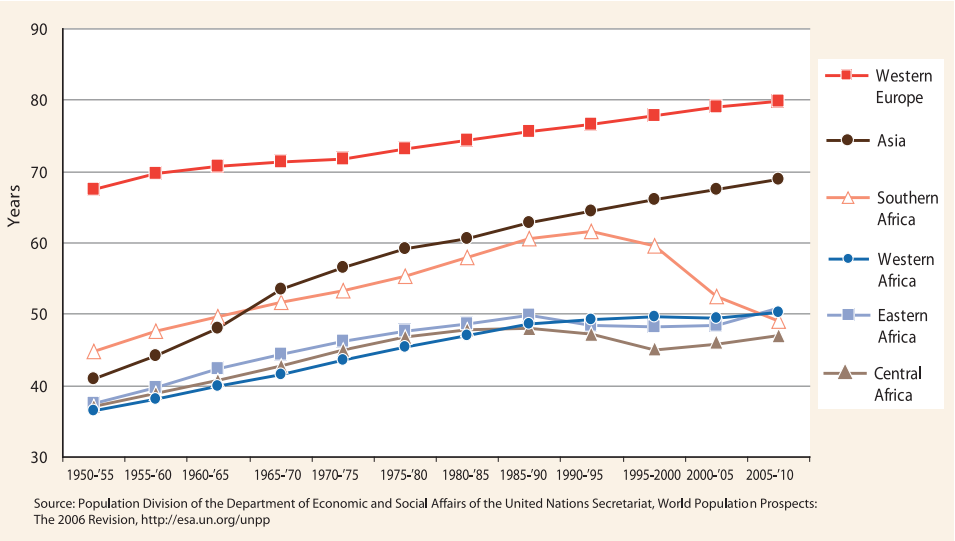
Category	Average	Range
People living with HIV/AIDS	33.4 million	31.1-35.8 million
Adults living with HIV/AIDS	31.3 million	29.2 million
Women living with HIV/AIDS	15.7 million	14.2-17.2 million
Children living with HIV/AIDS	2.1 million	1.2-2.9 million
People newly infected with HIV	2.7 million	2.4-3.0 million
Adults newly infected with HIV	2.3 million	2.0-2.5 million
Children newly infected with HIV	430,000	240,000-610,000
Total number of AIDS deaths	2 million	1.7-2.4 million
AIDS Deaths among Adults	1.7 million	1.4-2.1 million
AIDS Deaths among children	280,000	150,000-410,000

(Source: Global HIV Report 2009, UNAIDS)

2.2 Regional Variations of HIV Epidemic

Global HIV epidemic is actually an amalgam of an almost infinite number of individual epidemics in communities, districts, countries, sub-regions and regions. During last 27 years, HIV has already caused an estimated 25 million deaths worldwide and has generated profound demographic changes in the most heavily-affected countries. The most recent international epidemiological data contains some good news. In some countries in Asia, Latin America and Sub-Saharan Africa, the annual number of new HIV infections is falling. The estimated rate of AIDS deaths has also declined, in part, as a result of success in expanding access to antiretroviral drugs in resource-limited settings. Yet these favourable trends are not uniformly evident, either within or between regions, underscoring the need for more comprehensive progress in implementing effective policies and programmes.

Figure 05 : Life Expectancy at Birth in Selected Regions 1950 – 1955 & 2005 -2010



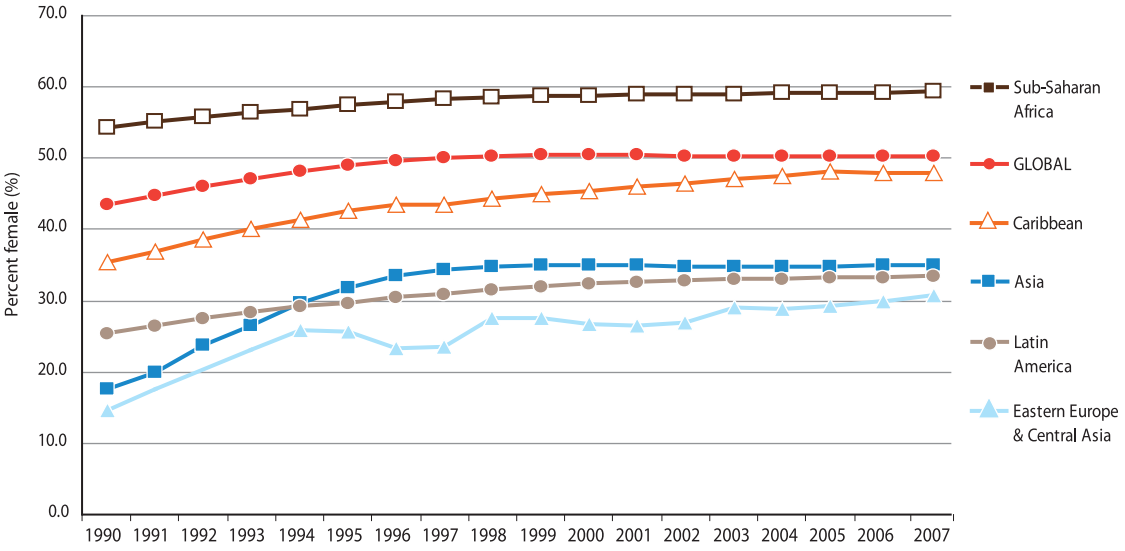
(Source: Global HIV Report 2008, UNAIDS)

Sub-Saharan Africa is the geographical term used to describe the area of the African Continent which lies south of the Sahara Desert. It has 47 countries which are totally or partially below the Desert Sahara. It has little more than 10% of the global population but home for the 67% of PLHA in the world. Sub-Saharan Africa's epidemics vary significantly from country to country in both scale and scope. Adult national HIV prevalence is below 2% in several countries of West and Central Africa, as well as in the horn of Africa, but in 2007 it exceeded 15% in seven southern African countries namely Botswana, Lesotho, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe. The prevalence among adults was above 5% in seven other countries, mostly in Central and East Africa

An estimated 1.9 million (1.6 million–2.2 million) people were newly infected with HIV in Sub-Saharan Africa in 2008, bringing to 22.4 million (20.8 million–24.1 million) the number of people living with HIV. Two thirds (67%) of the global total of 33.4 million(31.1 million–35.8 million) people with HIV live in this region, and three quarters (72%) of all AIDS deaths in 2008 occurred there. Most epidemics in Sub-Saharan Africa appear to have stabilized, although often at very high levels, particularly in Southern Africa. Additionally, in a growing number of countries, adult HIV prevalence appears to be falling. Adult HIV prevalence declined from 5.8%

(5.5%-6.0%) in 2001 to 5.2% (4.9%-5.4%) in 2008. For the region as a whole, women are disproportionately affected in comparison with men. In Southern Africa, reductions in HIV prevalence are especially striking in Zimbabwe, where HIV prevalence in pregnant women attending antenatal clinics fell from 26% in 2002 to 18% in 2006. Heterosexual intercourse remains the epidemic's driving force in Sub-Saharan Africa. The high rate of sexual transmission has also given rise to the world's largest population of children living with HIV.

Figure 06 : Percentage of Adult Women Living with HIV/AIDS 1990 – 2007



(Source: Global HIV Report 2008, UNAIDS)

Asia, home to 60% of global population is second only to Sub-Saharan Africa in terms of the number of PLHA. India accounts approximately half of HIV prevalence in Asia region. In Asia, an estimated 4.7 million (3.8 million – 5.5 million) people were living with HIV/AIDS in 2008, including the 350,000 (270,000 – 410,000) people who were newly infected in 2008. About 320,000 (260,000 – 400,000) died from AIDS related illnesses in 2008. National HIV infection levels are highest in South-East Asia where there are diverse epidemic trends.

Eastern Europe and Central Asia is the only region where HIV prevalence clearly remains on the rise. The estimated number of PLHA in Eastern Europe and Central Asia was 1.5 million (4.4 million – 1.7 million) in 2008. Of that almost 90% PLHA live in Russian Federation (69%) or Ukraine (29%). An estimated number of 110,000 (100,000 – 130,000) people in this region became infected with HIV in 2008 and 87,000 (72,000 – 110,000) died of AIDS in the same year. The HIV epidemic in the Russian Federation continues to grow at a slower pace than in the Ukraine. The main modes of HIV transmission in this region are through contaminated injecting equipment among drug users and through unprotected sexual intercourse among sex-workers and various sexual partners of them.

The main mode of HIV transmission in the Caribbean is through unprotected heterosexual intercourse, however, sex between men is also a significant factor in some of the countries in this region. An estimated 240,000 (220,000 – 260,000) PLHA were living in the Caribbean Region in 2008. An estimated number of 20,000 (16,000 – 24,000) people were newly infected with HIV while 12,000 (9,300 – 14,000) people died of AIDS in 2008. In Haiti, which has the biggest epidemic in the region, the HIV epidemic has stabilized.

However, significant level of high risk behavior has been documented among young people.

The overall levels of HIV infections in Latin America have changed little in the last decade. HIV transmission in this region is occurring primarily among men who have sex with men and among sex workers. HIV transmission occurs among injecting drug users to a lesser extent. The estimated number of new HIV infections in Latin America was 170,000 (150,000 – 200,000) in 2008 while an estimated 77,000 (60,000 – 89,000) died of AIDS in the same year. The estimated number of 2 million (1.8 million – 2.2 million) PLHA were living in Latin American region in 2008.

An estimated number of 2.3 million (19 million – 2.6 million) PLHA were in North America, Western Europe and Central Europe at the end of the year 2008. In this region 75,000 (49,000 – 97,000) people were newly infected with HIV while 38,000 (27,000 – 61,000) died of AIDS in 2008. Unprotected sex between men is still the main mode of transmission in both Canada and United States. The unprotected heterosexual intercourse is the main mode of transmission in most countries in the Central Europe and the injecting drug use is the main mode of transmission in some countries.

The limited information on HIV available for the Middle East and North Africa indicates that about 310,000 (250,000 – 380,000) PLHA were living in 2008. An estimated 53,000 (24,000 – 46,000) people were newly infected with the virus in 2008. An estimated 20,000 (15,000-25,000) PLHA died of AIDS related causes in 2008. Except in Sudan, the epidemics in this region are comparatively small. The main modes of transmissions were unprotected paid sex and the use of contaminated injecting equipments among drug users.

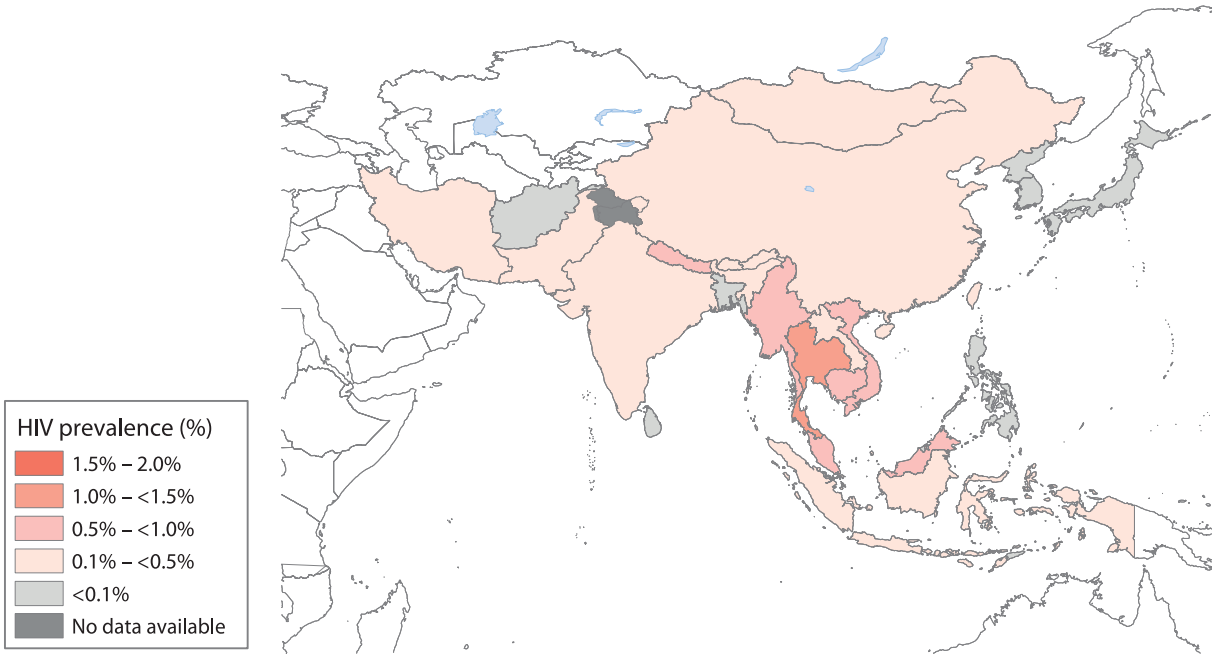
In Oceania, the main modes of HIV transmission are unprotected heterosexual intercourse in Papua New Guinea and unprotected sex among men who have sex with men in Australia and New Zealand. Overall an estimated 59,000 (51,000 – 68,000) PLHA were living in Oceania in the year 2008. Approximately 3,900 (2,900 – 5,100) new infections occurred in the same year. An estimated 2000 (1100-3100) PLHA died of AIDS in 2008.

2.3 HIV/AIDS Situation in Asia

In Asia, an estimated 4.7 million (3.8 million – 5.5 million) people were living with HIV/AIDS in 2008, including the 300,000 (270,000 – 410,000) people who were newly infected in 2008. About 330,000 (260,000 – 400,000) died from AIDS related illnesses in 2008. National HIV infection levels are highest in South-East Asia where there are diverse epidemic trends.

The epidemics in Cambodia (2% in 1998 and 0.9% in 2006), Myanmar and Thailand all show declines in HIV prevalence. However, epidemics in Indonesia, Pakistan and Viet Nam are growing rapidly. In China and Bangladesh, the epidemics are growing at a much slower pace.

Figure 07 : HIV Prevalence among Adults (15+) in Asia 2007



The several modes of transmissions make Asia's epidemic as one of the most diverse epidemics in the world. Injecting drug use is a major risk factor in several Asian countries such as China, North –Eastern part and Tamil Nadu state of India, Viet Nam etc. In Malaysia more than two thirds of HIV infections to date have been among injecting drug users. There is a significant overlap of sex work and injecting drug use in Asia. The most recent HIV outbreak has been reported in Afghanistan among injecting drug users. Unprotected sexual intercourse is the most important risk factor for the spread of HIV in several parts of Asia. In India, a significant proportion of women with HIV have probably been infected by regular partners who paid for sex (Lancet 2006). 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.

As in other regions of the world, unprotected anal sex between men is a potentially significant aspect in the HIV epidemic in the Asia. Some countries with epidemics driven by sex work have experienced decline in infection due in part to an increase in the use of condoms during paid sex. For example in Cambodia consistent condom use during commercial sex increased from 53% in 1997 to 96% in 2003.

2.4 HIV/AIDS Situation in the SAARC Region

HIV continues to be a major public health problem in the SAARC Region. All eight Member States of the SAARC region are designated as low prevalence countries. However, the HIV epidemic in SAARC region is also a collection of diverse epidemics in countries, provinces & districts etc. On the basis of latest available information this region is home for an estimated number of 2.49 million HIV infected people. Three countries, namely India, Nepal and Pakistan account for majority of the regional burden.

The unprotected heterosexual intercourse, unprotected anal intercourse between men and injecting drug use with contaminated injecting equipments are the main factors that drive the HIV epidemic across the SAARC region.

The overall adult HIV prevalence in SAARC region is remaining below 1%. However, there are important variations existing between countries. Bangladesh, India, Nepal and Pakistan have reported concentrated epidemics among most at risk populations. Of the estimated number of PLHA in SAARC region, 2.31 million were living in India alone in 2007.

HIV epidemic in India is highly heterogeneous and appears to be stable or diminishing in some parts of the country while growing in others. The majority of reported HIV infections are concentrated in six states where HIV prevalence is, on an average, 4-5 times higher than that of the other states. Mumbai-Karnataka corridor, the Nagpur area of Maharashtra, the Nammakkal district of Tamil Nadu, coastal Andhra Pradesh, parts of Manipur and Nagaland, reported the higher HIV prevalence in 2007.

Women account for a significant proportion of people living with HIV in SAARC region. A large proportion of women appear to have acquired the virus from regular partners who acquired the HIV during paid sex. In the region as a whole, HIV prevalence is low among general population, however, significantly higher among Most At Risk Populations (MARPs). The low prevalence of HIV among the general population poses a significant threat as it undermines the gravity of the situation. When the infection get established in the bridging groups such as clients of sex workers through them, HIV may spread to the low risk groups in the general population such as housewives at an exponential pace. As a result, generalized epidemics may arise in some parts of the region unless the responsible authorities take the timely decisions for implementation of appropriate prevention approaches timely to contain the HIV in the region.

All the Member States have high levels of high risk factors to fuel the HIV epidemic further and faster. The identified prevailing high risk factors in the SAARC region are

- Poverty
- Low level of literacy/illiteracy
- Rapid and unplanned urbanization
- Porous borders between some countries
- High rates of internal and international migration
- Low status of women
- Trafficking of women and children
- Discrimination and stigmatization
- Social marginalization of population groups
- Low levels of condom use
- High prevalence of Sexually Transmitted Infections (STIs)
- Low level of health care seeking behaviour
- Growing numbers of Most At Risk Populations
- Civil war situations creating a huge group of internally displaced people

These identified risk factors create favourable conditions for the spread of the virus across the SAARC region

Table 02: Adult HIV Prevalence Rates and Estimated Number of PLHA in SAARC Region 2007

Country	HIV Prevalence Rate (%)	Estimated No. of PLHA
Afghanistan	<0.1*	2000*
Bangladesh	<0.1	12,000
Bhutan	0.1	<500
India	0.31	2.31 million
Maldives	<0.1	<100
Nepal	0.5	69,790
Pakistan	0.1	96,000
Sri- Lanka	<0.1	3827
Regional		2.49 million

(Source: UNAIDS Global HIV Report 2008 and *National data of Afghanistan sent in the year 2008)

There is a wide variation in the number of people living with HIV/AIDS from less than 100 in Maldives to 2.31 million, in India. In order to implement an effective prevention package for the region of SAARC, this diversity is to be considered. The factors responsible for diversity should be identified and addressed during designing phase as well as implementation phase.

2.5 Reported HIV and AIDS Cases by SAARC Member Countries

The first HIV/AIDS infected persons were diagnosed in 1986 by India and Pakistan. By 1993, all SAARC Member States except Afghanistan have reported the existence of HIV infection in their countries. The cumulative number of reported HIV/AIDS infected persons by Member States of the SAARC Region at the end of the year 2008 are given below:

Table 03: Cumulative No. of Reported HIV & AIDS Cases by SAARC Member States 2008

Country	Cumulative Number of Reported HIV Positives	Cumulative Number of Reported AIDS Patients	Cumulative Number of Reported AIDS Death	Year of 1st HIV Positive Detected
Afghanistan	556	-	-	1989
Bangladesh	1495	476	165	1989
Bhutan	144	-	26	1993
India	-	199,237	-	1986
Maldives	13	11	10	1991
Nepal	12933	2151	509	1988
Pakistan	4951	474	193	1986
Sri Lanka	1059	289	186	1987

(Source: National Data on HIV/AIDS-2009, NACO Website & SAARC HIV/AIDS Update 2008)

The wide disparity between the estimated number of people living with HIV/AIDS and reported numbers of people living with HIV/AIDS is to be considered by both regional authorities responsible for the HIV prevention and care and also by the National AIDS Control Programmes in prioritizing, designing and implementation of activities in HIV prevention and care continuum.

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12. Country reports of National AIDS Control Programmes of Member States of SAARC Region

Chapter 03

Progress in HIV/AIDS Prevention and Control

HIV/AIDS, being the single greatest reversal in human development in modern history has heightened global consciousness on health disparities. No disease in the history has obtained a comparable mobilization of political, financial and human resources.

One of the time bound pledges of the Millennium Development Goals is, to begin to reverse the HIV epidemic by the year 2015. In order to reach that goal, the global community is moving currently towards to provide the universal access to HIV prevention, treatment, care and support by 2010 for those who need them. The global community regards this step as of historic significance in global health and development.

The six-fold increase in financing for HIV activities in low and middle income countries during this decade is beginning to yield results. The annual number of AIDS deaths has declined in the past two years from 2.2 million (1.9 million – 2.6 million) in 2005 to 2 million (1.7 million – 2.4 million) in 2008. In a number of heavily affected countries in Sub-Saharan Africa, dramatic changes in sexual behaviour have been accompanied by decline in the number of new HIV infections contributed to the global stabilization of the epidemic. However, these gains are not consistent with in or in between the regions of the globe.

The progress achieved in HIV/AIDS prevention and control by the World as a whole and by the Member States of the SAARC Region was assessed on following aspects:

1. **HIV/AIDS Prevention:** The global epidemic can not be reversed and gained achievements in expanding treatment access can not be sustained with out an effective programme on reducing the rate of new infections.

2. **Voluntary Counseling and Testing for HIV as the most important linkage in prevention and care continuum:** Low testing rates reduce the impact of HIV treatment, as diagnosis late in the course of infection have a poorer prognosis and increased knowledge on HIV sero-status will curtail the onward HIV transmission.

3. **Treatment, Care and Support:** The rapid expansion of treatment access is saving lives, improving quality of life and mitigating the suffering in households, communities and the entire societies.

4. **Strategic Information and Programme Management:** Strategic information is one of the corner stones essential for advocacy to attract the donors for funding, in mobilization of resources, prioritizing the programme activities and planning the targeted interventions to most at risk populations and to manage and to achieve the goals of the planned Programmes.

3.1 Global Achievements in HIV/AIDS prevention and Control

3.1.1 HIV/AIDS Prevention

The HIV epidemic can not be reversed without strong sustained success in preventing new HIV infections. However, 87% of the countries in the world with targets for universal access have established goals for HIV treatment, but only 50% of them have targets for key HIV prevention strategies and many people at risk of HIV infection lack meaningful access to tailored prevention services.

Extensive experience gathered from diverse regions has clearly shown the effectiveness of a broad range of HIV prevention strategies. Effective strategies exist to prevent every mode of HIV transmission; sexual, blood borne through injecting drug use as well as in health care settings and mother to child transmission. Available HIV prevention strategies include:

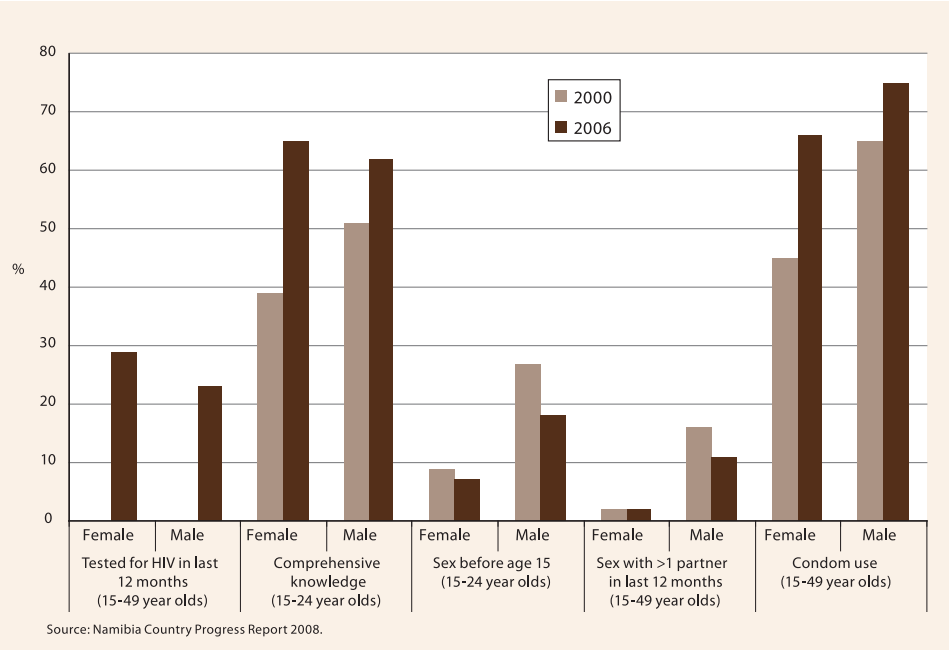
i. Desirable change in sexual behaviours
ii. Delaying the sexual debut
iii. Promotion of correct and consistent use of condoms
iv. Reducing the number of sexual partners
v. Improving the management of Sexually Transmitted Infections
vi. Promotion of medical male circumcision
vii. Safe blood supply
viii. Increasing the access to harm reduction programmes for injecting drug users
ix. Ensuring the effective infection control in health care settings
x. Availability of HIV prevention strategies centered on Anti Retro-Viral (ARV) treatment such as Prevention of Mother To Child Transmission (PMTCT) and Post Exposure Prophylaxis (PEP)

A. Prevention of Sexual Transmission of HIV :

An accurate understanding of the risks of HIV transmission and to know the ways to prevent exposures is a prerequisite to risk reduction. To accrue the adequate understanding, people need basic knowledge on HIV prevention. Historically, rigorous evaluation of HIV prevention programmes has had primarily concentrated on individuals rather than couples. This omission is potentially important as international surveys revealed that sexual partner is a key influence on the particular sexual practices in which they decide to engage. By specifically tailoring programmes to reach people in difficult kind of partnerships, HIV prevention efforts may achieve greater impact than that solely aim to affect the behaviour of single individual.

Survey data from 64 countries show that 40% of males and 38% of females had comprehensive knowledge on HIV in 2007. The figures for 2005 were 37% for males and 28% for females. Figure 08 shows the improvement of comprehensive knowledge on HIV among young people in Nambia between 2000 and 2006.

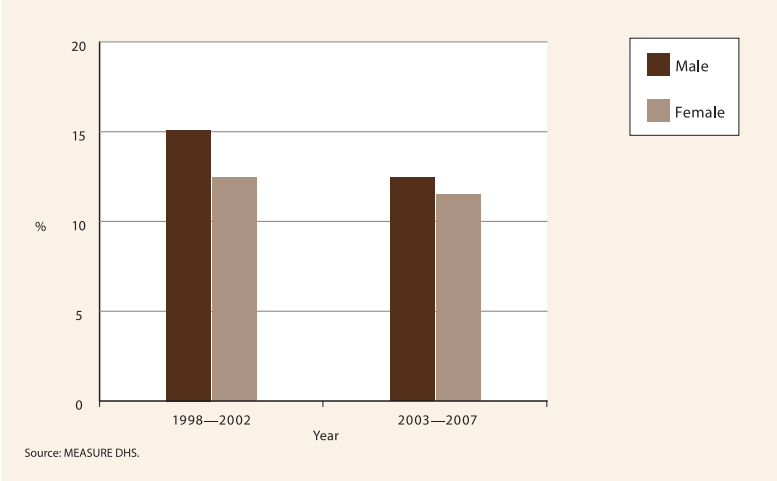
Figure 08 : HIV related knowledge and the behaviour among general population in Nambia 2000 – 2006



(Source: Global HIV Report 2008, UNAIDS)

In low and middle income countries, the percentage of young people having sex before the age of 15 years is delaying in all regions of the globe. The global trend towards delayed sexual debut is clear, however, there are substantial variations between countries.

Figure 09 : Percentage of Young People who have had first sex before the age of 15 years by Sex in Low and Middle Income Countries

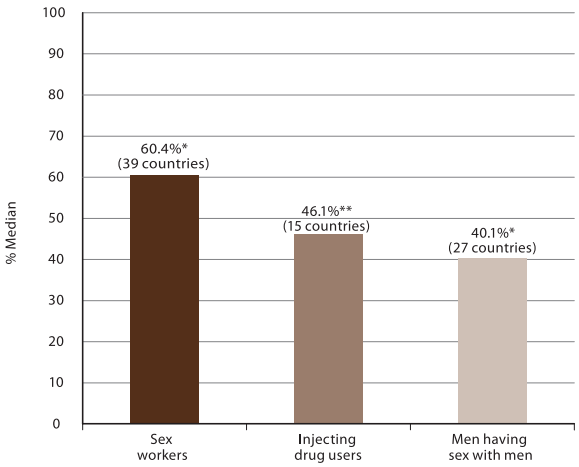


(Source: Global HIV Report 2008, UNAIDS)

Males are significantly more likely to report sex before the age of 15 years except in Sub-Saharan Africa where adolescent girls under the age of 15 are more likely than boys to be sexually active.

Most At Risk Populations (MARPs) are often difficult to reach with HIV prevention programmes. However, in order to prevent the spread of HIV among these populations and from them to the general population, it is important that they access preventive services. Figure 10 shows the percentages of MARPs have been reached by HIV prevention Programmes in the reporting countries of the world on UNGASS indicators in 2005 – 2007.

Figure 10: Percentage of Most at Risk Populations reached with HIV Prevention Programmes 2005 - 2007



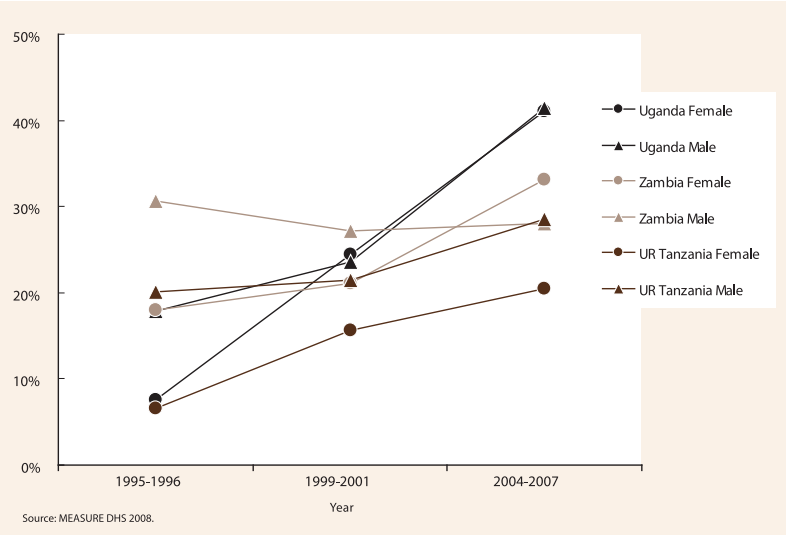
* Percentage of sex workers and men having sex with men reported knowing where they can receive an HIV test and that they were given condoms.

** Percentage of injecting drug users who reported knowing where they could receive an HIV test and be provided with condoms and sterile injecting needles and syringes.

Source: UNGASS Country Progress Reports 2008.

Consistent condom use among those who have multiple sexual partners appears to be increasing particularly in the areas most affected by the epidemic. However, the condom use has declined among males in Zambia in 2004 – 2007 period than that of the 1995 – 1996 period as shown in figure 11.

Figure 11: Condom Use at Last sex among those with more than one partner in last 12 months in three high burden countries



(Source: Global HIV Report 2008, UNAIDS)

Clinical trials in Kenya, South Africa and Uganda demonstrate that medical male circumcision reduces the risk of getting HIV to a man from a HIV infected woman by about 60%. However, much remains unknown about the potential role of medical male circumcision in the slowing the rate of new HIV infections at the population level. The studies assessed the cost effectiveness of the male circumcision have shown that male circumcision as a highly cost effective approach in preventing new HIV infections in high prevalent settings. The public education campaigns should emphasize that circumcision offers only a partial protection to men in order to minimize the erroneous conclusions in the society which might put the circumcised men at risk of getting HIV.

B. Prevention of HIV transmission through Blood and Blood Products:

The risk of HIV transmission through a blood transfusion is greater than 90% because a large volume of virus can be transferred into a person from an infected unit of blood. Hence, the effective screening of donated blood for HIV before the transfusion is a highly cost effective strategy to prevent HIV transmission through blood and blood products.

Across the globe 91 countries report having taken steps to ensure that all donated blood is screened for HIV in a quality assured manner. But 34 countries do not screen all donated blood for HIV in accordance with minimum quality standards. More than 20 years after sensitive screening testing systems becoming available, failure to screen all donated blood for HIV in accordance with minimum quality standards is a grave concern. All the countries should pay their attention and should take additional efforts to use blood transfusion rationally.

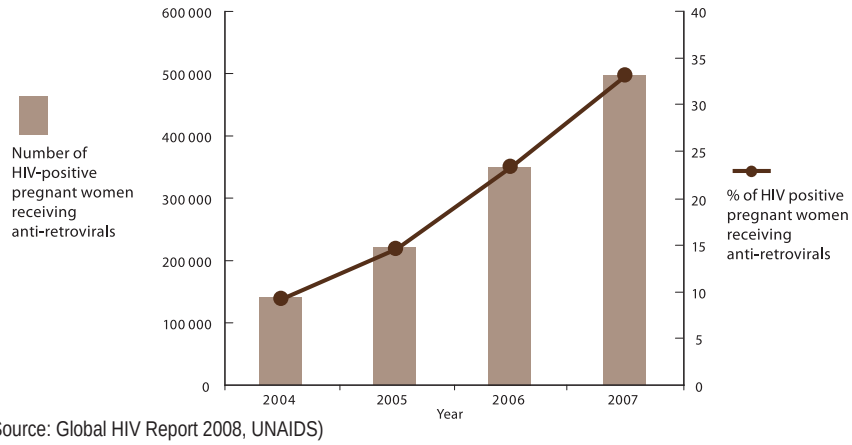
Use of contaminated equipment during injecting drug use represents an efficient means of HIV transmission, often leading to the rapid spread of HIV in localized networks of Injecting Drug Users (IDUs). An estimated 78% of the world's IDUs live in Central Asia and Eastern Europe. In these settings HIV transmission is primarily fuelled by transmission among drug users themselves and their sexual partners.

Effective HIV prevention for IDUs involves ready access to substitution treatment for drug dependence and to sterile needles and syringes. In addition, prevention programmes should help IDUs to reduce the risks of sexual transmission of HIV and link them to other related health and social services. This whole prevention package is introduced as Harm Reduction Programme.

C. Prevention of HIV transmission from Infected Mother to Child:

In the absence of any preventive interventions, infants born to and breastfed by HIV infected women have approximately a one in three chance of acquiring infection (20-45%). The risk of mother to child transmission can be significantly reduced through the complementary approaches of Anti-Retro Viral (ARV) regimens for the mother with or without prophylaxis to the infants, implementation of safe delivery practices and the use of safe alternatives to breast feeding. ARV prophylaxis followed by exclusive breast feeding may also reduce the risk of vertical transmission of HIV where breast feeding is limited to the first six months of life. Figure 12 and 13 show the achieved progress in PMTCT programmes in the world by 2007.

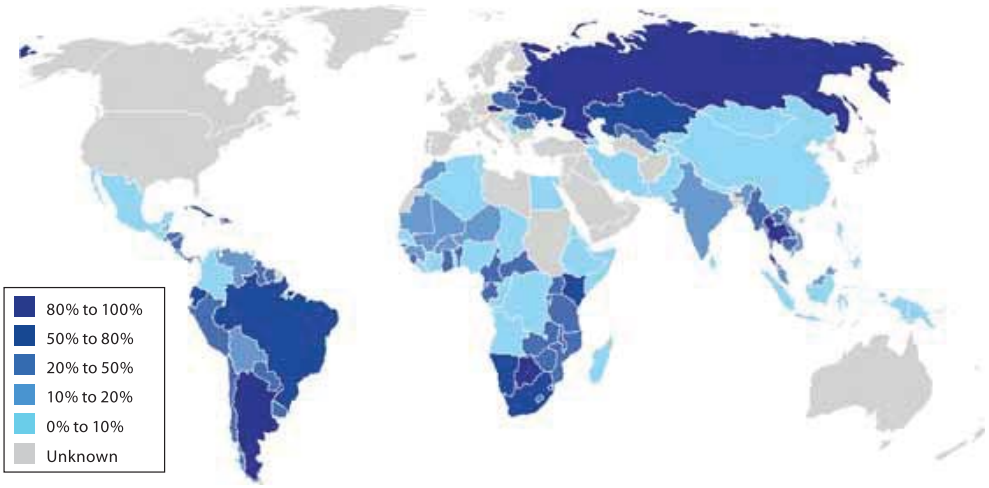
Figure 12: Number and Percentage of HIV positive pregnant mothers receiving ARV prophylaxis 2004 – 2007



(Source: Global HIV Report 2008, UNAIDS)

According to the WHO, in 2007, the coverage of pregnant mothers living with HIV receiving antiretroviral drugs to prevent mother to child transmission was 35% (29% - 44%) in the world. In 2008, the coverage of pregnant mothers living with HIV receiving antiretroviral drugs to prevent mother to child transmission has increased to 45% (37% - 57%) in the world.

Figure 13: Percentage of HIV Positive Pregnant Women receiving ARV prophylaxis 2007



Source: UNAIDS, UNICEF & WHO, 2008; data provided by countries.

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.

3.1.2 Voluntary Counselling and Testing for HIV

HIV testing and counseling services are the gateway for HIV prevention, care and treatment. The benefits of the knowledge on HIV status can be seen at the individual, community and population levels. Enhanced ability to reduce the risk of acquiring or transmitting HIV, access to HIV care, treatment and support and protection of unborn infants are the important benefits for the individual. This improves the quality of life of the infected individuals as well as the longevity. A wider knowledge of HIV status and its links to interventions can lead to a reduction in denial, stigma and discrimination and availability of the collective responsibility for an action are the benefits for the community. At the population level, knowledge on HIV epidemiological trends has an immense influence on the policy making, normalizing HIV/AIDS as another infectious disease and reducing the stigma and discrimination.

In the communities that have been longest and hardest hit by the HIV epidemic, an increasing number of people with HIV are becoming ill and need treatment, care and support. However, most of the infected people with HIV do not know their HIV status. Scaling up of HIV testing and counseling services is a critical step for scaling up a range of interventions in HIV/AIDS prevention, treatment, care and support. The working towards the universal access of treatment, care and support requires many more millions of people to be tested for HIV and counseled in order to identify the infected persons who need the prevention, treatment, care and support services. The scaling up of ARV treatment is likely to generate a dramatic demand for HIV testing and counseling services.

As access to ARV treatment is scaled up in low and middle income countries, there is a critical opportunity to simultaneously expand access to HIV prevention, which continues to be the mainstay of the response to the HIV epidemic. Among the interventions which play a pivotal role both in treatment and in prevention, HIV counseling and testing stands out as paramount. The current reach of HIV testing services remains poor; in low and middle income countries is low. Only 10% of those who need voluntary counseling and testing have access to it. Even in settings in which voluntary counseling and testing is routinely offered, the number of people availing these services remains low in many countries. The stigma and discrimination continue to play a major role in stopping people from having the HIV test.

The availability and uptake of HIV counseling and testing services continued to increase in 2008. In 66 low and middle income countries with comparable data, the total number of health facilities providing HIV counseling and testing services increased by about 35%: from 25,000 in 2007 to 33,600 in 2008.

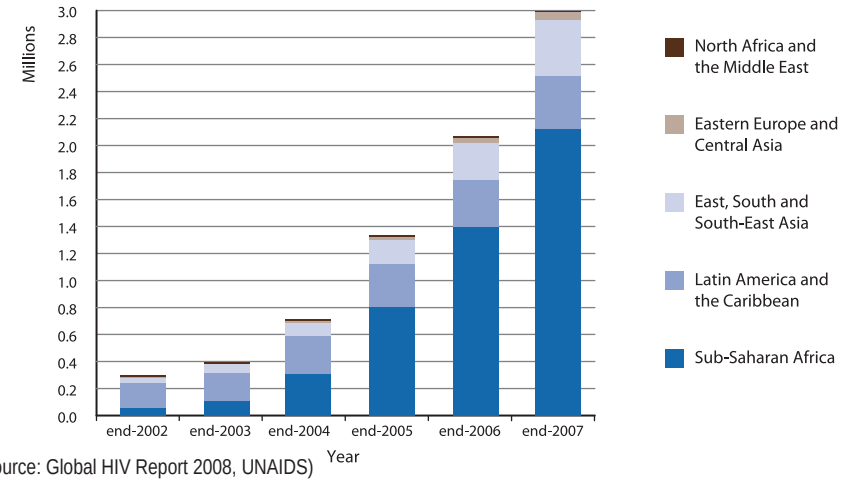
3.1.3 Treatment, Care and Support

Antiretroviral Treatment

The decision of the global community to push towards universal access to HIV prevention, treatment, care and support represents a moral commitment of historic proportions. Never before has the world attempted, on such a large scale, to bring broad-based chronic disease management to resource-limited settings. Approximately a decade after the emergence of combination antiretroviral therapy, millions of individuals in resource-limited settings are now benefiting from these medications. Global commitment to make HIV treatments available in resource-limited settings is successful. The number of people on antiretroviral treatment in low and middle income countries has increased more than ten fold, in only six years duration. Figure 14 shows the scaling up of antiretroviral treatment in low and middle income countries from 2002 to 2007.

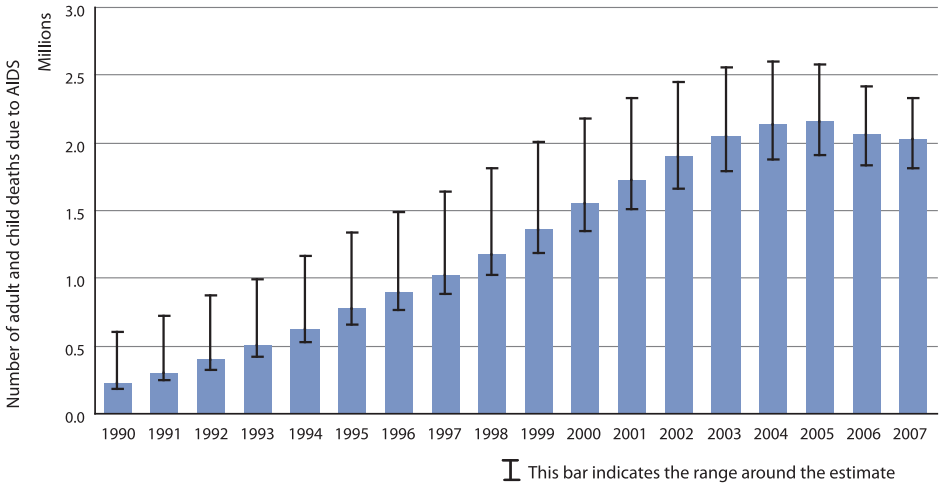
As of December 2007, the number of adults and children receiving antiretroviral treatment was 2,970,000 (2,680,000 – 3,260,000) in low and middle income countries. Therefore, the antiretroviral therapy coverage among adults and children was 33% (30% - 36%). The progressed achieved by these low and middle income countries in 2008 was significant. As of December 2008, the number of adults and children receiving antiretroviral treatment was 4,030,000 (3,700,000 – 4,360,000) and the coverage was 42% (40 – 47%). The number of children younger than 15 years in need of receiving antiretroviral treatment was 198,000 in 2007 and the number was increased to 275,700 by December 2008.

Figure 14: Number of people receiving antiretroviral treatment in low and middle income countries 2002 - 2007



(Source: Global HIV Report 2008, UNAIDS)

Figure 15: Estimated number of adult and child deaths due to AIDS globally 1990 - 2007



(Source: Global HIV Report 2008, UNAIDS)

The impact of antiretroviral drugs on the management of HIV infection has been evident, with improvement in health proving to be far more marked than anticipated. The introduction of Highly Active Anti-Retroviral Therapy (HAART) has saved an estimated three million years of life in the United States alone in slightly more than a decade. Increased access to antiretroviral drugs is not only improving longevity but also improving quality of life for millions of people, benefiting households, communities and societies. Figure 15 highlights the estimated number of adult and child deaths due to AIDS in the world from 1990 to 2007.

The growing availability of antiretroviral drugs is lessening the burden of HIV related mortality in low and middle income countries, as it did in high income countries. According to the findings of the cost-effectiveness studies performed, antiretroviral therapy has been also found to be a cost saving intervention for all the countries in the world as it enables people living with HIV/AIDS to spend socially and economically active lives. However, the treatment success rates may be somewhat lower in resource limited settings than in high income settings. A number of factors are likely to contribute to this, such as more advanced clinical disease in resource limited settings at the start of therapy and a higher incidence of co-infections.

Non-antiretroviral components of comprehensive HIV treatment and care:

The medical management of HIV involves much more than treatment of the underlying HIV infection. HIV related immune suppression increases the risk of a broad range of debilitating potentially life threatening conditions, known as opportunistic illnesses. The prevention and treatment of such opportunistic illnesses are central to the effective treatment, care and support. Hence, clinical interventions focusing on opportunistic conditions, such as patient monitoring, diagnostic tools, timely prophylaxis and targeted treatment are essential. Access to medications and health services required for the management of HIV related opportunistic conditions are limited in many resource limited settings.

Maximizing the success of HIV treatment also requires attention to nutrition, mental health, social environment and access to transportation. As a life threatening and highly stigmatized infection, HIV inevitably has effects on mental health. It is estimated that nearly half of all people living with HIV worldwide will suffer at some point from clinical depression. Apart from its psychological aspect, HIV has biological effects on mental health functioning resulting from cognitive impairment and dementia.

Integrating mental health services into antiretroviral treatment programmes is critical for delivery of effective treatment and care.

Nutritional status is one of the best predictors of HIV related mortality. As HIV disease progresses, nutritional status often declines. HIV infection increases protein, micronutrients and energy requirements in both adults and children. In addition to that, HIV related symptoms such as lack of appetite and/or mouth ulcers may decrease nutritional intake. Micronutrient deficiencies are one of the most common forms of nutritional deficiencies in low income countries. The micronutrient deficiencies may further compromise the functional capacity of the already failing immune systems of the people living with HIV/AIDS.

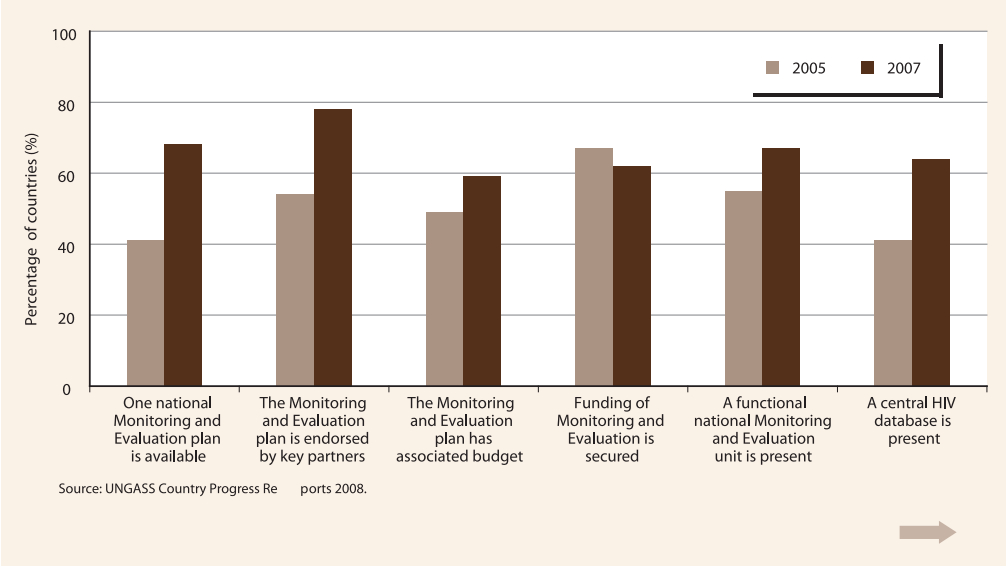
Timely nutritional support for the people living with HIV may help to delay the emergence of symptomatic period or where severe immune deterioration has already occurred it may reduce the risk of death. Nutritional monitoring, along with appropriate and timely intervention are the critical components of antiretroviral management. As with any drug, antiretroviral medicines are likely to be most effective when taken by people who are well nourished. Reduced food intake may aggravate the common side effects, such as nausea or loss of appetite. According to the findings of an operational research conducted by World Food Programme and the Centre for Infectious Disease Research in Zambia, the patients on antiretroviral treatment who received focused nutritional support experienced better rates of adherence to antiretroviral treatment regimens.

3.1.4 Strategic Information and Programme Management

Strategic information is knowledge that guides health policy, planning, programme management and service delivery. It is essential for the effective Programme Management in order to execute evidence based action at all levels of the health system. There is an increasing recognition for the need of sound strategic information to assess the disease burden, to prioritize the strategies planned, to measure and evaluate the results and to promote the accountability in countries when they scale up their HIV response towards universal access.

Many activities are essential to generate strategic information necessary for the effective Programme Management in order to guide the HIV response in the health sector. The key activities that generate strategic information in relation to HIV response towards the universal access are;

Figure 16: Percentage of countries with monitoring and evaluation components in place 2005 -2007



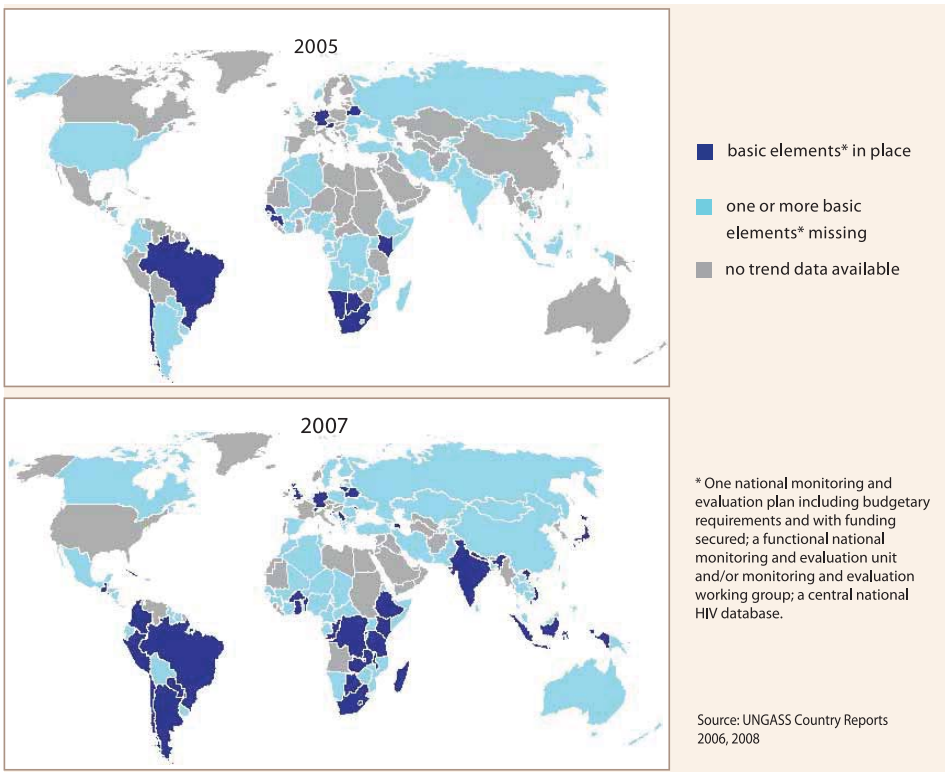
(Source: Global HIV Report 2008, UNAIDS)

1. **HIV Surveillance :** HIV Surveillance provides essential data to understand the magnitude and determinants of the epidemic in a country, monitor trends and develop strengthen/implement appropriate interventions.
2. **Monitoring and Evaluation :** Monitoring and Evaluation is essential to track availability, coverage, outcome and impact of health sector interventions in order to improve their effectiveness and ensure accountability.
3. **Operational Research :** Operational Research is a key component of the learning by doing approach to scale up, by linking research to policies and practices and providing evidence to improve programmes.

Since the HIV was first recognized, approaches and methodologies to monitor the epidemic and the response have continuously improved. Hence the world is better equipped with the information than ever to estimate HIV prevalence, rate of new infections and to evaluate the national responses. On the basis of the "Three Ones" principles for the effective country level action, countries own improved coordination of national stakeholders under a single monitoring and evaluation framework. Figure 16 shows the progress made by the countries in possessing a central HIV database from 2005 to 2007 and the several indicators related to the monitoring and evaluation.

The Global Fund to fight AIDS, Tuberculosis and Malaria has played a key role in driving improvements in national monitoring and evaluation systems. Hence countries possess stronger systems for monitoring and evaluation as well as improved methods to track key aspects of the epidemic. Figure 17 shows the global trends in strengthening monitoring and evaluation systems. Remarkable improvements in national monitoring and evaluation capacity are evident through out the world. However, there are critical gaps and weaknesses remain. One of the significant weaknesses is that more than 33% of the countries with a monitoring and evaluation plan have no centralized HIV database. In order to build the national capacity, it is essential to provide strategic information for decision making on policies and programmes, including HIV surveillance.

Figure 17: Global trends in monitoring and evaluation 2005 – 2007



(Source: Global HIV Report 2008, UNAIDS)

Remarkable milestones in global response to combat HIV/AIDS epidemic:

The following milestones are of historic significance in global health development particularly in the global response to contain HIV/AIDS epidemic.

- Millennium Development Goals – In the year 2000
- UNGASS Declaration – in the year 2001
- Treating Three Million by 2005 Initiative – in the year 2003
- The "Three Ones" Principles – in the year 2004
- Universal Access for treatment, care and support by 2010 – in the year 2006

Millennium Development Goals: At the Millennium summit in September 2000, the largest gathering of world leaders in history adopted the United Nations Millennium Declaration. The world leaders showed their nations commitment to a new global partnership to reduce extreme poverty by setting out a series of time-bound targets, with a deadline of 2015.

The Millennium Development Goals (MDGs) are the global time-bound and quantified targets to make the world safer, healthier and more equitable by addressing extreme poverty in its many dimensions. These dimensions are income poverty, hunger, disease, lack of adequate shelter and exclusion. MDGs promote gender equality, education and environmental sustainability.

There are eight Millennium Development Goals and 18 targets. Of the MDGs, the Goal six has been set up to combat HIV/AIDS, Malaria and TB. Of the 18 targets 08 are directly related to the health. The target 07 deals with HIV/AIDS and it has 06 indicators. Although one of the MDGs specifically addresses the HIV epidemic, an effective HIV response will also support achievement of other Millennium Development Goals embraced by the world community.

Goal 06 : Combat HIV/AIDS, Malaria and other diseases

Target 07 : HIV/AIDS epidemic to be halted and begun to reverse by 2015

Indicators (18, 19, 19a, 19b, 19c & 20) :

1. Indicator No. 18: HIV prevalence among pregnant women aged 15 – 24 years
2. Indicator No. 19: Condom use rate of the contraceptive prevalence rate
3. Indicator No. 19a: Condom use at last high risk sex
4. Indicator No. 19b: Percentage of population aged 15 – 24 years with comprehensive correct knowledge on HIV/AIDS
5. Indicator No. 19c: Contraceptive prevalence rate
6. Indicator No. 20: Ratio of school attendance of orphans to school attendance of non-orphans aged 10 – 14 years

United Nations General Assembly Special Session Declaration of Commitment on HIV/AIDS (UNGASS) : At the first ever special session on HIV/AIDS of the United Nations General Assembly in June 2001, 189 United Nations Member States unanimously endorsed the Declaration of Commitment on HIV/AIDS. This was done to strengthen the response to Millennium Development Goal 06. This declaration included time-bound pledges to generate measurable action and concrete progress in the HIV/AIDS response. The UN Member States committed to take extraordinary action to move towards universal access to HIV prevention, treatment, care and support by 2010.

Recognizing the need for multi-sectoral action on a range of fronts, the Declaration of Commitment on HIV/AIDS addresses global, regional and country level response to prevent new infections, expand health care access and mitigate the impact of the epidemic. The vision of the Declaration extends far beyond the governmental sector to private sector, labour groups, faith-based organizations, NGOs and other civil society entities, including organizations of people living with HIV.

In 2002, UNAIDS with its cosponsors and other important partners developed a series of core indicators known as UNGASS Indicators to measure progress in implementing the Declaration of Commitment on HIV/AIDS. There are 25 core UNGASS Indicators based on four broad categories namely:

➢ National Commitment and Action

1. Domestic and international AIDS spending by categories and fi nancing sources
2. National Composite Policy Index (Areas covered: gender, workplace programmes, stigma and discrimination, prevention, care and support, human rights, civil society involvement, and monitoring and evaluation)

➢ National Programmes

3. Percentage of donated blood units screened for HIV in a quality assured manner
4. Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy
5. Percentage of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission
6. Percentage of estimated HIV-positive incident Tuberculosis cases that received treatment for Tuberculosis and HIV
7. Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results
8. Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results
9. Percentage of most-at-risk populations reached with HIV prevention programmes
10. Percentage of orphaned and vulnerable children aged 0–17 whose households received free basic external support in caring for the child
11. Percentage of schools that provided life skills-based HIV education in the last academic year

➢ National Knowledge and Behaviour

12. Current school attendance among orphans and among non-orphans aged 10–14*
13. Percentage of young women and men aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission*
14. Percentage of most-at-risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission
15. Percentage of young women and men aged 15–24 who have had sexual intercourse before the age of 15
16. Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the last 12months
17. Percentage of women and men aged 15–49 who had more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse*
18. Percentage of female and male sex workers reporting the use of a condom with their most recent client
19. Percentage of men reporting the use of a condom the last time they had anal sex with a male partner

20. Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse
21. Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected

➢ **National Impact**

22. Percentage of young women and men aged 15–24 who are HIV infected*
23. Percentage of most-at-risk populations who are HIV infected
24. Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy
25. Percentage of infants born to HIV-infected mothers who are infected

* Millennium Development Goals indicator

(Source: Global HIV Report 2008, UNAIDS)

Treating Three Million by 2005 Initiative: In 2001, the Joint United Nations Programme on HIV/AIDS [UNAIDS], scientists of WHO and other important partners calculated that, under optimal conditions, 3 million people living in developing countries could be provided access to medical services including antiretroviral therapy by the end of 2005.

On 22nd September 2003, Director-General of WHO with Executive Director of UNAIDS, and Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria declared that the lack of access to antiretroviral therapy as a global health emergency. In response, WHO and its partners launched the "Treat 3 Million people by 2005" [3 by 5 Initiative]. The global target of treating 3 million people with antiretroviral therapy by the end of 2005 was a necessary and an achievable target on the way to the ultimate goal of universal access to antiretrovirals for everyone who requires such therapy.

Prevention will remain central to all HIV interventions. Universal access to antiretroviral treatment accelerates prevention in communities in which more people will know their HIV status. As HIV/AIDS becomes a disease that can be both prevented and treated, attitudes will change and denial, stigma and discrimination will rapidly be reduced. Rolling out effective HIV/AIDS treatment is the single activity that can most effectively energize and accelerate the uptake and impact of prevention. The 3 by 5 initiative was a comprehensive strategy linking treatment, prevention, care and full social support for people affected by HIV/AIDS. Care and support is critical to ensure the adherence to antiretroviral treatment and to reinforce prevention.

Successful implementation of 3 by 5 Initiative has already accelerated the attainment towards the time-bound target of the UNGASS Declaration [Universal access to prevention, treatment, care and support by the year 2010] and sixth goal of Millennium Development Goals [Halting and start to reversing the HIV/AIDS epidemic by 2015].

The "Three Ones" principles: On 25th April 2004, UNAIDS, United Kingdom and United States co-hosted a high level meeting. At which key donors reaffirmed their commitment to strengthening national AIDS responses led by the affected countries themselves. They endorsed the "Three Ones" principles to achieve the most effective and efficient use of resources and to ensure the rapid action and results-based management of the national response on HIV/AIDS epidemic. The "Three Ones" principles are as follows:

- One agreed HIV/AIDS Action framework that provides the basis for coordinating the work of all partners

- One agreed National AIDS Coordinating Authority with a broad based multisectoral mandate
- One agreed country level monitoring and evaluation system

Universal Access to prevention, treatment, care and support: At the June 2006 United Nations General Assembly High-Level Meeting on HIV/AIDS, United Nations Member States agreed to work towards the goal of "universal access to comprehensive prevention programmes, treatment, care and support" by 2010.

Drawing on lessons from the scale-up of HIV interventions over the last few years, WHO, as the UNAIDS cosponsor responsible for the health sector response to HIV/AIDS, has established priorities for its technical work and support to countries on the basis of the following five Strategic Directions, each of which represents a critical area where the health sector must invest if significant progress is to be made towards achieving universal access.

1. Enabling people to know their HIV status.

2. Maximizing the health sector's contribution to HIV prevention.

3. Accelerating the scale-up of HIV/AIDS treatment and care.

4. Strengthening and expanding health systems.

5. Investing in strategic information to guide a more effective response.

In this context, WHO undertook at the World Health Assembly in May 2006 to monitor and evaluate the global health sector response in scaling up towards universal access and to produce annual reports. This first report addresses progress in scaling up the following health sector interventions.

- Antiretroviral therapy.
- Prevention of mother-to-child transmission of HIV (PMTCT).
- HIV testing and counselling.
- Interventions for injecting drug users.
- Control of sexually transmitted infections to prevent HIV transmission.
- Surveillance of the HIV/AIDS epidemic.

There has been a marked shift in the global response to the complex HIV/AIDS crisis. Currently the national responses are broader and stronger and have improved access to financial resources and commodities. The key milestones mentioned above have raised both the commitments by the affected countries themselves and the availability of the funding to fight the HIV/AIDS epidemic. The advent of the Global Fund, new AIDS programmes of the World Bank, expanding commitments of the donor countries particularly the United States and the work of the private sector foundations have remarkably raised the funding on AIDS by the year 2007 when compared to 2002. Hence, there is an urgent need for greater support and collaboration with heavily affected countries and to avoid duplication and fragmentation. It is the challenge that the "Three Ones" were specifically designed to achieve. Therefore, these principles will help to improve the ability of the donors and developing countries to work more effectively together, on a country by country basis.

3.2 SAARC Regional Progress in HIV/AIDS prevention and Control

Progress achieved by the Member States in HIV/AIDS prevention and control could be measured in following aspects.

1. HIV/AIDS Prevention
2. HIV counseling and testing
3. Treatment, care and support
4. Strategic information and programme management

3.2.1 HIV/AIDS Prevention

Prevention is the mainstay of the strategic response to HIV/AIDS in all Member States of the SAARC Region as less than 1% of the population in the region is infected with HIV and the majority 99% is uninfected. All Member States are committed to curb the HIV epidemic in their territories. HIV epidemic in a country is a mixture of diverse epidemics in diverse high risk groups. Hence, the Member States are carrying out different but effective interventions to curtail the HIV/AIDS burden from the region.

A. Prevention of Sexual Transmission of HIV :

All eight member states of the SAARC Region have taken measures to improve the understanding on HIV among sexually active people especially among young people in order to adopt the safer sex behaviours. An accurate understanding of both the risks of HIV transmission and the prevention is a prerequisite to risk reduction. To accrue the adequate understanding, people need **basic knowledge on HIV prevention.**

Physiologically, young people are more vulnerable to sexually Transmitted Infections including HIV than adults and girls more than boys. Gender imbalances, societal norms and economic dependence contribute to the increased risk. Lack of access to correct information, tendency to experiment and an environment which makes discussing issues around sexuality taboo adds to their vulnerability. National AIDS Control Organization of India reports that almost 73% of young people in India have misconceptions about modes of HIV transmission.

According to the findings of the country reports sent in 2007 for the UNGASS indicator 13 (Percentage of young women and men aged 15 – 24 years who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission), less number of youth in Bangladesh (22%), India (28%), Nepal (32%) and Sri-Lanka (8%) had the adequate knowledge on HIV/AIDS. The findings for Afghanistan, Bhutan, Maldives and Pakistan were not available in the UNAIDS Global AIDS Report 2008.

Delay in sexual debut is recognized as one of the important HIV preventive approach among youth population. Some of the SAARC Member States reported very low levels of early sexual debut before the age of 15 years among their youth population in 2007 (UNGASS indicator 15). Table 04 shows the very low levels of early sexual debut before the age of 15 reported by some of the Member States of the SAARC Region.

Table 04 : Percentage of young males and females aged 15 – 24 years who have had sex before the age of 15 in SAARC Member States

Country	Country Reported Values for 2007		
	Male	Female	Both Sexes
Afghanistan	-	-	-
Bangladesh	4%	1%	2%
Bhutan	-	-	-
India	2%	10%	-
Maldives	-	-	-
Nepal	4%	7%	-
Pakistan	1%	<1%	-
Sri Lanka	-	-	3%

(Source: Global HIV Report 2008, UNAIDS)

The trend of the HIV prevalence in the Member States of the SAARC Region shows disproportionately higher incidence of the HIV infection among certain population groups. The findings of the HIV surveillance data of the Member states shows Commercial Sex Workers (CSWs), Men who have Sex with Men (MSM), Injecting Drug Users (IDUs) and Migrant workers have higher incidence of HIV infection. As a whole, the general population in the region has less than 1% HIV prevalence. To gain control over HIV/AIDS spread, effective targeted interventions are already directed for most at risk populations in the Member States of the SAARC Region according to the prevailing high risk groups.

Afghanistan has both international and national NGOs involved in the provision of health services related to HIV/AIDS. NGOs play a key role in reaching most at risk and vulnerable groups. Several NGOs involve in targeted interventions to prevent HIV among high risk groups. Following the approval of the Strategic Plan in 2003, Ministry of Public Health established The National AIDS Control Programme in Afghanistan. Ministry of Public Health with National AIDs and STI Control Programme developed a National Strategic Framework for HIV/AIDS 2006 – 2010. The goal of the National Strategic Framework for HIV/AIDS is to maintain the low prevalence of HIV in Afghanistan to reduce mortality and morbidity associated with HIV/AIDS. Targeted interventions have already been launched for most at risk populations such as IDUs and sex workers to ensure the universal access to behaviour change communication on HIV.

In Bangladesh, more than 380 NGOs have been implementing targeted interventions to prevent sexual transmission of HIV among high risk groups in different parts of the country. The National AIDS Control Programme recognized that NGOs are often in a better position than the public sector to reach high risk populations such as sex workers, their clients, IDUs etc. Under the National Strategic Plan 2009 – 2011, National AIDS Control Programme, Bangladesh continues to conduct the intervention packages to the following high risk groups.

- Brothel based sex workers
- Street based sex workers
- Hotel and residence based sex workers
- Injecting Drug users
- MSM, Male sex workers, Hijra sex workers
- Clients of sex workers

According to the National AIDS Control Organization in India, about 86% of HIV incidence in the country is from unprotected sexual intercourse. Hence the targeted interventions are aimed to effect the behaviour change through raising awareness among high risk groups and clients of sex workers and providing services on safe sex interventions. Nationwide mapping of high risk groups was completed during National AIDS Control Programme II. This provided the critical insight into the operational aspects of the high risk groups and guided in developing the focused interventions in HIV/AIDS prevention. Targeted interventions among sex workers raise the awareness about health implications of unsafe sex. Hence, the targeted interventions reduce vulnerability of sex workers to STIs and HIV/AIDS through promotion of STI services, condom use, peer and outreach behaviour change communication, building enabling environment and linking prevention to HIV related care and support services. Similar type of targeted interventions formulated for MSM in India. In addition to the above services, they have been delivered the use of lubricants and appropriate condoms.

Maldives has so far experienced a low level HIV epidemic. However, the situation analysis conducted in 2006 has pointed out several factors that demonstrate vulnerability to an increasing epidemic. Maldives is in a unique position as all the HIV positives reported were believed to be acquired through unprotected sex. The implementation of the Strategic Plan for Prevention and Control of HIV/AIDS 2002 – 2006 was completed with a strong progress and commitment towards an expanded response. National Strategic Plan on HIV/AIDS 2007 – 2011 was developed by the National AIDS Control Programme of the Ministry of Health Maldives. The aim of this Strategic Plan is to ensure to achieve the Millennium Development Goals, the Declaration of Commitment from UN General Assembly Special Session and the SAARC HIV/AIDS Strategy. Hence National AIDS Control Programme, Maldives has been implementing Intensive Targeted Interventions particularly for sex workers, MSM, institutionalized populations and IDUs.

The National HIV/AIDS Strategy 2002 – 2006 was regarded as a milestone in national efforts to combat the epidemic in Nepal. The strategy was instrumental in accelerating the responses by expanding partnerships, broadening the scope and opportunities for innovative need driven programming and initiating the dialogue at all level for policy and structural reformation process. The National strategic Plan 2006 – 2011 was formulated on the foundation built by the earlier strategic plan. The current strategic plan aims to achieve the Millennium Development Goal (halt and begin to reverse the increasing trend of HIV by 2015). As a remedial measure to existing low coverage of services, low access to services and insufficient focus of the interventions, the National Strategic Plan 2006 – 2011 is designed to achieve 80% coverage with prevention, care and support services to most at risk populations and people living with HIV/AIDS.

In Pakistan, at least 54 NGOs involve in HIV/AIDS awareness and prevention interventions among sex workers, truck drivers and other high risk groups. However, it is noted that these NGOs are reaching less than 15% of the vulnerable population. Under the National HIV/AIDS Strategic Framework I, the National AIDS and STD Control Programme of Pakistan launched the Enhanced HIV/AIDS Control Programme since 2001 in which they initiated the expansion of interventions for vulnerable populations. These activities are further consolidated with the help of the National HIV/AIDS Strategic Framework II 2007 – 2012.

External review of the STD/AIDS response in Sri-Lanka in 2006 found that targeted prevention programmes directed at sex workers and MSM were remained low and without sufficient focus. Hence,

the targeted interventions carried out prior to 2006 had no intensity required to produce sufficient behaviour change among high risk populations in order to avert the emergence of possible concentrated epidemic. As a result of above findings, the National Strategic Plan 2007 – 2011 has been formulated in a manner to serve as the framework for the development of a district based operational planning. Therefore, the current strategic plan exerts the highest priority for HIV prevention interventions for sex workers in each district in the island.

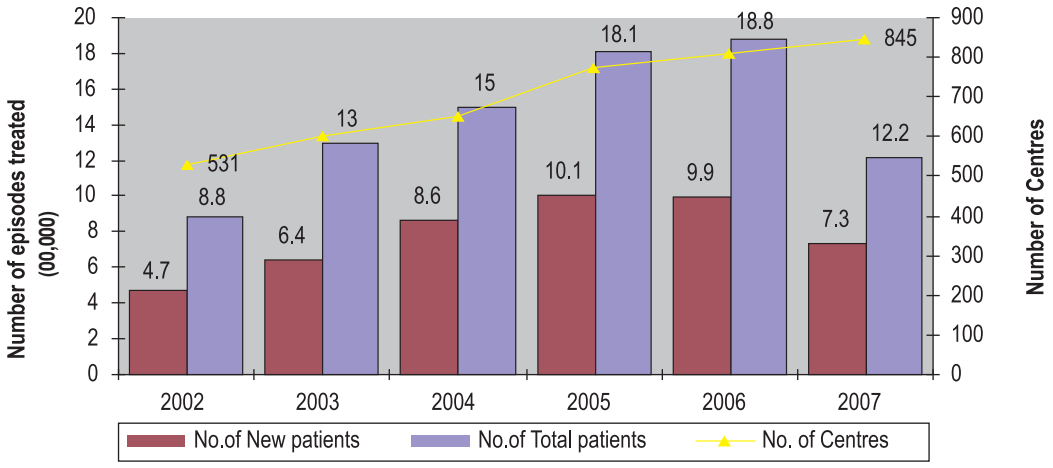
Bhutan has demonstrated a strong political commitment to preventing and controlling the spread of HIV. Ninth Five – Year Plan of the Royal Government of Bhutan has identified HIV/AIDS and STI prevention and control as one of the most important programmes for addressing emerging health issues and promoting better health for women and adolescents in Bhutan. As Bhutan is also a country with low HIV prevalence, the National AIDS and STI Control Programme of Ministry of Health, Bhutan has developed a Technical Strategy for Prevention and Control of Sexually transmitted Infections in 2008. With the help of this strategy, Bhutan is focusing on controlling STIs and taking that as an effective strategy for reinforcing the prevention of HIV.

Prevention and Control of Sexually Transmitted Infections is of public health importance on its own and as a strategy to reduce the HIV transmission. National HIV/AIDS Strategic Plan of all Member States has given priority to control STIs to contain the HIV/AIDS epidemic in the region.

In Bhutan, the National AIDS and STI Control Programme has made strong initial efforts to strengthen the HIV prevention within a broader context of controlling STIs. Hence, Bhutan has initiated to expand the availability of STI Syndromic Case Management in all health facilities with trained health workers and STI drugs in stock under the National Strategic Plan launched in 2008.

In India, numbers of STD clinics have been increased from 76 in 1998 to 845 in 2007. India has begun to report a decrease in sexually transmitted infections, since they began the scaling up of STI interventions among sex workers and migrants. Under National AIDS Control Programme-III, a demand for STD services is generated through raising the public awareness on STIs and by expanding the STD services through integration with the Reproductive and Child Health Programme. Figure 18 illustrates the expansion of STI services from 2002 to 2007.

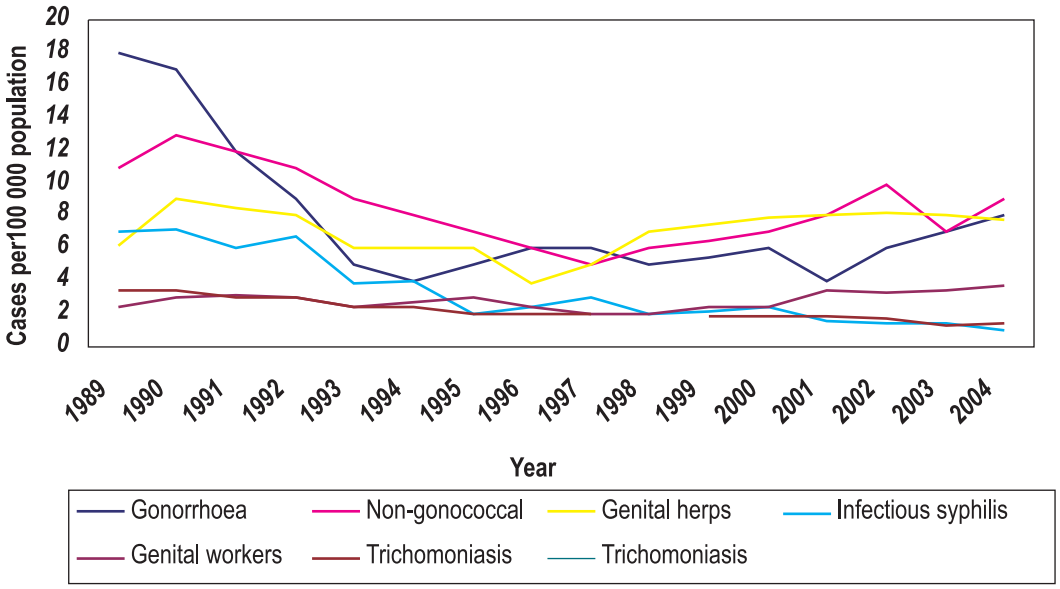
Figure 18: Expansion of the STI Services in India 2002-2007



(Source: SAARC HIV/AIDS Update 2008)

Clinical services for STIs in Sri-Lanka are high quality and well organized among a well-established network of STD clinics at district level. These clinics provide both curative and preventive health services. Therefore the staff members of these clinics have both clinic and community outreach responsibilities. STD clinic attendance increased following the activities conducted to raise the awareness of STIs and HIV within the communities. STD Clinic staff collaborate the activities directed towards most at risk populations with that of the NGOs dealing with high risk groups such as sex workers, MSM etc. Figure 19 shows the rates of new episodes of STIs reported in Sri-Lanka since 1989 to 2004.

Figure 19: Rate of New episodes of Sexually Transmitted Infections reported in Sri-Lanka 1989 – 2004

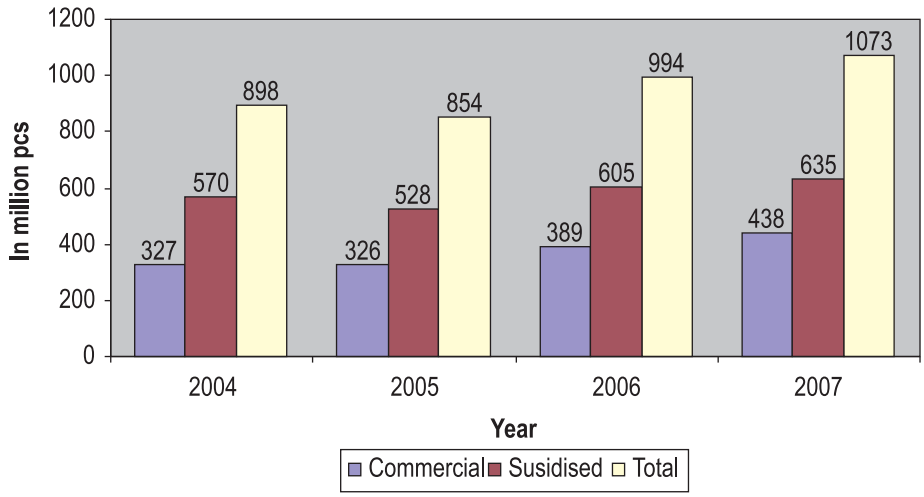


(Source: SAARC HIV/AIDS Update 2008)

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. The 100% Condom use Programme in Thailand markedly reduced the reported number of new episodes of STIs and HIV. All the Member States in SAARC Region have committed to scale up the condom use among high risk groups by implementing the strategies planned in their National HIV/AIDS Strategic Plans.

Approximately 86% of HIV transmission in India was reported to be acquired through unprotected sexual intercourse. Hence, National AIDS Control Organization (NACO) advocates and promotes condom use as a safe sex practice for prevention of STI/RTI and HIV and as a protection to prevent unwanted pregnancies. Condom promotion under NACP-I & II increased the awareness on the importance of consistent condom use in HIV/AIDS prevention. NACO has launched a number of approaches in promotion of condom use such as installation of condom vending machines, Introduction of female condoms, thicker and more lubricated condoms for MSM etc. The availability of condoms free of charge, subsidised supply of condoms and availability of commercial brands were also increased in India. Figure 20 depicts the expansion of the use of condoms in India from 2004 to 2007.

Figure 20: Retail Off-take of Condoms in India 2004 – 2007



(Source: SAARC HIV/AIDS Update 2008)

Consistent condom use has been promoted through the Maternal and child health programs in Sri-Lanka focusing on dual protection particularly emphasizing on family planning. Condoms are available free of charge through the network of STD clinics through out the country to STD clinic attendees and to most at risk populations. National STD and AIDS Control Programme in Sri-Lanka provides condoms to the NGOs working with most at risk populations and to the uniformed services. There has been an increase in the distribution of condoms in Sri-Lanka as 11.5 million condoms distributed in the year 2000 and in 2005 it was 13.7 million excluding the commercially sold condoms in the marketplaces.

It is important to engage sex workers, IDUs, MSM in outreach programmes and important to take measures to empower them to initiate and practice a set of common norms and behaviors. In Sonagachi, India, one of the oldest and largest red light areas of Kolkata, the empowerment of sex workers has made a significant improvement in condom use during commercial sexual encounters.

B. Prevention of HIV transmission through Blood and Blood products :

All the countries should pay their attention and should take additional efforts to use blood transfusion rationally. The risk of HIV transmission through a blood transfusion is greater than 90% because a large volume of virus can be transferred into a person from an infected unit of blood. Hence, the effective screening of donated blood for HIV before the transfusion is a highly cost effective strategy to prevent HIV transmission through blood and blood products. Table 05 shows the percentage of donated blood screened for HIV in a quality assured manner in Member States of the SAARC Region.

Table 05: Percentage of donated blood units screened for HIV in a quality assured manner in Member States of the SAARC Region

Country	Percentage of screened blood units in accordance with quality assurance
Afghanistan	39%
Bangladesh	Data not available
Bhutan	50%
India	100%
Maldives	0%
Nepal	100%
Pakistan	87%
Sri-Lanka	42%

(Source: Global HIV Report 2008, UNAIDS)

In India, access to safe blood is mandated by law and is the primary responsibility of National AIDS Control Organization. The specific objective of the blood safety programme is to ensure the reduction in the transfusion associated HIV transmission to 0.5% while making available safe and quality blood with in an hour of requirement in a health facility. However, there is a serious mismatch between demand and availability of blood in the country. Another concern is that voluntary blood donation is only 52%. National AIDS Control Organization is committed to bridge the gap in the availability and improve the voluntary blood donation, under NACP-III by planning a series of strategies.

In Sri-Lanka, good progress is being made towards achieving 100% voluntary donations. Total voluntary donations per year have increased from about 154,000 units in 2001 to 207,000 units in 2005. National Blood Transfusion Service developed guidelines for clinical use of blood and a handbook of blood transfusion practice for nurses to improve the rational use of blood in hospitals. All blood units collected are screened for HIV, syphilis, hepatitis-B and C and malaria. Blood units that test positive are destroyed and a sample sent to the Central STD Laboratory for confirmation. If confirmed, the donors are contacted by the Central STD clinic for follow up.

Use of contaminated equipment during injecting drug use represents an efficient means of HIV transmission, often leading to the rapid spread of HIV in localized networks of Injecting Drug Users (IDUs). Effective HIV prevention for IDUs involves ready access to substitution treatment for drug dependence and to sterile needles and syringes. Furthermore, the prevention programmes should help IDUs to reduce the risks of sexual transmission of HIV and link them to other related health and social services. This whole prevention package is introduced as Harm Reduction Programme.

It is estimated that more than 90% of HIV transmission in India is related to unprotected sexual intercourse or sharing of injecting equipment between an infected and uninfected individual. Much of the HIV transmission occurs within groups or networks of individuals who have higher levels of risk due to a higher number of sexual partners or the sharing of injecting drug equipment. IDUs are one of the identified core high risk groups in India for which targeted interventions are of critical importance. HIV interventions targeting the majority of IDUs can stabilize and even reverse the escalating HIV epidemic among them. In India, under the National AIDS Control Programme –III, needle and syringe exchange and oral substitution therapy are recognized as integral parts of the spectrum of harm reduction services which leading finally to abstinence from drug use. According to the findings of the HIV Sentinel Surveillance conducted in 2007, among IDUs, Maharashtra (24.4%), Manipur (17.9%), Tamil Nadu (16.8%), Punjab (13.8%), delhi (10.1%), Chandigarh (8.6%), Kerala (7.9%), West Bangal (7.8%), Mizoram (7.5%) and Orissa (7.3%) have shown high HIV prevalence of >5%. As a result of targeted interventions launched for IDUs mainly through the NGOs, the HIV prevalence trends among IDUs in Manipur, Nagaland and Chennai are on a decline, according to the findings of the HIV Sentinel Surveillance in 2007. However, there is a steady rise in Meghalaya, Mizoram, West Bengal, Mumbai, Kerala and Delhi. The overall HIV prevalence among IDUs in India was 13.3% in 2003, 10.16% in 2005 and 7.2% in 2007.

Majority of the harm reduction programmes in SAARC Region have had limited impact because they were implemented on a small scale. Since 1998 CARE Bangladesh, a Non-Governmental Organization (NGO), implements harm reduction programme in Bangladesh which includes 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 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, Harm reduction Programme for Injecting Drug Users has been undertaken by CARE Bangladesh under the National HIV/AIDS Control programme, Bangladesh. National Harm Reduction Strategy was developed as a response to HIV/AIDS problem in Bangladesh.

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 a NGO working on harm reduction in Kathmandu valley, approximately 200 (<30%) of 6500 IDUs attend 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% in Nepal.

C. Prevention of HIV transmission from Infected Mother to Child:

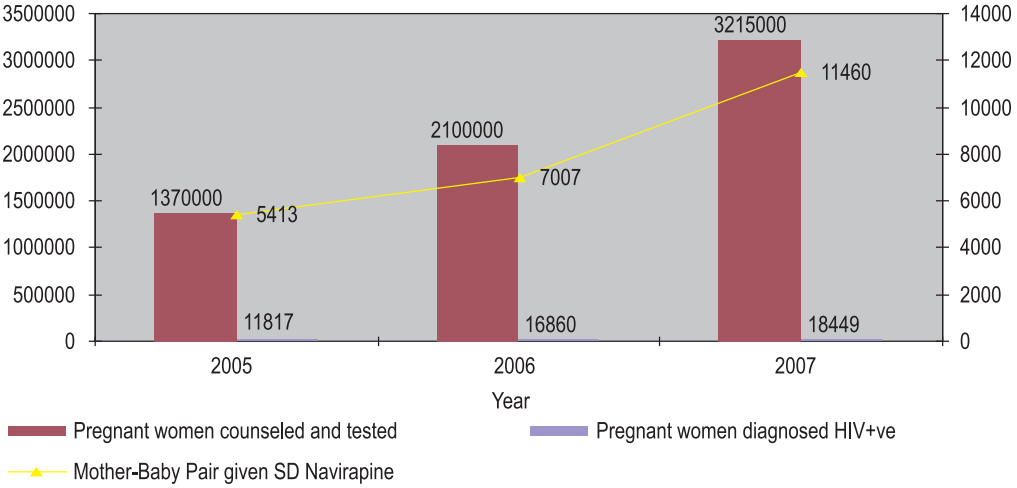
The risk of mother to child transmission can be significantly reduced through the complementary approaches of Anti-Retro Viral (ARV) regimens for the mother with or without prophylaxis to the infants, implementation of safe delivery practices and the use of safe alternatives to breast feeding. In the absence of any preventative interventions, infants born to and breastfed by HIV infected women have approximately a one in three chance of acquiring infection (20-45%).

All Member States of the SAARC Region are committed for prevention of HIV transmission through infected mothers to their children. However, the coverage of PMTCT services in the SAARC region is very low; as less than 5% of pregnant women are offered HIV counseling and testing out of the estimated 67 million births in a calendar year. In India and in Nepal, the PMTCT services 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 and counselling.

In Bhutan 34 health care facilities provided the PMTCT services as of December 2008. Five pregnant mothers received antiretroviral drugs to prevent mother to child transmission in the year 2008. Bhutan used prophylactic regimens using a combination of two antiretroviral drugs. A total of 13 infants born to HIV infected mothers received antiretroviral drugs to prevent mother to child transmission.

The prevention of mother to child transmission of HIV/AIDS programme (PMTCT) was started in India in the year 2002, following a feasibility study in 11 major hospitals in the five high HIV prevalence states. As per the information given in the website of National AIDS Control Organization, there were more than 4000 Integrated Counseling and Testing Centres in the country as of july 2009, which offer MTCT services to pregnant mothers. Of these counseling centres, 502 are located in Obstetrics Departments and Maternity Homes where the client load is mainly the pregnant women. Mother-to-child transmission (MTCT) of HIV accounts for 2.72 percent of the total HIV infection in India. An estimated number of 27 million annual pregnancies was in India in 2006. Of that 189,000 occur in HIV positive pregnant women. By March 2008, in India PMTCT services were being offered at 2,360 health facilities. Pregnant women counseled and tested for HIV and found positive were gradually increased as PMTCT service facilities increased (Figure 21). Currently PMTCT services in India cover approximately about 10% of pregnancies in the country. In order to provide universal access to these services further scale up is planned up to the community Health Centre and Primary Health Centre Level. National AIDS Control Organization hopes to reduce the proportion of infants infected with HIV/AIDS by 50% by 2010.

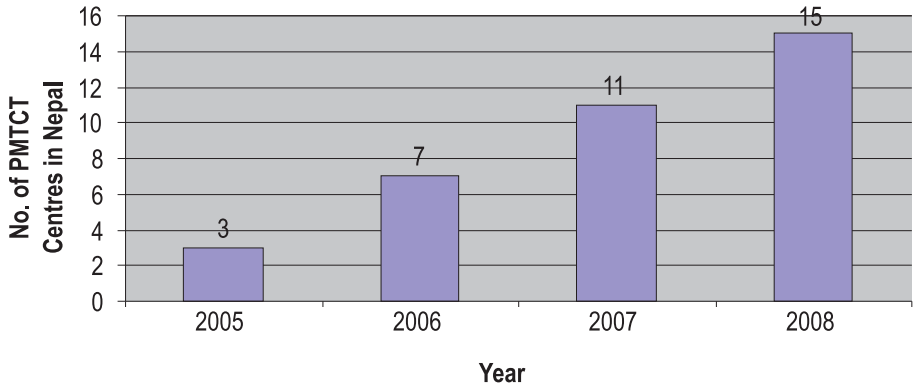
Figure 21: Expansion of PMTCT services 2005-2007 in India



(Source: SAARC HIV/AIDS Update 2008)

By December 2008, 15 PMTCT service sites were established in Nepal (Figure 22). In these sites, 81.47% pregnant women have received HIV counseling and testing. As of December 2008, a cumulative total of 110 pregnant mothers received antiretroviral treatment to prevent mother to child transmission in Nepal. Similarly, a total of 130 infants received antiretroviral treatment to prevent HIV transmission from their Mothers in Nepal at the end of December 2008.

Figure 22: Expansion of Numbers of PMTCT Service Sites in Nepal 2005 - 2008



(Source: SAARC HIV/AIDS Update 2008)

In Pakistan, there were 06 health facilities providing the PMTCT services as of December 2008. To prevent mother to child HIV transmission, cumulative total of 18 pregnant mothers received antiretroviral drugs and cumulative total of 15 infants born to HIV infected mothers also received antiretroviral drugs.

Sri-Lanka has very high antenatal care coverage and a well-established infrastructure, comprised of Public Health Midwives' service provision for every female in the reproductive age group in every community. A PMTCT working group has developed PMTCT protocols and guidelines using four-prong approach. The four prongs considered are:

- Primary prevention of HIV for women of child-bearing age
- Prevention of unwanted pregnancy among HIV infected women
- Interventions to reduce mother to child transmission

- Care and support to HIV infected women, their children and family members

The paediatric antiretroviral doses and regimens are registered. PMTCT services have been piloted in two districts in 2005 – 2006. After counseling, over 90% of the pregnant mothers agreed to perform HIV test on them and all 3232 blood samples tested were HIV negative. Hence, in Sri-Lanka, it is not recommended to test every pregnant mother. However, raising the awareness on mother to child transmission, identifying the risk factors and use "opt-in" approach for those with risk factors have been recommended as best practice in Sri-Lanka. Four health facilities were providing PMTCT services in the country by the end of December 2008. A cumulative total of 12 HIV infected mothers received antiretroviral drugs to prevent mother to child transmission and a cumulative total of 10 infants born to infected mothers received antiretroviral drugs for the same purpose.

Table 06: Status of Prevention of mother to child transmission of HIV services in SAARC Region 2008

Country	Pregnant mothers tested for HIV	HIV positive pregnant mothers received antiretrovirals for PMTCT	Infants born to HIV positive pregnant mothers receiving antiretrovirals for PMTCT
Afghanistan	-	-	-
Bangladesh	62	06	04
Bhutan	2244	19	13
India	4,234,401	10,673	10,577
Maldives	3,267	0	0
Nepal	43,733	47	58
Pakistan	6,926	14	11
Sri-Lanka	12,239	05	06

(Source: WHO Towards Universal Access 2009)

According to a latest WHO report, the estimated number of pregnant mothers living with HIV/AIDS needing antiretrovirals for PMTCT in the South Asia in the year 2008 was 52,000 with a range of 28,000 to 86,000. Of them only 10,800 HIV pregnant mothers in the SAARC Region received antiretrovirals for prevention of mother to child transmission in the year 2008. Therefore the coverage of PMTCT services in SAARC Region in the year 2008 was 21% (13% - 38%).

3.2.2 Voluntary Counselling and Testing for HIV

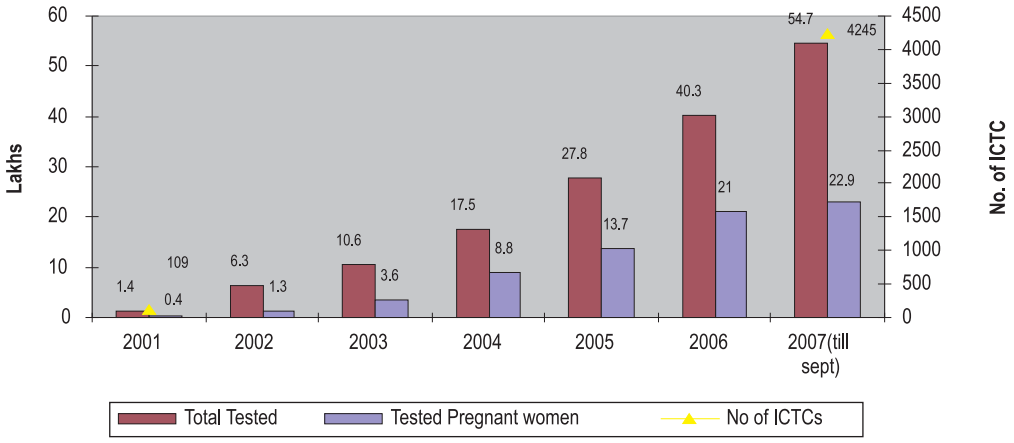
The benefits of the knowledge on HIV status can be seen at the individual level, community level and population level as describe above in this chapter. Therefore, HIV testing and counseling services are the gateway for HIV prevention, Care and treatment. The working towards the universal access of treatment, care and support requires many more millions of people to be tested for HIV and counseled in order to identify the infected persons who need the prevention, treatment, care and support services. The scaling up of ARV treatment is likely to generate a dramatic demand for HIV testing and counseling services. However, the stigma and discrimination continues to plays a major role in stopping people from having the HIV test.

Because of the HIV associated stigma and discrimination as well as limited access to HIV testing and counseling services, the coverage of HIV testing and counseling services remains very low in SAARC

Region. Almost all the Member States in the SAARC Region provide both voluntary counselling and testing and Provider initiated counseling and testing services.

HIV counselling and testing services were started in India in 1997. Under National AIDS Control Programme – III (NACP-III), Voluntary Counselling and Testing Centres (VCTC) and services were remodelled and established the Integrated Counselling and Testing Centres (ICTC) to provide services to all clients under a one roof. There are 4245 ICTC centres by September 2007 in India. Under NACP-III, the target is to counsel and test 22 million clients annually by the year 2012. Figure 23 shows the scaling up of the testing services for HIV infection in India.

Figure 23: Progress in Integrated Counseling and Testing Services in India 2001-2007



(Source: SAARC HIV/AIDS Update 2008)

As per the information given in the website of National AIDS Control Organization, approximately 13% of HIV positive people in the country are aware of their HIV status. The challenge before the National AIDS Control Organization is to make all HIV infected people in the country aware of their status, so that they can adopt a healthy lifestyle, access to life saving care and treatment and help prevent onward transmission of HIV. Therefore, counseling and testing services are important components of prevention and control of HIV in the country.

In Nepal Number of VCT centres increased from 7 in 2005 to 125 by December 2007. In Bangladesh 7 VCT centres have been established in different institutions throughout the country. In Bhutan, by end of 2007 HIV counseling and testing facilities are available in all District Hospitals. In Pakistan, 16 VCT centers are operating for general and bridging populations within or near the existing public sector testing facilities and are managed by local NGOs. Number of patients obtained counselling under VCT were 38,464 as at the end of 2007.

In Sri Lanka voluntary counseling and testing (VCT) is offered throughout the island with the help of a network of Sexually Transmitted Disease (STD) clinics. There are 26 STD clinics operating in the country. Other sectors such as Prison and uniformed services too have attempted to adopt VCT. VCT is also promoted through the network of well established preventive health care infrastructure and through the NGOs for which capacity building is carried out by the National STD and AIDS Control Programme of Sri-Lanka. The high quality of the national HIV testing programme is effectively supporting accurate diagnosis of HIV in an environment of very low HIV prevalence. The national HIV testing algorithm is consistent with international norms. Counselling guidelines exist in the country since 2003 and health care workers of the National STD and AIDS control Programme and that of major hospitals in the island have received pre and post test counseling training since 2000.

3.2.3 Treatment, Care and Support

Antiretroviral Treatment

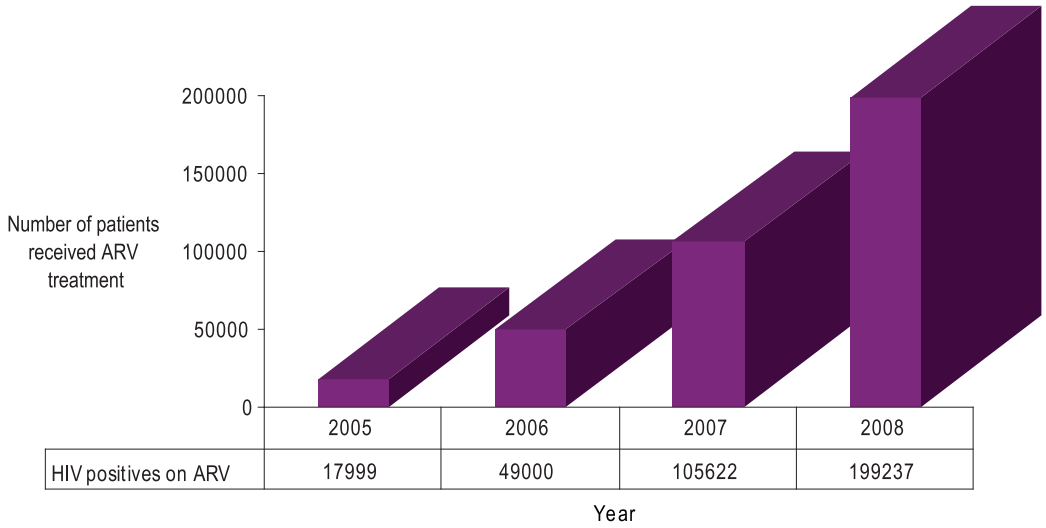
Approximately a decade after the emergence of combination antiretroviral therapy, millions of individuals in resource-limited settings including the people living with HIV/AIDS in the Member States of SAARC Region are now benefiting from these medications. Most of the Member States of the SAARC Region initiated to provide antiretroviral treatment in the year 2004.

In response to the WHO/UNAIDS "3 by 5 initiative", Member States of the SAARC Region also embraced the push to expand HIV treatment access in order to move towards universal access to HIV prevention, treatment, care and support by 2010. Remarkable progress has been made in the SAARC Region on scaling up HIV antiretroviral treatment since November 2003. Over last five years, the number of people started on treatment increased more than a ten fold. However, there are wide variations in antiretroviral treatment coverage in the Member countries.

According to WHO latest report, 238,000 (214,000 – 263,000) adults and children in the South Asia were receiving antiretrovirals as of December 2008. The estimated number of HIV positive people in the South Asia needing antiretrovirals was 760,000 (610,000 – 960,000) in 2008. Therefore the coverage of antiretroviral therapy was 31% in the year 2008. The estimated number of HIV positive children in the SAARC Region needing antiretrovirals in the year 2008 was 31,000 (18,000 – 48,000). However, only 13,400 HIV positive children in the Region were receiving antiretrovirals in 2008. Hence, the antiretroviral coverage among HIV positive children younger than 15 years in the SAARC Region was 43% as of December 2008.

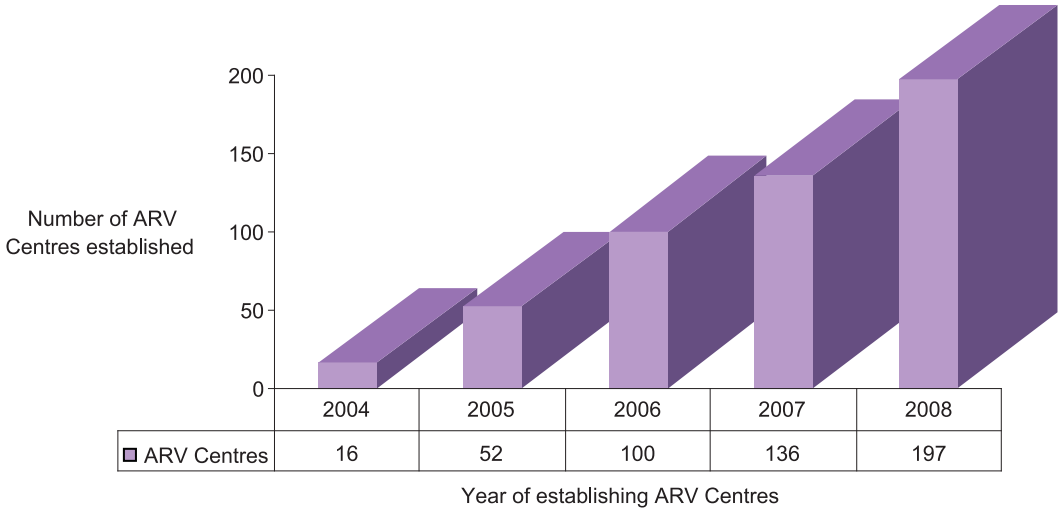
In April 2004, the Government of India launched the free antiretroviral treatment programme in eight antiretroviral treatment centres. By December 2008, antiretroviral treatment delivery centres were scaled up to 197 and there were 199,237 persons living with HIV/AIDS who have been started on free antiretroviral treatment. National AIDS Control Programme in India has been highly successful in scaling up of antiretroviral access for people living with HIV/AIDS.

Figure 24: Number of Patients on Antiretroviral Treatment in India 2005 – 2008



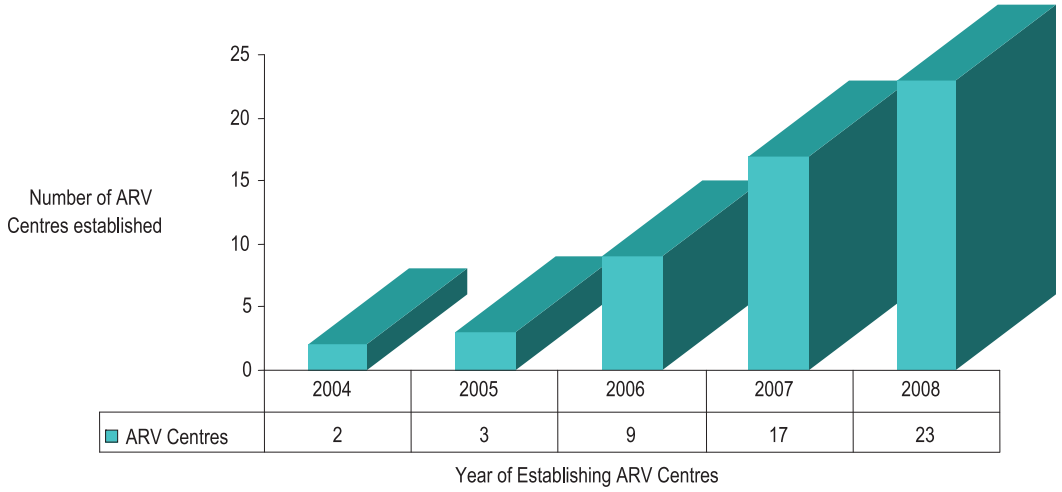
There is a plan to scale up antiretroviral treatment provision to 300,000 patients by 2011 with the help of 250 centers across the country. Figures 24 and 25 show the remarkable progress in access to antiretroviral treatment made in India, from 2004 to 2008.

Figure 25: Scaling up of Access to Antiretroviral Treatment in India 2004 – 2008



Government of Nepal had launched the free antiretroviral treatment programme in 2004 from one Infectious disease Hospital in Kathmandu. By December 2008, number of ART centers increased to 23 and these centres can provide even second-line antiretroviral regimens if the need arises. At the end of the year 2008, Nepal has recruited 7 health care facilities with laboratory facility to carry out CD4 cell count. Figure 26 shows the rate of progression in access to antiretroviral treatment achieved by Nepal. As of December 2008, 2536 HIV infected people received ARV treatment in Nepal. Of them 1433 were males, 984 were females and 119 were children under the age of 15 years.

Figure 26: Number of Treatment Centres for Antiretroviral Treatment in Nepal 2004 – 2008



In Pakistan, there were 12 HIV treatment centers which provided the HIV care services including antiretroviral treatment to 875 PLHA as of December 2008. These treatment centres can provide second-line antiretroviral regimens also. There are 3 health care facilities in Pakistan to provide laboratory facilities to carry out CD4 cell counts and viral load assessments. There were 12 centres in the country to provide social welfare facilities to the people infected and affected with HIV.

In Bangladesh, there were 04 NGOs providing ART services for HIV positives. As of December 2008, cumulative number of 288 patients received ARV treatment in Bangladesh. There were 7 health care

facilities to provide first-line antiretroviral treatment regimens and 2 of them can provide second-line regimens also. As of December 2008, health care facilities with laboratory services that can provide CD4 cell counts were 3 and 2 of them can provide the viral load assessments also. There were six centres in the country to provide social welfare facilities to the people infected and affected with HIV.

Sri-Lanka is providing free ARV treatment to HIV patients since November 2004 with the help of National HIV/AIDS Prevention Project of the World Bank. The establishment of freely available public sector provision of antiretroviral treatment is a major achievement. ARV treatments were offered at 05 centres of the National STD/AIDS Control Programme. All 5 centres have the facilities to provide second-line regimens if need arises. The National STD and HIV Reference Laboratory of the National STD and AIDS Control Programme of Sri-Lanka is providing the CD4 cell count assessment and viral load assessments to all antiretroviral recipients. As of June 2006 out of 785 people reported with HIV infection, 80 were commenced on antiretroviral treatment. As of December 2008, 154 patients were receiving ARV treatment in Sri-Lanka. Of them 78 were males, 68 were females and 8 were children under the age of 15 years. There are 3 institutions to provide social welfare facilities to people infected and affected with HIV/AIDS. National guidelines on HIV clinical care in adults were issued in 1998. National guidelines on antiretroviral treatment were issued in 2005.

In Bhutan, there are 6 health facilities dispensing antiretroviral treatment as of December 2008. All 6 centres used CD4 cell count monitoring for antiretroviral treatment. Of them 2 health care facilities have laboratory facilities to carry out CD4 cell count assessments. There were 30 HIV positives on Anti Retroviral Treatment (ART) as of December 2008. Of them 14 males, 15 females and only 1 child less than 15 years of age were receiving antiretroviral treatment. In Maldives, only one HIV positive received ART treatment at central hospital of Male.

3.2.4 Strategic Information and Programme Management

There is an increasing recognition for the need of sound strategic information to assess the disease burden, to prioritize the strategies planned, to measure and evaluate the results and to promote the accountability in countries when they scale up their HIV response towards universal access.

As describe above in this chapter, the key activities that generate strategic information in relation to HIV response towards the universal access are HIV Surveillance, Monitoring and Evaluation and Operational Research.

Information generated through bio-behavioural surveillance including STI surveillance, is the basis for the estimating the burden of HIV/AIDS in a country. The information gathered is also helpful in tracking the impact of the national response to HIV/AIDS in a country. At the beginning of the epidemic, HIV surveillance was limited mainly to case reporting and unlinked anonymous serological surveillance surveys.

India, Nepal, Bangladesh, Pakistan and Sri Lanka have initiated Second Generation HIV Surveillance Surveys. Since 2001, Nepal carried out the serological and Behavioural Surveillance Surveys among most at risk populations. Since 1998, Bangladesh has completed several rounds of serological surveillance with the help of the WHO/UNAIDS guidelines for Second Generation HIV Surveillance. India started HIV surveillance since 1985. The sentinel sites in India were increased from 180 in 1998 to 1134 in 2007 and it covers all the districts in the country. Of that 646 sites were allocated to general

population and 488 sites for high risk populations. A total of 358,797 samples were tested during HIV Sentinel Surveillance 2007 in India.

Second generation Surveillance Survey for HIV was established in Pakistan with Canadian support in 2003 as a part of Enhanced HIV and AIDS Control programme. By 2007, Pakistan has completed two rounds of HIV Second Generation Surveillance.

National STD/AIDS Control Program in Sri-Lanka annually conducts HIV Sentinel Surveillance Surveys since 1993. The HIV testing for sentinel surveys is used to carry out Unlinked Anonymous Testing. The Purpose of unlinked anonymous testing is not to detect infected individuals for case finding but to obtain an idea about the prevalence of HIV infection in the country. Hence, it is a public health measure to know the epidemic. Sri Lanka has conducted the first Behavioral Surveillance Survey in 2006.

HIV drug resistance is the ability of HIV to multiply in the presence of antiretroviral drugs. HIV drug resistance will inevitably emerge with scaling up of antiretroviral treatment in the region. Programme activities dedicated to minimize the emergence of drug resistance and to reduce the spread of drug resistant virus need to be launched by the Member States. India has already established HIV drug resistance national working groups.

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 timely dissemination of data in all SAARC Member States.

National HIV/AIDS Strategic Plan is an essential requisite to implement programme activities in HIV/AIDS prevention, treatment and care and support effectively. The strategic planning should be carried out with full participation of all stakeholders, including PLHA. The strategic plan serves as a road map to all partners involved in programme intervention and it includes monitoring and evaluation as an integral part. Most of the Countries in the Region have developed strategic plan on HIV/AIDS. Table 07 shows the status of the availability of a strategic plan on HIV/AIDS in the Member States of the SAARC Region.

Table 07: Availability of a National HIV/AIDS Strategic Plan in Member States of the SAARC Region as of December 2008

Country	National Strategic Plan (NSP)
Afghanistan	National Strategic framework for HIV/AIDS 2006-2010 developed
Bangladesh	NSP 2004-2010 developed
Bhutan	NSP 2007-2011 developed
India	NSP 2006-2011 developed
Maldives	NSP 2007-2011 developed
Nepal	NSP 2006-2011 developed
Pakistan	National Strategic Framework 2007-2012 developed
Sri-Lanka	NSP 2007 – 2011 developed

HIV epidemic in the SAARC Region is an amalgam of number of diverse epidemics in the communities, villages, districts, provinces and countries. National efforts need to be based on accurate information and to be tailored to national needs and circumstances in order to exert optimally effective impact. For that availability of strategic information is a must.

The response of India to HIV epidemic is influenced by the available surveillance data, implementation capacities and political commitment at state level and national level. However, in the planning of NACP-III, it was felt that the necessity for a tool gives more sensitive information to detect the emerging hot spots of the epidemic. Hence, under the NACP-III, India introduced Strategic Information Management System at National and State levels to focus on strategic planning, monitoring, evaluation, surveillance and research. This system assigns clear responsibilities to all programme officers and facilitates data flow and feedback at various levels. In NACP-III, tools have been proposed to be developed in consultation with the technical partners for the evaluation of each of the proposed intervention. Under the NACP-III, National AIDS Control Organization has positioned itself as the promoter and coordinator of research on HIV/AIDS not only in India, but the entire South Asia Region through partnership and networking with National, academic and other institutions in the region.

Sri-Lanka also set up a National Strategic Information Management Unit (SIM Unit) to accurately guide the national response to HIV epidemic in the country in 2008. This strategic information unit has the authority to access to all needed information, guided by the National Monitoring and Evaluation Framework. The role and responsibilities of all the involved parties should be clarified and a core set of indicators defined.

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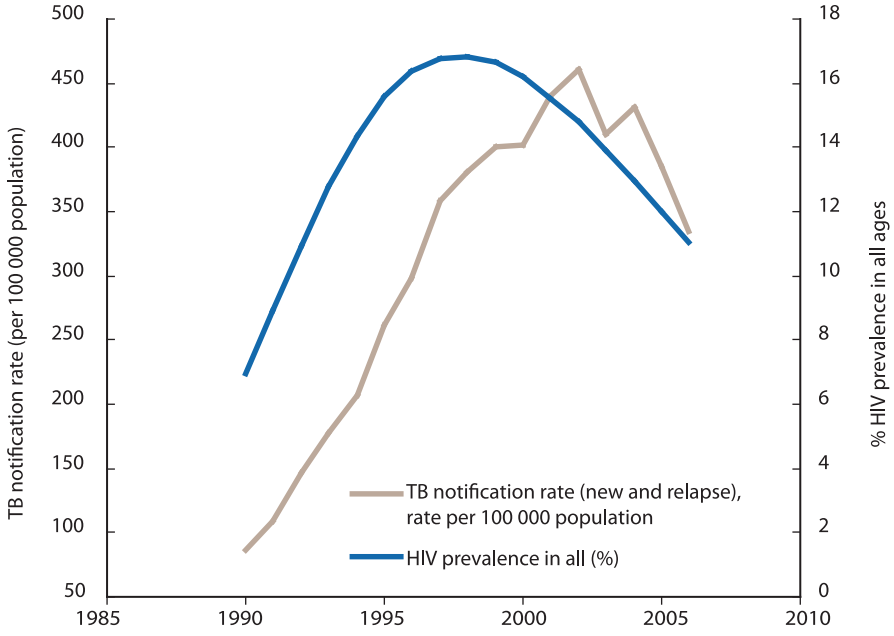
Chapter 04

TB/HIV Co-infection

HIV related immune suppression increases the risk of a broad range of debilitating and potentially life threatening conditions such as Tuberculosis (TB). Therefore, the prevention and treatment of TB is essential for effective HIV treatment and care.

TB remains the most common opportunistic infection for people living with HIV/AIDS, including those on antiretroviral therapy and is a leading cause of mortality for people living with HIV in low and middle income countries. Figure 27 illustrates the synergic relationship between HIV and TB which shows the declining number of TB patients subsequent to the reduction in HIV prevalence in Zimbabwe. Because of this synergistic impact between HIV and TB, Africa is experiencing the worst TB epidemic since the advent of antibiotics. (About half of the children living with HIV in South Africa are co-infected with TB).

Figure 27: Relationship between TB case notification rate and HIV prevalence Zimbabwe 1990 - 2006

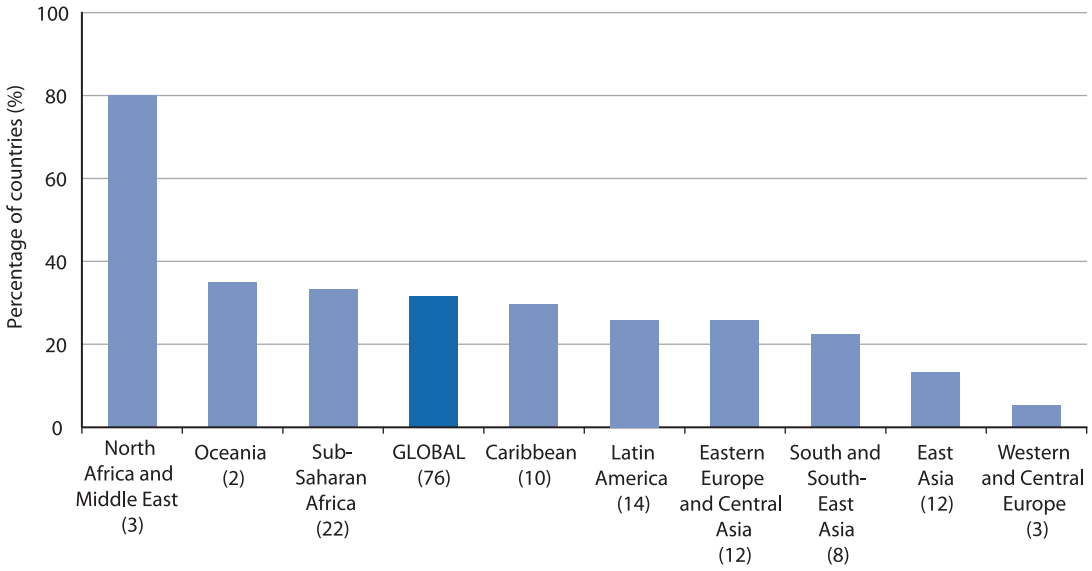


Source: WHO Global TB control report 2008 (WHO, 2008a); UNAIDS HIV prevalence estimates.

(Source: Global HIV Report 2008, UNAIDS)

Treatment of TB in individuals living with HIV follows the same basic approach as for patients not infected with HIV. However, despite the existence of affordable, well understood treatments for TB, only 32% of TB/HIV co-infected patients received both antiretroviral and anti-TB drugs. This fact was revealed through the UNGASS data provided by countries in 2008 (Figure 28).

Figure 28 : Percentage of Incident TB patients among people living with HIV receiving both antiretroviral treatment and anti-TB treatment 2007

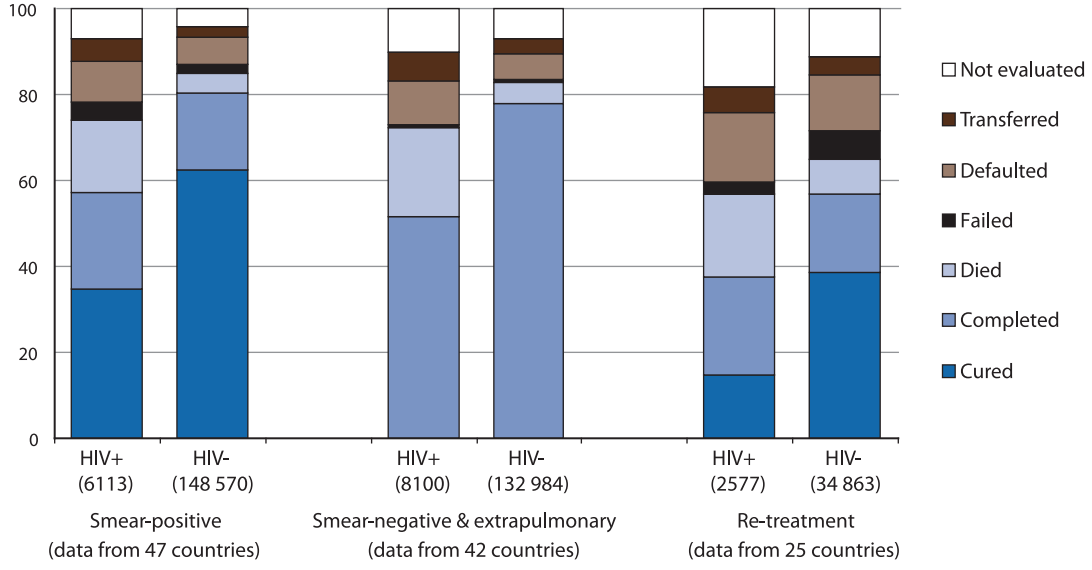


Source: UNGASS data provided by countries, 2008.

(Source: Global HIV Report 2008, UNAIDS)

Non HIV infected TB patients, in comparison to TB patients who are living with HIV have lower treatment success rates, primarily due to an increased risk of death and to a lesser extent, higher default rates. Figure 29 illustrates the treatment outcomes for HIV positive and HIV negative TB patients in 2005.

Figure 29: Treatment outcomes for HIV positive and HIV negative TB patients 2005



Source: WHO Global tuberculosis control: surveillance, planning, financing. World Health Organization, Geneva.

(Source: Global HIV Report 2008, UNAIDS)

It is recommended that HIV positive TB patients routinely receive co-trimoxazole, which can result in a 40% reduction in mortality. Regardless of HIV status, careful adherence to TB regimens is essential to avoid the emergence of drug resistance. People living with HIV have been shown to be twice as likely to have multi-drug resistant TB as people who do not have HIV infection. It is very important to prevent active TB in people living with HIV/AIDS. Therefore, it is recommended that all people living with HIV be screened regularly for active TB disease. According to the WHO recommendations, in the absence of evidence of active disease, individuals should be considered for treatment of latent TB infection with 6 – 9 month course of preventive therapy. According to the UNAIDS Report on the Global AIDS epidemic 2008, only 42% of countries with generalized epidemics have implemented routine TB screening for HIV positive patients and only 27% provide TB preventive therapy for people living with HIV. Globally, only 27,000 HIV positive people in low and middle income countries were started on isoniazid preventive therapy in 2006 and nearly all of them were in Botswana.

Among the 9.27 million incident cases of TB in 2007, an estimated 1.37 million were HIV positives. The African Region accounted for 79% of HIV positive TB incident cases, followed by the South-East Asia Region, mainly India with 11% of total cases. The risk of developing TB in HIV positive people compared with HIV negative people is 20.6 times higher in countries with generalized HIV epidemic. An estimated 1.3 million deaths occurred among HIV negative incident cases of TB in 2007. There were an additional 456,000 deaths among incident TB cases who were HIV positive. There were 456,000 deaths among HIV positive incident TB cases in 2007 (23% of the estimated 2 million HIV deaths in 2007).

There has been major progress in implementing interventions such as testing TB patients for HIV and providing co-trimoxazole preventive therapy (CPT) and antiretroviral treatment (ART) to HIV positive TB patients. Globally 1 million TB patients (16% of notified cases) knew their HIV status in 2007. Despite the progress that has been made with scaling up of collaborative TB/HIV activities, HIV testing is outpacing the provision of co-trimoxazole preventive therapy and antiretroviral treatment. The number of HIV positive TB patients being treated with CPT and ART is small compared with the 0.3 million known co-infected patients and much smaller when compared with the estimated 1.37 million HIV positive TB incident cases.

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

As the large number of HIV infected persons are in the SAARC Region particularly in India, Bangladesh and Pakistan with high rates of TB transmission and the presence of high TB prevalence, the HIV epidemic could have significant implications on TB control in the Region. Collaborative TB/HIV activities are critical in order to ensure that HIV positive TB patients are identified and treated and also to prevent active TB disease in latently infected HIV positive people. HIV Testing for TB patients is a critical entry point for both treatment and prevention. There was a significant progress in offering HIV testing for TB patients between 2002 and 2007 as health care providers initiated the “provider initiated HIV testing” for newly diagnosed TB patients.

India :

TB is the commonest opportunistic infection amongst HIV-infected individuals. A low cost and highly effective curing treatment for TB is provided by the Revised National TB Control Programme (RNTCP) which is implementing the DOTS strategy nationwide. TB-HIV collaborative activities started in 2001, in six states with high HIV prevalence (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 – 2008, TB-HIV collaborative activities were to be extended to the entire country and have been included as an integral part of NACP-III and RNTCP-II.

Key activities identified for TB/HIV coordination were as follows :

1. Establishment of coordination mechanisms at various administrative levels.
2. Service delivery coordination and cross referrals and establishment of linkages between service delivery sites such as ART centres, ICTCs, care and support centers and RNTCP diagnostic and treatment services. Figure 28 illustrates the progress achieved by cross referral system implemented in India between service delivery points of AIDS Control Programme and TB Control Programme.
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.

Table 08 : Data on detection and treatment for HIV in TB patients in India 2007

Category	Number or Percentage
Number of TB patients with known HIV status	80,425
Number of TB patients with known HIV status as a percentage of all notified TB patients	5.5%
Number of TB/HIV co-infected patients	9,324
Number of TB/HIV co-infected patients as a percentage of estimated TB/HIV co-infected cases	9%
Number of TB/HIV co-infected patients on Co-trimoxazole Preventive Therapy	724
Number of TB/HIV co-infected patients on Co-trimoxazole Preventive Therapy as percentage of notified TB/HIV co-infected cases	7.8%
Number of TB/HIV co-infected patients on Antiretroviral treatment	162
Number of TB/HIV co-infected patients on Antiretroviral treatment as a percentage of notified TB/HIV co-infected cases	1.7%

(Source: Global TB Control 2009, WHO)

Table 09: Data on screening of HIV positive patients for TB in India 2007

Category	Number or Percentage
Number of HIV positive patients registered for HIV care	277,760
Number of HIV positive patients screened for TB	50,586
Number of HIV positive patients screened for TB as a percentage of HIV positive patients registered for HIV care	18%
Number of HIV positive patients with active TB disease started on TB treatment	7130
Number of HIV positive patients with active TB disease started on TB treatment as a percentage of registered for HIV care	2.6%
Number of HIV positive patients without active TB disease started on Isoniazid Prophylaxis Treatment	-

(Source: Global TB Control 2009, WHO)

Bangladesh:

The overall prevalence of HIV infection is less than 0.1% among the general population. However, HIV Surveillance among high-risk groups has found increasing HIV prevalence in these most at risk populations. A national TB/HIV coordinating body has been established. Programmatic guidelines for MDR TB and TB/HIV co-infection were developed in 2008.

Pakistan:

Collaborative TB/HIV activities were planned under the National AIDS Control Programme of Pakistan. National AIDS Control Programme and National Tuberculosis Control Programme collaborate for staff training in management of TB/HIV co-infection. Pakistan has established the referral system for diagnosis and treatment of HIV in Tuberculosis patients. However, collaborative TB/HIV activities have not yet been scaled up.

Afghanistan:

Despite the difficult situation prevailing in the country, Afghanistan achieved a case detection rate of 61% in 2007. The treatment success rate was 79% for the 2006 cohort of TB patients. Afghanistan is a low prevalence country for HIV infection but is one of the highest burden countries in the world for TB. Hence it is cost effective to screen all the reported HIV patients for TB to find out whether they are having active TB disease or the latent infection in order to take measures to minimize the morbidity and mortality among people living with HIV. Several important components of TB control have not yet been addressed. They are management of MDR-TB, implementation of the contact investigation and the development of the collaborative TB/HIV activities.

Bhutan:

In Bhutan, the cumulative number of 144 HIV patients was reported as at the end of March 2008. Number of TB/HIV co-infected persons reported was 11 as at the end of 2007. All TB patients are offered HIV Testing in Bhutan. Since 2003, Maldives initiated to screen all HIV patients for TB and all TB patients were offered HIV testing as a collaborative activity of both National AIDS Control Programme and National TB Control Programme. Nepal conducts HIV Surveillance among incident cases of TB since 1993 at five assigned sentinel sites. A technical working committee was established in Nepal for TB/HIV co-infection in 2006.

Sri-Lanka:

Sri-Lanka initiated HIV Sentinel Surveillance since 1993 which included incident TB cases as one of the sentinel groups. Because of the civil war situation of the North and Eastern Provinces in the country from 1993 to 2001 surveillance was carried out in seven provinces out of nine provinces in the island. Since 2002, Sri-Lanka started to screen incident TB cases in all the provinces in the country till 2007. This activity conducted as a collaborative annual event of both National STD/AIDS Control Programme and National TB Control Programme of Sri-Lanka. Furthermore, National STD/AIDS Control Programme in Sri-Lanka screens all the registered HIV infected patients for TB as a routine procedure. Table 10 illustrates the prevalence of TB/HIV co-infection in Member States of the SAARC Region as at the end of 2007.

Table10: Prevalence of TB/HIV Co-infection in Member States of SAARC Region 2007

Country	Prevalence
Afghanistan	< 0.05%
Bangladesh	0%
Bhutan	1.7%
India	5.3%
Maldives	0.8%
Nepal	2.4%
Pakistan	2.1%
Sri-Lanka	0.1%

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10. Annual report: National Tuberculosis Control Programme, Nepal; 2006/07
11. HIV Situation in India, NACO 2007 An Update

Chapter 05

SAARC TB & HIV/AIDS Centre in Prevention & Control of HIV/AIDS & TB/HIV Co-infection in the SAARC Region

The Heads of Member States of SAARC, at their Fifth Summit held in Male from 22nd to 23rd 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, which was to work for the prevention and control of TB in the Region, has been extended to include the prevention & control of both HIV/AIDS and TB/HIV Co-infection in the Region. Then the Centre has been renamed as **SAARC TB & HIV/AIDS Centre** (STAC) in November 2005. Since November 2005, STAC has been geared for prevention and control of both TB and HIV/AIDS in the Region by coordinating the efforts of the National Tuberculosis Control Programms (NTPs) and National AIDS Control Programms (NACPs) of SAARC Member States.

General Objective :

To work for prevention and control of TB and HIV/AIDS in the Region by coordinating the efforts of the National TB Control Programmes and National HIV/AIDS Control Programmes of the Member States.

Specific Objectives :

1. To act as a Regional Co-ordination Centre for National Tuberculosis and HIV/AIDS Control Programmes in the region
2. To promote and coordinate action for the prevention of TB/HIV co-infection in the region
3. To collect, compile, analyze and disseminate all relevant information regarding the latest development and findings in the field of TB, HIV/AIDS and TB/HIV co-infection in the region and elsewhere
4. To establish the epidemiological network, laboratory network etc. among the National TB and HIV/AIDS Control Programmes of Member States
5. To plan and implement and coordinate the research studies in technical, operational aspects and other aspects related to TB, HIV/AIDS and TB/HIV co-infection in the region
6. To assist Member States for harmonization of policies and strategies on TB, HIV/AIDS and TB/HIV co-infection
7. To develop the capacity of human resources in National TB and HIV/AIDS Control Programmes in the region
8. To support National TB Reference Laboratories in the region in quality assurance of sputum microscopy and standardization of culture and drug sensitivity testing and implementation of bio-safety measures
9. To conduct situation analysis of TB and HIV/AIDS related aspects in Member States and other important tasks identified by the technical committees and Governing Board
10. To organize advocacy, awareness and partnership programmes with the coordination of National Programmes of the Member States.

Activities :

STAC coordinates and collaborates with National HIV/AIDS Control Programmes of Member States for conducting variety of activities to support the response of the Member States towards HIV/AIDS epidemic & TB/HIV co-infection. The following activities listed were directly or indirectly related to the strengthening services for people living with HIV/AIDS. Table 11 shows the trainings conducted by the SAARC TB and HIV/AIDS Centre, Nepal for Member States from 1994 - 2009.

Table 11: Training of Trainers organized and conducted by STAC 1994 -2009

Country	Number of Training conducted (%)
Afghanistan	-
Bangladesh	03
Bhutan	02
India	05
Maldives	01
Nepal	10
Pakistan	03
Sri Lanka	03
Total	27

Table 12: Training Activities organized by STAC in collaboration with NTP & NACP in Member Countries -1994-2009

Training	Country	Year
Training Programme for Trainers in Tuberculosis Control in SAARC Countries	Kathmandu, Nepal	1994
Training Programme for Trainers in Tuberculosis Control in SAARC Countries,	Kathmandu, Nepal	1995
SAARC Regional Training on Tuberculosis Bacteriology	Bangalore, India	1996
Training programme for Regional/ District TB programme Coordinators in SAARC Member Countries	Kathmandu, Nepal	1996
SAARC Regional Training on Strengthening IEC Activities on TB and HIV/AIDS	New Delhi, India	1998
Training of Trainers on Tuberculosis control in SAARC Countries	Male, Maldives	1998
SAARC Training programme for Regional TB Co-coordinators.	Kathmandu, Nepal	1998
SAARC Trainer Training Course for TB Control Programme Managers,	Bhutan	2000
SAARC Trainers Training on TB Control programme management, National TB Institute	Bangalore, India	2001
SAARC Trainer Training on TB Control programme Management	Colombo, Sri-Lanka	2002
SAARC Training for Regional/District Level TB Programme Managers to strengthen their Skills in Data management	Kathmandu, Nepal	2002
SAARC Regional Epidemiological Training & Training Session on Integration of Gender in Epidemiological Reports	Kathmandu Nepal	2003

Preparation of SAARC Regional Training Modules Guidelines for TB Control Programme	Kathmandu Nepal	2003
SAARC Trainers Training on Tuberculosis Control Programme Management	Islamabad Pakistan	2003
SAARC Trainers Training on Tuberculosis Control programme Management Organized	Dhaka, Bangladesh.	2004
SAARC Training on Data Management of TB & HIV/AIDS Control Programmes,	Kathmandu, Nepal	2005
SAARC Trainer's of Training on TB Control Programme Management,	Islamabad, Pakistan	2005
SAARC Regional Training of Trainers on DOTS PLUS,	Kathmandu, Nepal	2006
SAARC Regional Training for Trainers (TOT) on Quality Assurance in Sputum Microscopy,	Paro, Bhutan	2006
SAARC Regional Training on Leadership & Strategic Management in TB & HIV/AIDS	Bangalore, India	2006
SAARC Regional Training on Computer based Data Management Applications for TB and HIV/AIDS Data Managers,	Islamabad, Pakistan	2006
SAARC Regional Training of Trainers on Management of Drug Resistant TB (DOTS Plus)	Sri Lanka	2007
SAARC Regional Training of Trainers (TOT) on Essential Technical & Operational Aspects of DOTS PLUS	Kathmandu, Nepal	2008
SAARC Regional Training of Microbiologist for Sputum Culture/ Sensitivity	NTI, Bangalore, India	2008
SAARC Training on Technical and Operational Aspects of Anti Retro Viral Therapy",	Colombo, Sri Lanka	2008
SAARC Training on Technical and Operational Aspects of Anti Retro Viral Therapy	Dhaka, Bangladesh	2008
SAARC Training on Leadership and Strategic Management for National and Regional Level TB and HIV/AIDS Programme Managers	Dhaka, Bangladesh,	2009

Table 13: Seminars Conducted

Topic	Country	Year
Socio-cultural aspects of TB	Kathmandu, Nepal	1993
TB control	Kathmandu, Nepal	1994
TB control through PHC approach	Kathmandu, Nepal	1995
TB control	Kathmandu, Nepal	1997
Anti-TB Drugs	Kathmandu, Nepal	1997
Gender and sociological issues related to TB	Kathmandu, Nepal	1999
Advocacy and IEC Materials on TB and HIV/AIDS	Kathmandu, Nepal	2000
Cross border activities in controlling TB and HIV/AIDS	Islamabad, Pakistan	2008

Table 14: Workshops Conducted

Topic	Country	Year
Preparation of Health Education Materials to fulfill the need of the Member States	Kathmandu, Nepal	1995
Formulation of guidelines for coordination in Public, Private and NGO sector initiative of TB control	Kathmandu, Nepal	1997
Research on TB and HIV/AIDS in Member States	Kathmandu, Nepal	1997
SAARC & CIDA workshop on TB and HIV/AIDS control	Kathmandu, Nepal	1999
Operational Research for TB control in Member States	Kathmandu, Nepal	2000
Strategic planning for TB and HIV/AIDS control in the region	Kathmandu, Nepal	2001
Development of research protocol related to operational research	Kathmandu, Nepal	2002
Regional workshop of nodal officers of Member States under SAARC – Canada Regional Tb & HIV/AIDS Project	Kathmandu, Nepal	2003
Workshop to develop SAARC Regional TB, HIV/AIDS & TB/HIV co-infection strategy	Kathmandu, Nepal	2003
Regional workshop on TB/HIV co-infection and Fixed dose combinations in TB treatment protocol	Kathmandu, Nepal	2004
Regional workshop on TB drug management and to develop guidelines for treatment of MDR-TB	Kathmandu, Nepal	2004
Quality assurance of sputum microscopy	Islamabad, Pakistan	2004
Regional workshop to develop protocol for quality assurance on culture and DST in National TB Laboratories	Islamabad, Pakistan	2005
SAARC Regional workshop on TB/HIV co-infection to identify the research areas and to develop research protocols	Pune, India	2005
SAARC Regional workshop to revise regional guidelines on quality assurance	Colombo, Sri-Lanka	2006
Workshop to develop regional guidelines for treatment of MDR-TB	Paro, Bhutan	2007
Regional workshop on TB/HIV co-infection	India	2007
SAARC Regional workshop on development of strategic mechanisms for cross border activities in control of TB and HIV/AIDS	New Delhi, India	2007
SAARC workshop on involvement of media for public awareness and advocacy on TB and HIV/AIDS	Islamabad, Pakistan	2007
SAARC Regional Workshop for development of research protocols for 2009 and observation of TB/HIV coordination mechanism	Pune, India	2008

Table 15: Meetings Organized

Topic	Country	Year
Consultative meeting on TB and HIV/AIDS	Nepal	1996
Meeting for TB experts to compile TB control training manuals of Member States	Nepal	1997
Meeting for TB Programme Managers	Nepal	1998
Meeting for formulate the Urban TB control Programmes	Nepal	1999
SAARC-WHO meeting for potential consultants in TB control	Nepal	2001
SAARC-WHO meeting on cross border issues in TB and HIV/AIDS	Nepal	2001
Meeting for Directors of National TB Reference Laboratories of SAARC Member States	Nepal	2002
SAARC Consultative meeting for TB and HIV/AIDS Programme Managers	Nepal	2003
SAARC Regional Meeting for Directors of National TB Reference Laboratories of SAARC Member States	Nepal	2003
SAARC-UNAIDS Joint Regional Experts meeting to develop a SAARC Regional Strategy on HIV/AIDS	Bangladesh	2005
Second SAARC-UNAIDS Joint Regional Experts meeting to develop a SAARC Regional Strategy on HIV/AIDS	Bangladesh	2006
TB Programme Managers Meeting	Maldives	2006
Regional Consultative and Strategic Planning Meeting of HIV/AIDS Programme Managers	Maldives	2007
Third SAARC Regional Meeting for Directors of National TB Reference Laboratories of SAARC Member States	Bhutan	2007
SAARC Regional Meeting for Programme Managers of TB and HIV/AIDS Control Programmes of Member States	Nepal	2007
Meeting for a group of Experts in Print and Electronic Media	Nepal	2007
SAARC Regional Meeting for Programme Managers of Tb and HIV/AIDS Control Programms of Member States	Maldives	2008

Research activities:

The Centre has conducted the following research studies:

1. Gender Differences among Tuberculosis Patients in National TB Control Programs within SAARC Countries – 2004.
2. Barriers in Seeking Health Care in TB Control Program:

a. A community based pilot study in Nepal – 2004

b. An institutional based pilot study in Bangladesh 2005.

3. Quality Assurance of Sputum Microscopy in Private Laboratories in Nepal – 2005.
4. Prevalence of HIV among diagnosed TB patients in Nepal – 2005.
5. Prevalence of HIV among diagnosed TB patients in Pakistan - 2006
6. Community based research study to identify behavioural risk factors for acquisition of HIV/AIDS among women in Nepal – 2007

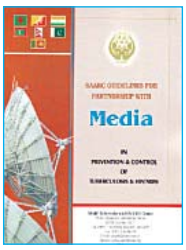
7. Quality Assurance of Sputum Microscopy in Private Laboratories in Dhaka – 2007
8. Acceptability of HIV testing by TB patients in SAARC Member States – 2007
9. Case control study to identify risk factors for MDR-TB in Nepal – 2008
10. Barriers to DOTS among MDR-TB patients in Nepal – 2008

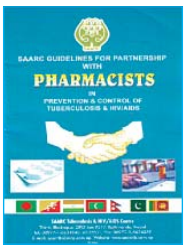
Situation Analysis & Reviews:

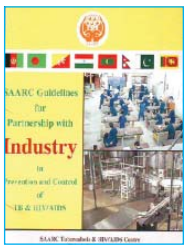
1. Situation Analysis of TB, HIV/AIDS and HIV/Co-infection in SAARC Region conducted in 2003
2. Situation Analysis of Quality Assurance of Sputum Microscopy in Nepal and Bhutan conducted in 2003 and 2004 respectively
3. Situation Analysis of Anti-TB Drugs in use in National TB Control Program (NTP) in SAARC Member States carried out in 2004.
4. Situation Analysis of Training Materials/Guidelines in use in National TB Control Program (NTP) in SAARC Member States.
5. Situation Analysis of TB Control Activities and Observation of HIV/AIDS Control Activities conducted in Sri Lanka, Maldives and Bangladesh in 2004.
6. Situation Analysis of TB and HIV/AIDS Control Activities, Epidemiological and Laboratory network Activities conducted in Bhutan in 2005.
7. Involvement of Medical Colleges in National TB Control Program (NTP) in SAARC Member States carried out in 2005.
8. Situation Analysis of TB and HIV/AIDS control programs in Nepal, December – 2006
9. Situation Analysis of TB and HIV/AIDS control programs and Laboratory in Pakistan – December 2007.
10. Collection of information/data and publish book on epidemiological trend of last ten years on TB and HIV/AIDS in the SAARC Member States (analytical study book on TB and HIV/AIDS) - 2008
11. Review of research activities as conducted by SAARC Member States in last five years pertaining to TB and HIV/AIDS - 2008
12. Review of available training facilities/manuals type of training for different level health workers in the field of TB and HIV/AIDS – 2008

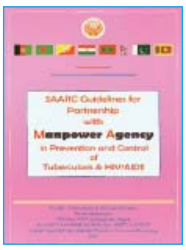
Partnership Programs:

STAC has been supplementing Member States in their efforts by taking initiatives to develop partnership and/or strengthening partnership with various stakeholders by organizing Partnership Programmes with Schools, Media, Industry, Private Practitioners, Medical / Nursing Colleges and Manpower Agencies. The following Guidelines for partnership Programs have been published.







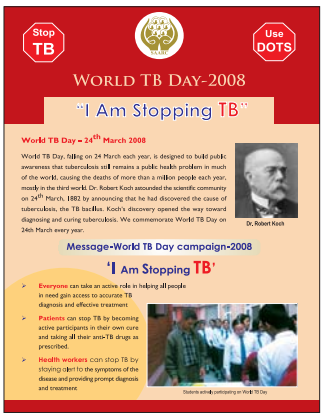


Commemoration of World TB Day, World AIDS Day and SAARC Charter Day :

These are the major events for advocacy & to raise the awareness to control TB, prevent HIV/AIDS and promote SAARC as a common forum to work together for the benefit of the people of the Region. The prominent personalities have given their messages on the occasion of World TB Day. STAC had published a book of messages and brochure on the occasion of World TB Day and disseminated to the SAARC Member States and other interested persons and organizations.

Compilation of Messages given by H.E. Secretary General of SAARC and high level dignitaries from SAARC Member States on the occasion of World TB Day

Brochure on facts and figures about TB and its control published and distributed by STAC on the occasion of World TB Day



STAC has been organizing awareness and advocacy Programs on the occasion of World TB Day and SAARC Charter Day. Since 2004, the Centre has also been organizing similar programmes on the occasion of World AIDS Day.

SAARC Regional Strategy for TB/HIV Co-infection :

According to the mandate given by the Eleventh SAARC Summit, a Regional Strategy on TB/HIV Co-infection has been developed in consultation with SAARC Member States, civil society in the Region, the relevant international organization and with technical support from Health Canada, in 2003. The strategy presents an overview of interaction between the two epidemics and the impact of the co-infection on the epidemiology and control of both the diseases. The expected outcomes were:

- Establishment of collaboration between National TB and HIV/AIDS programs
- Strengthening of Regional and National Epidemiological Surveillance Network for TB, HIV/AIDS and TB/HIV Co-infection
- Conducting Operational Research on pertinent issues
- Development and implementation of Regional and National communication plans

SAARC Regional Strategy on HIV/AIDS :

The countries of the Region are linked to age-old cultural, social and historical traditions that enrich the interaction of ideas, values, cultures and philosophies among the people and the states. The commonalities constitute solid foundations for regional cooperation in more effectively addressing the economic and social needs of the people. The size of the region, its diversity, the multitude of social and economic forces at work in SAARC presents both opportunities and challenges to a regional approach against HIV/AIDS.

On the directive of the Twelfth Summit of SAARC, a Regional Strategy on HIV/AIDS has been developed through a consultative process and close collaboration with the Joint United Nations Program on HIV/AIDS (UNAIDS) in 2005, which has been approved by 31st Session of Standing Committee of SAARC held in Dhaka, Bangladesh on November 9 – 10 in 2005.

Publications :

The Centre publishes important documents on the priority areas on TB & HIV/AIDS control. STAC Newsletter and SAARC Journal of Tuberculosis, Lung Diseases and HIV/AIDS are publilshed twice in a year. The Centre publishes annual epidemiological reports on TB as well as HIV/AIDS and Annual Reports of STAC activities on an yearly basis. The Centre also publishes all Program activities report, research report and special publications. The under mentioned publications were distributed to experts in TB, experts in HIV/AIDS, libraries of Medical/Nursing Colleges and concerned authorities of SAARC Member States, bilateral partners etc.

1. STAC Newsletter
2. SAARC Journal of TB, Lung Diseases and HIV/AIDS
3. Directory of TB Institutions & Specialists in SAARC Member Countries
4. General Information on TB & its Control in SAARC
5. Role of Students in TB Control
6. Role of SAARC TB Centre
7. Role of NGOs in TB Control
8. Role of Private Practitioners and Medical Colleges
9. Articles on Tuberculosis and HIV/AIDS in the SAARC Region, Vol. I
10. Commercial Sex Workers in SAARC Region
11. Gender Issue in Tuberculosis and HIV/AIDS in the SAARC Region
12. TB and HIV/AIDS Co-epidemic in the SAARC Region
13. Articles on TB and HIV/AIDS in the SAARC Region Vol. II
14. SAARC Regional Strategy for TB/HIV Co-infection
15. Gender Differences among Tuberculosis Patients in National TB Control Programs with SAARC Countries
16. SAARC Guidelines for Partnership with Schools in Prevention & Control of Tuberculosis
17. SAARC Guidelines for Partnership with Media in Prevention & control of Tuberculosis
18. SAARC Guidelines for Partnership with Pharmacists in Prevention & control of Tuberculosis
19. SAARC Guidelines for Partnership with Travel Agency in Prevention & control of Tuberculosis
20. SAARC Guidelines for Partnership with Manpower Agency in Prevention & control of Tuberculosis
21. SAARC Guidelines for Partnership with Industry Workers in Prevention & control of Tuberculosis
22. Epidemiological reports, yearly update - TB update and HIV update (separate book)

SAARC Conference on TB, HIV/AIDS and Respiratory Diseases :

SAARC First Conference on TB, HIV/AIDS and Respiratory Diseases was held from 14th to 17th of December 2004 in Kathmandu, Nepal. Around 600 participants from Member States and other countries participated in the conference.

SAARC Second Conference on TB, HIV/AIDS & Respiratory Diseases was organized in Kathmandu, Nepal from 15th to 18th December 2008. The theme of the conference was “Working together to fight against TB, HIV/AIDS & Respiratory Diseases”. More than 650 participants from SAARC Member States and other countries participated in the conference as it provided a conducive platform to share information and experiences among the members of the scientific community.

Table 16: Training Activities planed by SAARC TB & HIV/AIDS Centre for Member Countries in 2009

Title of the Training	Country	To be Conducted in
SAARC Training on Leadership & Strategic Management for National and Regional Level TB and HIV/AIDS Programme Managers	Dhaka, Bangladesh	June Conducted
SAARC Regional Training for Operational Research	Jaipur, India	August Conducted
SAARC Regional Training of Microbiologist for Sputum Culture/Sensitivity in collaboration with NTI, Bangalore, India	NTI, Bangalore, India	August Conducted
SAARC Regional Training on Counseling, Testing, Care & Support and Anti Retro Viral Therapy (ART)	Kathmandu, Nepal	October
SAARC Regional Training on Data Management	Sri Lanka	November/December
SAARC Regional Training of Programme Managers on DOTS PLUS (MDR-TB)	Islamabad, Pakistan	December

Country Profiles

Afghanistan

Islamic Republic of Afghanistan is one of the eight countries of the SAARC Region. Afghanistan is a land-locked country, surrounded by Pakistan, Iran, Turkmenistan, Uzbekistan, Tajikistan and China. The land area is 652,225 square kilometers. The primary administrative unit in Afghanistan is a Province which is governed by a Governor. Afghanistan consists of 34 Provinces and 398 Districts.

Population of Afghanistan is 24.5 million in 2008. Of that 22% is categorized as urban dwellers. Afghanistan is one of the least developed countries in the world with 70% of the population living in extreme poverty and health vulnerability. Years of conflict has taken a devastating toll on human, social and economic indicators in Afghanistan, resulting in some of the lowest human development indicators in the world. Table 17 illustrates some of the important demographic indicators, socio-economic indicators, human and physical resources indicators and health status indicators. The figures throw some light in understanding the situation in Afghanistan.

Table 17: Country Profile of Afghanistan
Important socio-demographic and health indicators

Demographic Indicators		
Indicator	**Value**	**Reference Year**
Crude Birth Rate	48/1000 population	2007
Crude Death Rate	22/1000 population	2002
Population Growth Rate	2%	2007
Total Fertility Rate	6.3/woman	2005
Socio-economic Indicators		
Adult Literacy Rate (Total)	31%	2005
Adult Literacy Rate (Male)	43%	2005
Adult Literacy Rate (Female)	20%	2005
Human & Physical Resources Indicators		
Physicians per 10,000 population	2	2007
Dentists per 10,000 population	5	2007
Pharmacists per 10,000 population	0.3	2007
Nurses & Midwives per 10,000 population	0.3	2007
Hospital Beds per 10,000 population	4.2	2007
Primary Health Care units & centres per 10,000 population	0.6	2003
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	16%	2006
Antenatal Care Coverage	32%	2006
Births attended by skilled personnel	19%	2006
Infants attended by trained personnel	20%	2003

Health Status Indicators		
Total life expectancy at birth	46.0 years	2003
Life expectancy at birth (male)	47.0 years	2003
Life expectancy at birth (female)	45.0 years	2003
Neonatal Mortality Rate per 1000 live births	60.0	2006
Infant Mortality Rate per 1000 live births	129.0	2006
Under five Mortality Rate per 1000 live births	191.0	2006
Maternal Mortality Rate per 100,000 live births	1600	2006

(Source: WHO website – www.emro.who.int/afghanistan)

According to the Afghanistan National Strategic Framework for HIV/AIDS (2006 – 2010), only 28.7% of Afghans over the age of 15 years can read or write. Life expectancy in Afghanistan is 44.5 years at birth and it is at least 20 years lower than that of neighbouring countries. The mean maternal mortality rate is 1600/100,000 live births that is death of a woman every 30 minutes in Afghanistan from causes related to pregnancy and child birth. Afghans comprise the second largest number of refugees and internally displaced people in the world.

HIV/AIDS Situation :

Systematic data on the prevalence of HIV/AIDS and other sexually transmitted infections are scarce. The current sources of data on HIV/AIDS are the Central Blood Bank, Kabul and the Voluntary Counselling and Testing Centres in Kabul which were established in 2005. The data of the Central Blood Bank indicates the detection of first HIV positive person in Afghanistan in 1989. Since 1989 till 2005 the Central Blood Bank reported 67 HIV positive cases out of 125,832 blood samples screened in the country using rapid testing kits. Of them 30 were refugees or returnees from neighbouring countries. According to the National data provided to the SAARC TB and HIV/AIDS Centre by the National AIDS Control Programme of Afghanistan, there were 556 HIV positives detected since 1989 till December 2008. However, UNAIDS and WHO estimate that there could be between 1000 – 2000 Afghans living with HIV/AIDS. 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.

Emerging HIV epidemic of Afghanistan is likely to be fueled by a combination of injecting drug use and unsafe paid sex. According to the Afghanistan HIV/AIDS Prevention Project Annual Report issued in August 2008, HIV prevalence among general population is less than 0.5% and among High Risk Groups such as Injecting Drug Users (IDUs) and Sex workers was 3%. The above report expressed that 53% of IDUs reported of using sterile injecting equipments at last time they injected drugs and only 16% of them reported using a condom at the last time they had sex. Meanwhile 24.3% of sex workers reported of using a condom with their most recent client. Afghanistan HIV/AIDS Prevention Project reported 46% of Most at Risk Populations (IDUs, Sex Workers, truckers, Prisoners) was able to correctly identify two ways of preventing HIV transmission.

Risk and vulnerabilities :

Afghanistan is considered to be a country of low HIV prevalence but at high risk for rapid spread of HIV infection. The reasons for that are several:

- Over two decades of protracted armed conflict
- Extremely low socio-economic status of women
- Existing high levels of illiteracy
- Low levels of condom use

- Large numbers of internally and externally displaced Afghans
- Extremely poor social and public health infrastructure
- Drug production and drug trafficking
- Injecting drug use
- Low level of blood safety
- Unhygienic injecting practices

These risk factors warrant early interventions to prevent a potentially exponential spread of HIV in Afghanistan. The under mentioned risks and vulnerabilities that play a major role in spreading HIV/AIDS from most at risk populations through bridging groups to the general population require further investigation to track the magnitude of the problem and the trends over the years.

- **Drug abuse:** Afghanistan is one of the largest producers of opium in the world. Opium and heroin abuse appear to be more severe in areas where those drugs are produced. There is currently no data on the number of Afghans who inject drugs, a reliable report from Gardez town in Paktia province suggests that there are well over 100 IDUs, injecting heroin, morphine and pentazocine. A research conducted by John Hopkins Bloomberg School of Public Health on Pakistani and Afghan drug users at high HIV risk indicates that only 16% of the study participants had heard of HIV/AIDS. All the Afghan drug users who had sex had never used a condom. Of the respondents 6.3% had reported injecting drug use and 43% of this group had shared injecting equipment, on an average shared with 4 – 6 users at one time. A study conducted by UNODC in 2006 on Kabul Heroin Users indicates that heroin abuse is spreading in the city. They found that there were at least a minimum of 7015 heroine addicts in Kabul city, of them more than 400 were injecting drug users.

  A recent UNODC and Ministry of Counter Narcotics Study reports that there were 920,000 estimated drug users in the country with an estimated 15% of 50,000 heroin users were injecting the drugs. Because of the intensification of the war against drugs may lead to reduction in the availability of the inhalational form of heroin which may in turn increase the drug users turning towards injecting drugs. The above situation combined with poverty and the lack of information can lead to widespread increase in injecting drug use and to share the contaminated injecting equipments. The use of non-sterile injecting equipments can kick off the HIV epidemic with a resultant exponential increase in HIV prevalence.

- **Commercial Sex Work:** There are findings of the two research studies conducted among commercial sex workers in Afghanistan. The ORA International Study, conducted in 4 districts of Kabul province found that knowledge on HIV/AIDS among 126 sex workers was less than 1%. The same study revealed that only 1% of sex workers were using condoms. Of the female sex workers 78% were married.

- **Mobile Populations (Refugees, Internally Displaced People, Truck Drivers and Migrant Workers):** Refugees and internally displaced people are particularly vulnerable to HIV for various reasons. Among the subjecting to sexual abuse, violence and lack of access to information, education and basic preventive services are affecting them significantly. Over five million Afghans have been living as refugees or displaced persons in the past decade and over two million of those refugees living in Pakistan. Afghan truck drivers can be considered to be a high risk group for acquiring and transmitting HIV as they travel to the surrounding countries with the growing burden of HIV/AIDS and other sexually transmitted infections. Currently there is no data on HIV prevalence or risk behaviours of the Afghan truck drivers. An estimated figure of 1 million Afghans leave Afghanistan annually for employment in neighbouring countries. These migrant workers are spending long periods away from their homes and families putting them at vulnerable position to indulge in

risky behaviours. However, no data is available on risk behaviours and on HIV prevalence among Afghan migrant workers.

- **Blood Safety:** The prevailing standard of the blood transfusion services through out the Afghanistan is of primary concern to the National AIDS Control Programme. An estimated 22 hospitals in the country out of 44 perform surgeries without systematically testing blood units for HIV prior to transfusion. Approximately 60,000 transfusions were given annually in Afghanistan and of that no more than 30% have been tested for blood borne infections. Hence, blood transfusion is of major concern in order to minimize blood borne infections including HIV/AIDS and Hepatitis B and C.

- **Sexually Transmitted Infections (STIs):** No confirmed data on the prevalence of STIs in Afghanistan. However, according to the findings of the clinical records of the private clinics in large cities suggest that there is high prevalence of STIs in the country. Gonorrhoea is the most common STI.

- **Condom use and knowledge on HIV/AIDS**: According to the final version of Afghanistan National Strategic Framework for HIV/AIDS, 2% of married women in South Eastern Region and 8% of them in Eastern Region of Afghanistan use some form of modern contraceptives. The most common form of contraception was Depot Medroxy Progesteron Acetate injection and the use of condoms was very low. Condoms are available through MCH clinics, pharmacies, shops and even with the road side sellers. However, according to a study done in 2005, the use of condoms was very low even among commercial sex workers as only 1% of them were using condoms during the casual commercial sexual encounters.

- **Gender and Socio-economic Aspects:** Two decades of conflict, human loss and displacement together with the low status of women imparted a severe impact on health sector of the Afghanistan with women being hardest hit. Women's health is extremely poor due to malnutrition, frequent pregnancies with out basic care and trained delivery assistance and lack of access to services or at least to information. According to the Afghanistan National Strategic Framework 2006 – 2010, 54% of girls under the age of 18 were reported to be married. Violence against women, women and girls trafficking for prostitution, rapes, and sexual assaults were not sparse and to be addressed as a matter of urgency.

Important Aspects of National Response

National AIDS Control Programme of Ministry of Public Health Afghanistan has already taken initiative to act early through a rigorous and comprehensive multi-sector response with the help of Afghanistan National AIDS Strategic Framework (2006 - 2010). The Goal of the National Strategic Framework of Afghanistan is to maintain the low level of HIV prevalence in order to reduce the morbidity and mortality associated with HIV/AIDS by the end of 2010. National AIDS Control Programme of Afghanistan planned to achieve this goal by fulfilling following six objectives:

1. To strengthen strategic information to guide policy formation, programme planning and implementation in line with national targets as well as internationally agreed targets and commitments.
2. To gain political commitment and mobilize resources necessary to implement the National HIV/AIDS /STI Strategy
3. To ensure development and coordination of multi-sectoral HIV/AIDS response and develop institutional capacity of all the sectors involved.
4. To raise public awareness on HIV/AIDS and STI prevention and control, ensure universal access to behaviour change communication on HIV, especially targeting vulnerable and high risk groups
5. To ensure access to prevention, treatment and care services for high risk and vulnerable populations

6. To strengthen the health sector capacity to implement an essential package of HIV/AIDS prevention, treatment and care services within the framework of Basic Package of Health Services (BPHS) and Essential Package of Health Services (EPHS).

Table 18 shows the country report of Afghanistan on UNGASS Indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 18: Afghanistan Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	39%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	-	
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	0	Reported as zero
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	< 1%	Number reported as 2
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	27%	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers - 11% IDUs 6% MSM -	
09	Percentage of most at risk populations reached with HIV prevention programmes	Sex workers - 11% IDUs - MSM -	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	-	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	-	

17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	-	
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	50%	Females only
19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	-	
20	Percentage of injecting drug users who report using a condom the last time they had sex	-	
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	46%	Both females and males
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	-	

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7. SAARC HIV/AIDS Update 2003 - 2008

Bangladesh

People's Republic of Bangladesh is one of the Member States of the SAARC Region. It is a coastal country in South Central Asia. It shares the land borders with India and Myanmar and has an irregular coastline of Bay of Bengal to the south. Bangladesh has six Divisions and these Divisions in turn are divided into 64 Districts or Zila.

Population of Bangladesh is 144.5 million and it is one of the most densely populated countries in the world. The capital of Bangladesh, Dhaka is bearing the highest population density. Bangladesh is a developing country with 36% of the population living with a per capita income below US$ 1 a day. The human development in Bangladesh is slow and steady and ranking the country at 137 among 177 countries in 2004. Table 19 shows some of the important demographic,socio-economic, human and physical resources and health status indicators.

Table 19: Country Profile of Bangladesh
Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	20.79/1000 population	2008
Crude Death Rate	5.77/1000 population	2008
Population Growth Rate	1.39%	2008
Total Fertility Rate	3.0/woman	2004
Socio-economic Indicators		
Adult Literacy Rate (Total)	49.6%	2002
Adult Literacy Rate (Male)	55.5%	2002
Adult Literacy Rate (Female)	43.4%	2002
Human & Physical Resources Indicators		
Physicians per 10,000 population	3	2005
Population per Nurse	6442	2005
Hospital Beds per 10,000 population	3.43	2005
Number of Health Centres	1385	2004
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	58.1%	2004
Antenatal Care Coverage	27.2%	2004
Births attended by skilled personnel	13.4%	2004
Health Status Indicators		
Total life expectancy at birth	66.7 years	2008
Life expectancy at birth (male)	64.5 years	2002
Life expectancy at birth (female)	65.4 years	2002
Infant Mortality Rate per 1000 live births	52.0	2008
Under five Mortality Rate per 1000 live births	74.0	2008
Maternal Mortality Rate per 100,000 live births	3.65	2008

(Source: WHO website – www.searo.who.int/bangladesh, NASP Bangladesh Report 2009)

The Constitution of the People's Republic of Bangladesh ensured that the health is the basic right of every citizen of the Republic as health is fundamental to human development. The successive health plans of the country emphasize Primary Health Care (PHC) as the key approach for improving health status of the people. In Bangladesh, 38% of the population was under 15 years, 55% in the age group of 15 – 59 years and remaining 7% was in the age group of 60 years and above in 2004. According to the National report furnished by National AIDS and Sexually Transmitted Disease Programme (NASP), the population aged less than 15 years was 54.4% in 2008 in Bangladesh

HIV/AIDS situation :

The first HIV positive patient was detected in 1989 in Bangladesh. Bangladesh continues to bear the low HIV prevalence rate in general population (<1%). Many risk factors are prevalent in country which makes it more vulnerable to exponential spread of HIV infection. However, the factors like religious influence, cultural values and bond between family members help Bangladesh to maintain the low prevalence among general population.

A cumulative total of 1495 cases of HIV/AIDS have been reported as of December 2008. A cumulative total of 476 AIDS cases were detected till the end of December 2008 and 165 have already died of AIDS as of December 2008. The estimated figure for HIV/AIDS continues to remain at 7500 in 2008 according to the NASP, Bangladesh. Table 20 illustrates HIV/AIDS situation in Bangladesh from 2003 – 2008, Table 21 shows the sex distribution of the reported HIV/AIDS data in the year 2008 and Table 22 shows the probable mode of transmission of HIV in 2007 and 2008.

Table 20: HIV/AIDS Situation in Bangladesh 2003 - 2008

	2003	2004	2005	2006	2007	2008
People living with HIV	363	465	NA	874	1207	1495
AIDS Cases	57	87	NA	NA	365	476
Death Cases	31	44	NA	109	123	165
Newly infected	NA	102	NA	NA	333	288

(Source: SAARC HIV/AIDS Update 2007 & 2008 & National report submitted by NSAP Bangladesh to STAC, Nepal in 2009)

Table 21: Sex Distribution of reported HIV/AIDS data for the year 2008

Sex	Number of HIV Positives	Number of AIDS Patients	Number of AIDS Deaths
Male	199	85	36
Female	85	26	06
TG	02	-	-
Unknown	08	-	-
Total	**288**	**111**	**42**

(Source: National report submitted by NSAP Bangladesh to SAARC TB & HIV/AIDS Centre, Nepal in 2009)

Table 22: Probable modes of HIV Transmission in Bangladesh 2007 & 2008

Probable mode of Transmission	2007		2008	
	Number	Percentage	Number	Percentage
IDU	30	9.0%	13	4.5%
Hetero-Sexual	282	84.7%	235	81.6%
MSM	8	2.4%	09	3.1%
Blood Recipient	2	0.6%	02	0.7%
MTCT	11	3.3%	10	3.5%
Unknown	-	-	19	6.6%
Total	**333**	**100%**	**288**	**100%**

(Source: SAARC HIV/AIDS Update 2007 & 2008 & National report submitted by NSAP Bangladesh to STAC, Nepal in 2009)

Considering the high caseload of HIV in neighboring countries, the social stigma and discrimination and the limited access to HIV counseling and testing services, Bangladesh faces potential risk of an HIV epidemic. According to the findings of most recent HIV Sero-Surveillance in 2006 – 2007, the country is currently going through the phase of a "concentrated epidemic" among IDUs, with a nationwide prevalence of 7%. The risk factors for the rapid spread of HIV at least among most at risk populations are prevailing in Bangladesh. They are hidden but with significant implications for the whole nation. The recognized risk factors are sex industry, low level of condom use, increasing injecting drug use, persistent sharing of contaminated injecting equipments and established concentrated HIV epidemic among IDUs. Figure 30 highlights the increasing trend of HIV prevalence among IDUs in Dhaka, Bangladesh from 1999 – 2007.

National STD and AIDS Programme of Bangladesh has taken the initiative to track the epidemic since 1998 by conducting Sentinel Sero-Surveillance and little later the Behavioural Surveillance in the country. The Behavioural Surveillance Survey is a significant milestone in understanding and monitoring the levels of risk behaviours associated with the spread of HIV infection within the selected most at risk populations in Bangladesh. It also focuses the trends of risk behaviours among most at risk populations between the behavioural surveillance rounds. The most recent Behavioural Surveillance Survey was conducted in 2006 – 2007. The country was divided into six geographical locations on the basis of administrative divisions and conducted the survey among under mentioned ten different groups of most at risk populations in each geographical location.

- Injecting Drug Users
- Heroin smokers
- Brothel based female sex workers
- Street based female sex workers
- Hotel based female sex workers
- Males who have sex with males
- Male sex workers
- Transgender (Hijras)
- Rickshaw pullers
- Truckers

Sixth round of the behavioural surveillance survey interviewed 7,167 respondents from all the selected MARPs using a structured questionnaire. The most recent BSS revealed that the risk behaviours exist despite the presence of many interventions for HIV prevention. Hence, to yield a positive impact the service providers need a critical assessment to ensure that the most at risk populations have exposed to adequate information, gathered adequate knowledge and have expanded accessibility to commodities to practice safer behaviours.

Figure 30: HIV Prevalence among Injecting Drug Users in Dhaka 1999 – 2007

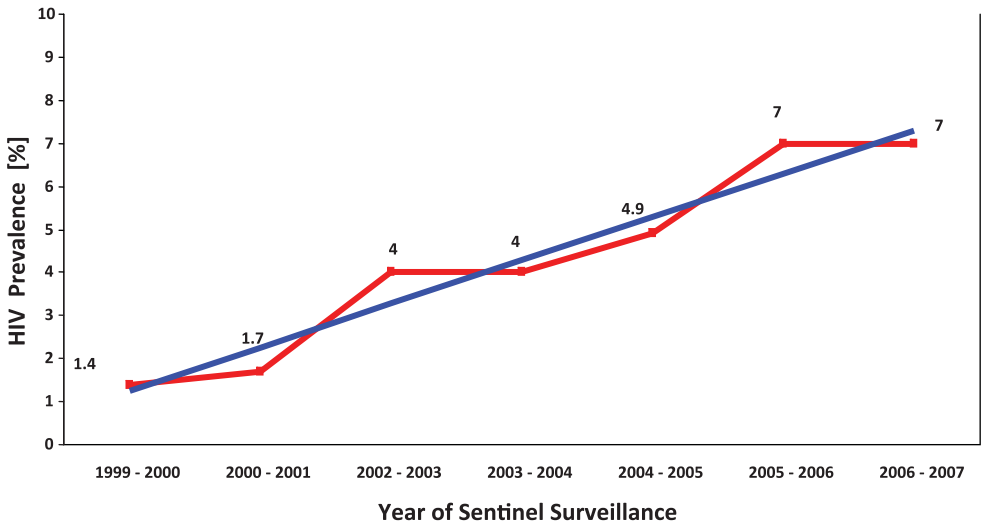

Figure 31: Overall HIV Prevalence Rates among Most at Risk Populations 2000 - 2007

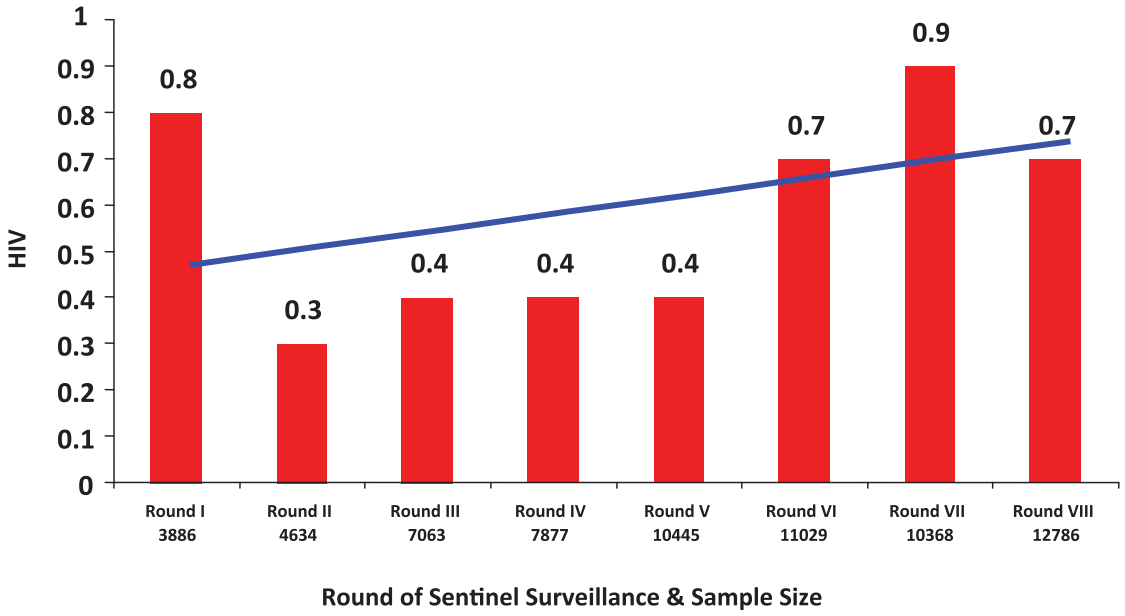

Figure 31 illustrates the increasing trend of HIV prevalence rates among most at risk populations in Bangladesh over the period of 2000 to 2007 rising slowly but steadily.

Risk and vulnerabilities :

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 the followings;

- **Needle-sharing among Injecting Drug Users :** The 7th and 8th rounds of sentinel surveillance show that there was a concentrated epidemic among IDUs in Bangladesh and the HIV prevalence among IDUs was 7% during both rounds. There were 20,000 – 40,000 estimated IDUs in Bangladesh according to the National report of NASP, Bangladesh. The results of the 2006 – 2007 BSS revealed that 61.7% to 80.1% of the IDUs in different locations of the geographical settings of the survey either lent or borrowed used injecting equipment in their last injection within a two month period. This level of infection among IDUs and the risk behaviours among them pose a significant threat to the society as the infection can spread exponentially within the group, then through the bridging groups into the general population.

- **Commercial Sex work :** There were 54,000 – 90,000 estimated number of female sex workers in Bangladesh. Brothel-based female sex workers in all 14 brothels through out the country indicated that they initiated sexual activities in their early adolescence. On an average a brothel based female sex worker had 19 clients in the week preceding the survey. Only 3.7% of the brothel based sex workers perceived themselves as at high risk of acquiring HIV/AIDS. Street-based sex workers were interviewed at three locations in Bangladesh during most recent BSS. On an average 8 – 15 clients were visiting them per week. Hotel based sex workers reported of having as high as 61 clients during the week preceding the most recent BSS.

- There were 50,000 – 165,000 estimated Men who have Sex with Men, Male sex workers and Transgender persons in Bangladesh. In general male sex workers in Bangladesh are young with their average age ranging between 20 years to 22 years. They had approximately 04 - 10 clients in the week preceding the sixth round of BSS in 2006 – 2007. On an average, Hijras in Dhaka had their sexual debut at 12 years of age. They had nearly 30 clients in the week preceding the sixth round of BSS.

- **Low Levels of Consistent Condom Use :** According to the National report of NASP, Bangladesh the use of condoms among brothel based and street based sex workers during last sex with clients increased significantly. This significant improvement in condom use was noticed in most recent BSS round conducted in 2006 – 2007 as compared with the previous rounds of BSS. Among male sex workers in Dhaka, the use of condoms during last anal sex in sixth round of BSS had declined slightly than that of the fifth round. Nearly two thirds of the Hijras used condoms with new clients during the last sex in the week preceding the sixth round of BSS.

- **High Risk behaviour among Men who have Sex with Men (MSM) :** The MSM in Bangladesh reported having approximately five sexual partners of all types in the preceding month of the sixth round of BSS. More than one tenth of the MSM also reported having group sex in the last month before the survey. The mean number of five sexual partners was in the group. The use of condoms among MSM was low. The use of condoms during last sex with male sex worker or with a Hijra decreased notably in sixth round of BSS than that of fifth round. Only 7% of MSM in Dhaka reported consistent condom use during sex with male sex workers.

- **Risk behaviour among Rickshaw Pullers and Truckers :** According to the report of the sixth round of BSS, the rickshaw pullers in Bangladesh were young (mean age 16 -17 years) and most of them were internal migrants. Nearly two thirds of rickshaw pullers had sex with female sex workers in the preceding year of the sixth round of BSS. The mean number of sex workers with whom they had sex was five. Less than one tenth of this group had sex with male sex workers or with Hijras in the preceding year. More than 25% of them experienced group sex in the previous year. However, 53% of them reported using a condom during the commercial sexual encounters and 7% - 12% of them consistently used condoms. The consistent condom use among rickshaw pullers increased over the rounds of BSS. Less than 3% of rickshaw pullers perceived that they were at high risk of HIV acquisition. However, almost all rickshaw pullers were aware on HIV/AIDS and none of them in the geographical area “Chittagong” had been exposed to any intervention programme.

  Most of the truckers interviewed during sixth round of BSS were internally migrant workers. The mean age of the group was 18 years and 87.8% of them had sex with female sex workers in the preceding year. The mean number of the female sex workers with whom they had sex was eight. Approximately one tenth of them had sex with male sex workers or with Hijras and 28.4% had group sex during the previous year. However, only 23% of the truckers who had commercial sexual encounters in the previous year used condoms and only 6.9% consistently used condoms. When compared to fifth round of BSS, the condom use by the truckers was increased during the sixth round. Almost all truckers were aware on HIV/AIDS but, only 1.5% perceived that they are at high risk of acquiring HIV. Only 11 out of 473 truckers were exposed to intervention programmes.

- **Sexually Transmitted Infections among most at risk populations :** Prevalence rates of sexually transmitted infections can be taken as a proxy indicator of the prevalence of unprotected sexual intercourse and also as a risk factor for acquiring HIV infection. Of the brothel based sex workers who participated in sixth round of BSS, 63% reported at least one symptom suggestive of STI during the preceding year. Of the street based sex workers 19.4% to 67.2% in the various geographic locations in Bangladesh reported experiencing at least one symptom suggestive of an STI. The percentage of hotel based sex workers reporting at least one symptom suggestive of STIs in the year preceding the sixth round of BSS was also high. More than one third of male sex workers and Hijras reported at least one symptom suggestive of STIs in the preceding year and nearly half of both groups did not seek any formal medical treatment.

Important aspects of National Response :

National AIDS and STD Programme of Bangladesh currently implements three special projects to contain the HIV epidemic in the country. As a national response to HIV/AIDS epidemic, NASP launched a programme within Health, Nutrition and Population Support Programme for 2006 – 2010. The objectives of the programme are;

1. To increase the access and use of quality targeted interventions for the most vulnerable groups
2. To increase the access and use of prevention services for the general population
3. To increase access to a quality blood transfusion services
4. To increase access and use of quality treatment, care and support services for people living with HIV/AIDS
5. To increase the concerted action to reduce the impact of HIV on society and communities
6. To increase the capacity of National AIDS and STD Programme in order to coordinate a national multi-sectoral response

In addition to above, NASP of Bangladesh launched two additional projects with the help of Global Fund Round 2 and 6. In Global Fund Round 2, Bangladesh implemented the project on "Prevention of HIV/AIDS among youth and adolescents in Bangladesh" Under the management of "Save the Children – USA", 16 Non-Governmental Organizations (NGO) are working all over the country to implement this project. The goal of the project is to prevent HIV infection in young people aged 15 – 24 years and thereby help avert a generalized HIV epidemic in Bangladesh.

The Global Fund round 6 aims to limit the spread and impact of HIV in Bangladesh by improving the coverage and quality of essential HIV services for the most vulnerable, high risk populations while emphasizing primary prevention and risk reduction for especially vulnerable young people.

The following three main objectives of the Global Fund Round 6 project address the priority areas in National HIV/AIDS Strategy of Bangladesh.

1. To increase the coverage, quality and comprehensiveness of interventions for vulnerable populations at highest risk of HIV in Bangladesh
2. To increase coverage and quality of HIV prevention interventions for young people in Bangladesh with focus on those especially vulnerable to HIV
3. To build capacity of Government and NGO partners at national and district levels to scale up standardized, high quality interventions, to monitor and improve coverage and quality and to improve coordination

This project will scale up essential services for female sex workers and for IDUs. The essential service package for sex workers includes a component for scaling up of condom use and STI services. The essential service package for IDUs includes needle syringe exchange programme and drug dependence treatment for IDUs. Currently 38 NGOs, Community Based Organizations (CBO) and academic organizations are implementing the activities in Bangladesh. The period of this project is from 2007 – 2012.

Table 23 shows the country report on UNGASS indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 23: Bangladesh Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	-	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	7% (4 – 12)	Number reported as 178 as of Dec. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	-	
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	-	
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	-	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers - 6% IDUs - 3% MSM - 6%	
09	Percentage of most at risk populations reached with HIV prevention programmes	Sex workers -54% IDUs - 82% MSM - 13%	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	22%	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Sex workers - 31% IDUs -20% MSM - 27%	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	2%	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	18%	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	35%	Both females and males
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	63%	Both females and males

19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	24%	
20	Percentage of injecting drug users who report using a condom the last time they had sex	44%	Both females and males
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	34%	Both females and males
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	-	

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8. SAARC HIV/AIDS Update 2003 – 2008

Bhutan

Royal Government of Bhutan is a land locked country situated in the South Asia and is a Member State of the SAARC. Bhutan shares its borders with China and India. It has a land area of 38,394 square kilometers and the altitude varying from 180m to 7,550m above sea level. Bhutan is divided into 20 administrative districts.

The total population of Bhutan was estimated to be 637, 000 in the year 2006. The population is largely rural with 69.1% of them living in villages. Bhutan has a precious environment and a rich cultural heritage. The vision document of Bhutan ("Bhutan 2020: A vision for peace, prosperity and happiness") has clearly stated the commitment to improve the quality of life of the people through improving health and education, preserving it's rich cultural heritage and maintaining it's precious environment. Table 24 illustrates some of the important demographic, socio-economic, human and physical resources and health status indicators.

Table 24: Country Profile of Bhutan
Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	20/1000 population	2005
Crude Death Rate	7/1000 population	2005
Population Growth Rate	1.3%	2005
Total Fertility Rate	2.5/woman	2000
Socio-economic Indicators		
Adult Literacy Rate (Total)	47.3%	2000
Adult Literacy Rate (Male)	61.1%	2000
Adult Literacy Rate (Female)	33.6%	2000
Human & Physical Resources Indicators		
Physicians per 10,000 population	2.3	2005
Nurses per 10,000 population	8.3	2005
Hospital Beds per 10,000 population	17	2005
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	31%	2000
Antenatal Care Coverage		
Births attended by skilled personnel	52%	2005
Health Status Indicators		
Total life expectancy at birth	66.1 years	2003
Life expectancy at birth (male)	66 years	2003
Life expectancy at birth (female)	66.2 years	2003
Infant Mortality Rate per 1000 live births	40.0	2005
Under five Mortality Rate per 1000 live births	61.0	2005
Maternal Mortality Rate per 100,000 live births	255	2000

(Source: WHO website – www.searo.who.int/bhutan, National Report provided by NASP, Bhutan in March 2009)

HIV/AIDS Situation in Bhutan :

The first person infected with HIV in the Kingdom was reported in 1993. As of December 2008, National STD/ HIV/AIDS Prevention and Control Programme reported a cumulative total of 160 HIV infected persons. Males and females in the Kingdom were almost equally affected. Till the end of the year 2008, 26 deaths were reported among infected Bhutanese. The most common mode of transmission was the heterosexual route (88.9%) followed by mother to child transmission (9%). The first infant with mother to child transmission in Bhutan was reported in 2001 while the first person with HIV infection probably acquired through intravenous drug use was detected in January 2006. UNAIDS and WHO estimate that less than 500 people were living with HIV/AIDS in Bhutan as at the end of 2007. The HIV prevalence rate in Bhutan was less than 0.01% in 2007.

Figure 32: Reported HIV Positives in Bhutan 1993 – 2008

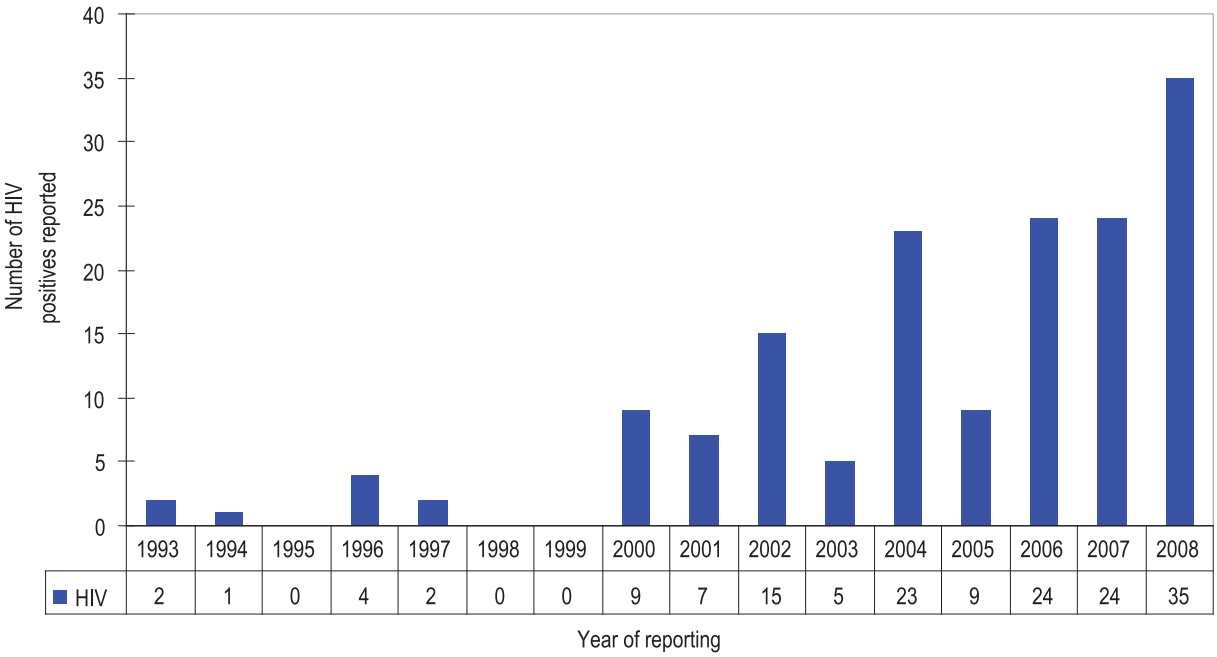

Figure 32 shows the reported HIV positive persons in Bhutan from 1993 – 2008. So far, the maximum number of HIV positives in Bhutan was reported in the year 2008. Figure 33 illustrates the age and sex distribution of the HIV positives reported to National STD/HIV/AIDS Prevention and Control Programme of Bhutan since 1993. It highlights that majority of HIV infected males were in age group of 24 to 49 years and females were in the age group of 19 to 49 years.

Figure 33: Age and sex distribution of Reported HIV cases in Bhutan as at March 2008

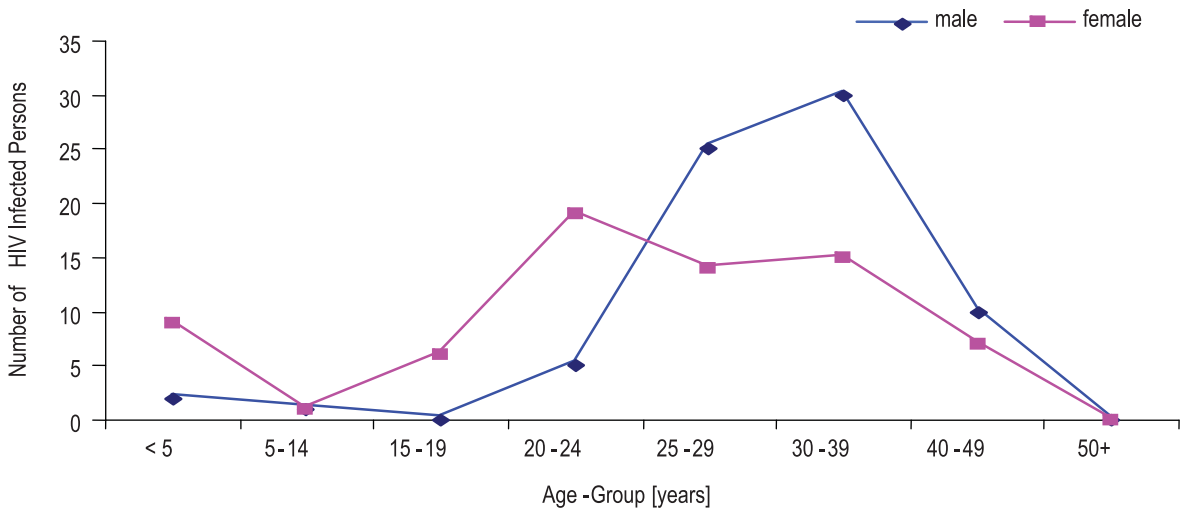

Table 25: The approaches detected the HIV positives in Bhutan 1993 - 2008

Detection Methods	Number	Percentage
Medical screening	33	22.91%
Blood Donor screening	18	12.50%
Survey/Sentinel	37	25.69%
Contact Tracing	30	20.83%
Voluntary Counseling and Testing	13	9.02%
Screening of infants born to HIV Positive mothers	13	9.02%
Total	**144**	**100%**

(Source: website www.health.gov.bt/doph/cdd/hivhistory.pdf)

Figure 34: The modes of transmission of HIV infection in Bhutan as of February 2008

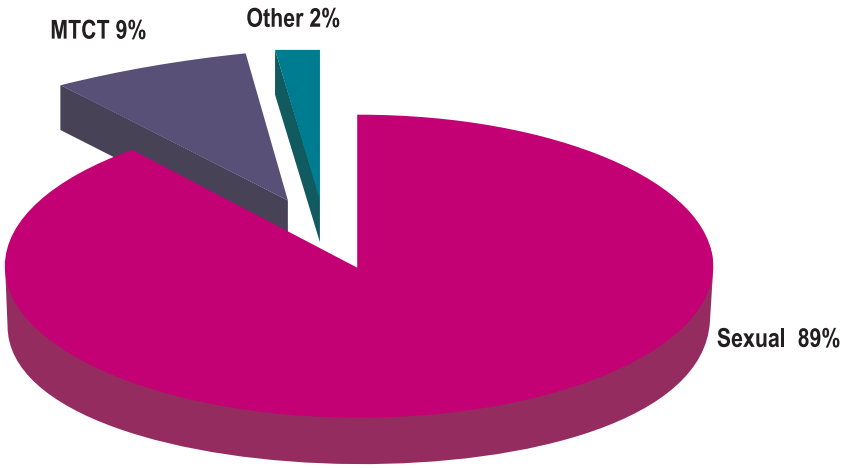

Figure 34 highlights that the sexual intercourse among men and women (hetero-sexual) was the main mode of transmission of HIV in Bhutan followed by the Mother To Child Transmission (MTCT) since the detection of first HIV positive person to February 2008.

Reported HIV positives in Bhutan were from diverse occupations. There were government servants, farmers, female sex workers and housewives. The main category affected by the HIV infection was housewives and this is to be regarded as a significant and important finding in planning and implementation of preventive interventions in Bhutan.

Risks and Vulnerabilities:

Despite the low prevalence of HIV infection in Bhutan, the presence of a range of risk factors and vulnerabilities could fuel the spread of a widespread epidemic. These factors include high rates of sexually transmitted infections in the society, relatively high rates of unprotected sex and partner concurrency (the tendency for Bhutanese men and women to have more than one partner at the same time), internal and international migration, porous borders, spread of commercial sex work, risk of substance abuse, less rigid sexual norms etc.

- **Sexually Transmitted Infections (STIs) :** STIs are important cofactors that facilitate HIV transmission in a society. Prevalence of STIs in a society is also a sensitive marker of the rate of unprotected sexual intercourse in that society. Despite the very low prevalence of HIV, the rates of other STIs and risk behaviours are highly prevalent in Bhutan. Syphilis rates as high as 13% have been documented in community based surveys.

Prevalence of syphilis among pregnant women who have been screened at the National referral Hospital in Bhutan was more than 2%. Among the military personnel in Bhutan, the prevalence of syphilis was 5%. High rates of gonorrhoea have also been reported with an annual estimated incidence of about 2% among adult population in Bhutan. HIV/AIDS General Population Survey conducted in 2006 in Bhutan revealed that 5 – 6% of men and 8% of women had had a symptom suggestive of STIs. The knowledge on STI symptoms was low especially among females.

According to the HIV/AIDS General Population Survey conducted in 2006 in Bhutan, knowledge on HIV transmission and prevention was better than that for STIs. A substantial proportion did not know the mode of transmission of STIs. The populations with inadequate knowledge on STIs were higher among rural residents and among females. This is a significant finding to be considered seriously when planning and implementing HIV/STI prevention interventions. According to the findings of the survey, the main barriers in seeking STI services were the issues related to maintenance of the confidentiality and the STI services were not being user friendly.

- **Commercial Sex Work :** As in any other country in the SAARC region, much of the commercial sex work particularly in the interior districts is informal and more difficult to identify. The commercial sex work in the border town of Phuntsholing remains as a high-transmission zone. Sex work is perceived to be spreading into other border towns and interior districts such as Paro, Trongsa, and Mongar.

- **Substance Abuse :** The first HIV patient with possible transmission through injecting drug use was reported in 2006 in Bhutan. However, heroin use and injecting drug use are currently minimal in Bhutan when compared to neighbouring and bordering countries; Nepal and northeastern parts of India and southern parts of China. Alcohol consumption in the country is extensive. Substance abuse is associated with a higher risk of HIV infection as they can depress the higher centres of the brain and as a result of that increase the chances of adopting risk taking behaviours.

- **Sexual Norms :** In comparison to other countries in SAARC region, Bhutan is having less stringent sexual norms for both men and women. According to the findings of the HIV/AIDS General Population Survey in 2006, extramarital and premarital sexual encounters were common in both urban and rural areas. The proportion of females having extramarital or premarital sex were also high compared to other countries in the SAARC region according to the report submitted to the United Nations Secretary General by the Commission on AIDS in Asia in 2008. One fifth of all married people have engaged in extramarital sex in the year preceding the general Population Survey and 14% of the unmarried people had sex during the same period. Despite the high levels of reported casual sexual encounters, 13 - 15% of urban males bought sex from commercial sex workers in the year preceding the survey.

  According to the report of Commission on AIDS in Asia 2008, one of the key determinants that drive the HIV epidemic is the number of clients per sex worker. If the proportion of men buying sex is high and the numbers of the sex workers are low, the risk of HIV transmission is greater. Hence, the country is very vulnerable to an HIV epidemic as stated in the Editorial of the Volume 1, Issue 2 (April – June 2008) Quarterly Morbidity and Activity Report of the Ministry of Health, Government of Royal Kingdom of Bhutan.

- **Mobility :** Internal and international migration is relentlessly posing a threat of HIV transmission across the globe. Migration often increases the pressure and opportunities to engage in casual and commercial sexual encounters. Four groups of migrant populations were identified as the focus of HIV-prevention efforts. They were international migrants (students and businessmen), military personnel, migrant workers from neighbouring countries and internal or external migrant workers such as truck drivers and traders.

- **Porous Borders :** The borders are increasingly porous with greater commerce and trading relationships between neighbouring countries. Some of the bordering areas of the Nepal and northeastern India are already experiencing concentrated HIV epidemics.

Important Aspects of National response :

The Royal Government of Bhutan took early initiative to prevent HIV/AIDS in the country. Five years prior to detection of first HIV infected person in Bhutan, the Royal Government established the National HIV/AIDS and STD Control Programme in 1988. The Royal Decree on HIV/AIDS issued by His Majesty the Fourth King on 24th May 2004 serves as the guiding principle in the fight against HIV/AIDS. The Royal Decree calls for all members of the society to help prevent HIV/AIDS and provide care and compassion to those infected.

Prevention will continue to be the main stay of the National Strategic Plan. The current focus is geared towards the following aspects;

- Strengthening institutions and capacity of service providers
- Care, support and treatment for HIV/AIDS and STIs
- Voluntary Counselling and Testing
- Improving strategic information through research and surveillance
- Monitoring and Evaluation

Intensifying preventive measures and interventions among the vulnerable populations is of greatest priority in order to maintain the low HIV prevalence status. Strengthening care, support and universal access to treatment for people living with AIDS are also important components. Providing care and compassion for infected people will ensure that they will not go underground fuelling its spread. By addressing these components, National HIV/AIDS Control Programme will be able to achieve the impact of slowing and ultimately reversing the spread of HIV infection.

For a country like Bhutan with a low HIV prevalence, a focus on controlling STIs can be an effective strategy for reinforcing prevention and ensuring that conditions remain unfavourable for HIV transmission. Hence, the National AIDS and STI Control Programme made strong initial efforts to strengthen HIV prevention within the broader context of controlling sexually transmitted infections. The Government of Royal Kingdom of Bhutan launched the National Strategic Plan for prevention and control of STIs and HIV/AIDS in the country in January 2009. The National Strategic Plan (NSP) will guide the STI and HIV/AIDS response in Bhutan, in line with the Tenth Five Year Plan for 2008 – 2013. The scope of the NSP extends beyond the medical response. The strategic framework ensures a multi-sectoral approach that is innovative, interactive and deliberative with the aim of improving collaboration between government sector, NGOs, international organizations, communities, institutions, private sector and the media. The main strategies of the NSP are;

- Promotion of safe sex behaviours
- Promotion of condom use including condom social marketing
- Ensuring clear accurate information concerning HIV/AIDS, TB/HIV co-infection and STIs and increasing IEC
- Strengthening access to STI services and regularly updating STI prevention and control policies
- Enhancing surveillance and access to VCT
- Prevention interventions among the general population with additional focus on vulnerable population groups
- Continuing treatment, care and support of infected and affected population with a special focus on children infected and affected
- Decentralization of antiretroviral treatment to districts
- Enhancing coordination and collaboration between stakeholders

- Generating local evidence/information on HIV vulnerabilities in Bhutan
- Capacity building, integration of STI and HIV/AIDS interventions within health sector, community mobilization and empowerment, leadership and mainstreaming, coordination and networking

Table 26: Bhutan Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	50%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	Not calculated as total need is less than 500	Number reported as 18 as of December 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	-	
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	-	
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	-	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	-	
09	Percentage of most at risk populations reached with HIV prevention programmes	-	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	-	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	-	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	-	
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	-	

19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	-	
20	Percentage of injecting drug users who report using a condom the last time they had sex	-	
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	-	
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	-	

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India

Republic of India is the largest country in SAARC Region. With more than one billion people, India is the second most populous country in the world accounting for 17% of the population of the world. The land area is 3,287,263 square kilometers. The country is surrounded by Bangladesh, Bhutan, China, Nepal, Pakistan and the Indian Ocean. The primary administrative unit in India is a state. The country is divided into 35 states and they in turn divided into 593 districts.

The estimated population of India is 1,131,000,000 in 2007. Of the population, 71% were living in rural areas in 2005. The proportion of the population in less than 15 years age group was 32% in 2005. Table 27 shows some of the important demographic, socio-economic, human and physical resources and health status indicators.

Table 27: Country Profile of India

Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	23.8/1000 population	2005
Crude Death Rate	7.6/1000 population	2005
Population Growth Rate	1.95%	2001
Total Fertility Rate	2.7/woman	2005 - 2006
Socio-economic Indicators		
Adult Literacy Rate (Total)	61%	2000 - 2004
Adult Literacy Rate (Male)	73.4%	2000 - 2004
Adult Literacy Rate (Female)	47.8%	2000 - 2004
Human & Physical Resources Indicators		
Physicians per 10,000 population (modern system)	7	2005
Nurses per 10,000 population	7.85	2004
Hospital Beds per 10,000 population	9	2006
Number of Primary Health Centres per 100,000 rural population	3.2	1999 - 2000
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	56.3%	2005 - 2006
Antenatal Care Coverage (at least 3 visits)	51%	2005 - 2006
Births attended by skilled personnel	48%	2005 - 2006
Health Status Indicators		
Total life expectancy at birth Male Female	65 years 63.87 years 66.97 years	2001 - 2006
Infant Mortality Rate per 1000 live births	57.0	2005 - 2006
Under five Mortality Rate per 1000 live births	85.0	2004
Maternal Mortality Rate per 100,000 live births	301	2001 - 2003

(Source: WHO website – www.searo.who.int/EN, mini-profile 2007)

Health sector of India is diverse and includes modern system of medicine as well as multiple traditional systems. Maternal and child health issues are significant. Mixed progress has been made among the states in reproductive, maternal, newborn and child health. Adolescents constitute 22% of the total population. Communicable diseases account for about 38% of the disease burden with large variations across states. New or re-emerging diseases have highlighted the importance of strengthening public health systems, including surveillance, rapid response capacity, infection control and timely health information.

HIV/AIDS Situation :

The first HIV positive person was a sex worker detected from Chennai in India in 1986. Since then, the national prevalence has steadily grown not only among most at risk populations but also in the general population in some states of India. At the end of 2007, adult HIV prevalence rate was estimated as 0.34% (0.25% - 0.43%) and an estimated 2.31 million (1.8 – 2.9 million) people living with HIV in the country. HIV situation in the country is assessed and monitored through regular annual sentinel surveillance mechanism established since 1992. The estimates for the year 2007 were calculated as per the recent estimates using the internationally comparable workbook method and using multiple data sources namely expanded sentinel surveillance system, National Family Health Survey – III, Integrated Bio-Behavioural Surveillance (IBBS) and Behavioural Surveillance Survey. The estimated adult HIV prevalence rate was 0.34% and it is greater among males (0.44%) than among females (0.23%). The overall HIV prevalence among different population groups in 2007 continues to portray the concentrated epidemic in India, with a very high prevalence among IDUs (7.2%), MSM (7.4%), FSW (5.1%) and STD clinic attendees (3.6%). The HIV prevalence among antenatal clinic attendees was low (0.48%). Figure 35 illustrates the HIV prevalence rate and estimated number of people living with HIV in India from 2002 to 2007. According to the report of National AIDS Control Programme in India, the adult prevalence rate of HIV infection has stabilized since 2004. Figure 36 depicts the increasing cumulative numbers of reported HIV positives to the National AIDS Control Organization, India from July 2002 to December 2008. Figure 37 highlights the distribution of HIV infection among adults and children in 2007, according to the National AIDS Control Organization in India.

Figure 35: Adult HIV prevalence rate and estimated number of people living with HIV/AIDS in India 2002 - 2007

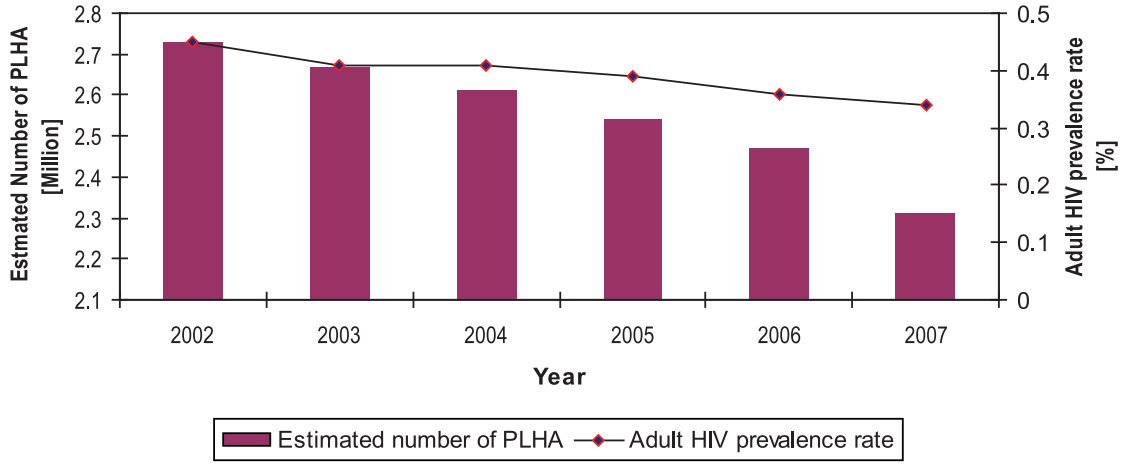


Figure 36: Cumulative number of reported AIDS Cases in India July 2002 – December 2008

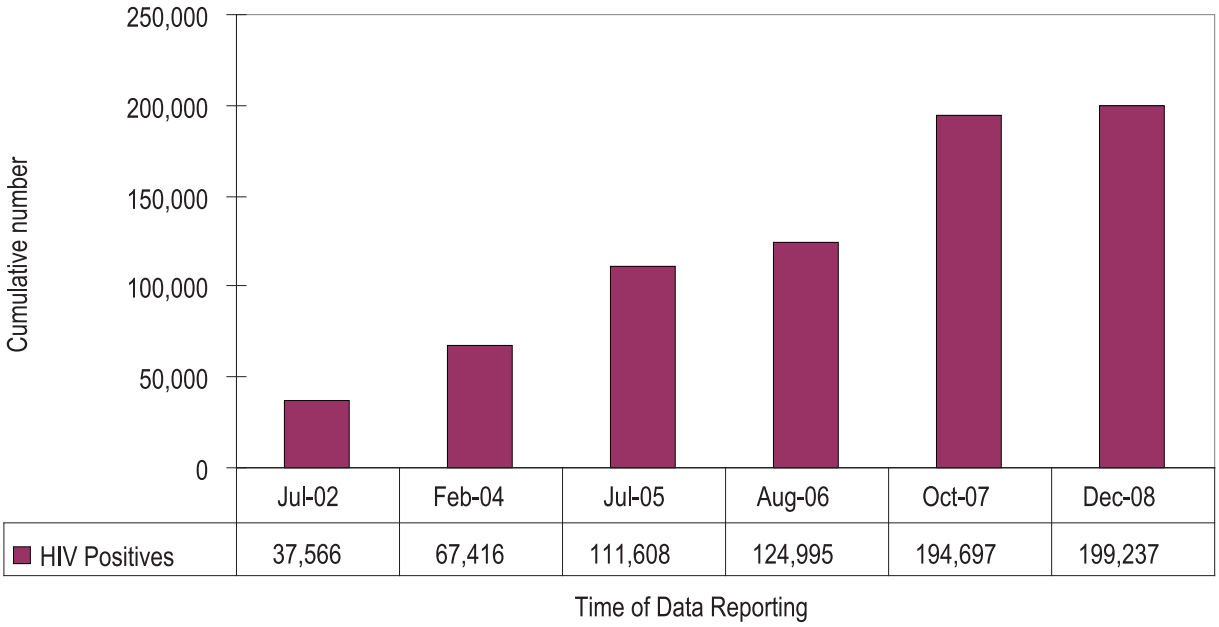
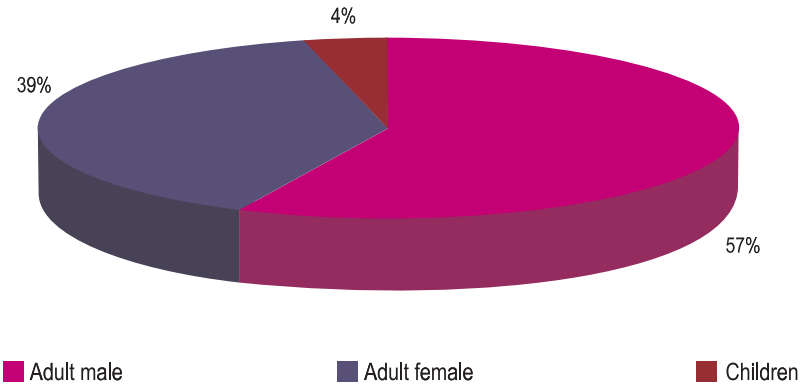
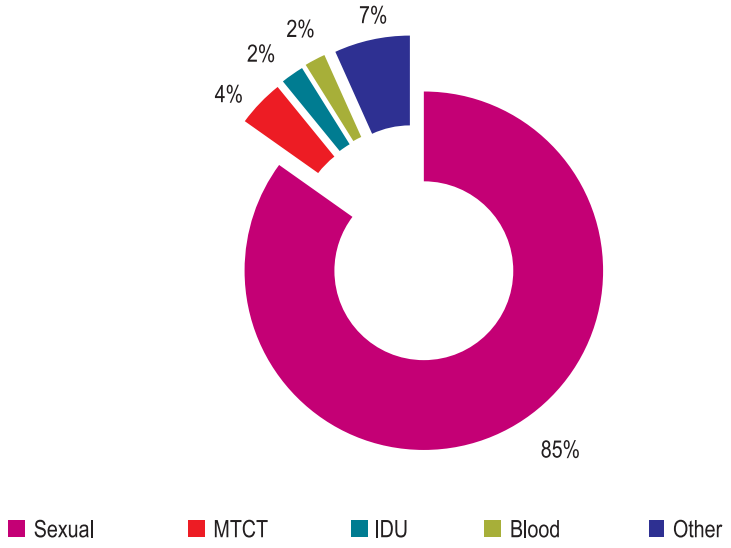


Figure 37: The distribution of HIV infection among adults and children in India in 2007



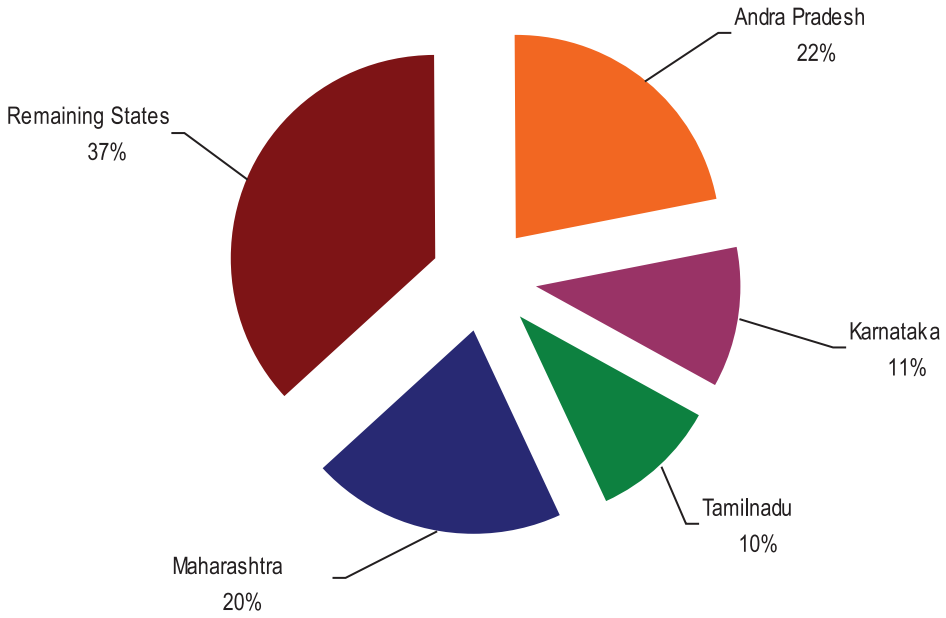
The surveillance data shows that there are multiple and diverse HIV sub-epidemics in the country. Heterosexual route is the predominant mode of transmission. Of the HIV infection 84.6% were transmitted through the sexual route, 4.34% were through mother to child transmission, 1.8% and 1.9% of the infection were acquired through injection drug use and contaminated blood and blood products respectively. Figure 38 depicts the modes of transmission of HIV infection according to the findings of 2007 sentinel surveillance survey. A significant proportion of new infections are occurring in women who are married and who have been infected by husbands.

Figure 38: Mode of transmission of HIV infection in India in 2007



Andhra Pradesh, Karnataka, Maharashtra and Tamilnadu contribute 63% of the HIV infected persons in the country. The HIV prevalence among high risk groups continues to be nearly 6 to 8 times greater than that among the general population. Figure 39 shows the distribution of HIV infection among the different states of India.

Figure 39: Distribution of HIV infection in the States of India in 2006



Since 1998, HIV sentinel surveillance has been conducted annually to track the HIV epidemic in the country. High quality data generated through sentinel surveillance surveys were the corner stones in assessing the evolution of the HIV epidemic in India. Over the years, the numbers of sentinel sites were increased from 180 in 1998 to 1134 in 2007. Of the sentinel sites, 646 conducted the survey for general population and 488 sites were for most at risk populations. A total of 360,848 blood samples were tested during sentinel surveillance in 2007. Figure 40 highlights that the highest HIV prevalence rate was among MSM and IDUs and lowest prevalence rate was among ANC attendees.

Figure 40: HIV prevalence rate among sentinel groups in India in 2007 Figure 40: HIV prevalence rate among sentinel groups in India in 2007

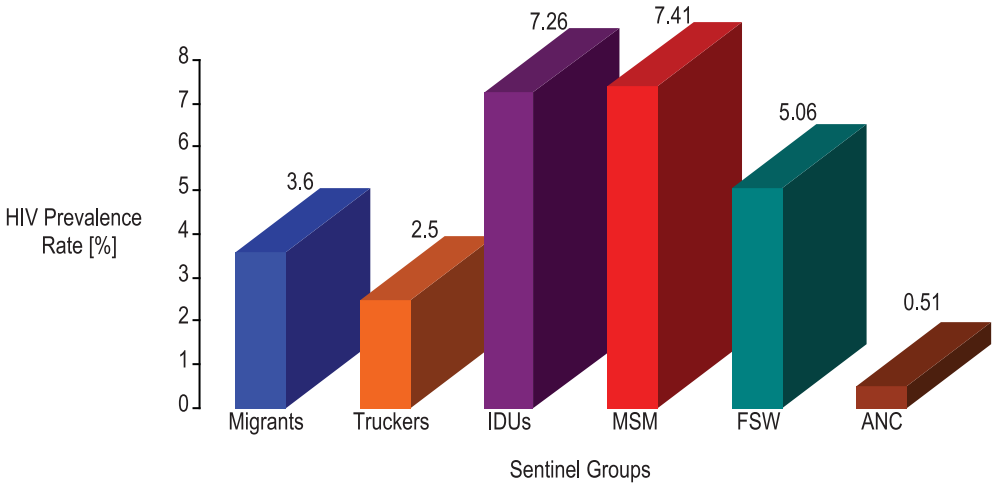


Figure 41: HIV prevalence among sentinel groups in India 2003 - 2007

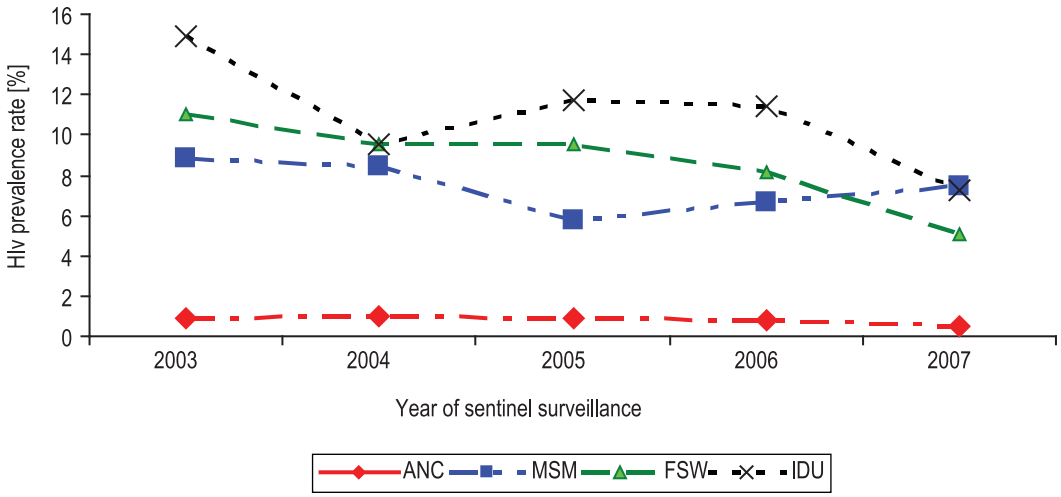


Figure 41 illustrates the HIV prevalence among sentinel groups from 2003 to 2007 in India. Trends of HIV prevalence among sentinel groups are derived from the findings of sentinel surveillance conducted from 2003 to 2007. Overall in India, the trend of HIV prevalence among ANC clinic attendees as well as among IDUs and FSWs showed a decline, however, among MSM, HIV prevalence increased in comparison to 2005 and 2006.

The salient findings of HIV sentinel surveillance conducted in 2007 are as follows;

- The overall HIV prevalence among different population groups in 2007 continues to portray the concentrated epidemic in India among most at risk populations.
- Except Andhra Pradesh with HIV prevalence of 1%, all other states have shown less than 1% HIV prevalence among ANC clinic attendees.
- At national level, there is an evident decline among female sex workers, while the epidemic is stable around 12% among IDUs and rising trend is noted among MSM.

Risks and Vulnerabilities :

In India, after the detection of first HIV positive in Chennai in 1986, the virus spread rapidly across the nation in both urban and rural areas. The HIV epidemic has established itself with the greatest speed in six states namely, Andhra Pradesh, Maharashtra, Manipur, Nagaland, Karnataka and Tamil Nadu. The injecting drug use driven epidemic was established in Northeastern part of the country (Manipur and Nagaland) and sex work driven epidemic was mainly established in the southern part of the country. Several factors drive the country in danger of experiencing rapid spread of HIV. The risk factors and vulnerabilities include;

- **Unsafe Sex and Low Condom Use :** Sexual transmission is responsible for 85% of reported HIV cases in India and HIV prevalence is high among sex workers (both male and female) and their clients. In Mumbai and Pune, 54 percent and 49 percent of sex workers, respectively, were found to be HIV positive in 2005 according to the National AIDS Control Organization. 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 too complex to address the issues with effective HIV prevention and treatment efforts. The use of condoms is limited especially when commercial encounters take place in 'risky' locations. The prevention interventions usually tend to target brothel-based sex workers, who represent a minority of sex workers. HIV information and awareness among sex workers appears to be low, particularly among the street based sex workers. The prevention intervention to social marketing of condoms among peer sex workers run by organized sex workers themselves in Sonagachi and Kolkata. These interventions have successfully encouraged safe paid sex practices and have been associated with lower HIV prevalence.

- **Men Who Have Sex with Men :** The role of sex between men in HIV epidemic in India is largely unknown. However, a few studies have been conducted among men who have sex with men. The findings of those studies showed that a significant proportion of men in India do have sex with other men. According to National AIDS Control Organization, HIV prevalence of 6.8% and 9.6% were found among MSM in Chennai and Mumbai, respectively in 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.

- **Injecting Drug Use (IDU) :** Injecting drug use is the main driving factor for HIV epidemic in the northeastern part of India particularly in Manipur, Mizoram and Nagaland. According to the findings of the National AIDS Control Organization in India in 2005, the injecting drug use was increasingly responsible for the HIV epidemic of major cities like Chennai, Mumbai and New Delhi. Repeated use of contaminated injecting drug equipment among peer drug users is the main risk factor for HIV infection in the northeastern part of the India. Current interventions targeting IDUs tend to be inconsistent, and imparting in small scale to yield demonstrable results. Harm reduction programs need to be extended and expanded as a matter of urgency in those parts of India with injecting drug use related HIV epidemics.

- **Migration :** One of the main factors responsible for the HIV epidemic in India is extensive internal and international labour migration. Migration for work takes people away from their families and from their usual social environment. This can lead to an increased likelihood of engaging in risky behaviour. In addition to above, a high proportion of female sex workers in India are also mobile. The mobility of sex workers is another major factor contributing to HIV transmission by expanding and interconnecting high-risk sexual networks.

- **Low Status of Women :** As the epidemic spreads through bridging population groups into the general population, HIV prevalence rates have been on the increase among women and infants in some states of India. As in many other countries, unequal power relations and the low status of women are prevailing in India too. Low social status of women, due to limited access to human, financial, and economic assets has suppressed the ability of women to negotiate safer sex both within and outside of marriage. In addition to above factors low literacy levels of women particularly in rural areas and limited awareness on HIV/AIDS and sexuality increase their vulnerability in acquisition of HIV.

- **Widespread Stigma and discrimination :** As in other Member States in SAARC region, stigma and discrimination towards people living with HIV is widespread in India too. The prevailing misconceptions in relation to sex and HIV/AIDS strengthen and perpetuate existing discrimination. The most affected groups which are often marginalized have little or no access to legal protection to protect their basic human rights. By creating an enabling environment to address the issues related to human rights violations, increasing the knowledge on HIV/AIDS/STIs among general population and among most at risk population groups and promoting protective behavior changes are extremely important to fight against HIV/AIDS in India.

Important aspects of National Response :

The Government of India established the National AIDS Control Programme, shortly after reporting the first AIDS patient in 1986.The principal activity of the programme was limited to monitor HIV infection rates among risk populations in selected urban areas. Phase-I of the National AIDS Control Programme (1992 – 1999) was implemented across the country with the objective to slow the spread of HIV to reduce future morbidity, mortality and the impact of AIDS by initiating a major effort in the prevention of HIV transmission. Phase-II (1999 – 2006) was aimed at reducing spread of HIV infection in India and strengthening capacity of India to respond to HIV epidemic on long term basis. Some of the important achievements of Phase-I and Phase-II of the National AIDS Control Programme were;

- Scaling up of prevention of mother to child transmission and voluntary counseling and testing services particularly in the high prevalence states.
- Increasing access to free antiretroviral was one of the major achievements of Phase-II.
- Recognition of the need of care and support for people living with HIV/AIDS and scaling up of community care centres.
- The effectiveness of the condoms as one of the safest methods to prevent and control the spread of HIV and other STIs has been well established
- Initiating the process for developing draft legislation on HIV/AIDS

Phase-III of National AIDS Control Programme (2007 – 2012) is based on the experiences and lessons drawn from Phase-I and II. The specific goal of this Phase is to reverse and stabilize the spread of AIDS by reducing the rate of incidence by 60% in high prevalence States and by 40% in vulnerable States.

The strategic objectives of the Phase-III are;

- To prevent infections through saturation of coverage of high risk groups with targeted interventions and scaled up interventions in the general population
- To provide greater care, support and treatment to more people living with HIV/AIDS
- To strengthen the infrastructure, systems and human resources in prevention, care, support and treatment programmes at District, State and National levels

- To strengthen the nationwide Strategic Information Management System

The prioritized areas identified for planning and implementation in the Phase-III are as follows.

- Phase-III places the highest priority on preventive efforts as more than 99% of the population in the country is free from HIV infection and integrate prevention with care, support and treatment services
- Sub-populations that have the highest risk of exposure to HIV will receive the highest priority in the intervention programmes
- This phase ensures that all people who need treatment would have access to prophylaxis and management of opportunistic infections. People who need access to antiretroviral treatment will also assured first line antiretroviral drugs
- Universal provision of prevention of mother to child transmission services and infected children are assured the access to paediatric antiretroviral treatment
- Address the needs of the infected and affected people by HIV particularly the children by making arrangements to provide nutritional support, opportunities for income generation and other welfare services to mitigate the impact of HIV/AIDS
- Invest in community care centres to provide psycho-social support, outreach services, referrals and palliative care
- Work with other agencies involved in vulnerability reduction for women groups, youth groups, trade unions etc. in order to integrate HIV prevention into their activities.

Table 28: India Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	100%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	Not calculated as epidemiological estimates were under review	Number reported as 158,020 as of Decem. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	10 – 24%	Number reported as 8816
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	23%	Number reported as 19400
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	1%	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers 34% IDUs - MSM -	
09	Percentage of most at risk populations reached with HIV prevention programmes	-	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	0.72	Expressed as a ratio

13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	28%	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Sex workers 38% IDUs - MSM -	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	3%	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	5%	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	66%	Both females and males
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	88%	Females only
19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	-	
20	Percentage of injecting drug users who report using a condom the last time they had sex	-	
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	-	
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	80%	

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Maldives

Republic of Maldives is a country formed by a number of natural atolls plus a few islands and isolated reefs which form a pattern from North to South. The islands are located southwest of the Indian subcontinent stretching 860 km north to south and 80 – 129 km east to west. For administrative purposes, the Country has been organized into seven provinces which consist of twenty one administrative divisions (20 administrative "atolls" and Male' city).

The population of Maldives was 298,000 in 2006, of which approximately 104,000 are living in the island of Male, the capital. The remaining two-thirds of the population are spread out over 198 islands. The economy of the Maldives depends mainly on tourism, fishing trade, shipping and construction. Resort islands, and modern hotels in Male are the main attractions for the increasing numbers of tourists during the winter months. Table 29 illustrates the important socio-demographic, socio-economic, human and physical resources and health status indicators.

Table 29: Country Profile of Maldives

Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	19/1000 population	2005
Crude Death Rate	3/1000 population	2005
Population Growth Rate	1.69%	2000 - 2006
Total Fertility Rate	2.8/woman	2000
Socio-economic Indicators		
Adult Literacy Rate (Total)	96.3%	2004
Adult Literacy Ratio (females as a percentage of males)	99.8%	2002
Human & Physical Resources Indicators		
Population per Physician	959	2004
Nurses per 10,000 population	33	2003
Population per Hospital Bed	381	2004
Number of Health Centres	65	2004
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	22%	2005
Antenatal Care Coverage	100%	2004
Births attended by skilled personnel	87%	2004
Health Status Indicators		
Life expectancy at birth (male)	70.4 years	2003
Life expectancy at birth (female)	71.3 years	2003
Infant Mortality Rate per 1000 live births	12	2005
Under five Mortality Rate per 1000 live births	16	2005
Maternal Mortality Rate per 100,000 live births	72	2005

(Source: WHO website – www.searo.who.int/maldives,)

HIV/AIDS Situation :

The first HIV positive person in Maldives was reported in 1991. There were 223 cumulative number of HIV positives reported to the National AIDS Control Programme in Maldives since 1991 to June 2007. Of them, 210 were among expatriate workers and only 13 were Maldivians. Of the 13 HIV positive nationals, 10 were seamen, two were the spouses of these sailors and one was a resort worker who traveled abroad with a foreign tourist. Eleven of the 13 HIV positives were males. Of the 13 infected persons, 11 developed AIDS. One of the 13 detected HIV positives was diagnosed as having TB and treated in 2004. Of the persons who developed AIDS, ten have died and one person is on antiretroviral treatment. Hence, only three reported HIV infected persons are living in Maldives. Figure 42 depicts the detection of HIV positive persons in Maldives since 1991 to 2007. Figure 43 shows the cumulative number of HIV positives in Maldives from 1991 - 2007.

Figure 42: Reported HIV Positives in Maldives 1991 – 2007

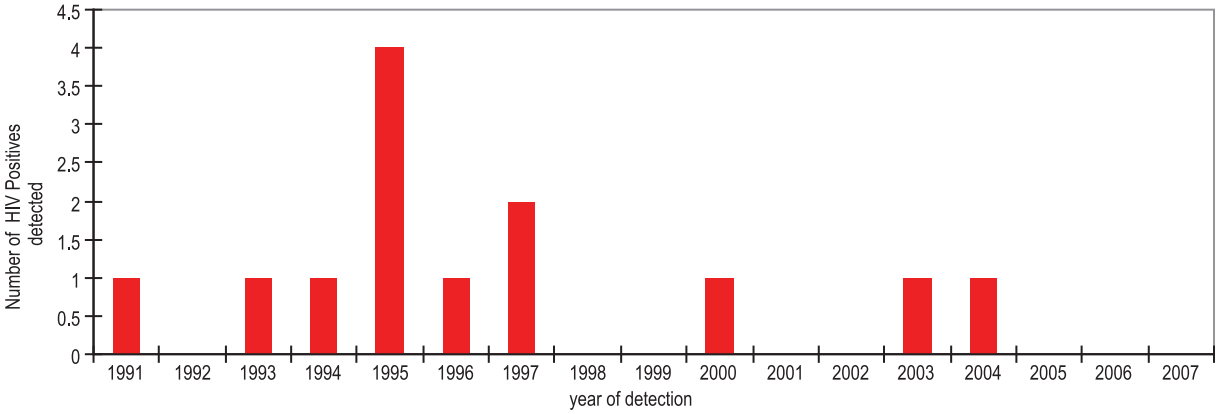
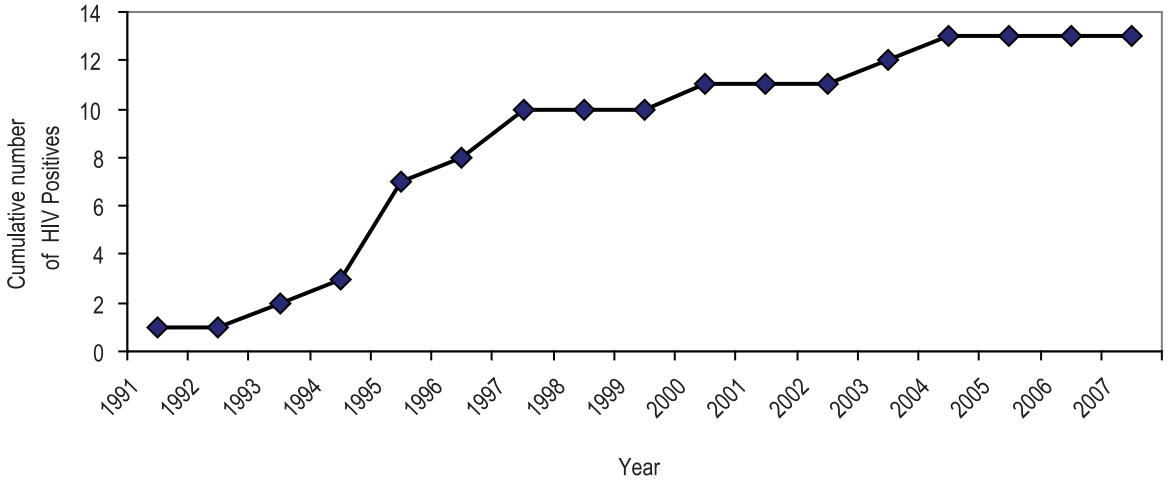


Figure 43: Cumulative number of Reported HIV Positives in Maldives 1991 - 2007



All infections were reportedly acquired through heterosexual transmission. Despite the high level of drug use and the increasing popularity of injecting drug use, no needle or syringe related transmission has been reported yet.

Maldives is a low HIV prevalence country with the estimated prevalence among adult population was less than 0.1%. The estimated number of people living with HIV/AIDS was less than 100 as of December 2007.

According to the findings of a reproductive health survey conducted in Maldives in 2004 with the help of UNFPA, 99% of the respondents had heard of HIV/AIDS. Of them, 91% knew at least one way of HIV transmission. However, only 50% of the respondents agreed that condoms can prevent the transmission of HIV and 34% did not know that a healthy looking person may have HIV infection. No systematically planned behavioural surveillance has been

conducted in Maldives. However, a sub-sample of youth of the reproductive health survey conducted in 2004 responded to the questions related to sexual practices. Of them, 14% of male participants and 5% of female participants under the age of 18 years admitted that they were sexually active. Of the sexually active youth, 45% never used a condom.

The prevalence of Thalasseamia is high in Maldives. Approximately one out of five Maldivians carries the genetically determined Thalasseamia trait. Thalasseamic patients obtain frequent blood transfusions, the most efficient way of HIV transmission. However, so far no transfusion associated HIV infection has been notified in Maldives.

Risks and Vulnerabilities :

Despite the low prevalence of HIV epidemic in the country, Maldives is not free from risks and vulnerabilities that may worsen the current HIV/AIDS situation. The recognized risks and vulnerabilities for the Maldives HIV epidemic are as follows.

- **Mobility :** Maldivian citizens go abroad for education and work. Therefore, they are away from their families for long periods of time. Less information of migrant population of Maldives is available More information is needed on the risk behaviors if any that these citizens may engage in while they are away from their families.

- **Sexual Practices :** No behavioural surveillance has been conducted in Maldives. According to the findings of a reproductive health survey conducted in Maldives in 2004 with the help of UNFPA, 14% of male participants and 5% of female participants under the age of 18 years admitted that they were sexually active. Of the sexually active youth, 45% never used a condom. High rates of divorce and remarriage in the Maldives create a conducive environment to spread HIV and other STIs. Since symptoms of HIV infection often do not appear for many years, people who are unaware that they are infection may infect many of their serial spouses and casual sex partners.

- **Drug Use :** The prevalence of drug use is on the rise in Maldives and injecting drug is becoming more common. The National Narcotics Bureau reported that the estimated drug addict population was 3000 in 2006. A research study conducted in 2004 found that 8% of the drug users were practicing injecting drug use. Approximately 90% of the drug users were male and of them 20% were less than 20 years of age. Drug use is a risk factor for HIV/AIDS in Maldives. About 3% of sexually active drug users reported same sex experiences in a study conducted by UNDP in 2002. It appears that rising prevalence of injecting drug use, combined with the practice of needle and syringe sharing is the most likely entry point for the HIV epidemic in Maldives.

- **Dispersed Population :** The citizens of Maldives live in about 200 of the 1,200 islands of Maldives. This dispersed population creates barriers to educating people on HIV/AIDS, distributing condoms, and treating people for STIs. A research study conducted in 2000 revealed that in the smaller islands, 55 percent of the population had no radio, and 86 percent had no television in the home. Many small islands had no bookstore, and access to newspapers was irregular.

- **Tourism Employment :** The tourist economy of Maldives employs about 5,000 immigrant workers, mainly from India and Sri Lanka. These workers, far from their social systems, families, and sexual partners are vulnerable to participating in high-risk behaviors.

- **External Tourism :** In 2004, approximately 600,000 tourists visited the Maldives, almost double 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.

- **Stigma and discrimination :** HIV related stigma and discrimination are barriers to address HIV/AIDS issues effectively. Stigma is particularly strong against most at risk populations such as men who have sex with men.

- **Awareness :** A reproductive health survey conducted in Maldives in 2004 with the help of UNFPA, found that 99% of the respondents had heard of HIV/AIDS. Of them 91% knew at least one way of HIV transmission. However, only 50% of the respondents agreed that condoms can prevent the transmission of HIV and 34% did not know that a healthy looking person may have HIV infection.

Important Aspects of National Response :

Maldives established the National AIDS Control Programme in 1987, four years before the first domestic HIV positive patient was reported. The National AIDS Council, a multi-sectoral representative body provides guidance to National AIDS Control Programme for HIV/AIDS prevention and control. It has launched a number of preventive activities with the aim of limiting the spread of HIV in the country. Some of them were public education, peer education, awareness creation workshops, blood and blood product screening etc. The general population has wide accessibility to condoms particularly in Male, the capital of Maldives. The government imposes a high level of screening for HIV/AIDS including mandatory screening of all returnees from an overseas stay of more than a year.

The National Strategic Plan 2002 – 2006 was developed in 2001. The goals of the strategic plan were to prevent HIV transmission in the country and to build the capacity of the country to respond effectively to the possible spread of HIV/AIDS. The objectives of the strategic plan were as follows;

- To sustain high level political commitment and an integrated response at various levels, including the community
- To provide adequate care and support for people living with HIV/AIDS
- To promote safe practices and behaviour among target groups
- To decrease the prevalence of STIs
- To decrease the social and economic impact of HIV/AIDS

In addition to above, the strategic plan included strategies for better surveillance in order to improve the evidence base for policy making and programming, developing tools for behaviour change interventions and empowering young people in and out of schools with knowledge and life skills.

The Government of Maldives developed National Reproductive Health Strategy 2005 – 2007. This document stated that reproductive health is a crucial component of general health. Of the seven thematic areas, one was on sexually transmitted infections and HIV/AIDS. The goal of this thematic area was to maintain the low prevalence of STIs and HIV/AIDS in Maldives with the help of under mentioned three objectives.

- To strengthen the diagnosis and treatment facilities at the central, regional and atoll levels for STIs including HIV/AIDS
- To increase awareness among men, women and adolescents on STIs including HIV/AIDS
- To increase the use of condoms for dual protection; family planning and prevention of STIs and HIV/AIDS

Furthermore, Ministry of Education has also approved a National Policy on School Health in 2004, which emphasized on HIV awareness activities as well as life skills.

The 7th National Development Plan 2006 – 2010 for Maldives was developed. This document provides ample opportunity to improve HIV/AIDS and sexual health related knowledge and skills needed among vulnerable youth. UNICEF suggests that this document can be used as the guiding document in developing next strategic plan on HIV/AIDS.

The Government of Maldives was a signatory to the Millennium Development Goals, agreeing to halt and begin to reverse the spread of HIV/AIDS by the year 2015. The Government commits to the under mentioned aspects in curtailing the HIV/AIDS epidemic in Maldives by its Millennium Development Goals Country Report in 2005.

- Ensuring the sustained low prevalence of HIV/AIDS in the country
- Collecting the evidence on sexual behaviour of high risk groups and plan and implement the targeted interventions for them
- Strengthening the active surveillance system following international standards
- Improving accessibility to condoms
- Promotion of voluntary counseling and testing services in Maldives

Table 30 shows the country report on UNGASS indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 30: Maldives Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	-	Reported as zero
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	Not calculated as the number need was less than 500	Number reported as 1 as of Dec. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	-	
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	-	
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	-	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	-	
09	Percentage of most at risk populations reached with HIV prevention programmes	-	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	

15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	-	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	-	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	-	
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	-	
19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	-	
20	Percentage of injecting drug users who report using a condom the last time they had sex	-	
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	-	
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	-	

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1. SAARC HIV/AIDS Update 2003 – 2008, STAC, Nepal
2. HIV/AIDS in Maldives, World Bank, August 2008
3. The HIV situation in Maldives, Situational Analysis on HIV/AIDS in Maldives – 2006 www.unicef.org/maldives
4. National Health System Profile – Maldives http://www.searo.who.int/
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6. Country Health and Development Challenges, Maldives http://www.who.int/countryfocus/cooperation_strategy/ccs_mdv_en.pdf
7. Country presentation in SAARC Regional Workshop among HIV/AIDS Control Programme Managers in Maldives,2007
8. Country report on HIV/AIDS provided by National HIV/AIDS Control Programme of Maldives to STAC in May 2008
9. 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.
10. Country presentation in SAARC Regional Workshop among TB and HIV/AIDS Control Programme Managers in Kathmandu, Nepal 2007

Nepal

Nepal is one of the eight Member States of the SAARC Region. It is a land-locked country and shares borders with India and China. It has five development regions (Far-Western, Mid-Western, Western, Central and Eastern) and 14 zones. These fourteen zones are in turn divided into 75 districts. The land area is about 147,181 square kilometers.

The population of Nepal is approximately 25.8 million in the year 2006. Approximately 80% of the population depends on agriculture for livelihood. Tourism was one of the main sources of income in the past and has been affected by the civil conflict and violence. During the conflict, a significant proportion of the productive labour force left the country for employment. Table 31 shows some of the important demographic, socio-economic, human and physical resources and health status indicators.

Table 31: Country Profile of Nepal

Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	28.4/1000 population	2003 - 2005
Crude Death Rate	9.9/1000 population	2001
Population Growth Rate per year	2.25%	2001
Total Fertility Rate	3.1/woman	2003 - 2005
Socio-economic Indicators		
Adult Literacy Rate (Total)	49%	2004
Adult Literacy Rate (Male)		
Adult Literacy Rate (Female)		
Human & Physical Resources Indicators		
Physicians of modern system per 10,000 population	2	2004
Dentists per 10,000 population	0.1	2004
Pharmacists per 10,000 population	0.1	2004
Nurses per 10,000 population	2	2004
Hospital Beds per 10,000 population	50	2006
Primary Health Centres per 10,000 population	0.8	2001 - 2002
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	48%	2003 - 2005
Antenatal Care Coverage	44%	2006
Births attended by skilled personnel	18.7%	2006
Health Status Indicators		
Total life expectancy at birth	61.0 years	2004
Life expectancy at birth (male)		
Life expectancy at birth (female)		
Neonatal Mortality Rate per 1000 live births	34.0	2001 - 2005
Infant Mortality Rate per 1000 live births	48.0	2006
Under five Mortality Rate per 1000 live births	61.0	2006
Maternal Mortality Rate per 100,000 live births	281	2006

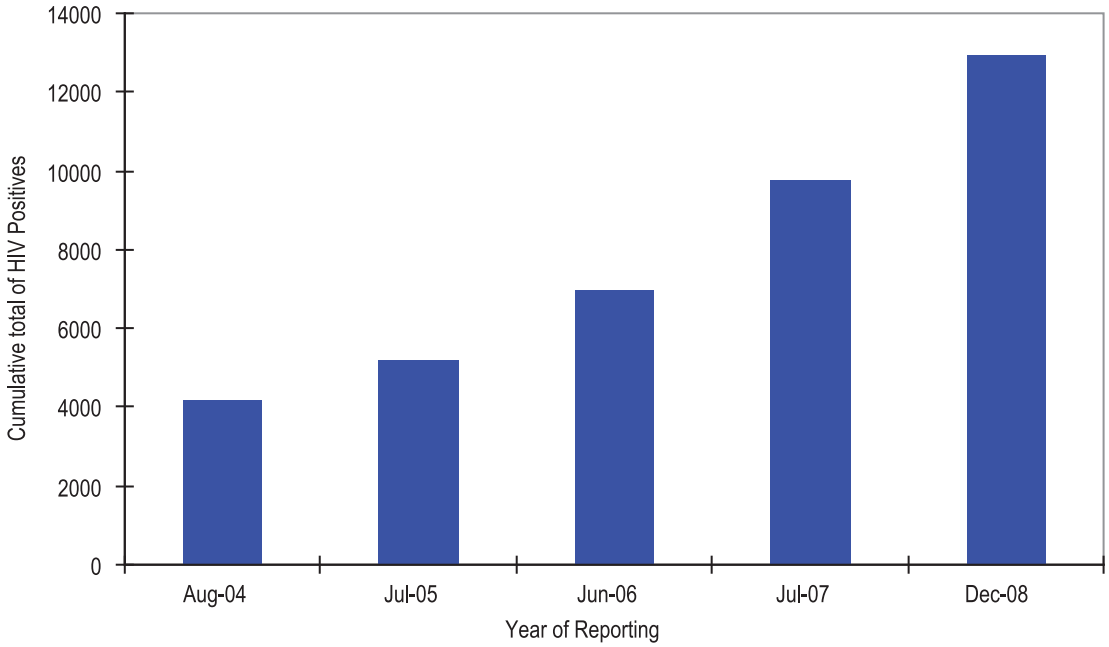
(Source: WHO website – www.searo.int/LinkFiles/country_Health_System_profile_8-Nepal:pdf)

Over the years, Nepal has made progress in raising the health status and living standards of the population in terms of life expectancy, total fertility rate, child immunization, adult literacy and access to health care. However, the country still continues to be afflicted with the double burden. There are the persistent problems of infectious diseases along with emerging epidemics and upward trends of lifestyle related non-communicable diseases.

HIV/AIDS situation :

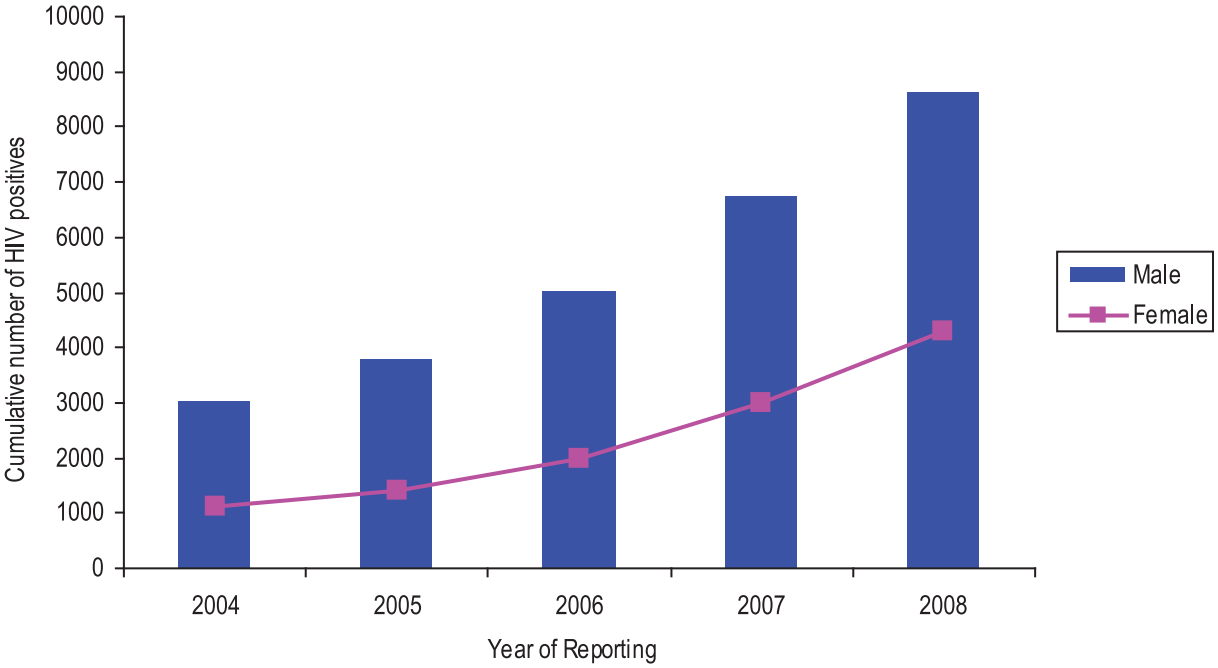
HIV/AIDS epidemic is still primarily confined to vulnerable groups. Therefore, the epidemic is regarded to be in a stage of "concentrated epidemic". However, HIV/AIDS epidemic in Nepal has the potential to develop into a generalized state.

Figure 44: Cumulative Number of Reported HIV Positives in Nepal 2004 – 2008



The first HIV infected person in Nepal was detected in 1988. Since then the HIV epidemic in the country has evolved from low to concentrated epidemic. In 2008, the estimated number of people living with HIV/AIDS was 69,790 and overall adult prevalence rate was 0.49%. As of December 2008, a total of 12,933 HIV positives were reported to the National Centre for AIDS and STD Control, Nepal. At the same time, 2151 AIDS patients and 509 AIDS deaths were reported at the end of December 2008. Figure 44 depicts the cumulative number of reported HIV positives in Nepal from 2004 to 2008. Figure 45 shows the sex distribution of cumulative total of HIV positives from 2004 to 2008. It clearly illustrates the slow but significant increase of male to female ratio of reported HIV positives from 2004 to 2008.

Figure 45: Sex distribution of the cumulative total of reported HIV positives in Nepal 2004 - 2008



Of the reported cumulative number, 4307 (33.3%) were among females as of December 2008 and the figure 46 shows the sex distribution of cumulative HIV positives as at December 2008. During the year 2008 there were 2387 HIV infections reported to the National Centre for AIDS and STD Control, Nepal. Of them 1388 were males and 999 were females. Of them 371 males and 170 females were detected as having AIDS (Total reported AIDS patients = 541). There were 55 AIDS related deaths reported to National AIDS Control Centre in 2008. Majority of reported HIV positives were in 20 – 49 year age group. Figure 47 illustrates the age and sex distribution of the cumulative total of reported HIV positives in Nepal as of December 2008.

Figure 46: Sex distribution of the cumulative HIV positives in Nepal as of December 2008

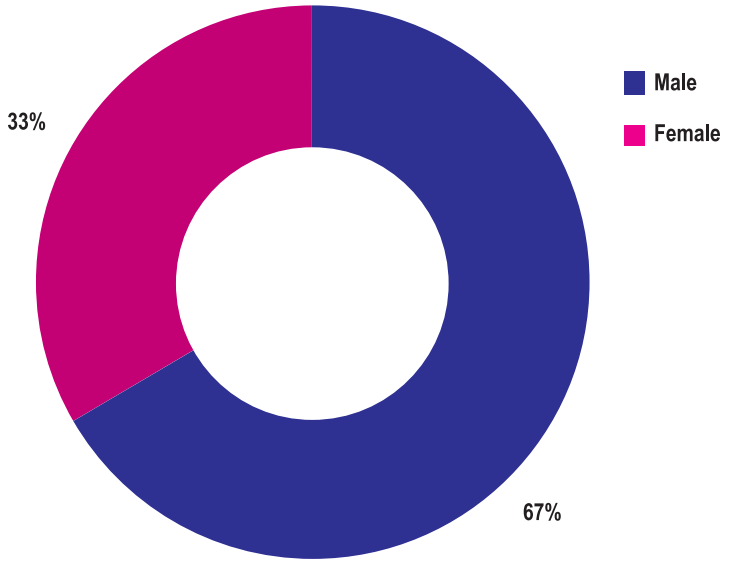
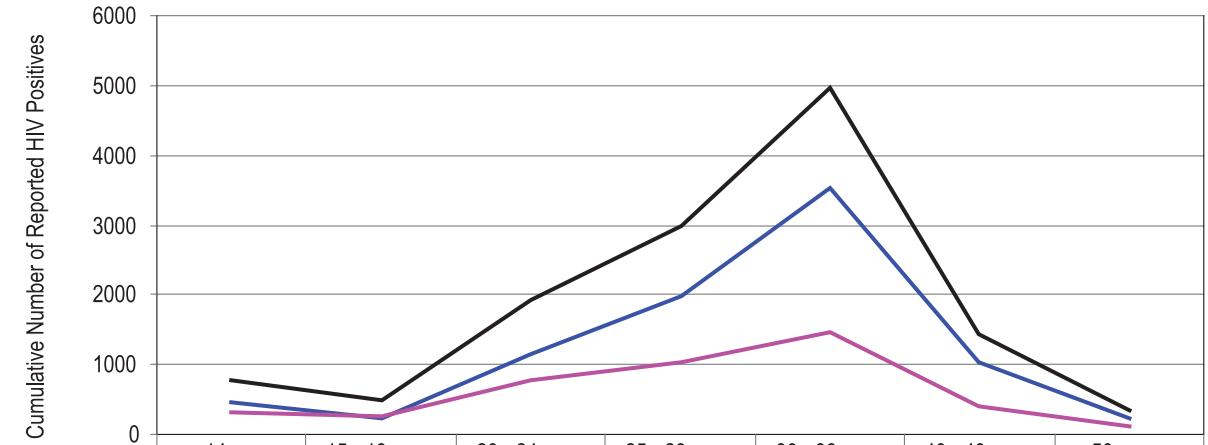


Figure 47: Age and sex distribution of the cumulative total of reported HIV positives in Nepal as of December 2008



	<14 yrs	15 - 19 yrs	20 - 24 yrs	25 - 29 yrs	30 - 39 yrs	40 - 49 yrs	50+ yrs
male	461	240	1157	1976	3520	1030	242
Female	302	249	771	1024	1455	403	103
Total	763	489	1928	3000	4975	1433	345

Age Groups in Years

Figure 48 shows the cumulative number of HIV positive men in Nepal by their probable mode of transmission. The main modes of transmission were sexual intercourse between men and women (66%) and Intravenous Drug use (27%). Mother to child transmission was responsible for 5% of cumulative number of HIV positives among men which would have been totally preventable with appropriate medical interventions. Figure 49 depicts the probable modes of transmission among HIV positive women in Nepal as of December 2008. Of the HIV positive women, 72% had no documented probable mode of transmission. This is of significant importance. Of the women who revealed the probable mode of transmission (28%), the heterosexual sex was the main mode of transmission.

Figure 48: Cumulative number of HIV positive men in Nepal by probable mode of transmission as of December 2008

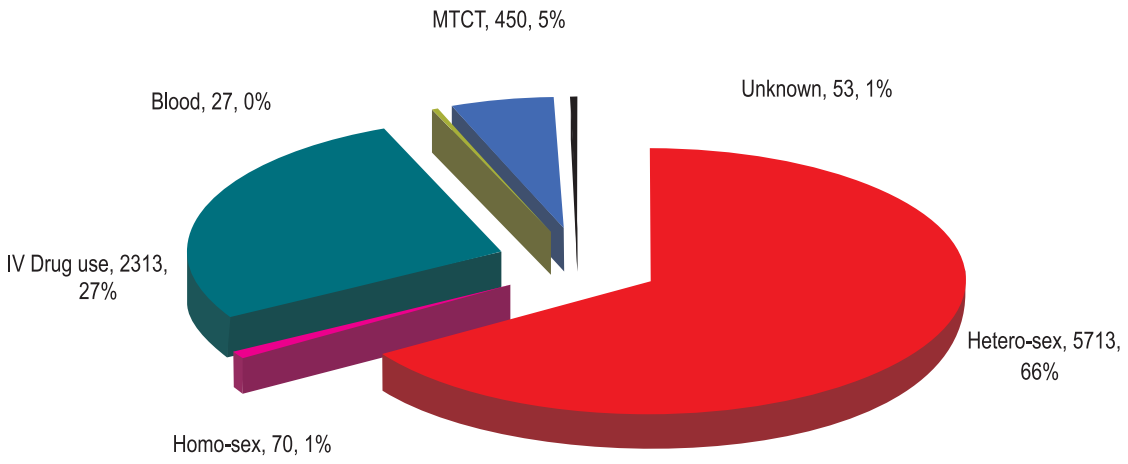


Figure 49: Cumulative number of HIV positive women in Nepal by probable mode of transmission as of December 2008

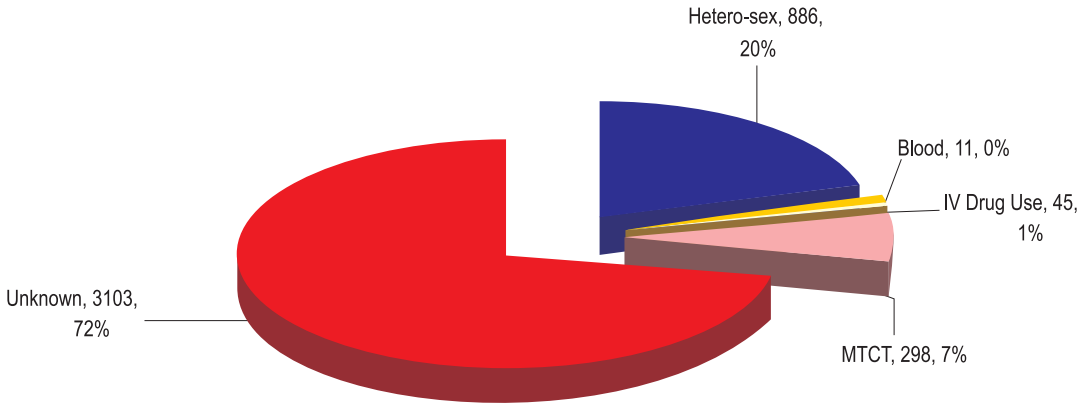


Figure 50: Cumulative number of HIV positives by population sub groups as of April 2008

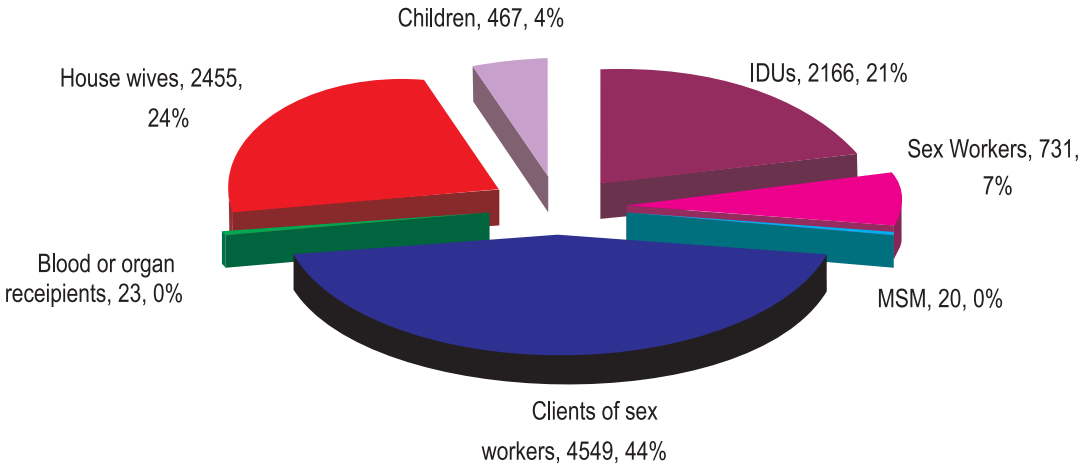


Figure 50 illustrates the cumulative total of HIV positives of Nepal in their population sub groups as of April 2008. According to the reported findings the recognized most at risk populations in Nepal were sex workers (7%), IDUs (21%) and clients of sex workers (44%). The most vulnerable group was house wives (24%)

HIV epidemic in Nepal is largely concentrated among high-risk groups, particularly among sex workers, clients of sex workers and IDUs. Injection drug use appears to be extensive in Nepal and it significantly overlaps with the commercial sex. Another important factor is the internal and international migration for work. There are several risk factors prevailing in Nepal that drive the HIV epidemic. Some of them are cultural factors, social factors, economic constraints and low level of condom use, particularly among commercial sex workers and their clients. Table 32 shows the recognized most at risk populations in Nepal and their estimated size in the year 2008

Table 32: Most at risk populations in Nepal and their estimated size 2008

Most at Risk Population	Estimated Size
Commercial sex workers	30,815
Men who have sex with men	134,904
Intravenous Drug Users	28,439
Prisoners	7,944
Uniformed services	208,000
Migrant workers and their spouses	747,600
Clients of sex workers including transport workers	679,555

Nepal has a high TB burden with 173 incident cases of all forms of TB per 100,000 people in 2007. According to the World Health Organization HIV prevalence among incident TB patients was 3.1% in 2005 and 2.4% in 2007. TB/HIV co-infection complicates the treatment and care for both diseases.

Risks and Vulnerabilities :

Most recent data demonstrate a stabilizing of the HIV epidemic and a downward trend in sero-prevalence among several of the key most at risk populations. However, a number of issues pose continued challenges in containing HIV epidemic in Nepal. Many sex workers are IDUs or Migrants or both, increasing the spread of HIV among at risk groups. A large proportion of men who buy sex are also married, making them potential conduits for HIV to enter into the general population. Poverty, low levels of education, illiteracy, gender inequalities, marginalization of risk groups and stigmatization and discrimination compound the effects of the epidemic. Unsafe sex and injecting drug use, internal and external mobility and limited health care delivery multiply the difficulties of addressing HIV/AIDS. National Centre for AIDS and STD Control, Nepal conducted a behavioural surveillance survey in the year 2008. Far Western and Mid Western regions were selected for the survey among migrant workers and Pokhara and Kathmandu areas were chosen for the survey among female sex workers. The findings of the survey are not yet available.

The HIV epidemic in Nepal is driven by IDUs, migrants, MSM, sex workers and their clients. The findings of the Integrated Bio-Behavioural Surveillance conducted in 2007 among IDUs showed that the highest prevalence rates have been found among urban IDUs and 6.8% - 34.7% of them were HIV positive. However, in terms of absolute numbers, labour migrant population (1.5 – 2 million) accounted for the majority of HIV positives in Nepal. According to the findings of the Integrated Bio-Behavioural surveillance conducted among migrant workers in 2006, 2.8% of migrants returning from Mumbai, India were infected with HIV. In 2007, HIV prevalence among sex workers and their clients was less than 2% and 1% respectively. Among urban MSM, the HIV prevalence was 3.3% in 2007. National Centre for AIDS and STD Control, Nepal reported that HIV infection was more commonly reported in urban areas as well as far western region of the country where the migrant labour is more common.

Street children are also one of the most vulnerable groups. According to a report of UNICEF (Increasing Vulnerability of Children in Nepal) that more than 13,000 estimated number of children in Nepal were orphaned by HIV/AIDS. The national estimate of children 0 – 14 years of age infected with HIV was 1857 in 2008 according to the report submitted by National Centre for AIDS and STD Control in Nepal to SAARC TB and HIV/AIDS Centre in April 2009.

The major risks and vulnerabilities recognized in HIV epidemic of Nepal are:

- **Continued Spread among Injecting Drug Users:** Nepal was the first developing country to establish a harm reduction program with needle exchange for IDUs. However, due to the limited coverage of the

programme, the impact on HIV transmission among drug users was limited. In 2007, there were 46,309 drug users were in Nepal of them 61% were injecting drug users. National Centre for AIDS and STD Control, Nepal reported that 28,439 estimated IDUs were in Nepal in 2008. The transition from inhalational drug use to injecting practice is linked to the cost effectiveness of injecting drug use.

- **Trafficking of Female Sex Workers:** One of the major challenges to contain HIV epidemic in the country is Human Trafficking, particularly the Nepalese girls and women into commercial sex work More than 100,000 Nepalese women continue to work in Mumbai. According to a study done in 2004, it was estimated that approximately 50% of Nepalese sex workers in Mumbai brothels were HIV positive. Many sex workers in Nepal are either IDUs or Migrants or both, increasing the spread of HIV among most at risk populations. Female sex workers in Nepal have limited access to information and services on reproductive and sexual health and safe sex practices and in obtaining legal protection due to their highly marginalized status in the society. Cultural, social, and economic constraints prevent them from negotiating condom use with their clients.

- **Changing Values among Young People:** Young people are increasingly vulnerable to HIV due to changing values, group norms, and peer pressure. Eventhough the girls have knowledge on Sexually Transmitted Infections including HIV/AIDS, due to their traditionally lower social status, they do not have the means of protecting themselves. Based on behavioural surveys, comparatively adolescents are apparently highly aware of the HIV risks, but they do not necessarily translate this awareness into safe sex practices. However, vulnerability to HIV is high among youth aged 15 – 24 years as 64% of them have yet to acquire comprehensive HIV knowledge.

- **High Rates of Migration and Mobility:** Migration for livelihood is necessary for the economic survival of many households in both rural and urban areas in Nepal. Removal from secured family environment has been shown to promote high risk, unsafe, casual sexual encounters including concurrency and buying sexual services. In terms of absolute numbers, labour migrant population was estimated as1.5 – 2 million. They accounted for the majority of HIV positives in Nepal.

  According to the 2006 Integrated Bio-Behavioural Surveillance, an estimated proportion of 41% - 46% of all HIV infection occurs among migrant workers. Seasonal labour migrants had the highest estimated HIV infection. However, their numbers slightly dropped from 46% in 2005 to 41% in 2007. A study conducted in 2006 among Nepali migrants traveling to India for work found that 27% of men engaged in high risk sexual behaviour while in India and frequently visited sex workers. The findings of the Integrated Bio-Behavioural surveillance conducted among migrant workers in 2006 showed that 2.8% of migrants returning from Mumbai, India were infected with HIV.

- **Low Awareness among Men Who Have Sex with Men (MSM):** The knowledge of safe sex and condom use is low among this community. Due to their marginalized social status, the access to information and services on sexual and reproductive health is low. The estimate of the National Centre for AIDS and STD Control, Nepal for MSM was 134,904 in the year 2008. HIV prevalence among MSM in Kathmandu Valley was estimated to be 3.3% in 2007. Furthermore, many men who have sex with men are also married, which puts their spouses at risk of HIV infection. Surveys conducted in Kathmandu at regular intervals showed HIV prevalence in this group is increasing.

Important Aspects of National Response :

The Government of Nepal launched the National AIDS Prevention and Control Programme in 1988. A multi-sector National AIDS Coordinating Committee was established in 1992 in Nepal. A National Policy was formulated in 1995, emphasizing the importance of multi-sectoral involvement, decentralized implementation and partnership between

the public and the private sectors including NGOs. The main governmental agency responsible for HIV/AIDS and STDs is the National Centre for AIDS and STD Control (NCASC) under the Ministry of Health and Population. NCASC serves as the lead technical agency for the surveillance, policy and technical guidance, capacity building and monitoring and evaluation of the health sector response.

Most of the national initiatives have focused on leadership, partnerships and the involvement of the civil society for prevention, care and support for the most at risk populations. Since 2003, NCASC implemented the HIV/AIDS operational plan based on the National Strategy 2002 – 2006. Currently, the HIV/AIDS activities are based on the second National HIV/AIDS Strategy 2007 – 2011. The prioritized aspects of the National HIV/AIDS Strategy 2007 – 2011 are:

- Preventing the spread of STIs and HIV infection among most at risk populations
- Ensuring universal access to quality treatment, diagnostics, care and support services for infected, affected and vulnerable groups
- Ensuring a comprehensive and well implemented legal frame work on HIV/AIDS promoting human rights and establishing HIV/AIDS as a development agenda
- Enhancing leadership and management at national and local levels for an effective response to HIV/AIDS
- Using strategic information to guide planning and implementation for an improved effective response
- Achieving sustainable financing and effective utilization of funds

The vision of the National Strategy is to expand the number of partners involved in the national response and to increase the effectiveness of the national response of Nepal. It emphasizes prevention as key for an effective response to the epidemic, particularly in areas with high levels of external migration. It recognizes the importance of accurately tracking the epidemic to monitor the effectiveness of interventions. In 2007, HIV/AIDS and STI Control Board was established to enhance and expand the response to HIV/AIDS. The responsibility of this board is to improve the multi-sectoral engagement, decentralization and donor coordination. The pivotal role of this semi-autonomous body may drive a strong civil society engagement in the national response to contain the HIV/AIDS epidemic in Nepal.

Table 33 shows the country report on UNGASS indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 33: Nepal Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	100%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	7% (5 – 11)	Number reported as 1240 as of Sep. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	2 – 4%	Number reported as 36
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	46%	Number reported as 321

07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	-	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers- 40% IDUs - 21% MSM - 30%	
09	Percentage of most at risk populations reached with HIV prevention programmes	Sex workers - 42% IDUs - 78% MSM - 47%	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	6%	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	32%	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Sex workers 32% IDUs 66% MSM 45%	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	-	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	-	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	54%	Males only
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	81%	Both females and males

19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	74%	
20	Percentage of injecting drug users who report using a condom the last time they had sex	38%	Only males
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	96%	Only males
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	85%	

References:

1. National Report submitted to STAC, Nepal by National Centre for AIDS and STD control, Nepal in March 2009
2. SAARC HIV/AIDS Update 2003 – 2008, STAC, Nepal
3. National Report provided to STAC, Nepal by National Centre for AIDS and STD control, Nepal in April 2008
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Pakistan

Islamic Republic of Pakistan is the second largest country in the South Asia. It is surrounded by India, China, Afghanistan, Iran and Arabian Sea. The land area of the country is 796,096 square kilometers. Pakistan has four provinces (Punjab, Sindh, North West Frontier Province and Baluchistan) and four federally administered areas. These eight areas are further divided into 126 districts.

Population of Pakistan was approximately 163 million in 2006. Of that, 35% is categorized as urban dwellers. The Pakistan Poverty Assessment Survey conducted in 2000 – 2001 found that 32% of the population lives below the poverty line. Poverty is an important factor in health profile of Pakistan. Those living in absolute poverty are five times more likely to die before reaching the age of 5 years. The major problems in health are due to poverty related communicable diseases, childhood illnesses, reproductive health problems and malnutrition. Table 34 illustrates some of the important demographic, socio-economic, human and physical resources and health status indicators in Pakistan.

Table 34: Country Profile of Pakistan
Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	26.1/1000 population	2007
Crude Death Rate	7.1/1000 population	2007
Population Growth Rate	1.8%	2007
Total Fertility Rate	3.9/woman	2007
Socio-economic Indicators		
Adult Literacy Rate (Total)	54%	2006
Adult Literacy Rate (Male)	65%	2006
Adult Literacy Rate (Female)	42%	2006
Human & Physical Resources Indicators		
Physicians per 10,000 population	12	2007
Dentists per 10,000 population	8	2007
Pharmacists per 10,000 population	1	2007
Nurses & Midwives per 10,000 population	0.9	2004
Hospital Beds per 10,000 population	10	2007
Primary Health Care units & centres per 10,000 population	1.7	2003
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	30%	2007
Antenatal Care Coverage	70%	2007
Births attended by skilled personnel	39%	2007
Infants attended by trained personnel	20%	2007
Health Status Indicators		
Total life expectancy at birth	65.0 years	2005
Life expectancy at birth (male)	64.0 years	2005

Life expectancy at birth (female)	66.0 years	2005
Neonatal Mortality Rate per 1000 live births	54.0	2007
Infant Mortality Rate per 1000 live births	78.0	2007
Under five Mortality Rate per 1000 live births	94.0	2006
Maternal Mortality Rate per 100,000 live births	275	2007

(Source: WHO website – www.emro.who.int/pakistan)

Access to health care and development of infrastructure are impeded by various factors including low density of the population in some provinces. At the national level, 80% of the population has access to local health services in rural areas and 100% in cities. However, there are significant regional variations. Pakistan has the sixth highest burden of TB in the world with an estimated incidence of 181 cases per 100,000 people in the year 2007. Pakistan is considered a low prevalence but a country with high risks for HIV/AIDS, particularly among injecting drug users.

HIV/AIDS Situation :

The first HIV positive patient was reported to the Federal Ministry of Health, Pakistan in 1986. The estimated HIV burden is less than 0.1% in Pakistan. In absolute numbers, Pakistan has 70,000 – 80,000 people living with HIV/AIDS in 2007. However, the country is facing an established concentrated epidemic among IDUs in at least eight major cities according to the HIV/AIDS Second Generation Surveillance Round III conducted in 2008.

Figure 51 depicts the increasing trend of reported HIV positives in Pakistan from the year 2000 to December 2008 as limited data are available for the initial years of the epidemic. Most of the HIV positives reported after 1987 were among migrant workers deported from other countries. The first major reported outbreak among IDUs occurred in Larkana in 2003.

At the end of December 2008, there were 4951 cumulative total of reported HIV positives in Pakistan. Of them, 4090 were males and 518 were females. Gender was unknown in 343 HIV positives. Figure 52 shows the sex distribution of cumulative total of HIV positives in Pakistan as of December 2008. Of them 83% were males. There were 474 AIDS patients reported to the National AIDS Control Programme, Pakistan as of December 2008.

Figure 51: Cumulative number of reported HIV/AIDS patients in Pakistan 2000 - 2008

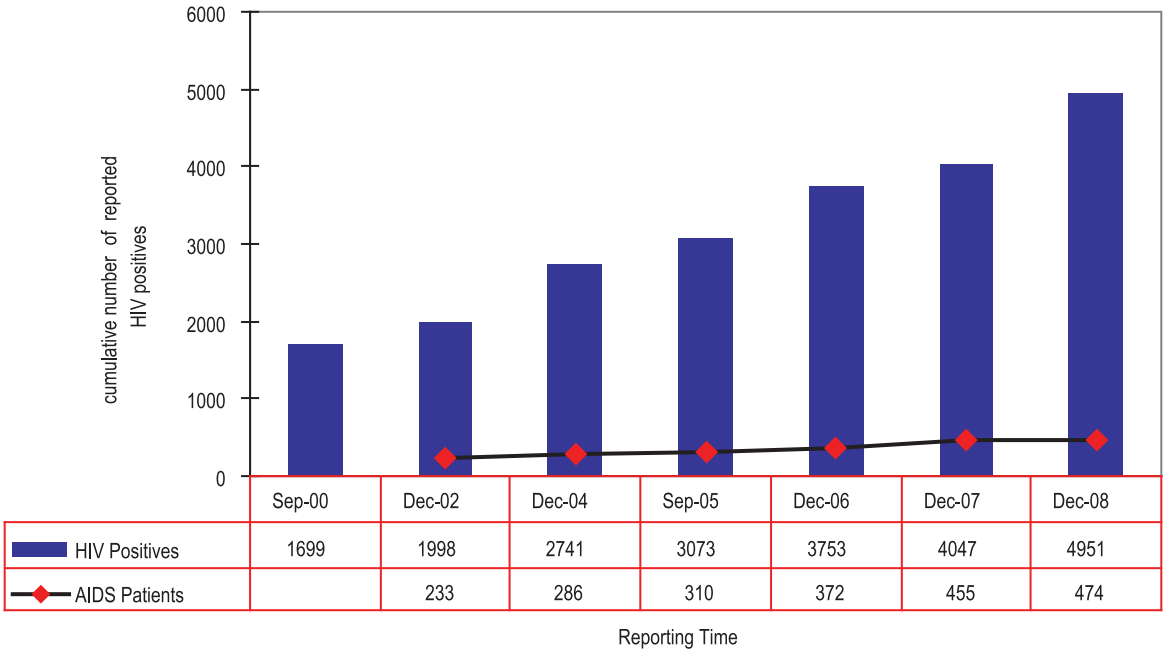
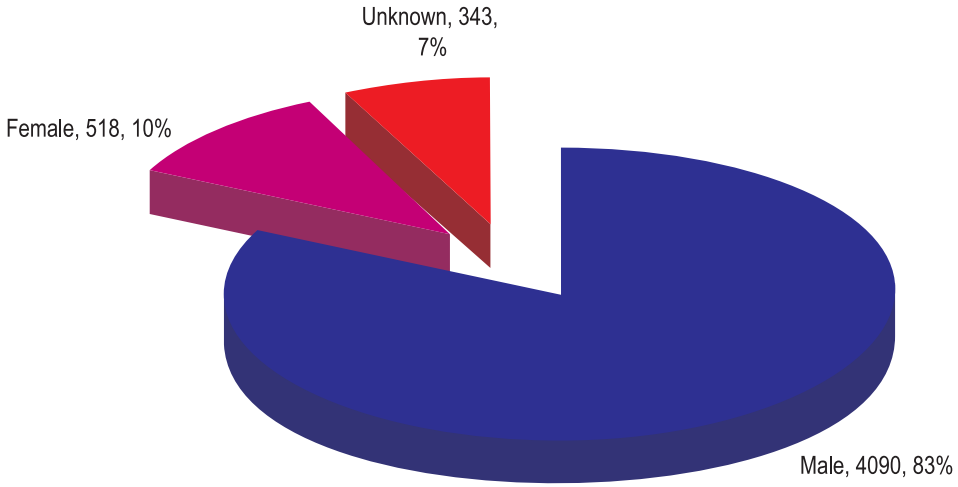


Figure 52: Sex distribution of the cumulative total of reported HIV positives in Pakistan as of December 2008



In the year 2008, 904 HIV positives were reported to the National AIDS Control Programme. Of them 716 were males, 93 were females and sex was unknown for 95 of them. There were 19 reported AIDS patients, of them 16 were males and 03 were females. There were11 AIDS related deaths reported during the course of the year 2008. Figure 53 illustrates the age and sex distribution of the newly reported HIV positives in 2008 in Pakistan.

Figure 53: Age and sex distribution of the newly reported HIV positives in Pakistan in 2008

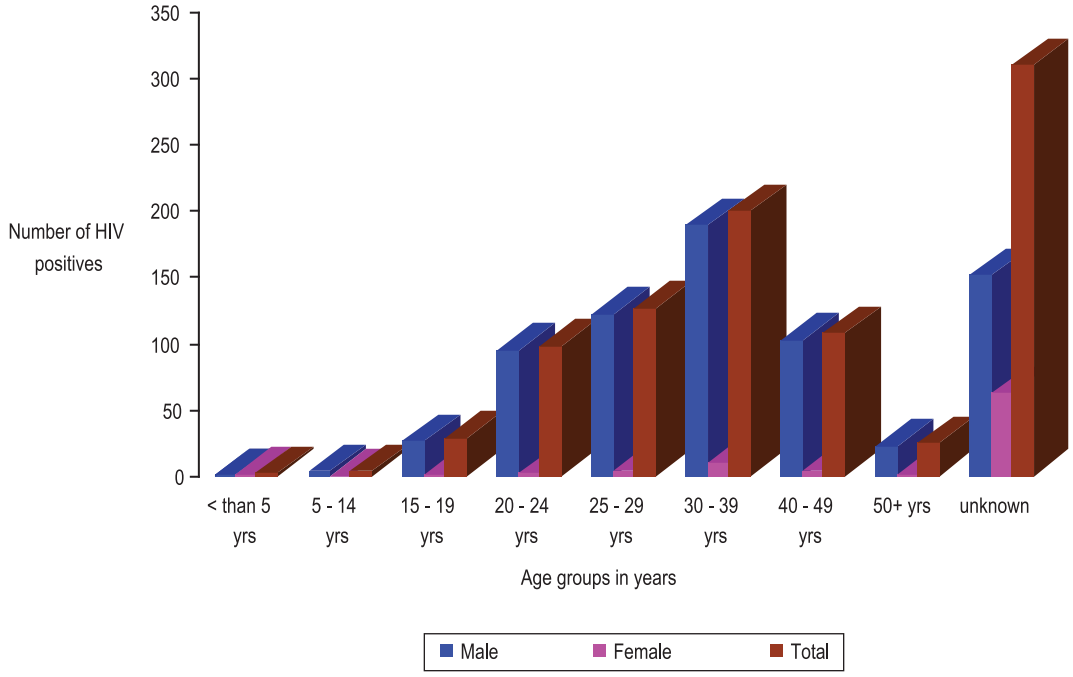
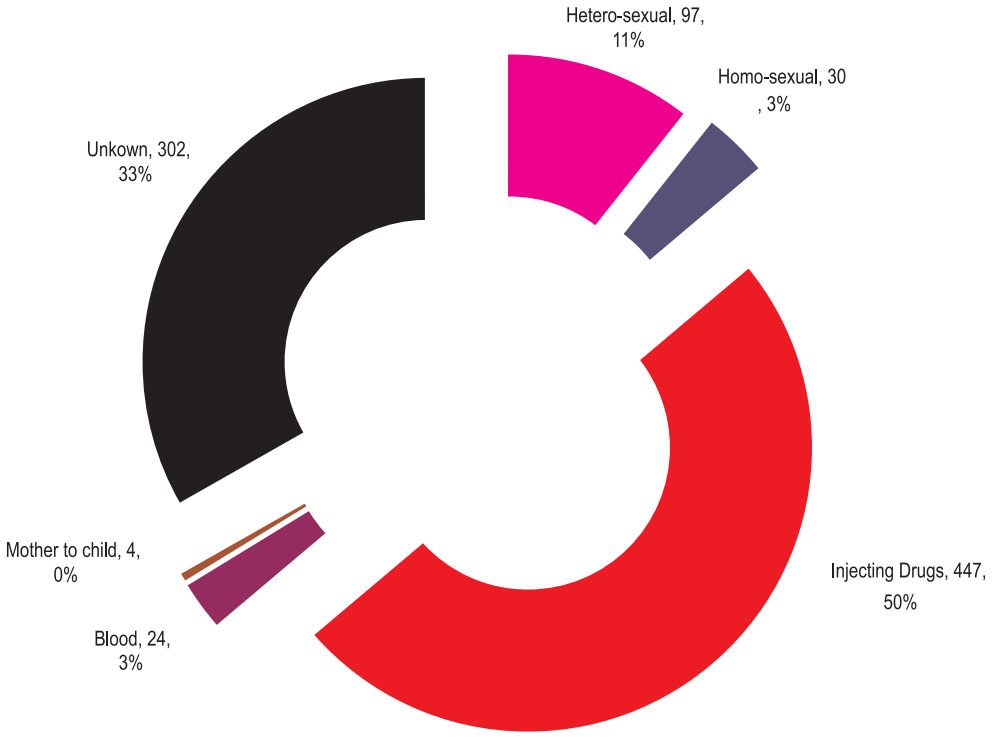


Figure 54 shows the probable mode of transmission of HIV among the reported HIV positives in the year 2008 in Pakistan. The main mode of transmission was injecting drug use followed by hetero-sexual transmission. Of the data, 33% were with unknown mode of transmission which is of significance importance to the National AIDS Control Programme.

Figure 54: Probable mode of transmission among HIV positives reported in Pakistan in 2008

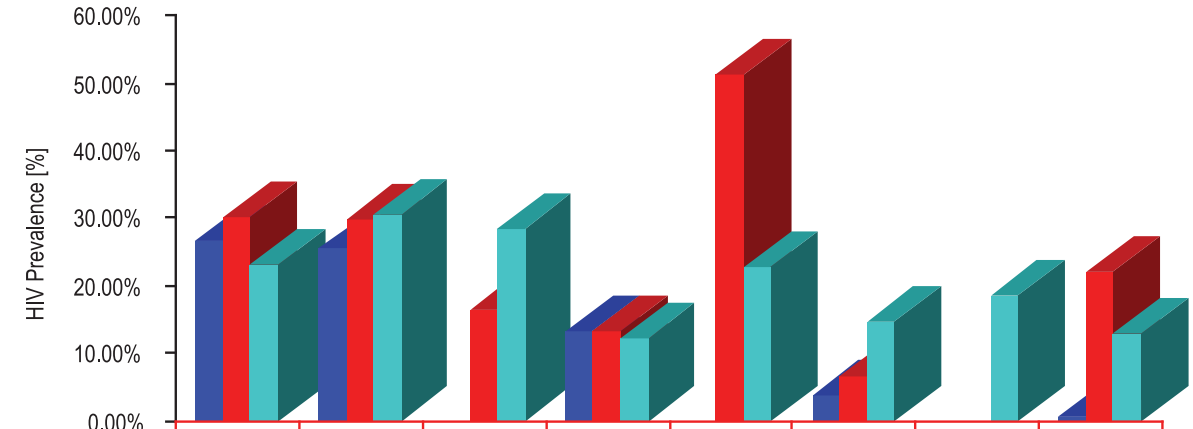


HIV infection has increased significantly in last few years in Pakistan despite of the efforts made to minimize the epidemic. The country moved from a low prevalence to an established concentrated epidemic with HIV prevalence of more than 5% among Injecting drugs users (IDUs) and Men who have sex with Men (MSMs).

The Integrated Bio-Behavioural Surveillance (IBBS) Round III was conducted from March 2008 to June 2008 in Pakistan. The findings of the surveillance provide biological and behavioural information of HIV related most at risk groups (IDUs, Male sex workers and Hijra sex workers). Female sex workers' group is the largest high risk group in Pakistan. They were not included in the third round of surveillance, due to consistently low HIV prevalence observed in successive surveillance rounds (0.2% in Round I and 0.02% in Round II).

IDUs: Approximately 29% of IDUs reported that they used injecting paraphernalia and of them 32% reported sharing the injecting equipments. Nearly 18% of IDUs reported having sex with female sex workers and of them only 31% reporting condom use. Of the respondent IDUs 14% reported that they had sexual encounters with male sex workers and/or with Hijra sex workers. Only 14% of the IDUs who had sexual experience with sex worker, Men reported that they used a condom at least during last anal sex. Overall, 61% of IDUs had heard about HIV prevention interventions in their cities, however, only 51% reported utilizing these services. The overall HIV prevalence among IDUs in Pakistan was 21%. The highest prevalence was reported among IDUs from Hyderabad (30.5%) followed by Larkana (28.5%), Karachi (23.1%) and Sargodha (22.8%).

Figure 55: HIV Prevalence among IDUs in Pakistan by their city 2005 – 2008

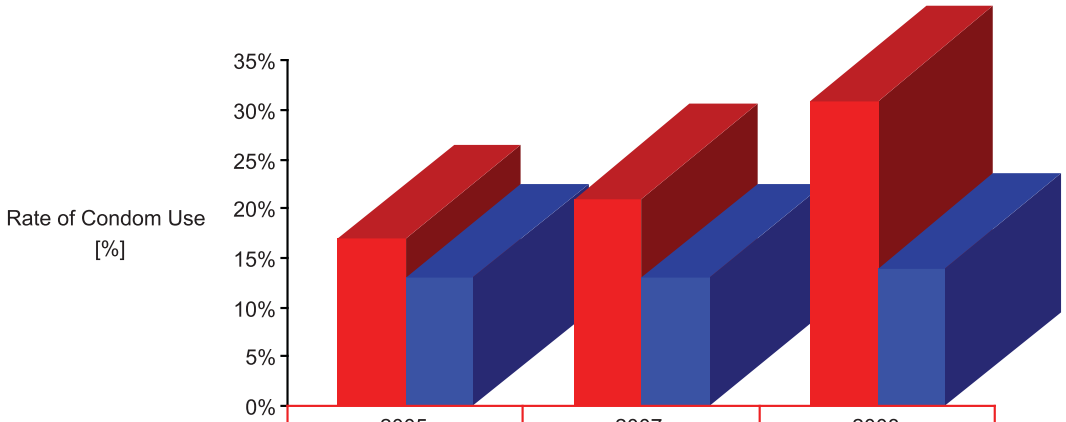


	Karachi	Hyderabad	Larkana	Faisalabad	Sargodha	Lahore	DG Khan	Peshawar
Round I - 2005	26.50%	25.40%		13.30%		3.80%		0.40%
Round II - 2007	30.10%	29.80%	16.50%	13.30%	51.30%	6.50%		22%
Round III - 2008	23.10%	30.50%	28.50%	12.30%	22.80%	14.50%	18.60%	12.80%

Cities selected in Surveillance Round I - III

Figure 55 depicts the HIV prevalence among IDUs residing in different cities of Pakistan from 2005 to 2008. Figure 56 illustrates the practice of condom use among IDUs from 2005 to 2008. During last sexual encounter with a female sex worker, only 17% of IDUs used a condom in 2005 and the figure for the 2008 was 31%. During the last sexual encounter with a male sex worker or with a Hijra sex worker, only 13% of IDUs used a condom in 2005 and there was no significant progress detected in 2008 surveillance. However, the HIV prevalence among female sex workers were very low over the two consecutive surveillance rounds and the HIV prevalence among male sex workers and Hijra sex workers was comparatively high (Figure 57).

Figure 56: Condom use in last sexual encounter among IDUs by the type of the clients 2005 - 2008



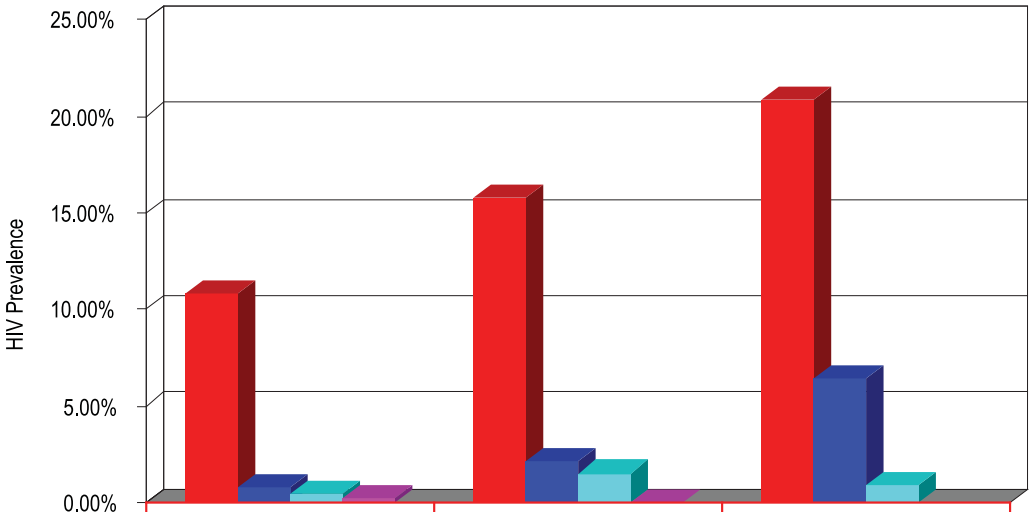
	2005	2007	2008
Female Sex Worker	17%	21%	31%
Male Sex Worker/Hijra Sex Worker	13%	13%	14%

Male Sex Workers (MSWs) : MSWs started sex work at the mean age of 16.2 years. About 42% of MSWs had no formal schooling and nearly all of them were unmarried. According to the findings there were considerable numbers of students among MSWs. Approximately 24% of them reported consistent use of condoms with paid clients in past one month of the surveillance. About 14% of MSWs were aware of the HIV prevention interventions in their cities and only 8.5% utilized these services. The overall HIV prevalence among MSWs was 0.9%. The highest HIV prevalence among MSWs was reported in Karachi (3.1%) and no MSW tested positive in Hyderabad, Faisalabad and Peshawar.

Hijra Sex Workers (HSWs) : On an average HSWs started sex work at a relatively young age (15.5 years). The majority of them were unmarried. About 59.6% of the HSWs had no formal schooling. Approximately 22% of them accessed their clients using mobile phones. Consistent condom use among HSWs was generally low and only 20% reported using a condom consistently with the paid clients in the past month of the surveillance. Overall, 31% of them were aware of HIv prevention interventions in their cities. However, only 18.3% reported utilizing such services. The overall HIV prevalence among HSWs was 6.4% with the highest prevalence reported in Lakrana (27.6%).

Figure 57 shows the HIV prevalence among different high risk groups in Pakistan from 2005 – 2008. The highest HIV prevalence was consistently reported among IDUs followed by Hijra Sex Workers (HSWs). As HIV prevalence among IDUs is significantly high, low condom use practice may pose a threat of evolving generalized epidemic in Pakistan unless the timely interventions are geared effectively and efficiently.

Figure 57: HIV prevalence among Most at Risk Groups in Pakistan by the Round of Second Generation Surveillance 2005 - 2008



	Round I 2005	Round II 2007	Round III 2008
IDUs	10.80%	15.80%	20.80%
HSWs	0.80%	2.10%	6.40%
MSWs	0.40%	1.50%	0.90%
FSWs	0.20%	0.02%	Not included

Risk and Vulnerabilities :

HIV epidemic situation in Pakistan fits the typical "Asian Epidemic Model" where once the epidemic gets settled among the most at risk populations, it spreads rapidly to the general population due to prevailing risk behaviours and vulnerabilities. There are socio-cultural factors that have helped to slow down the initial phase of HIv epidemic in Pakistan. However, the country has an array of risks and vulnerabilities that put it at a substantial risk of evolving the current scenario to a full blown epidemic. The risk factors and vulnerabilities include:

- **Concentrated epidemic among Injecting Drug Users (IDUs) :** The number of drug users in Pakistan is estimated to be about 500,000, of whom an estimated 150,000 inject drugs. The findings of the Second Generation Bio-Behavioural Surveillance - Round III in 2008 indicated a widespread concentrated epidemic among IDUs with highly prevalent risk behaviours. The identified risk behaviours among IDUs were shared use of contaminated injecting equipments, sexual encounters with other most at risk populations like female sex workers, male sex workers and hijra sex workers and low use of condoms.

- **Emerging epidemic among Male and Hijra Sex workers (MSWs & HSWs) :** The findings of the mapping exercises and that of the Integrated Bio-Behavioural Surveillance (IBBS) conducted in Pakistan from 2005 to 2008 clearly showed that sexual activities between men were highly prevalent in the country. There were estimated 19,320 men who have sex with men residing in twelve major cities in 2007. Data from three rounds of surveillance clearly indicate an emerging epidemic among male sex workers and Hijra sex workers in at least two major cities with highly prevailing risky behaviours. The identified risks among them were low condom use and sexual networking with IDUs and female sex workers.

- **Well established commercial sex industry :** Commercial sex industry particularly the female sex work is highly prevalent in all major cities of Pakistan. According to the findings of Round II of the Surveillance, there were 50,000 female sex workers operating in twelve major cities. Most of them had very little understanding of safe sexual practices. Low condom use and sexual networking with other most at risk populations like IDUs and MSMs were identified during IBBS Round I and II.

- **Inadequate blood transfusion screening, high number of professional donors and unsafe injection practices :** It is estimated that 40% of the 1.5 million annual blood transfusions in Pakistan are not screened for HIV. In addition to that, the country has a very poor voluntary blood donor base and a high proportion of blood available for transfusion is collected either from family replacement donors or from professional donors. Both formal and informal health sectors have high rates of unsafe injection practices.

- **Large number of migrants and refugees :** Pakistan has a very large number of internal migrants, international migrants (both in and out) and refugees who are highly vulnerable to acquire HIV infection. Approximately 4 million Pakistan citizens are employed overseas particularly in Gulf countries. In addition, Pakistan is hosting about 2.5 million Afghan refugees.

- **Low income levels and income inequalities :** Research studies conducted in all over the world have shown that there is a strong association between low income levels and vulnerability to acquire HIV infection. Nearly one third of the population in Pakistan lives below the official poverty line. Pakistan is an economically progressing country, however, the income disparities are very prevalent and have the potential to fuel HIV epidemic as there is also a strong association between inequality of income and the spread of HIV infection.

- **Low levels of literacy and education :** Literacy and education have a strong link with safe behaviours and sexual practices. Despite the efforts of the Government of Pakistan to raise the literacy levels, still a major

proportion of the population remains illiterate particularly among women (adult female literacy rate = 42% in 2006).

- **Large number of unemployed youth, out-of-school youth and street children :** The mentioned categories of young people are more vulnerable to risky behaviours that are associated with HIV spread. Pakistan has an estimated number of 53.6 million youth and many of whom are unemployed and out-of-school. The combination of demographic and economic factors makes this large youth population highly vulnerable to HIV infection.

- **Silence, denial, stigma and discrimination :** Silence, denial, stigma and discrimination are highly prevalent in Pakistan and they can easily fuel the epidemic by limiting the scope of awareness programmes and efforts to mobilize communities and resources to contain the epidemic. At the same time, stigma and discrimination faced by the people living with HIV/AIDS and by marginalized most at risk populations can act as most serious obstacles to an effective national response.

- **Gender issues :** Gender inequalities play a facilitating role in the spread of HIV infection. Low socio-economic status of women, domestic violence and sexual harassment are widespread in male-dominated society in Pakistan (National HIV/AIDS Strategic Framework 2007 – 2012). Despite some improvement in the status of women over the last few years, significant gaps remain, particularly in educational status and health status which possibly could act as factors to evolve the concentrated epidemic into a generalized epidemic in Pakistan.

Important Aspects in National Response :

Ministry of Health, Pakistan established National AIDS Control Programe (NACP) in 1987. The Programme focused on laboratory diagnosis of suspected HIV infected persons at its inception and later began to focus towards HIV prevention and control interventions. In 2001, NACP developed National Strategic Framework-I which provided the strategic vision to the national response and launched an enhanced response in the form of Enhanced HIV and AIDS Control Programme.

The principal components of the Enhanced HIV and AIDS Control Programme were the interventions for target groups, HIV prevention for general public, prevention of HIV transmission through blood and blood products, capacity building and programme management. In addition to that NACP has established HIV and AIDS Second Generation Surveillance System to track HIV epidemic in Pakistan.

The National HIV and AIDS Strategic Framework-II for 2007 – 2012 articulates a vision for Pakistan in line with the recently formulated national policy on HIV/AIDS and elaborates through guiding principles, goal, strategic objectives and the priority areas. It does not include operational or implementation plans. It provides strategic direction and guides the programme development and activities by all HIV/AIDS stakeholders in the country over 2007 – 2012. The goal, purpose and guiding principles of the National HIV and AIDS Strategic Framework-II of Pakistan are as follows:

Goal of National HIV and AIDS Strategic Framework-II :

To prevent a generalized epidemic in Pakistan by containing the spread of HIV/AIDS and elimination of stigma and discrimination against those infected and affected

Purpose of National HIV and AIDS Strategic Framework-II :

To expand and scale up effective national response to the threat of HIV/AIDS

Guiding Principles of National HIV and AIDS Strategic Framework-II :

- Universal access
- Rights-based approach
- Multisectoral engagement
- Gender mainstreaming
- Broad and sustained political commitment
- Evidence and result-based strategies
- Voluntary counseling and confidential testing
- Meaningful involvement of people living with HIV/AIDS
- Prevention to care continuum
- Adherence to universal safety precautions
- Respecting religious and cultural sensitivities
- Prioritized and efficient resource allocation

Table 35 shows the country report on UNGASS indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 35: Pakistan Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	87%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	3% (2 – 4)	Number reported as 550 as of Dec. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	< 1%	Number reported as 5
06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	-	
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	-	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers - 4% IDUs - 4% MSM -	
09	Percentage of most at risk populations reached with HIV prevention programmes	Sex workers - 3% IDUs - 16% MSM -	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	6%	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	

13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	-	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Sex workers - 10% IDUs - 20% MSM -	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	< 1 - 1%	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	-	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	-	
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	34%	Both females and males
19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	24%	
20	Percentage of injecting drug users who report using a condom the last time they had sex	21%	Only males
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	28%	Only males
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	87%	

References:

1. National Reported submitted to STAC, Nepal by National AIDS Control Programme, Pakistan in July 2009
2. SAARC HIV/AIDS Update 2003 – 2008, STAC, Nepal
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Sri-Lanka

Sri-Lanka is an island in the Indian Ocean with an area of 65,610 square kilometers. It has nine provinces and 25 administrative districts. Each province is governed by a Governor.

Population in Sri-Lanka was 19.89 millions in 2006. Of that approximately 5.3 million was less than 15 years of age in the same year. Sri-Lanka is a developing country. The economy of the country is market-oriented, with manufacturing capacity taking over from former dependence on agriculture. Almost three decades of war in the country destroyed infrastructure in North and East Provinces and impeded the socio-economic development of the country. Table 36 shows some of the important demographic, socio-economic, human and physical resources indicators and health status indicators.

Table 36: Country Profile of Sri-Lanka
Important socio-demographic and health indicators

Demographic Indicators		
Indicator	Value	Reference Year
Crude Birth Rate	18.8/1000 population	2006
Crude Death Rate	6.6/1000 population	2006
Population Growth Rate	1.1%	2006
Total Fertility Rate	1.9/woman	2000
Socio-economic Indicators		
Adult Literacy Rate (Total)	90%	2004
Human & Physical Resources Indicators		
Physicians of modern system per 10,000 population	6	2006
Dentists per 10,000 population	0.6	2004
Pharmacists per 10,000 population	0.6	2004
Nurses per 10,000 population	14	2006
Hospital Beds per 10,000 population	31	2004
Primary Health Care Services Indicators		
Contraceptive Prevalence Rate	70%	2000
Antenatal Care Coverage	97%	2000
Births attended by skilled personnel	97%	2001
Children immunized with BCG, DPT-3, Polio-3 and Measles	99%	2005
Health Status Indicators		
Total life expectancy at birth	73.0 years	1996 - 2001
Life expectancy at birth (male)	71.7 years	2006
Life expectancy at birth (female)	76.4 years	2006
Infant Mortality Rate per 1000 live births	11.2	2006
Under five Mortality Rate per 1000 live births	16	2000
Maternal Mortality Rate per 100,000 live births	14.3	2006

(Source: WHO website – www.emro.who.int/sri-lanka and National report submitted by NSACP, Sri-Lanka)

In Sri-Lanka most people live within five kilometers of a health facility. Health care is provided free of charge. Excessive utilization of the tertiary and secondary level hospitals with under-utilization of the primary care facilities is prevailing through out the country. Most of the health related Millennium Development Goals had already been reached on a nationwide basis several years prior to the targeted year. Sri-Lanka is a low prevalence country for HIV/AIDS. However, the findings of the Behavioural Surveillance Survey in 2006 – 2007 indicate relatively high levels of risk behaviour among most at risk populations.

HIV/AIDS Situation :

There were 3827 estimated number of people with HIV living in Sri-Lanka at the end of the year 2008. Among them 2346 were males, 1481 were females and an estimated number of 55 children. Hence the prevalence of HIV in Sri-Lanka was less than 0.1%.

The first HIV infected person was reported in 1987. Figure 58 shows the annual number of reported HIV positives in Sri-Lanka from 2000 – 2008. The upward trend line indicates the growing phase of the epidemic. At the end of December 2008, 1059 HIV positives were reported in the country. Of them 615 were males and 444 were females and figure 59 depicts the male to female ratio in the cumulative total of reported HIV positives in Sri-Lanka. Reported number of persons with AIDS was 289 and reported number of AIDS related deaths was 186. Table 37 shows the reported HIV/AIDS figures for the year 2008.

Table 37: Reported HIV & AIDS Statistics in Sri-Lanka during the year 2008

	Male	Female	Total
HIV positives	63	39	102
Reported AIDS patients	19	04	23
Reported AIDS related deaths	-	-	14
Reported number of Mother to Child Transmission	02	01	03

Figure 58: Reported HIV positives in Sri-Lanka 2000 - 2008

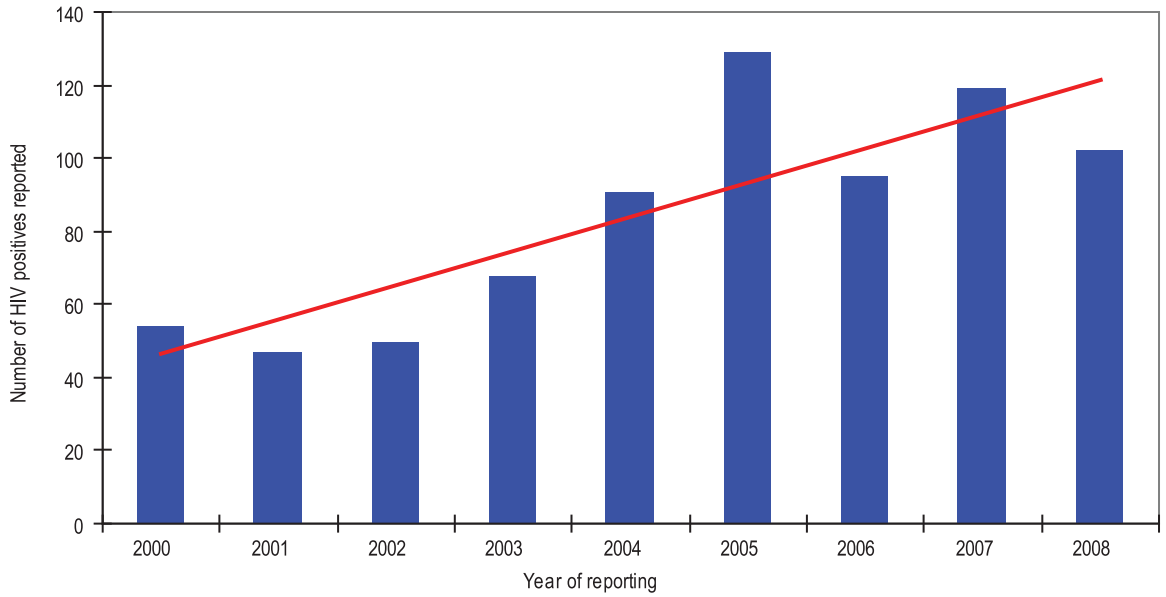
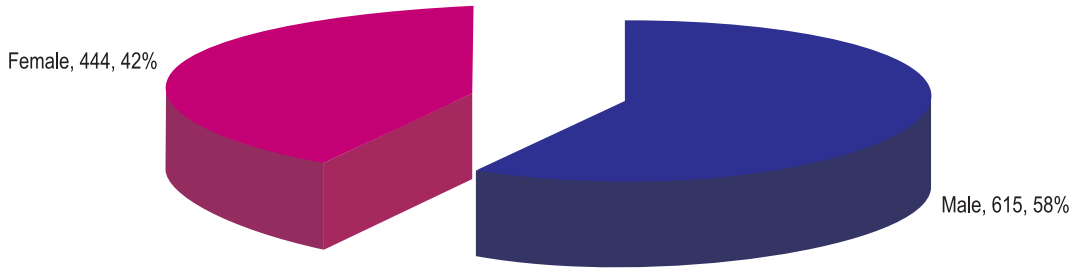


Figure 59: Sex-distribution of the reported HIV positives in Sri-Lanka 1987 - 2008



The cumulative number of HIV positive children who acquired the infection through mother to child transmission was 33. Of them, 24 were male and only 09 were females. Majority of the adult HIV positives were in 25 to 49 year age range. This clearly shows the adult males and females in their prime productive age are at a higher risk of getting HIV infection. Figure 60 illustrates the age and sex distribution of cumulative total of HIV positives in Sri-Lanka. As in any other Asian country, the most common probable mode of transmission is sexual intercourse. Figure 61 depicts the probable modes of transmission of HIV infection among the reported positives since 1987 till the end of December 2008.

Figure 60: Age and sex distribution of reported HIV positives in Sri-Lanka 1987 - 2008

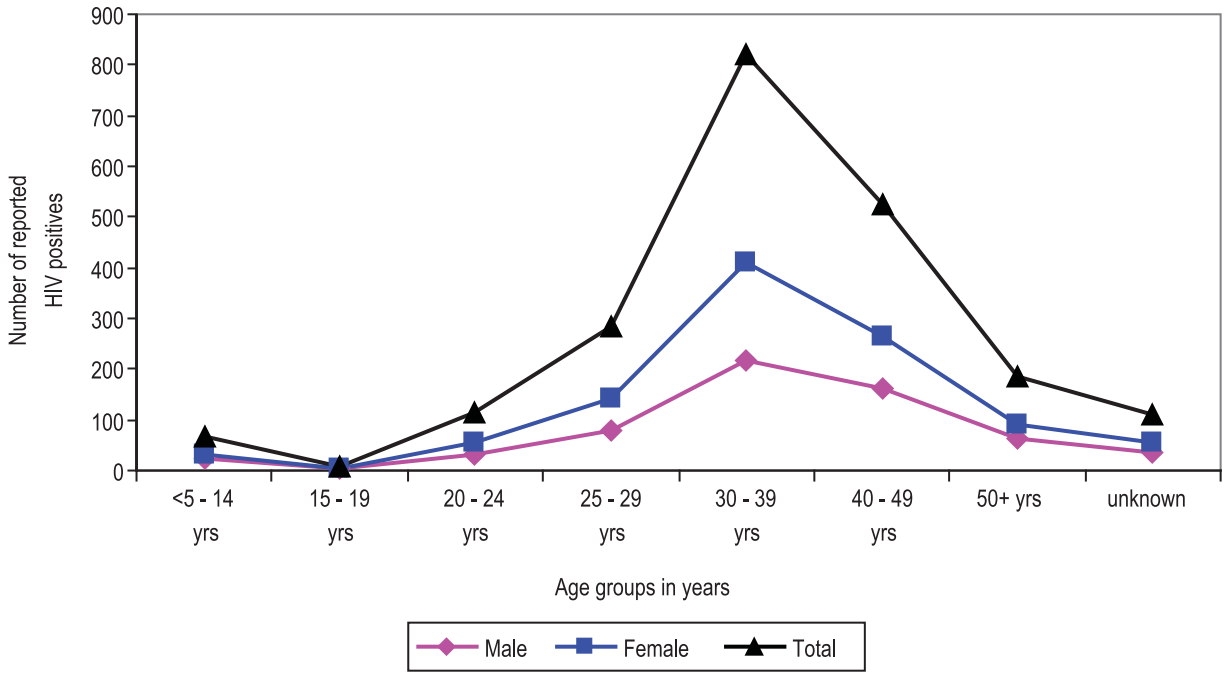
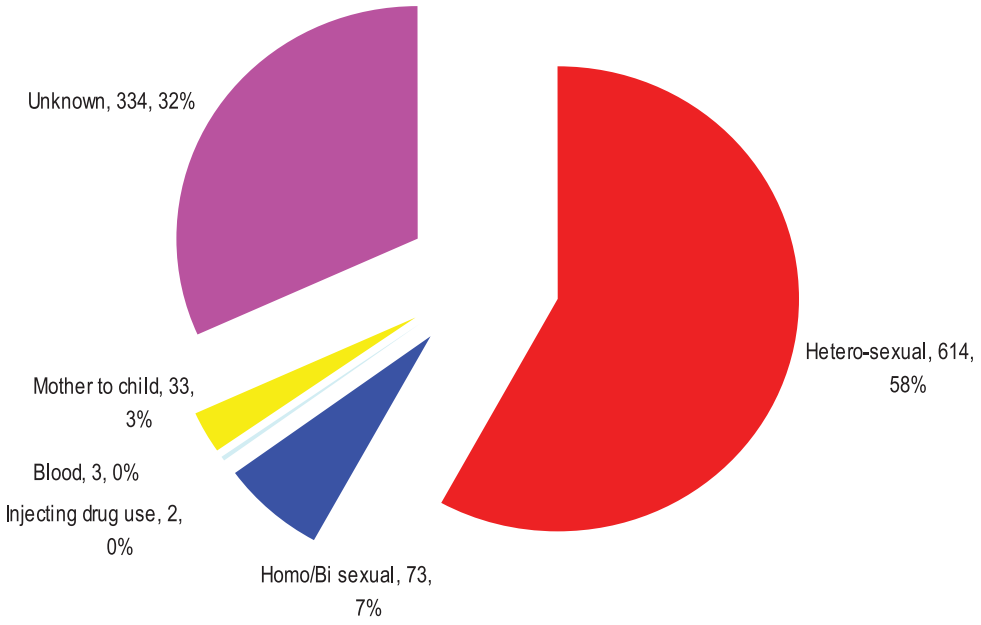


Figure 61: Probable mode of transmission of the reported HIV positives in Sri-Lanka 1987 - 2008



The most common opportunistic infection reported among HIV positives in Sri-Lanka was TB (both pulmonary TB and extra-pulmonary TB). Penumocystis jirovecii pneumonia, Oesophageal Candidiasis, Toxoplasmosis, Cytomegaloviral Retinitis, Cryptococcal Meningitis, Lymphoma and Kaposi Sarcoma were also among the reported opportunistic infections and malignancies.

Risks and Vulnerabilities:

Sri-Lanka continues to have very low HIV prevalence. However, findings of the first Behavioural surveillance Survey in 2006 – 2007 indicate relatively high levels of risk behaviour among most at risk populations. Sri-Lanka has a narrowing window of opportunity to contain the HIV epidemic among high risk groups. The recognized risk factors and vulnerabilities in Sri-Lanka are as follows:

- **Low condom use :** The first Behavioural surveillance Survey indicated the low condom use among high risk populations such as commercial sex workers (except some sub-groups of them), men who have sex with men and also the drug users. A very few drug users in Sri-Lanka inject drugs.
- **Commercial sex work :** According to the National report submitted by National STD and AIDS Control Programme, Sri-Lanka, there were 7000 commercial sex workers engaging in sex trade in Sri-Lanka in the year 2008. In addition to this, there are networks of men who have sex with men and they have multiple partners including paying clients and women. Women engaged in sex work are considered most vulnerable to HIV infection as they often lack the ability or power to negotiate condom use with clients.
- **Sexually Transmitted Infections (STIs) :** The annual estimate of the STI patients in Sri-Lanka is about 200,000. Of that only 10 – 15% positives are detected by the government clinics in the island. STIs facilitate the spread of HIV and serve as a proxy indicator for low condom use and other high risk sexual behaviours.
- **High Mobility :** Internal and international migration for work is one of the main livelihoods for the economic survival of many households in the country. An estimated 1.6 million Sri-Lankans work as migrant workers. Of them, 79% of unskilled migrants are women. Living away from the traditional social structure is believed

to foster unsafe sexual practices. The same conditions may increase the vulnerability of women to sexual abuse.

- **Injecting Drug Users :** The estimated opiate users were about 40,000 in 2008. Of that, only 400 were injecting drugs. The Behavioural Surveillance Survey found that both knowledge on HIV transmission and condom use were reasonable among drug users. However, they engage in unsafe and commercial sex. Hence, an increase in injecting drug use could generate a rapidly spreading HIV epidemic among drug users.

- **Knowledge on HIV transmission :** Knowledge on HIV transmission was reasonably high among high risk groups participated in Behavioural Surveillance Survey conducted in 2006 – 2007 in Sri-Lanka. However, the level of misconceptions among high risk groups was also high. This may favour the potentials for HIV to spread among this most at risk populations and among the members of their sexual networks.

- **Stigma and discrimination :** The behavioural Surveillance Survey found high levels of stigma towards people with HIV among all the groups surveyed. Stigma and discrimination discourage the needy people from seeking care and testing.

Important Aspects of National response :

The Government of Sri-Lanka established the anti-venereal diseases campaign in 1952 and initiated the HIV prevention and control activities since 1985. Therefore, the name of the programme was changed as National STD and AIDS Control Programme (NSACP) in 1985, two years before detecting the first HIV positive Sri-Lankan. In addition to NSACP, the National Blood Transfusion Services and the National Programme for TB and Chest Diseases strengthened their responses to reduce the transmission and prevent further spread of HIV.

The National strategic plan 2002 – 2006 articulated the following prioritized areas:

- Prevention
  i. Mass media awareness campaigns and condom social marketing
  ii. Focused behaviour change interventions among most at risk populations
  iii. Prevention among other vulnerable populations and general population
  iv. STD diagnosis and treatment
  v. Blood safety
  vi. Prevention of HIV transmission in health care settings
  vii. Prevention of mother to child transmission

- Treatment, care and support and impact mitigation
  i. Voluntary counselling and testing
  ii. Clinical care
  iii. TB/HIV co-infection management
  iv. Home, community and palliative care

- Multi-sectoral involvement and decentralization
  i. Involvement of various public sectors
  ii. Involvement of NGOs, community and people living with HIV infection
  iii. Involvement of the private sector

- Policy development

- Strategic Information

- Programme management
- Resource and support mobilization

The Government of Sri-Lanka developed the National HIV/AIDS Strategic plan 2007 – 2011 with broad stakeholder participation, as a coordinated response to HIV/AIDS. The guiding principles for the national response include:

- Recognition of the need for evidence to formulate responses
- Recognition of the respect for human rights
- Recognition of gender inequalities in HIV control
- Recognition of the need for community participation and involvement of people with HIV

The overall goal of the National HIV/AIDS Strategic Plan is to reduce the impact of HIV/AIDS on the social development of the country. There are two national goals. They are:

1. To maintain the low HIV prevalence among most at risk populations and the general population
2. To increase the quality of life of those already infected

To achieve these national goals, there are six strategies. Two of them are assigned as core strategies and the remaining four assigned as additional strategies.

Two core strategies are as follows :

i. Increased coverage and quality of prevention interventions
ii. Increased coverage and quality of care, support and treatment intervention

Four additional strategies are :

i. Improved generation and use of information for planning and policy development
ii. Increased involvement of relevant sectors and levels of government in the response
iii. More supportive public policy and legal environment for HIV/AIDS control
iv. Improved management and coordination of the response

The implementation of the National HIV/AIDS Strategic Plan depends on the efforts of various governmental departments, NGOs, private sector and Sri-Lanka's Development Partners. The National STD and AIDS Control Programme coordinates the response, through development of technical strategies and guidelines, development of annual operational plans and budgets, resource mobilization and capacity building of all the implementing partners.

Table 38 shows the country report on UNGASS indicators which has been published in the UNAIDS Global HIV Report 2008.

Table 38: Sri-Lanka Country Report on UNGASS Indicators in the year 2007

Indicator Number	UNGASS Indicator	Reported Value in the year 2007	Remarks
03	Percentage of donated blood units screened for HIV in a quality assured manner	42%	
04	Percentage of adults and children with advanced HIV infection receiving antiretroviral combination therapy	14% (10 – 20)	Number reported as 107 as of Decem. 2007
05	Percentage of HIV positive pregnant women who received antiretrovirals to reduce the risk of mother to child transmission	1 – 3%	Number reported as 1

06	Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV	-	
07	Percentage of women and men aged 15 – 49 who received HIV test in the last 12 months and know their results	0	
08	Percentage of most at risk populations who received HIV test in the last 12 months and who know their results	Sex workers- 43% IDUs - MSM - 4%	
09	Percentage of most at risk populations reached with HIV prevention programmes	-	
10	Percentage of orphaned and vulnerable children whose households received free basic external support in caring for the child	-	
11	Percentage of schools that provided life skills based HIV education within the last academic year	-	
12	Current school attendance among orphans and non-orphans aged 10 - 14	-	
13	Percentage of young people aged 15 – 24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	8%	
14	Percentage of most at risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Sex workers - 10% IDUs - MSM - 20%	
15	Percentage of young women and men aged 15 – 24 who have had sex before the age of 15	3%	
16	Percentage of women and men aged 15 – 49 who have had sex with more than one partner in the last 12 months	2%	
17	Percentage of women and men aged 15 – 49 who have had more than one sexual partner in the past 12 months who report the use of condom during their last sexual intercourse	-	
18	Percentage of female and male sex workers reporting the use of a condom with their most recent client	89%	Only females
19	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	61%	
20	Percentage of injecting drug users who report using a condom the last time they had sex	-	
21	Percentage of injecting drug users who report using sterile injecting equipment the last time they injected	-	
24	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	64%	

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