



HIV/AIDS IN THE SAARC REGION

An Update 2004

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Words from Director

Still now overall HIV prevalence in the SAARC countries remains low, but there are major public health concerns regarding the future growth potential of HIV/AIDS within the region. All the seven member countries have been pursuing efforts at the national level to arrest the growing menace triggered by the spread of HIV/AIDS.

The STC at Kathmandu has been coordinating the national efforts of member states in their fight against HIV/AIDS. Along with other regular activities it brings out regular reports and publications with a view to disseminate information in the relevant field.

Sound, high quality, epidemiological data and characterization of disease burden and trends are basic requirements for achieving the success in prevention and control of HIV/AIDS. The present document “**HIV/AIDS in the SAARC region, an update 2004**” is such an attempt. This is the second annual report of such kind and is an update of the previous one. Estimates generated from epidemiological experts within the field have been utilized in this report. It also includes the epidemiological analysis of reported data on HIV/AIDS from SAARC member countries. In addition to those this report contains general information and basic epidemiology of HIV/AIDS.

STC would like to thank the epidemiologists and experts within WHO, UNAIDS, UNICEF, and other relevant organizations who have generated and shared the epidemiological data and facts utilized for this report. STC is also grateful to member countries of SAARC for their cooperation and support in preparing this report.

STC is very much thankful to Dr. Md. Mojibur Rahman, Epidemiologist, STC for preparing this effort. Valuable inputs were provided by Dr. Rano Mal Piryani, Deputy Director, STC and Dr. B. P. Rijal, Microbiologist; their contributions are gratefully appreciated. STC acknowledges with thanks the assistance provided by the supportive staff at the STC.

STC is very much indebted to SAARC Secretariat, His Excellency Secretary General, Mr. Q.A.M.A Rahim, Director, Md. Naseer and other Directors for their guidance and support and cooperation of other staff of Secretariat.

Dr. Kashi Kant Jha
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Abbreviations and Acronyms

AIDS	acquired immune deficiency syndrome
ANC	antenatal clinic
ARC	AIDS related complex
BSS	behavioural surveillance survey
FSW	female sex worker
CSW	commercial sex worker
HIV	human immunodeficiency virus
HSS	HIV sentinel surveillance
IDU	injecting drug user
MSM	men who have sex with men
MTCT	mother to child transmission
PLWHA	people living with HIV/AIDS
RBG	risk behavior group
SAARC	South Asian Association for Regional Cooperation
STC	SAARC Tuberculosis Centre
STD	sexually transmitted disease
STI	sexually transmitted infection
UNAIDAS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Introduction

The SAARC (South Asian Association for Regional Cooperation) region comprises seven countries (Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka), all of which are developing countries with diverse religious and cultural beliefs and practices. In addition to countries with varied epidemiological patterns of human immunodeficiency virus and acquired immunodeficiency syndrome (HIV/AIDS) – moderate versus low prevalence countries and different predominant HIV risk behaviour(s)- countries in the region also have extremely diverse capabilities to develop and support public health prevention and control programmes. In reviewing the current epidemiology of HIV/AIDS within the SAARC region, this diversity needs to be fully appreciated.

Through implementation of pilot basis surveillance systems for HIV prevalence, as well as sexual and injecting risk behaviours by some member countries, understanding of the many diverse HIV epidemics and their determinants in this region has improved substantially. Still now overall HIV prevalence in the SAARC countries remains low, but there are major public health concerns regarding the future growth potential of HIV/AIDS within the region.

The epidemic is not homogeneous either within the region or within countries. Some countries are more affected than others and at country level there are variations in infection levels between different provinces, states or districts and between urban and rural areas. Actually the national picture is made up of a series of epidemics with their own characteristics and dynamics.¹

This report presents an overview of the HIV/AIDS pandemic and a more detailed description of the epidemiology of HIV/AIDS within the SAARC region. In addition to that this report contains general information and basic epidemiology of HIV/AIDS (for the better understanding of the common readers)

General Information on HIV/AIDS

- AIDS & HIV Infection: What Do They Mean?

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

In fact when HIV infects a cell, it may lie inactive for years and most of the people infected with HIV does not show any symptoms or may show only minor illness for 7-10 years. These people are infected with HIV, they can spread the infection to others but still they do not have AIDS.^{2,3,4}

Gradually the virus becomes activated and breaks down the human body's natural defense mechanisms leaving it a prey to other opportunistic infections (among which TB is the most common) and other conditions including cancers that characterize AIDS.^{2,5}

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

- A History of the Epidemic

A pattern of highly unusual infections in otherwise healthy young adults not responding to usual treatment emerged in the United States in 1981. This pattern, or syndrome, (symptom complex) was caused by an unknown entity that apparently attacked the body's immune system. It became known as AIDS. Between 1983 and 1984 researchers isolated a new virus responsible for AIDS and named it as HIV.¹

Though AIDS was first recognized in the United States in 1981, it is clear that AIDS cases had occurred in several parts of the world before 1981. Evidence now suggests that the AIDS epidemic began at roughly the same time in several parts of the world, including the U.S.A. and Africa.^{2,3}

Although homosexual men from the United States and other developed countries were the first reported cases of AIDS worldwide, the scenario rapidly changed into that of global epidemic (pandemic). By early 1989, more than 140000 AIDS cases including men, women and children had been officially reported to WHO from around the world.² According to the latest estimate as of end 2003 an estimated 38 million people around the world were living with HIV/AIDS. During the year 2003 an estimated 5 million people acquired new infection. The epidemic claimed an estimated 3 million lives in 2003.¹

- **HIV Transmission:**

- How HIV is Transmitted

The main modes of HIV transmission are through sexual intercourse, blood and from mother to child transmission (MTCT). Worldwide the most common route of HIV transmission is through unprotected sexual intercourse. Using anal route, presence of other sexually transmitted diseases (STD) (such as genital ulcers and discharges) and having multiple sex partners increase the risk of transmission. The risk increases four-six-fold particularly in presence of genital ulcer disease e.g. syphilis, chancroid or herpes.² Blood borne HIV transmission occurs through contaminated blood or blood product transfusion, injections with contaminated needles and syringes, and the use of non-sterile instruments for piercing of ear, nose or skin. HIV is also transmitted from infected mother to their children during pregnancy; during childbirth or even through breast-feeding, chance of HIV transmission through breast-feeding is small.^{2,3,5}

- How HIV is not transmitted

The lack of knowledge about how HIV is not transmitted can often lead to irrational fears and tendency to stigmatize or discriminate against people living with HIV/AIDS.

There is no evidence that HIV is transmitted through everyday contact, hugging or kissing, caring of AIDS patients, food or drink or bites of mosquitoes or other insects.^{2,3,5}

- How HIV Transmission can be Prevented

By practicing healthy life style in every aspect, HIV transmission can be prevented. Every religion has guided its followers how to lead a risk free and healthy life including sexual life (e.g. avoidance of premarital and extramarital sex, and avoidance of anal and oral sex).

Modern medical science also supports those guidelines. In addition to that medical science teaches us how to practice risk free medical care (e.g. sterilization of medical & surgical equipments and screening of blood before transfusion). Now it depends upon us: if we want to stop HIV transmission we must follow those guidelines and practice those teachings.^{2,3,5}

AIDS can be PREVENTED

- By being mutually faithful to your partner
- By using only HIV screened blood or blood products when required
- By using new Needles, Syringes, Blades, Razor
- By avoiding injectable drugs and needle sharing
- By using a condom for safer sex (condom prevents unwanted pregnancy and spread of HIV & STDs)

Things to remember regarding condom use

- Use good quality condoms
- Avoid using condoms which are dry/brittle, sticky, discoloured or date expired
- Store condoms in a cool, dry place out of direct sunlight.
- It is not the condom on its own- it is the appropriate use of condom that produces benefit to the users;

There is a great and urgent need to promote behaviours, which enable the population to practice safer sex, and to provide services such as condoms, STD treatment, and safe blood supply.

Basic Epidemiology of HIV

With the exception of HIV transmission from mother to child and via blood /blood products, tissues or organs, all other HIV transmission occurs as a result of those human behaviour(s) that place an individual at risk of acquiring HIV infection. The primary risk behaviours that place a person at significant risk of acquiring HIV infection include the sharing of drug injecting equipment and/or having unprotected sexual intercourse with multiple sex partners. Only those persons who are involved in some HIV-risk behaviour(s) or whose sex partner is involved in some HIV-risk behaviour(s), are at risk of acquiring HIV infection via sexual intercourse.⁶

The risk of HIV transmission via sexual intercourse is increased many fold by the presence of other facilitating factors such as:

1. multiple sex partners (a pattern of concurrent or overlapping sex partners)
2. a high frequency of sex partner exchange
3. concurrent genital ulcerative lesion from other STI
4. use of anal route for sexual intercourse
5. new and /or recent HIV infections are very infectious compared with HIV infections of longer duration.

Several epidemiological studies have shown that male circumcision is associated with a reduced rate of HIV acquisition.^{7,8}

Natural History of HIV Infection⁹

AIDS (acquired immunodeficiency syndrome) is a severe disease syndrome that represents the late clinical stage of infection with HIV (human immunodeficiency virus). The syndrome was first recognized in 1981, but probably existed at a low endemic level within central Africa during the 1970s.

◇ Progression from asymptomatic HIV infection to clinical illness and AIDS

Initial infection with HIV is indicated by the presence of HIV-specific antibodies, often without any other signs or symptoms. A substantial minority of infected persons, however, experiences a short, mononucleosis-like illness (malaise, tiredness, headache, abdominal discomfort, anorexia, swelling of lymph nodes and fever) about 2-5 weeks after infection. During this acute phase of infection, there may be a significant depression of the cellular immune system (immune system is body's natural defense mechanism which protects the body against disease) and infected persons at this early stage are considered extremely infectious. Subsequently, the immune system rebounds to generally normal levels and the infected person becomes asymptomatic for periods ranging from many months to many years.

HIV infection attacks the cellular immune system. Continued damage to the immune system eventually makes HIV-infected individuals susceptible to various opportunistic infections

(among which TB is the most common), and cancers. Initial illnesses related to the increasing immune deficiency caused by HIV are generally mild to moderate in severity, and tend to be nonspecific. These illnesses have been designated AIDS-related-complex (ARC), but there has never been a universally accepted definition of ARC. The first infections described in patients with AIDS were due to ubiquitous (ever-present) organisms that do not usually cause disease in healthy persons; the cancers that developed in AIDS patients were of types that had been diagnosed only rarely in the past. Subsequently, it became clear that persons with HIV infection could contract almost any common or uncommon infectious disease, or some malignancies, because of their immune deficiency. The diagnosis of AIDS is complex and often difficult because of the many conditions that are considered necessary to meet different surveillance definitions of the syndrome.

The time period of progression from HIV infection to symptomatic disease is highly variable: symptoms may occur within a year, although rarely, or may take more than 10 years to appear. Over a variable time period from many months to many years, infected persons begin to develop clinical disease related to progressively increasing immune deficiency. Early symptoms may include swollen lymphnodes, night sweats, fever, diarrhoea, profound weight loss, fatigue and uncommon infections. Continued destruction of the immune system leads to AIDS, which is characterized by life-threatening opportunistic infections and cancers.

There was initial speculation that annual progression rates from HIV infection to AIDS were on average, shorter in females than males, and in developing countries compared with developed countries, but the limited available data suggests that no major differences exist.

The median interval from HIV infection to the development of severe immune deficiency appears to be similar in all populations (i.e. in developed and developing countries) and is estimated to be about 7-8 years. A recent review of cohort studies in Uganda, Thailand, and Haiti indicates that the median interval from HIV infection to death is 9 years.

Of all host factors that have been studied, only age at acquisition of HIV infection appears to have a major effect on progression to the development of AIDS. Younger people progress to AIDS more slowly than older people. A study among men (HIV infected haemophilia cohort) in USA shows that average progression time to AIDS was 7-8 years when infection was acquired after age of 35 (years) and it was about 12 years when infection was acquired before the age of 35. Reports from several female cohort studies in European countries during the early 1990s show that progression rates in women are similar to those reported for men.¹

◇ Survival time after diagnosis of AIDS

The survival time after onset of severe AIDS-characteristic illness is also variable. Prior to the development of effective anti-HIV (anti-retroviral) drug treatment, average survival time was about 2-4 years in most developed countries and about 6 months or less in developing countries. The shorter survival periods in developing countries were most likely due to diagnosis at a later stage of disease and limited access to adequate supportive medical care.

Global HIV/AIDS Situation

Current estimates suggest that at the end of 2003, some 37.8 million people (range 34.6-42.3 million) around the world were living with HIV/AIDS. An estimated 4.8 million people (range 4.2-6.3 million) acquired the HIV virus (infection) in 2003. The AIDS epidemic claimed 2.9 million lives (range 2.6-3.3 million) in 2003, and over 20 million since the first cases of AIDS were identified in 1981. More than 94% of the people living with HIV/AIDS are adults aged between 15-49 years and the rest (5.6%) are children aged below 15 years. Among the adults living with HIV/AIDS 47.6 % are women. The new infections included an estimated 630 000 children comprising over 13 % of the total new infection¹.

Table 1. Global summary of the HIV/AIDS epidemic, end 2003 ¹

Estimated number of people living with HIV	Total	37.8 million (34.6 – 42.3 million)
	Adults (15-49 years)	35.7 million (32.7 -39.8 million)
	women	17 million (15.8 – 18.8 million)
	Children < 15 years	2.1 million (1.9 – 2.5 million)
People newly infected with HIV in 2003	Total	4.8 million (4.2 – 6.3 million)
	Adults	4.1 million (3.6 – 5.6 million)
	Children < 15 years	630 000 (570 000 -740 000)
AIDS deaths in 2003	Total	2.9 million (2.6 – 3.3 million)
	Adults	2.4 million (2.2 – 2.7 million)
	Children < 15 years	490 000 (440 000 – 580 000)

NB. The numbers are according to latest estimates produced and compiled by UNAIDS/WHO. Estimated number of people living with HIV includes all people with HIV infection, whether or not they have developed symptoms of AIDS.

The epidemic remains extremely dynamic, growing and changing character as the virus exploits new opportunities for transmission. There is no room for complacency anywhere. Virtually no country in the world remains unaffected. ¹

Since 2002, there has been a resurgence of energy and commitment in responding to the epidemic. But that is nowhere near the level required to halt or reverse the epidemic. At the rate it is currently spreading (see Table 2) HIV will have an increasingly serious impact into the foreseeable future, unraveling the fabric of societies in its path. ¹

Table 2. Adults and children living with HIV/AIDS, end 2003 and end 2001 globally by region (according to new estimate) ¹

Region	2003	2001
Sub-Saharan Africa	25 million (23.1-27.9 million)	23.8 million (22- 22.6 million)
North Africa & Middle East	480 000 (200 000-1 400 000)	340 000 (130 000- 910 000)
South and South-East Asia	6 500 000 (4 100 000-9 600 000)	5 900 000 (3 700 000- 8 700 000)
East Asia	900 000 (450 000-1 500 000)	680 000 (340 000-1 100 000)
Latin America	1 600 000 (1 200 000-2 100 000)	1 400 000 (1 100 000 -1800 000)
Caribbean	430 000 (270 000-760 000)	400 000 (270 000 – 650 000)
Eastern Europe & Central Asia	1 300 000 (860 000 -1 900 000)	890 000 (570 000- 1 300 000)
Western Europe	580 000 (460 000 -730 000)	540 000 (430 000- 690 000)
North America	1000 000 (520 000 -1 600 000)	950 000 (490 000 – 1 500 000)
Oceania	32 000 (21 000- 46 000)	24 000 (16 000 -35 000)
Total	37.8 million (34.6-42.3 million)	34.9 million (32 – 39 million)

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

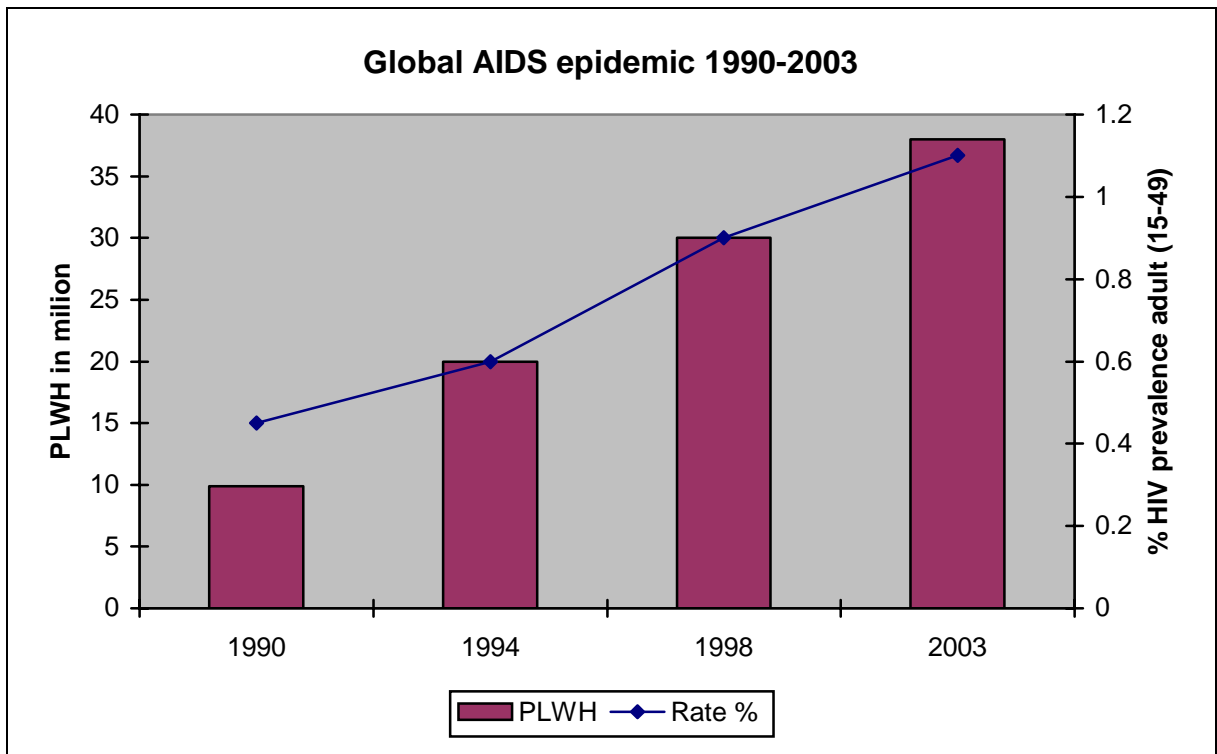
Source 2004 Report on the global AIDS epidemic

Trends of global HIV infection ¹

The number of people living with HIV continues to rise, despite the fact that effective prevention exist. All the estimates using the following table and also in this report are based on updated estimation methodologies and the latest available data unless otherwise mentioned. Hence current estimates cannot be compared directly with that of previously published reports.

According to new estimates the total number of people living with HIV/AIDS after 9 years of its fist detection in 1981 became nearly 10 million. The number became double (20 million) after another 4 years and became tripled in 1998. At the end of 2003 it became 38 million. In 1990 the adult (15-49) rate of HIV infection was less than 0.5% and it has been increased to 1.1% as end of 2003 (Figure 1).

Figure 1. Estimated number of people living with HIV/AIDS, 1990- 2003 ¹



HIV/AIDS in Asia: at the beginning

HIV/AIDS in Asia was first detected in the early to mid-1980s. Thailand was the first Asian nation to report HIV infection followed by an explosive epidemic. Moreover, initial AIDS cases were detected among MSM in several Asia Pacific countries such as Australia, Japan, Malaysia, New Zealand, Singapore, and Hong Kong during the early 1980s. Alternatively, extensive spread of HIV occurred in MSM sex workers in these Asia Pacific countries and such transmission probably peaked during the mid –to-late 1980s.

By the mid–to-late 1980s, it became evident that transmission of HIV was also increasing among other major HIV-risk behaviour groups within Asia. High HIV prevalence (up to 50% or more) was documented among female sex workers (FSW) in Thailand and in parts of **India**, notably Mumbai, during the mid–to-late 1980s. In addition, intense focal HIV epidemics were documented in Thailand, parts of **north-east India**, and the “golden triangle” area (where the borders of China, Myanmar and Thailand meet) in IDU populations beginning around the mid–to-late 1980s.

During the 1990s in several south and south-east Asian countries (Cambodia, parts of **India**, Myanmar and Thailand), significant heterosexual transmission of HIV continued or was first noted, primarily from FSW to their male clients, and then from these infected males to their regular sex partners. An explosive spread of HIV within IDU populations, which can lead to infection levels of over 50% within a year or two, continued to occur in several provinces of China, **north-east India**, Malaysia, Myanmar, **Pakistan**, Thailand and Viet Nam, and most recently, in the late 1990s, within Indonesia and **Nepal**.

In Asia Pacific countries with a measurable HIV prevalence rate, the prominent risk behavioural groups are FSW and/or IDU. As a result, there is usually a marked male preponderance of HIV infections compared with female infections. This is because most IDUs are male, and the epidemiology of FSW and their male clients in most Asian countries also results in a preponderance of infected males. A relatively small “core” group of highly exposed FSW can develop very high HIV infection rates and transmit infection to their many male clients. This accounts for the very large male preponderance of HIV infections in the early phase of a heterosexual HIV epidemic in Asia Pacific countries. In the latter phases of Asian heterosexual HIV epidemic, the male to female ratio begins to decrease as infected males begin to infect their regular female sex partners (i.e., their wives or girl friends).

From a regional perspective, the magnitude and short-term trends of HIV in Asia Pacific countries are and will continue to be dependent largely on the success of HIV prevention and control programmes, essentially in countries:

1. where there is extensive heterosexual HIV transmissions occurring, especially in those countries with the highest HIV prevalence (Cambodia, Myanmar, Thailand and several large states in **India**); and
2. which have large population sizes such as china, **India** and Indonesia. ⁶

The sequence of “waves” of HIV transmission within Thailand reveal a pattern of infection that other global nations may experience and may be very informative and instructive to SAARC region countries:⁵

the 1st wave of infection within Thailand occurred during the mid-1980s and manifested within homosexual communities via sexual transmission;

the 2nd wave emerged among IDUs at the end of 1987 to the end of 1988, where the infection rate rose exponentially from 0 to 30%. HIV infection levels stabilized by the end of 1988 at approximately 35%;

the 3rd wave was detected among commercial sex worker populations (CSW). By the close of 1993, 30% of the CSW population were infected with HIV;

the 4th wave of HIV infection emerged among male STI patients, who were mainly clients of CSWs;

the 5th wave was detected at the end of 1993 and during 1994 among wives and girlfriends of the CSW clients, revealing levels of 8% among pregnant women;

finally, the 6th and most recent wave is now manifesting among infants of mothers infected with HIV.¹⁰

This wave-like pattern is emerging within regions of India. Infection rates rose rapidly among IDUs within Manipur, from 1% in 1988 to 56% in 1995, with some estimates of 73% by 1996.¹¹ In Vellore, rates among CSWs rose from 0.5% in 1986 to 34.5% in 1990, and within Mumbai, HIV infection increased rapidly from 1% in 1986 to 18% in 1990 and to 51% in 1996 among this same high-risk group.¹² Among STI clinic patients, prevalence rates rose dramatically from 2% in 1990 to 36% in 1994,¹³ and among pregnant women in Mumbai, rates were reported to be 2.5%.¹⁴ Myanmar also experienced the dramatic increase in HIV rates among IDUs, from 17% in 1989 to 59% in 1990 and to 74% in 1992.¹⁵

HIV/AIDS in Asia: the present situation

The latest estimates suggest that 7.4 (5.0 – 10.5) million people in Asia are living with HIV. in 2003. During the year 2003 an estimated 1.1 million (range: 0.61-2.2 million) people have become newly infected and around half a million (range: 330 000 – 740 000) are believed to have died of AIDS. Epidemic in this region remains largely concentrated among injecting drug users, sex workers, men who have sex with men, clients of sex workers and their sexual partners. But the region is also under threat of generalization of the epidemic.¹

The region includes the world's most populous countries – china and India with 2.25 billion people between them. Though national HIV prevalence in these two countries is very low, both have extremely serious epidemics in a number of provinces, territories and states. India has the largest number of people living with HIV outside South Africa- estimated at 4.6 million in 2002. People's knowledge of about HIV/AIDS in this region including India is poor and incomplete. Risk behaviour is on the rise and effective prevention programming coverage is inadequate.¹

HIV Situation in SAARC Countries

All the SAARC countries are reporting cases of HIV/AIDS and the epidemic is spreading rapidly in most of the countries. India has the single largest proportion of HIV positive cases within its border, second globally to South Africa. On the basis of available information it can be assumed that over 5 million estimated HIV infected people are living within the region.¹ The danger for SAARC region rests in the low 'general population' prevalence rates which may be undermining the gravity of the situation. Such low rates conceal dangerously elevated 'concentrated' infection rates within high-risk groups such as CSW, MSM, IDU etc. The fact is that despite the low prevalence rates within this region, the factors are in place to spread HIV/AIDS farther and faster than in any other region globally. The existence of high-risk group behaviours, migrant workers, truckers, mobile populations in search of sexual pleasure, drugs, and commerce, the unequal status of women, the lack of population awareness of 'basic' risks and prevention strategies, the trafficking of women and young girls within the sex trade, the high rates of STIs etc., all make for an explosion of HIV/AIDS within the region.

The country specific HIV/AIDS estimates are given below

Table 3: Estimated number of people living with HIV/AIDS in SAARC Region, end 2003

Country	Number of PLWHA		Adult Population (Approximately)	HIV Prevalence Rate (%) among Adults
	Adults & children	Adults		
Bangladesh	9000*	9000*	76200000	<0.1(0.01)
Bhutan	100**	100**	94000	<0.1 (0.01)
India	5100000	5000000	530000000	0.9
Maldives	60***	60***	132000	<0.1(0.05)
Nepal	61000	60000	11350000	0.5
Pakistan	74000	73000	71000000	0.1
Sri- Lanka	3500	3500	10422000	.03
Regional	5247660	5145660	699198000	0.75

* on assumption from the next table (Table 4) (according to country report 7500 as of Dec. 2004)** on assumption from previous data⁶

*** Data from Maldives National AIDS control Programme

Others are according to 2004 Report on the global AIDS epidemic

The following HIV situation analysis (Table 4) is based on results from HIV/AIDS case reporting, HIV surveillance and other surveys including mandatory testing among blood donors, specific surveys etc.¹

Table 4. Estimated Number of people living with HIV/AIDS ¹

Country			2003	2001
Bangladesh	Adults and children		... (2 500 – 15 000)	... (2 200 -13000)
	Adults	Total	... (2 400 – 15 000)	... (2 200 -13000)
		Total rate %	... (<0.2)	... (<0.2)
		Women	... (400 – 2 500)	... (300 – 2 100)
	Children			
Bhutan	Adults and children		...	...
	Adults	Total	...	...
		Total rate %	...	...
		Women	...	...
	Children			
India	Adults and children		5 100 000 (2 500 000 – 8 500 000)	3 970 000 (2 100 000-7100 000)
	Adults	Total	5000 000 (2 500 000 – 8 200 000)	3 800 000- (2 100 000-6 900 000)
		Total rate %	0.9 (0.5 - 1.5)	0.8 (0.4 – 1.3)
		Women	1 900 000 (710 000 – 2 400 000)	1 500 000 (570 000 – 1900 000)
	Children		120 000 (55 000 - 260 000)	100 000 (45 000-220 000)
Maldives	Adults and children		...	...
	Adults	...	...	...
	
	
	Children		...	...
Nepal	Adults and children		61 000 (29 000 – 110 000)	45 000 (22 000 – 78 000)
	Adults	Total	60 000 (29 000 – 98 000)	44 000 (22 000 – 72 000)
		Total rate %	0.5 (0.3 – 0.9)	0.4 (0.2 – 0.6)
		Women	16 000 (7 2 00- 24 000)	9100 (4500 – 15 000)
	Children		...	...
Pakistan	Adults and children		74 000 (24 000 – 150 000)	63 000 (21 000 – 130 000)
	Adults	Total	73 000 (24 000 – 140 000)	62 000 (20 000 – 120 000)
		Total rate %	0.1 (0.0 – 0.2)	0.1 (0.0 – 0.2)
		Women	8900 (3000 – 18 000)	4300 (1400 – 8500)
	Children		...	...
Sri Lanka	Adults and children		3500 (1200 – 6900)	2200 (700 – 4300)
	Adults	Total	3500 (1100-6800)	2200 (700-4300)
		Total rate %	<0.1 (<0.2)	<0.1 (<0.2)
		Women	600 (200 -1200)	<500 (<1000)
	Children		...	...
Region	Adults and children			
	Adults	Total		
		Total rate %		
		Women		
	Children			

Reported HIV /AIDS Cases by SAARC Member Countries

Among the SAARC Countries first AIDS cases were reported in 1986 by India and Pakistan and by 1993 all SAARC countries started reporting AIDS cases. Update available information on cumulative number of reported HIV/AIDS cases by SAARC countries is given below.

Table 5. Cumulative number of reported HIV /AIDS Cases by SAARC member countries

Country	HIV positive including AIDS	AIDS out of total HIV	Death due to AIDS	Period
Bangladesh	363	57	30	Dec. 2003
Bhutan	50	-	-	Dec. 2003
India	-	67416	-	February 2004
Maldives	12	9	9	Dec. 2003
Nepal	4164	808	217	August 2004
Pakistan	2464	286	-	June 2004
Sri- Lanka	533	162	-	February 2004
	552	-	-	June 2004

Current and future challenges to HIV/AIDS prevention in SAARC region

1. The primary HIV RBG affected are all socially marginalized (and)
2. The primary HIV -RBG engage in socially unaccepted and often illegal behaviour(s).
3. Injecting drug use and high sex partner exchange rates are difficult subjects for government or official agencies to deal with.
4. Urgent and universal support for primary prevention and behaviour change programmes has not yet fully materialized.
5. The future of HIV/AIDS prevention/control programmes in this region will depend on how well external donors can increase their current HIV/AIDS support.

Country Status

This section provides additional details on the HIV/AIDS situation for each country in the SAARC region. Countries will be presented in a descending order, starting with countries with the highest estimated HIV prevalence rate, to those countries with the lowest estimated HIV prevalence rates.

The HIV/AIDS situation in each country will be presented, along with an epidemiological analysis of reported HIV/AIDS cases.

India

India (as a whole) is one of the moderate HIV prevalence countries. It is one of the largest countries in southern Asia- geographically it is the seventh largest and second most populous nation in the world. Its estimated total population in 2002 was more than one billion, with over half a billion in the 15-49 year-old age group. India shares land borders with Bangladesh, Bhutan, China, Myanmar, Nepal, and Pakistan. The shift of population from rural to urban areas is slower in India than in most developing countries, but one-fourth of the total population is urban.

◇ HIV/AIDS situation

HIV infections were likely imported into India in the early to mid-1980. The first case of AIDS in India was detected in 1986. Since then, HIV infections have been reported in all States and Union Territories. According to the latest estimation as of end 2003 the total estimated number of adults and children living with HIV/AIDS was more than 5 million. Actually India has the largest number of PLWHA (people living with HIV/AIDS) outside South Africa.¹

With a population of over one billion (about half in the 15-49 year- old population), HIV epidemics in India will have a major impact on the overall spread of HIV not only in SAARC region but also in Asia and the Pacific as well as globally. The prevalence of the infection in all parts of the country highlights the spread from urban to rural areas and from high-risk groups to the general population. Migration of labour, low literacy levels leading to low awareness, gender disparities, prevalence of sexually transmitted diseases and reproductive tract infections are some of the factors attributed to the spread of HIV/AIDS. The spread of HIV within India is as diverse as the societal patterns between its different regions, states and metropolitan areas. As a result, tracking HIV patterns, prevalence and trends, and implementing effective programmes, poses a serious challenge to public health programmes.⁶

Although HIV prevalence is low in a majority of states, the numbers of HIV infections overall are high. The epidemics vary from States to States. Injecting drug use dominates in Manipur and Nagaland (in the north-east of the country), where HIV infection levels of 60-70% have been found among injecting drug users using non-sterile injecting equipment. In the southern states of Andhra Pradesh, Karnataka and Tamil Nadu, HIV is transmitted mainly through heterosexual sex and largely linked to sex work. According to reports of selected surveys, more than half of sex workers have become infected with HIV. In all of these four southern states, infection levels among pregnant women in sentinel antenatal clinics have remained roughly stable at over 1%, suggesting that a significant number of sex workers' clients may have passed on HIV to their wives.¹

The distribution of HIV/AIDS in India is very heterogeneous. Unless this differential is taken into account for planning interventions, efforts are likely to be inadequate in some areas, and inappropriate in others. With a high prevalence of tuberculosis infection in India, the problem of tuberculosis related to HIV infection also poses a major public health challenge.⁶

Between 1994 and 1997, HIV prevalence among STI clinic attendees in Maharashtra state increased from 6% to 36% and prevalence among IDU in Manipur increased from 25% to 61% (Figure 4). However, there were insufficient numbers of sentinel surveillance sites to get an adequate picture of the overall HIV situation. In order to obtain more accurate HIV prevalence data for India, the National AIDS Control Organization (NACO) instituted a National HIV Sentinel Surveillance (HSS) Programme. States were given guidelines on the selection of HSS sites to adequately represent the various population subgroups and a regularly scheduled timing for surveillance was instituted.⁶

The 1998, HSS data from antenatal clinics in seven metropolitan cities in the country showed HIV prevalence to be over 2% in Mumbai, more than 1% in Hyderabad and Bangalore and below 1% in Calcutta, Ahmedabad and Delhi. These data clearly supported the evidence that HIV infection was percolating from various high-risk groups to low risk group populations.⁶

◇ *Estimation of National HIV Prevalence in India, 1992-2001*

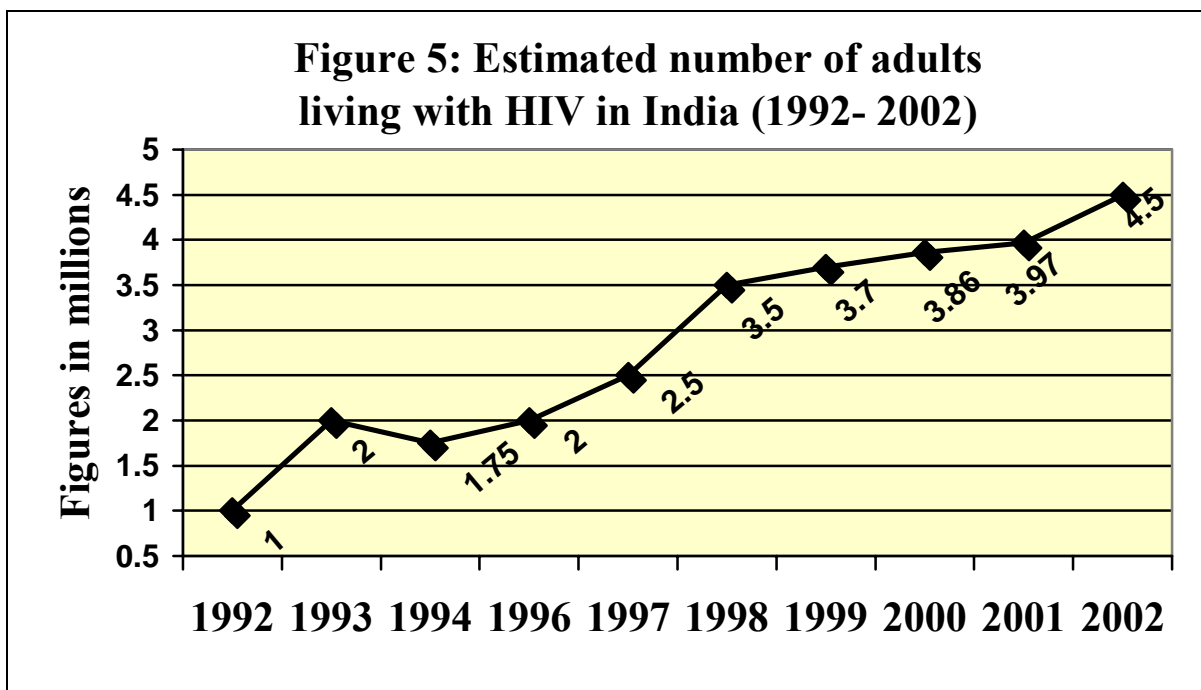
In late 1998, NACO convened a group of national and international experts to review the results of the first round of the expanded HSS with the goal of producing state- specific and national estimates on HIV/AIDS. The new calculations provide greater consistency in making a national estimate of HIV prevalence in India and the working estimate derived from this consensus meeting - 3.5 million people living with HIV and AIDS in mid 1998 was well within the range of previous estimates. A similar estimation process was held in early 2001 and the national prevalence estimate was increased for 2000 to 3.86 million. After conducting a three-month nationwide survey during 2001, the total number of HIV infections was estimated at 3.97 million. India is now home to the second largest number of people infected with HIV in the world following South Africa.^{16,17}

HIV estimates for the year 2002 (India)

In India HIV sentinel surveillance (HSS) is being done regularly. Based on data from annual round of HSS sites and using consistence methodology and assumptions, the HIV estimates for the year 2002 have been worked out by an expert group. As per the recommendation of the expert group estimated number of HIV infected people was 3.82 -4.58 million in adult population (15-49 years). India has also decided to put present data with range. Because this is more scientific, and reflects better the situation in the field. It also helps planner to identify specific interventions to address those living with HIV.¹⁸

(Figure 2 shows HIV trends in India).

Figure 2: Trends, estimated number of adults living with HIV in India, 1992-2002. ¹⁶⁻¹⁸



According to UNAIDS 2004 report on the global AIDS epidemic the estimated number of PLWHA at the end of 2003 was 5100000 (range 2500000-8500000) with a prevalence rate of 0.9% (0.5-1.5) among the adult (15-49) population.¹

◇ Reported AIDS cases in India with epidemiological analysis.¹⁹

As reported to the National AIDS control organization (NACO), the cumulative number of AIDS cases as of 29 February 2004, was 67,416. Among them 49,396 (73%) were males and 1, 8020 (27%) were females with a male female ratio of 2.7:1 (Figure 3 & 4).

Figure 3. Cumulative # of AIDS cases in India as on 29/02/2004

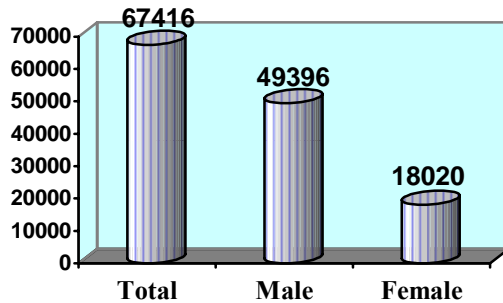
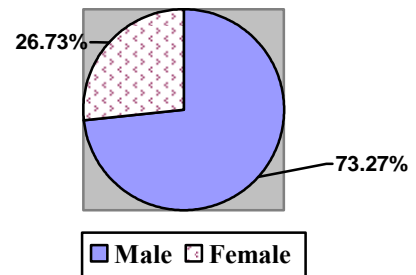


Figure 4. Sex distribution of reported AIDS cases in India as on 29/02/2004



Epidemiological analysis of reported AIDS cases reveals that:

- Disease is affecting mainly the people in sexually active age group. The majority of the cases (89.3 %) are in the age group of 15-44 years (Table 6 & figure 5).
- Males account for 73.3% of AIDS patients and females 26.7%, the ratio being 2.7:1 (Figures 3,4).
- The predominant mode of transmission of infection in the AIDS patients is through heterosexual contact (87%) followed by perinatal transmission (3%), blood transfusion and blood product infusion (2%) & IDU (2%). In 6 % of cases, history of mode of transmission was not available (Figure 6).

In addition to those factors, the major opportunistic infection among the AIDS patients in India is *Mycobacterium tuberculosis*, indicating possibility of a dual epidemic of TB & HIV in the future.⁹

Table 6: Age and sex distribution of reported AIDS cases in India as on 29/02/2004.

Age group	Male (%)	Female (%)	Total (%)
0-14 yrs	1562 (61.2)	990(38.8)	2552 (3.8)
15-29 yrs	14823 (64.3)	8243 (35.7)	23066 (34.2)
30-44 yrs	29293 (78.8)	7864 (21.2)	37157(55.1)
45+ yrs	3718 (80.1)	923 (19.9)	4641(6.9)
Total	49396 (73.3)	18020 (26.7)	67416 (100.0)

Figure 5.. Age & sex distribution of reported AIDS cases in India as on 29/02/2004.

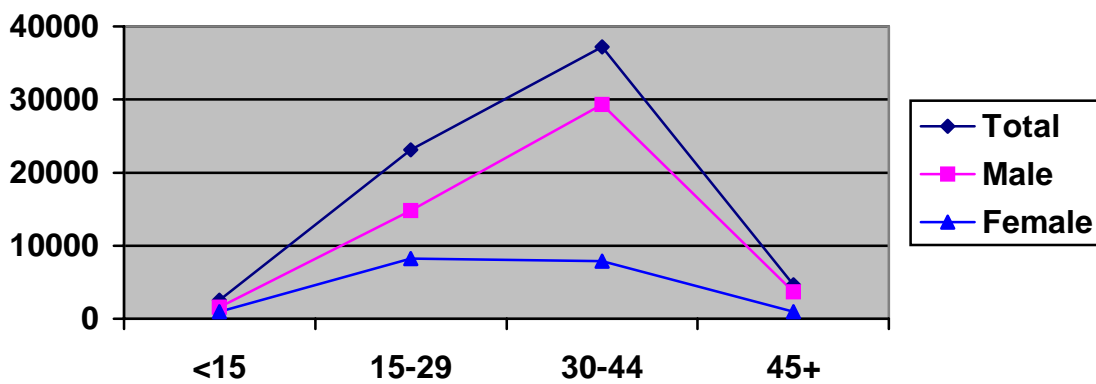
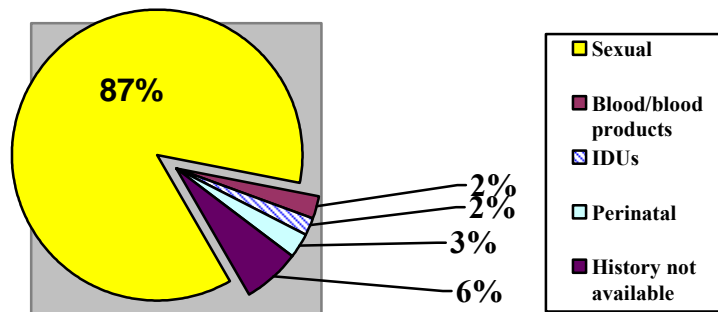


Figure 6. Risk/Transmission categories of AIDS cases in India, Feb 2004



Nepal

The Kingdom of Nepal is a highly heterogeneous country in terms of geography, ethnicity, language and culture. Nepal is landlocked sharing borders with India and China. It is made up of 75 districts divided into five different development regions (Far- Western, Mid-Western, Western, Central and Eastern). The Himalayas cover the northern third of the country from east to west, bordering China. To their south lies a long east-west stretch of lower mountains (the hilly region) whose southern flanks flatten into the Terai, a fertile, Sub-tropical plain spanning the border with India. These contours have played a major role in helping to determine the geographical and social diversity that characterizes Nepal.²⁰

In the Human development report 2001, Nepal features among the economically poorest countries in the world. Nepal's social indicators remain well below the average for the South Asia region: more than 40% of the population of Nepal lives below the national poverty line, nearly half of all children below 5 years are underweight and nearly 60% of all adults are unable to read or write. Additionally, women have traditionally a lower status than men and gender inequality is deeply rooted. Nepal is one of the few countries worldwide in which men live longer than women. More boys than girls receive any form of education, women generally work longer hours than men, and men have better access to services, including health.²⁰

The pressure of population growth on scarce and fragile land means that the benefits of better education or irrigation are often outweighed by more fragmented land and reduced availability of forest products upon which most of the rural population depends for all or parts of its livelihood. In Nepal, the topography, environmental degradation, poverty and economic migration are linked and they combine with other factors to increase vulnerability to HIV.²⁰

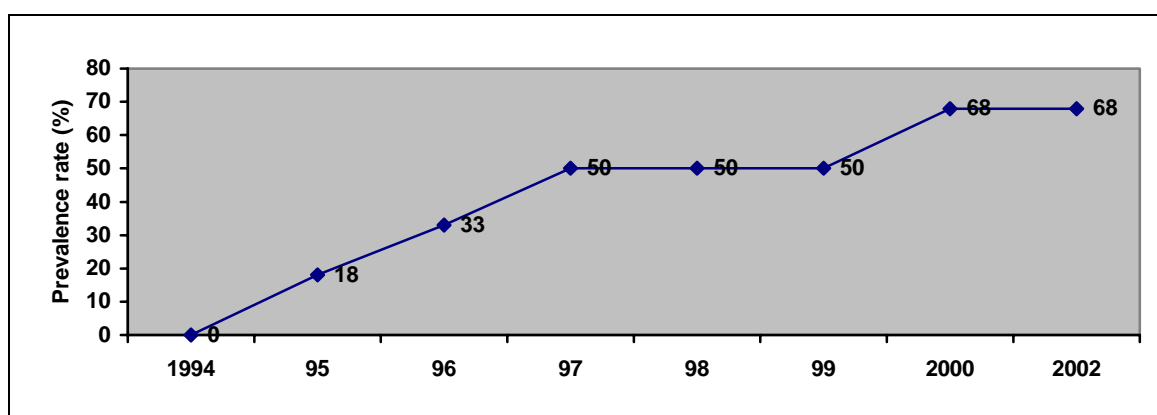
The population of Nepal in 2002 was estimated to be 24.6 million, with over 11 million in the 15-49 years old age group. The urban population in Nepal is mostly concentrated in the Kathmandu valley. Nepal has a market economy largely based on agriculture; and tourism. External donors have heavily subsidized economic development. The gross national product (GNP) per capita is one of the lowest in the world.⁹

◇ HIV/AIDS Situation

As with virtually all other countries in Asia, the first cases of AIDS or HIV infection were detected during the late 1980s and early 1990s either in a foreign visitor or in a citizen who returned from international travel. The first HIV infection in Nepal was identified in 1988.²¹ During the early 1990s, HIV seroprevalence surveys detected HIV infections among STI patients and FSW throughout most regions in Nepal. As a result, there is great public health concern that extensive spread of HIV, similar to that documented in several neighboring countries (Cambodia, Myanmar, Thailand and parts of India) might occur. IDU users in Nepal were initially believed to share injection equipment in relatively small and isolated networks. However, since the mid-1990s, an explosive increase in HIV infection (infecting about one-half of all IDU throughout the country and near about two-third in the Kathmandu valley) has occurred (Figure 7)^{22,20}

Nepal also has a unique situation with regard to the number and mobility of FSW and young males who work in India. Large numbers of young Nepalese girls are recruited as FSW to Indian cities, and large numbers of young Nepalese males working in India frequently visit FSW there and within Nepal. Thus, in addition to the increasing number of HIV infections occurring among persons with high HIV- risk behaviours in Nepal, there are also increasing numbers of Nepalese FSW and young male Nepalese workers who have been infected with HIV in India, and who have returned or will be returning to Nepal. The estimated number of adults and children living with HIV/AIDS as end 2003 in Nepal was 61,000 (range 29000-110000) with a prevalence rate of 0.5% (range 0.3-0.9) of the total 15-49 year-old population.^{6,1}

Figure 7. HIV prevalence among injected drug users in Kathmandu, Nepal, 1994-2002.



Source: MAP AIDS report. October 4th, 2001.
2002 figure from Nepal HIV/AIDS strategy

◇ *Reported HIV/AIDS cases in Nepal with epidemiological analysis*²³

As reported to the National Centre for AIDS and STD control, Teku, Kathmandu, Nepal), the cumulative number of HIV/AIDS cases as of 31 August 2004, was 4164. Among them 3048 were males and 1116 were females with a male female ratio of 2.7:1. Out of these total HIV positive cases, 808 were full blown AIDS cases. Among the AIDS cases 578 were males and 230 were females (M: F= 2.5:1).

Epidemiological analysis of reported HIV/AIDS cases reveals that

- Disease is affecting mainly the people in sexually active age group. The majority of the cases (>96 %) are in the age group of 15-49 years (Table 7 & Figure 8).
- Males account for 73 % of HIV/AIDS patients and females 27%, the ratio being 2.7:1 (Table 7 & Figure 9).
- Majority (>56%) of the reported HIV positive cases belong to clients of sex workers followed by IDUs (17%), Sex workers (13%) and housewives (11%) (Figure 10 & Table 8).

Table 7.: Cumulative HIV infection by age group, as of 31 August 2004, Nepal

Age group (years)	Male	Female	Total
0-4	30	20	50
5-9	20	11	31
10-14	12	6	18
15-19	156	166	322
20-24	604	290	894
25-29	792	285	1077
30-39	1120	267	1387
40-49	262	63	325
50+	52	8	60
Total	3048 (73.2%)	1116(26.8%)	4164

Figure 8. Cumulative HIV infection by age group, Nepal, 31/08/2004

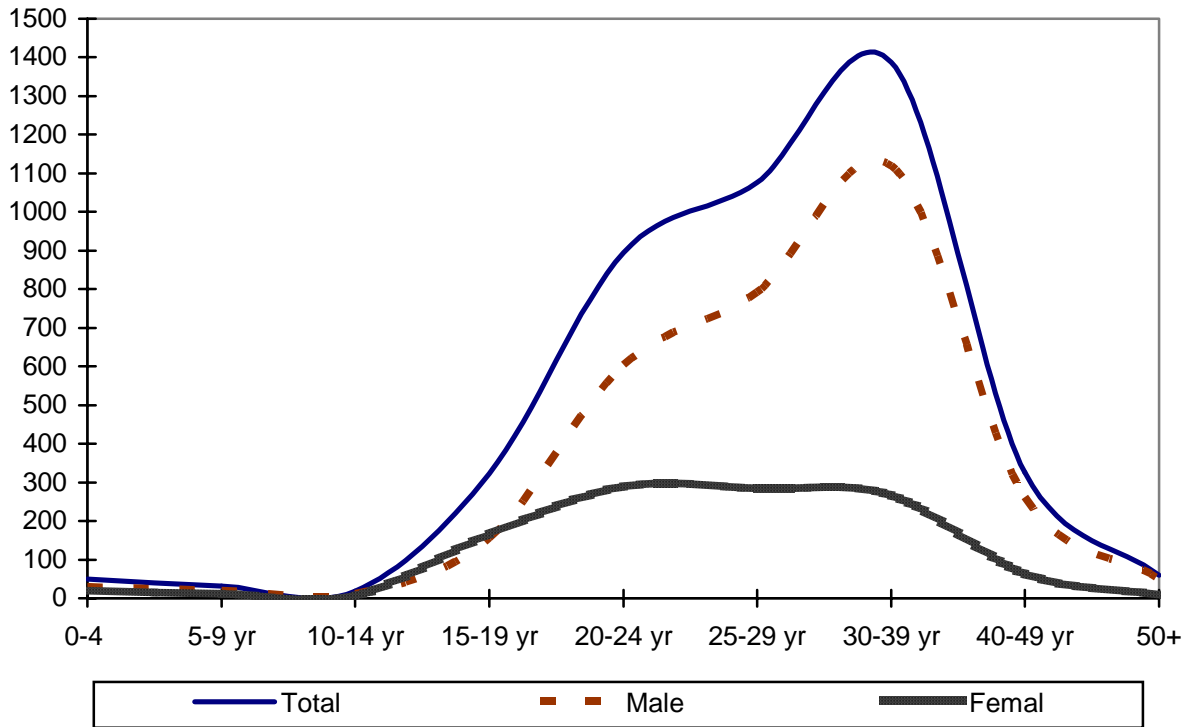


Figure 12. Sex distribution of reported HIV/AIDS cases in Nepal as 31/08/2004

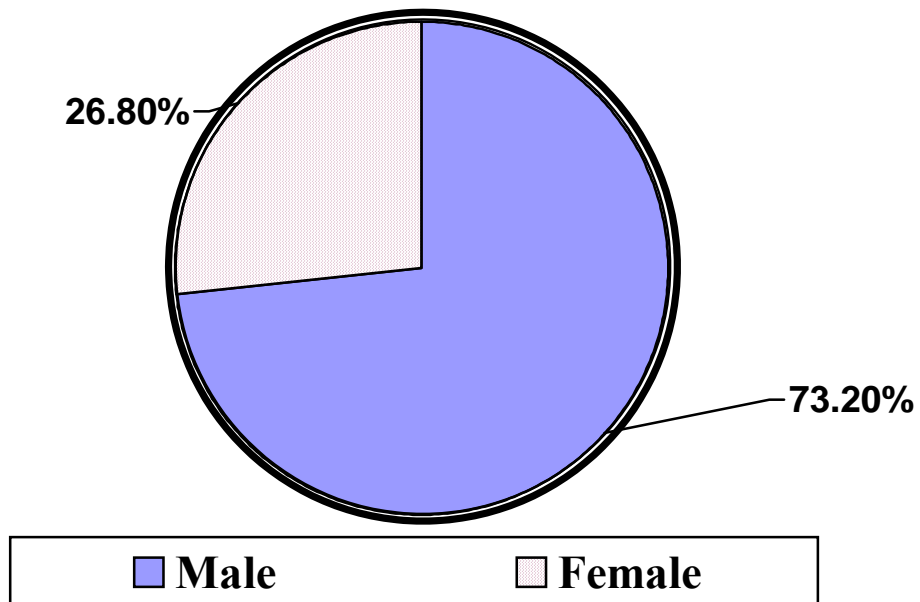


Figure 10: Cumulative HIV infection by sub group (31 August 2004)

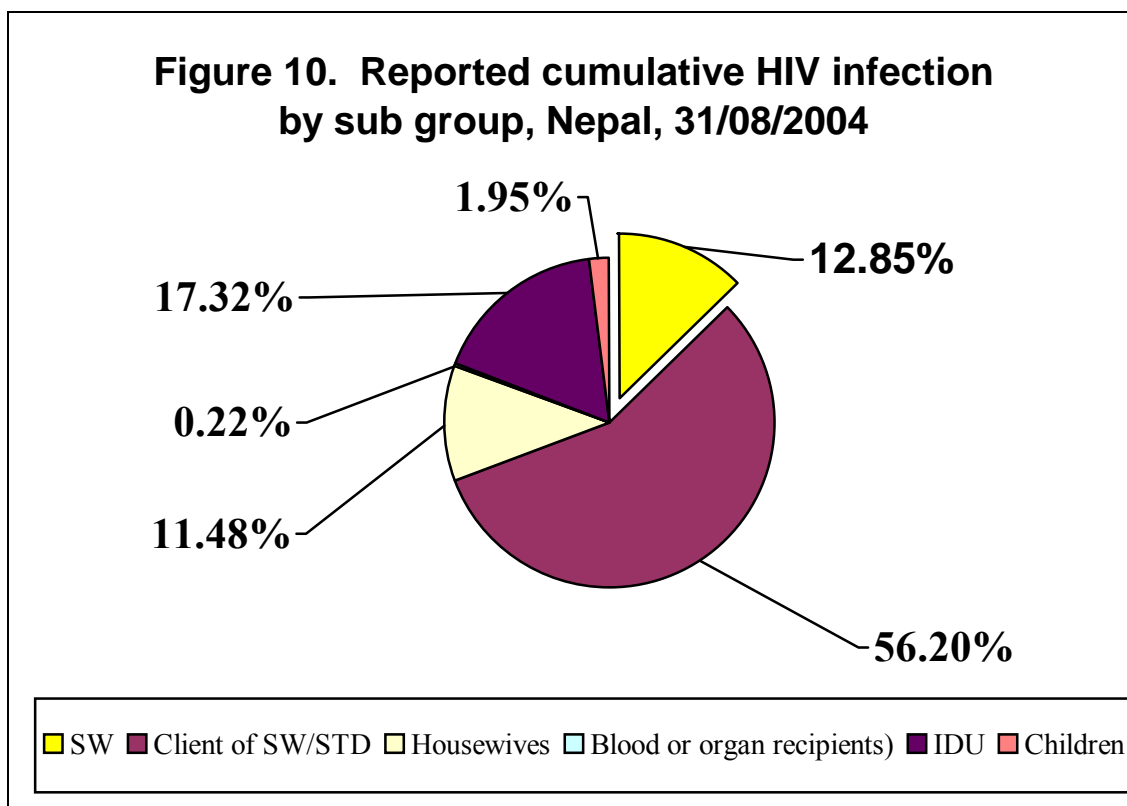


Table 8. Cumulative HIV infection by sub-group and sex

Sub-groups	Male	Female	Total
Sex Workers (SW)		535	535
Clients of SW/STD	2279	61	2340
Housewives		478	478
Blood or organ recipients	7	2	9
Injecting Drug Use	711	10	721*
Children	51	30	81
Total	3048	1116	4164

***Mode of Transmission –IDU or Sexual**

Pakistan

Pakistan is Asia's seventh largest country occupying the north-western portion of the Indian subcontinent. It is bounded to the west by Iran, to the north by Afghanistan, to the north-east by China, to the east and south east by India, and to the south by the Arabian Sea. Almost all of the population is Muslim; Hindus and Christians make up small minority groups.⁶

The estimated population in 2002 was about 149.911 million (149911000)²⁴, with nearly 47% in the 15-49 year old age group.²⁵ Pakistan has a developing mixed economy based largely on agriculture, light industry and services. The GNP is increasing more rapidly than the population, but per capita is still among the lowest in Asia.⁶

◇ *HIV/AIDS situation*

Pakistan, as of end 2003, had an estimated 74000 (range 24000-150000) people (adults and children) living with HIV/AIDS. The number of adults living with HIV/AIDS was 73000 which means 0.1% HIV prevalence level that can be considered low.¹

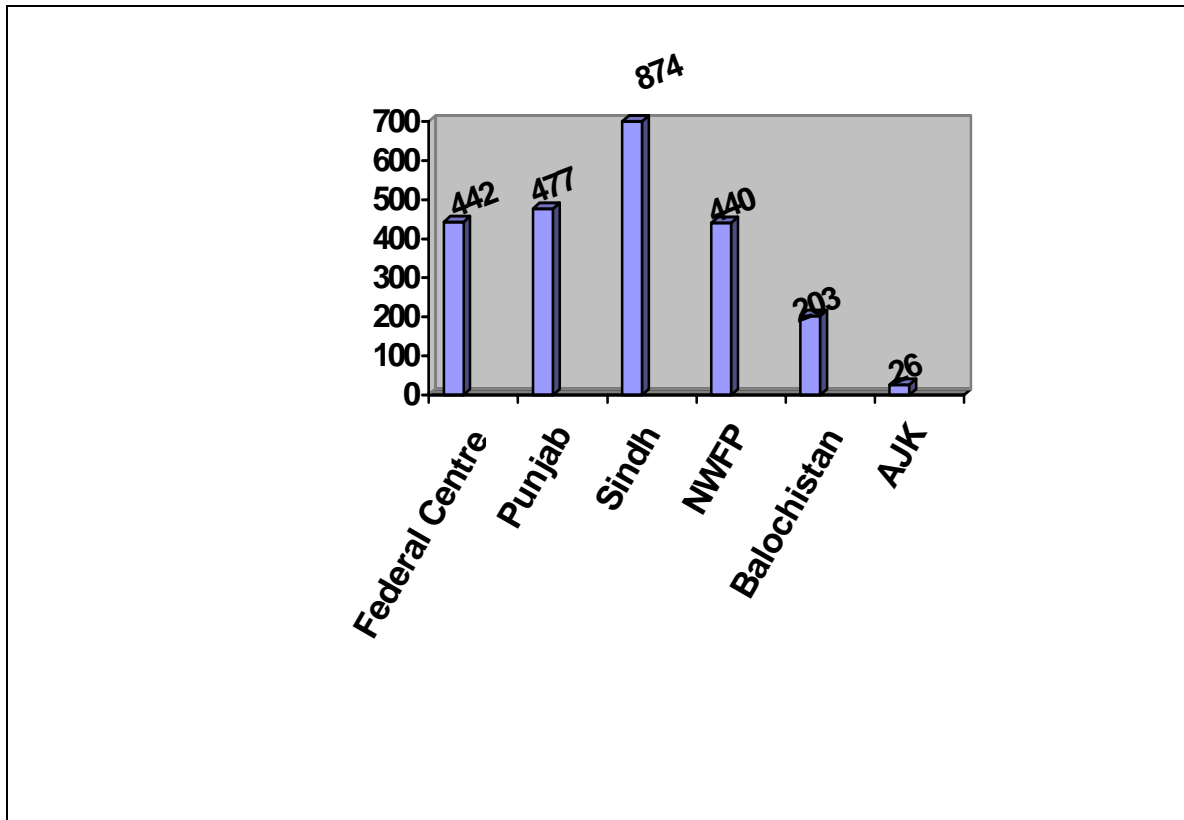
Though HIV prevalence appears to be low in Pakistan but the risk seems to be high. Because the presence of a number of vulnerabilities and risky behavioural patterns may cause emergence of a widespread epidemic in near future if an urgent, prioritized and coordinated action could not be taken. Poverty, gender inequalities and low levels of education and literacy all contribute to HIV vulnerability in Pakistan. Other related factors that can increase vulnerability at the individual level include unemployment, social exclusion or marginalization, physical and/or mental abuse, silence and denial, large number of internal and external migrants, a high proportion of adolescents and young adults and gender-based discrimination.^{26, 27}

◇ *Reported AIDS cases in Pakistan with epidemiological analysis*

The first case of AIDS in a Pakistani citizen was reported in 1987 in Lahore. During the late 1980s and 1990s, it became evident that an increasing number of Pakistanis, mostly men were becoming infected with HIV while living or traveling abroad. Upon their return to Pakistan, some of these men subsequently infected their wives who in some cases, passed along the infection to their children. In 1993, the first recognized transmission of HIV infection through breastfeeding in Pakistan was reported in the city of Rawalpindi. During the 1990s, cases of HIV and AIDS began to appear among groups such as CSWs, drug abusers and jail inmates. The increased rates of infection among these groups are assumed to have facilitated, at least to some extent, a further dissemination of HIV into the general population.²⁶

At the end of 2002 the cumulative number of reported HIV/AIDS cases was 1998; among them 233 were AIDS cases²⁸. By the end of June 2004 the reported number HIV/AIDS cases became 2462 out of which 286 were AIDS cases. The highest number (874) of the reported cases was from Sindh Province and lowest number (26) was from Azad Jammu & Kashmir (AJK) (Figure 11).²⁷

Figure 11. Area wise cumulative number of reported HIV positive cases in Pakistan, end of June 2004



Further epidemiological analysis of reported HIV/AIDS cases reveals that:

- Disease is affecting mainly the people in sexually active age group. The majority of the cases (>84 %) are in the age group 15-49 years (Table 5).
- Males account for 87% of HIV positive patients and females 13%, the male female ratio being 6.7:1. (Table 9 & Figure 12).

The predominant mode of transmission of infection in the reported cases is through heterosexual contact (62.6%) followed by IDU (6.9 %) and homosexual contact between men (5.3%). In 21.5 % of cases, history of mode of transmission was not known. (Figure13).

(NB: Information on age, sex and mode of transmission were available for 2197 cases as of December 2003.)

Table 9: Age and sex distribution of reported HIV/AIDS cases of Pakistan, end 2003

Age group	Male (%)	Female (%)	Total (%)	Cumulative (%)
0-14	4	3	7 (2.84)	7 (2.84)
15-24	7	1	8 (3.25)	15 (6.10)
25-34	89	17	106 (43.09)	121 (49.19)
35-44	61	7	68 (27.64)	189 (76.83)
45-49	26	0	26 (10.57)	215 (87.40)
50+	20	3	23 (9.35)	238 (96.75)
Unknown	07	1	8 (3.25)	246 (100.00)
Total	214 (87)	32(13)	246 (100)	

Figure 12: Sex distribution of reported HIV/AIDS cases in Pakistan, end 2003

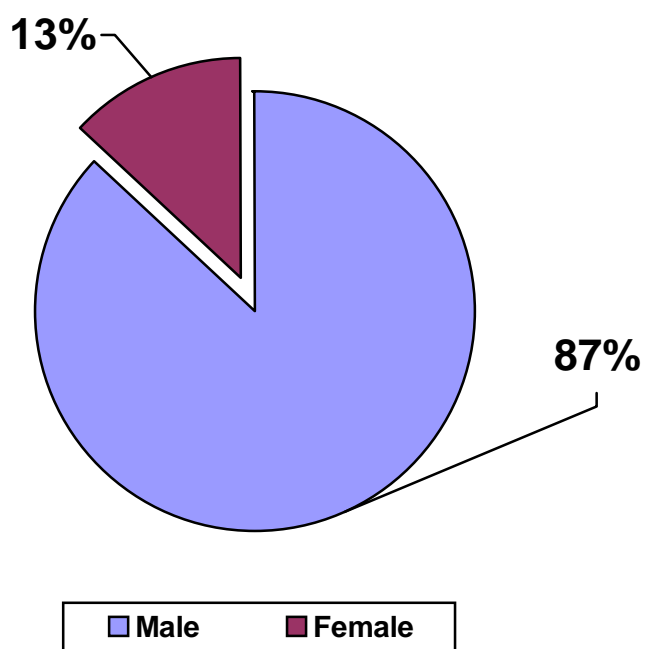
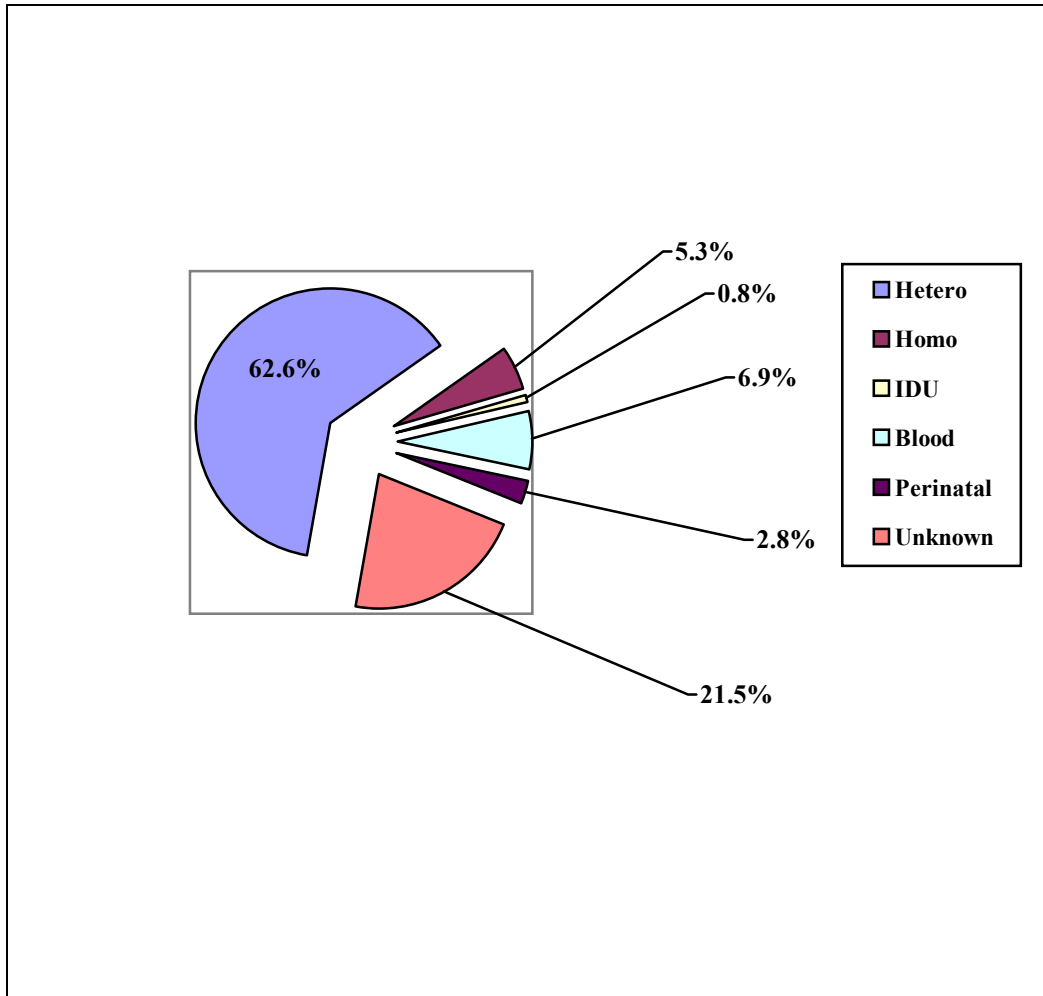


Figure 13: Reported HIV/AIDS cases by mode of transmission, Pakistan, end 2003



Sri-Lanka

Sri-Lanka is an island country in the Indian Ocean, separated from the south-eastern coast of peninsular India. Its estimated population in 2003 was approximately 19.3 million, with about 54% within the 15-49 year old age group. The Sinhalese are the predominant ethnic group, constituting about three quarters of the population. Other ethnic groups include the Tamils and the Muslims.^{29,6}

Sri-Lanka has a developing mixed (public and private) economy, largely based on agriculture, services and light industry. The creation of new jobs has not kept pace with the growth of population, and unemployment is widespread. The GNP is growing faster than the population, the GNP per capita (935 US\$), however is very low by world standards.^{29,6}

◇ HIV/AIDS situation

The available HIV/AIDS data for Sri-Lanka indicate that the extensive spread of HIV had not occurred as of the year 2003. The best estimate for total number of people living with HIV/AIDS in Sri-Lanka, as of the year 2003 is about 3,500 (range 1200-6900) and the prevalence rate of HIV infection among adults (15-49) is less than 0.1%.¹

Reported HIV/AIDS cases in Sri Lanka with epidemiological analysis:

The first Sri-Lankan infected with HIV was reported in 1987 and the first indigenously transmitted HIV case was reported in 1989. As of 30 June 2004, the cumulative number of HIV/AIDS cases reported to the National STD/AIDS control Programme (NSACP) was 552. Of this, 171 persons were reported as having AIDS. Reported number of AIDS deaths was 124.²⁹

◇ Age and sex distribution of reported HIV positive cases

Of the 552 reported cases, age was available for 507 (about 92%) cases. Of these, >90% were in the 15-49 year age group (Table 10 & Figure 14). In the first 5 years of the epidemic, the male to female ratio was 3.2:1, which decreased to 2:1 in the following 5 years. By December 2000, the ratio became 1.6:1, and as of 30 June 2004 it became 1.48:1, indicating a gradual increase in the number of female HIV positive cases in comparison to male cases (Figures 15 & 16). The increased number of infection in women will lead to increased mother-to-child transmission of the virus.

Table 10. Cumulative number of reported HIV positive cases by age & sex, Sri Lanka, as of 30 June 2004

Age	Male	Female	Total
0-9	9	3	12
-14	1	0	1
-19	0	1	1
-24	16	17	33
-29	39	28	67
-34	65	47	112
-39	57	48	105
-44	54	27	81
-49	35	23	58
50+	25	12	37
Unknown	28	17	45
Total	329(59.6%)	223(40.4%)	552

Figure 14: Age distribution of HIV positive cases in Sri Lanka, as of 30 June 2004

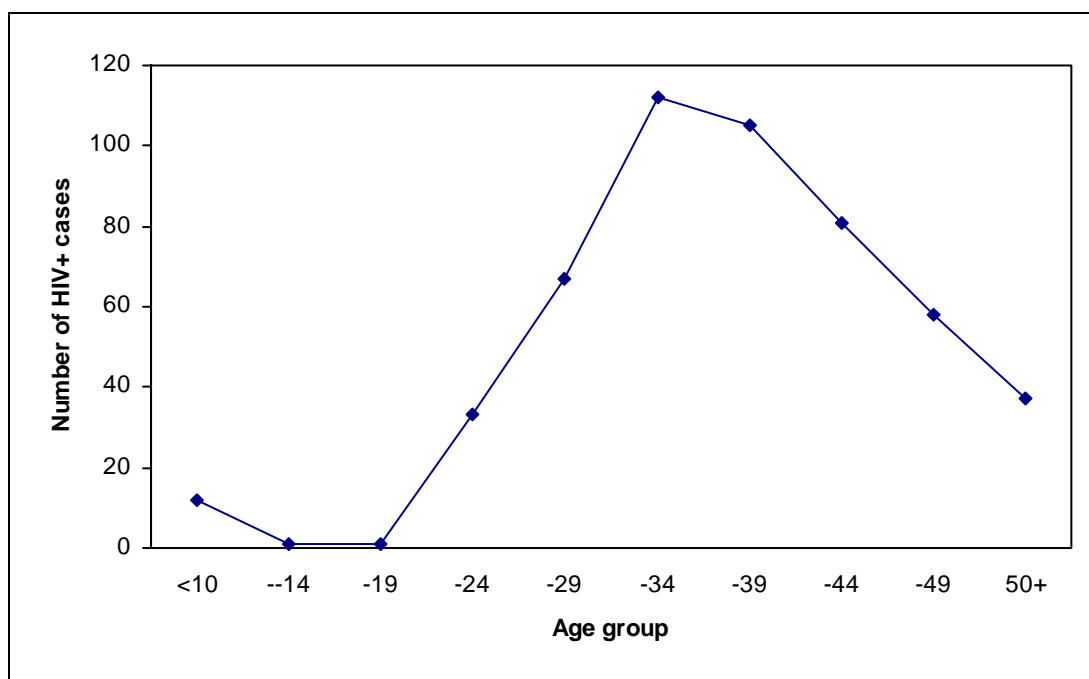


Figure 15. Reported HIV positive Cases in Sri Lanka, 1987-June 2004

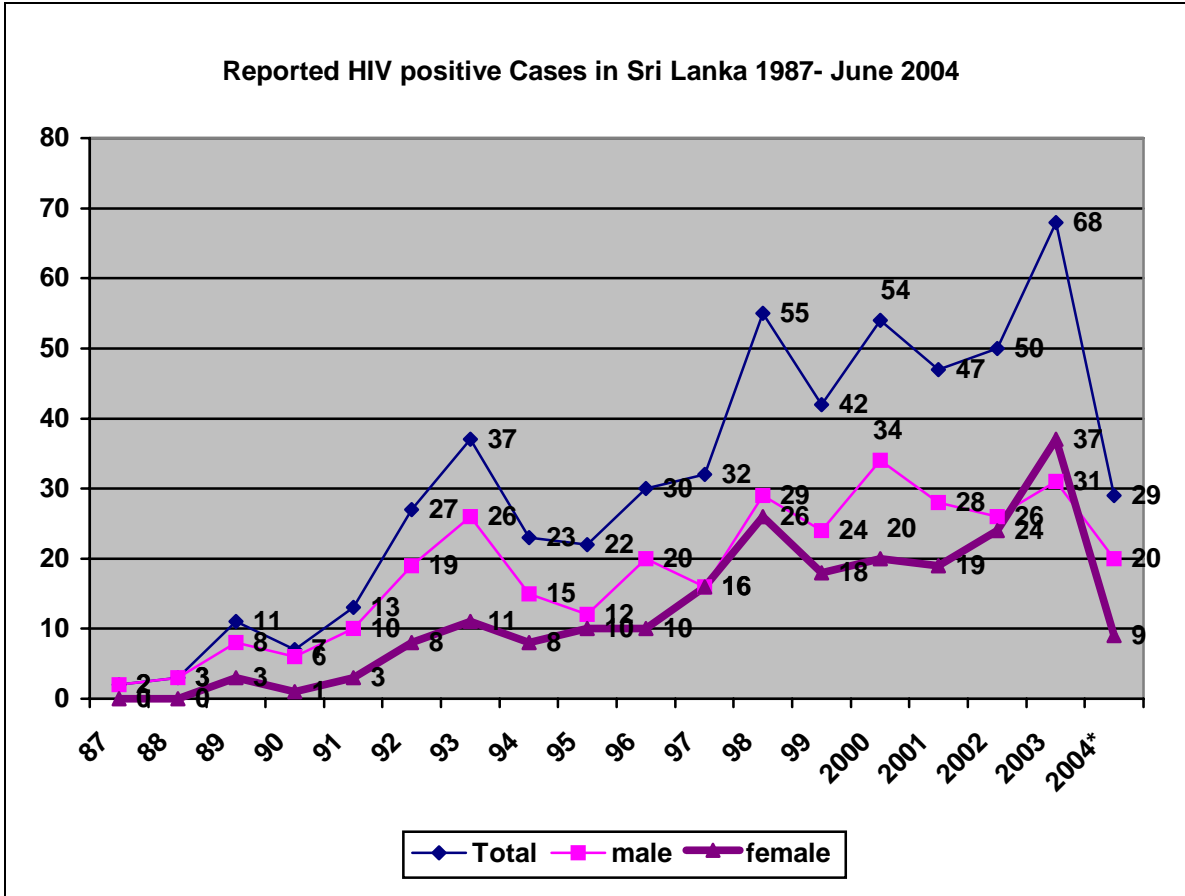
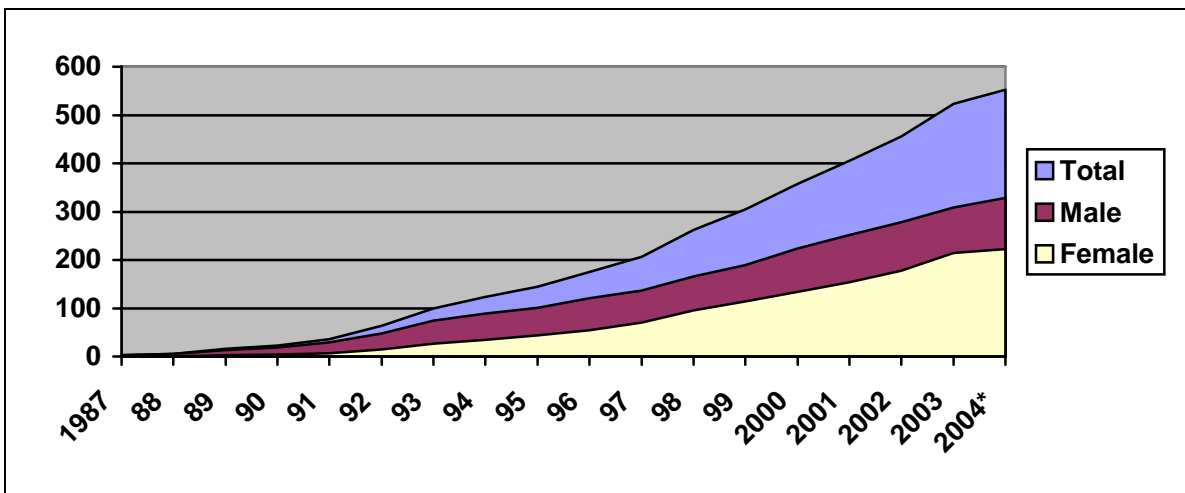


Figure 16. The cumulative number of Reported HIV positive cases, Sri Lanka, 1987- June 2004

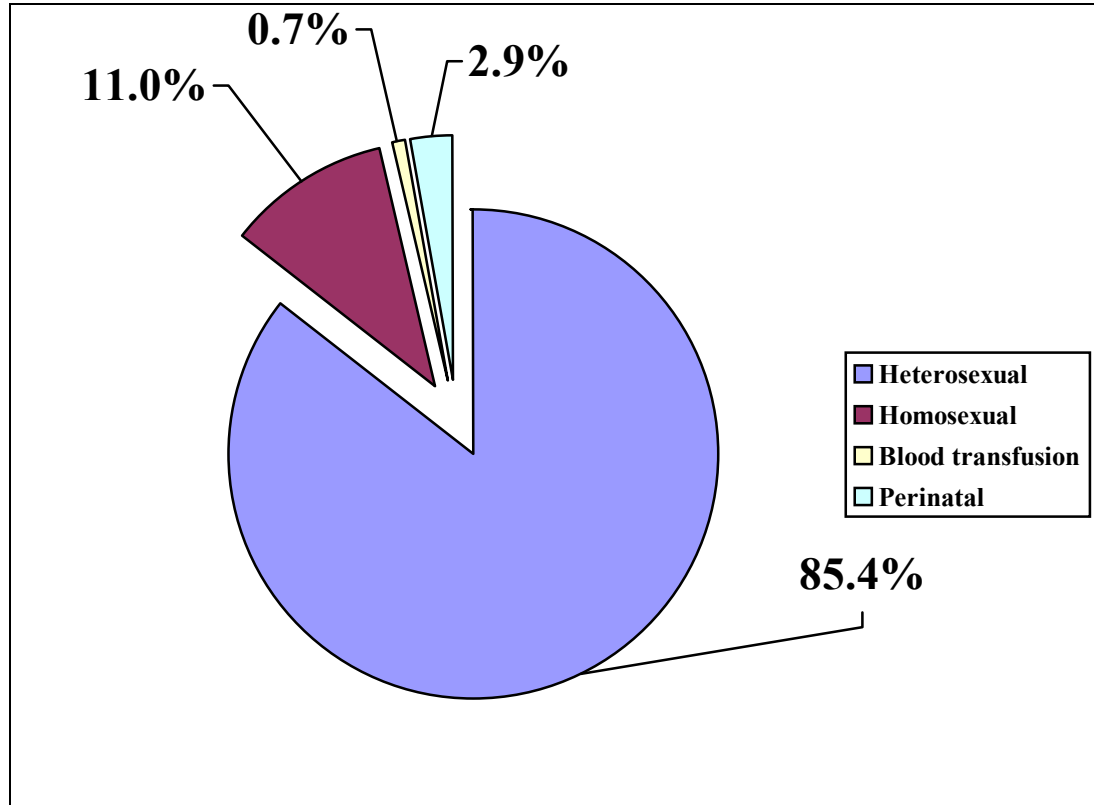


up to June

◇ *Transmission categories*

The mode of transmission of reported HIV positive cases was available for 419 cases. Of these, 85.4 % were heterosexual and 11% were homosexual. 12 (2.9%) cases were reported as perinatally transmitted (Figure 17).

Figure 17: Transmission categories of HIV positive cases in Sri Lanka, 1987-June 2004 (n=223, unknown 113)



◇ *Trend of HIV infection*

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

The Maldives

The Maldives is a small independent island nation consisting of a chain of about 1,300 small coral islands and sand banks (roughly 202 of which are inhabited), grouped in clusters, or atolls in the Indian Ocean. The Maldivians are a mixed people, speaking an Indo-European language called Divehi. With the exception of those living in the capital Male (the only relatively large settlement in the Maldives), the inhabitants of the Maldives live in villages on small islands in scattered atolls. Approximately 50 of the islands have more than 1,000 inhabitants and the southern islands are more densely populated than the northern ones.⁶ Its population was estimated to be about 309,000 in 2002.²⁴

The Maldives has a developing economy based on tourism and fishing. The GNP per capita is among the lowest in the world. Tourism is a fast growing sector of the economy. Resort islands and modern hotels in Male attract increasing numbers of tourists during the winter months.⁶

◇ HIV/AIDS situation

As of end-2003, the estimated number of people living with HIV/AIDS is less than hundred (60) and the estimated prevalence among adult population (15-49) is less than 0.1%.³⁰ The cumulative number of reported HIV/AIDS cases as of 31 December 2003 was 12.³⁰ This suggests that Maldives is a low HIV prevalence country with a very small magnitude of HIV epidemic. But despite this low level of HIV epidemic the country is not free of risk or vulnerability factors that may worsen the situation if proper attention is not given now in Maldives.

The important risk factors that can worsen the HIV/AIDS situation in Maldives are:³¹

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

◇ Reported HIV/AIDS cases of Maldives, end 2003:

In 1991, Maldives detected its first AIDS case. As of December 2003, a total of 12 HIV positive cases were reported; among them 9 developed AIDS and died. All the HIV positive cases were adults and 2 were females (Housewives). Of the 10 males, 7 were Seamen, 2 were migrants and one was Resort employee.³⁰

Bangladesh

Bangladesh is a relatively small coastal country in south central Asia. To the South, Bangladesh has an irregular coastline fronting the Bay of Bengal and shares land borders with India and Myanmar. Its estimated total population in 2002 was about 143.8 million, with >53% in the 15-49 year old group²⁴.

Bangladesh is one of the most densely populated countries in the world, with the highest densities occurring in and around the capital city of Dhaka. It is also a predominantly rural country, with only about one-quarter of the population living in urban areas. Rural areas are often so thickly settled that it is difficult to distinguish any well- defined patterns of individual villages. Bangladesh has a high rate of population growth, and about 39% of the population is under 15 year of age. ^{6, 32}

Bangladesh has a developing mixed economy that is heavily based upon agriculture. Almost two-fifths of the GDP originates from agriculture, followed by services, and transportation and communication. Although the GNP is growing somewhat more rapidly than the population, the GNP per capita is among the lowest in the world.⁶ (Country Report suggest the estimated number of PLWHA is 7500 as of December 2004)

◇ HIV/ AIDS situation

But from the previous estimation in 2001 and according to the latest (2004) estimation criteria it can be assumed that a total of 9000 (range 2500-15000) adults and children were living at the end of 2003 with an adult HIV prevalence rate of less than 0.1% .¹ The first HIV positive case in this country was detected in 1989.⁶

All of the known HIV- risk behaviours and factors- FSW, MSM, IDU, and "high" rates of STI- are acknowledged to be present in Bangladesh. As a result, there is increasing concern that marked epidemic spread of HIV might occur in a manner similar to that documented in several neighboring countries (parts of India, Myanmar, and Thailand). Scant data are available to provide accurate definitions of the distributions or to quantify the prevalence of these risk behaviours and factors in Bangladesh.⁶

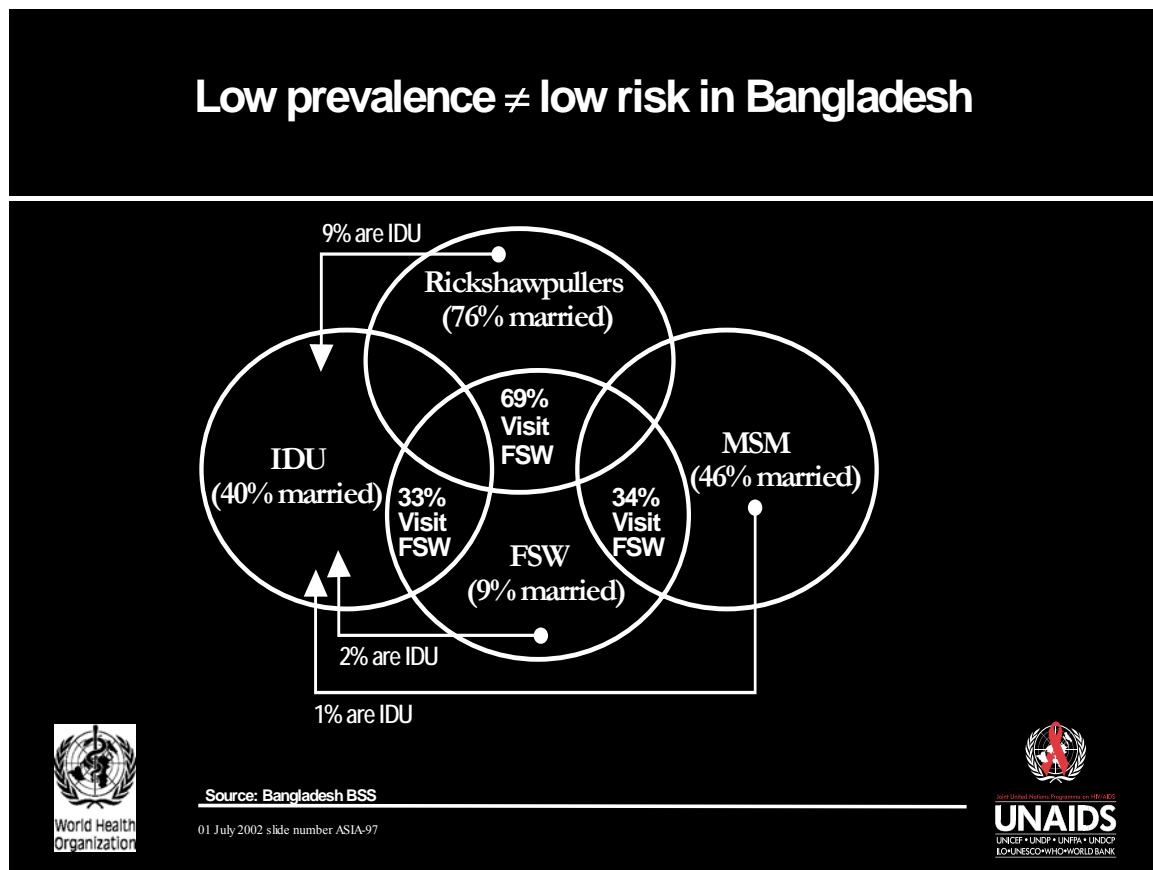
◇ Low levels of HIV but signs of risk

Bangladesh is a low prevalence country, but faces tremendous challenges in remaining so, because of very high rates of risk behaviours, low condom use, low level of risk perception and alarming levels of self reported sexually transmitted infections. It is very difficult for Bangladesh to escape an HIV/AIDS epidemic.³³

- Sex work exists at significant levels in Bangladesh. Client turn over of sex workers in Brothels as well as on streets is rather high, by Asian standards.
- Injecting drug use is also common in Bangladesh, and needle sharing is a common norm.

- Extensive overseas migrant population is another risk factor.
- To complete the alarmingly high-risk picture, there is an active male-male sexual activity situation, both paid and non-paid.
- The risk is compounded by significant overlapping among all these different groups with high- risk behaviours (Figure 18).

Figure 18. Low prevalence ≠ Low risk in Bangladesh.⁹



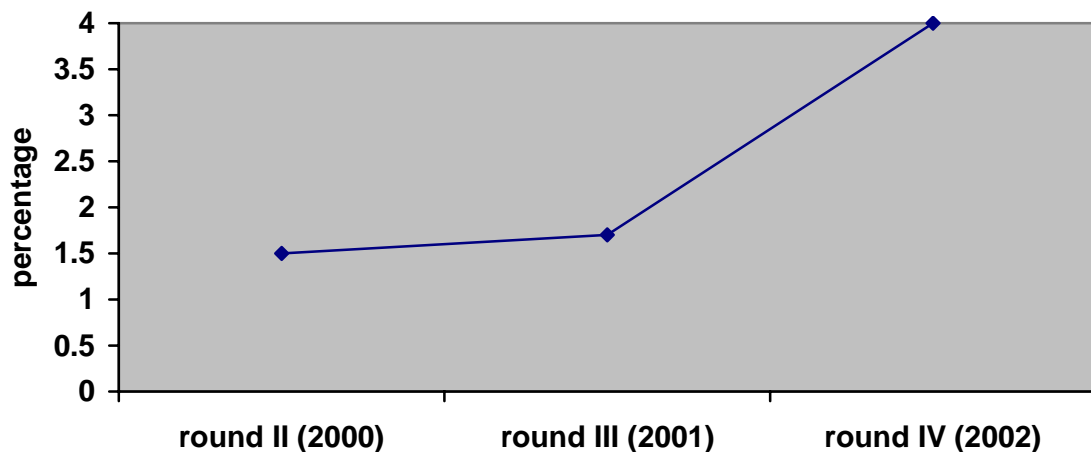
◇ *Prevalence Information and Surveillance data*

In reality, the HIV epidemic in Bangladesh is not very well understood and the existing situation is only partly known. Although it is not known exactly how many people are infected, HIV is being detected among Bangladeshi populations and especially so among vulnerable cohorts. The first National Sentinel Surveillance (1998-1999) revealed an overall HIV prevalence among the high-risk behaviour practicing sample population, to be 0.4% and in a second survey (1999-2000), it was 0.2%. However, the sample size of the two surveys was different and new categories of high- risk populations were included in the second survey. The first survey revealed that the rate of seropositivity in brothel populations was 6

per 1,000 sex workers. Among injecting drug users (IDUs), the rate was 25 per 1,000 population. The study also found that 13% of the street-based female sex workers had injected themselves with drugs, although none of those had tested positive for HIV. No HIV was found in a sample of truckers. Some persons coming to government STD clinics in some parts of the country also had HIV, about 3 per 1,000 population. Among men who have sex with men (MSM), HIV seropositivity was found at a rate of about 2 per 1,000. Epidemiologically, the findings of the second sentinel survey did not have a significant difference but it did increase the reliability of the previous findings. Findings of the third surveillance (2000-2001) concluded that high level of behavioural risk factors for the acquisition of HIV infections are very much in existence at least among the sampled population. It is clear from the surveillance that some groups of persons who practice high-risk sexual behaviour, have a large number of sexual partners, averaging between 12 and 40 per year. Each sex worker, of course, has many more, around 1,000 per year.⁹

According to the findings of the fourth round (2002) of national HIV and behavioural surveillance, 4% of the injection drug users of Central Bangladesh were HIV positive (Trend is shown in figure 19). However HIV prevalence was found to be less than 1% among other vulnerable groups. The survey also found that large number of men (including rickshaw pullers, truckers and students) continued to buy sex. The survey also revealed very low use of condom.³⁴

Figure 19. HIV among injection drug users in Bangladesh, Central region



◇ *Reported HIV positive cases with epidemiological analysis* ³⁵

According to country report of National AIDS and STD control Programme, Bangladesh, as on December 2003 the cumulative number of reported HIV positive cases became 363 in which male population predominates, M: F= 6.6:1 (Table 11). Fifty-seven HIV infected persons developed AIDS of which 30 died.

Table 11. Sex distribution of Reported HIV positive cases as of December 2003

Sex	Number (%)
Male	312 (86)
Female	47 (13)
Child (sex unknown)	4 (1)
Total	363 (100)

Out of the reported 363 HIV positive cases, sub group classification of 115 cases reported in 2003 was not available. So sub-group classification is shown among 248 cases reported as of December 2002. Migrants were the most common subgroup (44.8%), housewives comprises 10 % and TB patients 4.8%. Eighty-four (33.9%) belonged to “others” group in which no subgroup could be mentioned (Table 12)

Table 12. Cumulative HIV infection by subgroup, Bangladesh, as of December 2002

Sub-group	Number	Percentage
CSW	7	2.8
Housewives	25	10.1
Children	7	2.8
TB patients	12	4.8
Prisoners	2	0.8
Migrants	111	44.8
Others	84	33.9
Total	248	100.0

Bhutan

The Kingdom of Bhutan is a sovereign kingdom in the Himalayas, bounded by India, Tibet, China. Bhutan's rugged mountains and dense forests long rendered it inaccessible to the outside world until well into the 20th century. The building of a road network connecting Bhutan with India in the 1960s finally brought to an end Bhutan's historic isolation. From that time, Bhutan embarked on Programmes to build roads and hospitals and to create a system of secular education. Its governmental institutions were also modernized.⁶ Its estimated total population in 2002 was about 2190000²⁴. The Bhutanese economy is mainly agrarian; most of the population is engaged in agriculture and livestock raising.⁶ The first case of HIV/AIDS in Bhutan was reported in 1993. Although the first HIV/AIDS case was diagnosed in the country in 1993, the testing of army recruits that year did not find any infection in this population group.³⁵

◇ HIV/AIDS Situation

As of April 2001, 22 persons had been diagnosed with HIV infection, out of which 4 had died³⁵. Recent trends show an increase in the number of people diagnosed with HIV/AIDS and as of December 2003 the cumulative number of reported HIV infected person was 50³⁷. The number of HIV estimates was about 100 in 2000³⁶. (Latest estimated number was not shown in UNAIDS HIV/AIDS report 2004 due to lack of data.)

References

- 1) UNAIDS 2004 Report on the global AIDS epidemic 2004 (PDF version), downloaded on 7/ 22/2004, <http://www.unaids.org/bangkok2004/report>
- 2) UNAIDS and GTZ, February 2003. HIV/AIDS Training Tool kit, developed by a joint initiative of the UN Theme Group on HIV/AIDS and GTZ in Nepal, p-3.
- 3) WHO, SEARO, 1997. AIDS: No time for complacency, Regional publication SEARO No. 26, 1-2.
- 4) UNAIDS Questions & Answers. Q & A II: Basic facts about HIV/AIDS epidemic and its impact, section I, available from www.unaids.org, downloaded on 8-3-2004.
- 5) WHO, SEARO, 1999. AIDS: The Challenge, p-12
- 6) World Health Organization (WHO). HIV/AIDS in Asia and the Pacific Region, 2001
- 7) de Vicenzi I, Merens T. Male circumcision: a role in HIV prevention? *AIDS* 1994; **8(2): 153-160.**
- 8) Halperin DT, Bailey RC. Male circumcision and HIV infection: 10 years and counting. *The Lancet* 1999; **354:1813-5.**
- 9) SAARC TB Centre (STC), HIV/AIDS in the SAARC Region, 2003 (prepared and published in collaboration with Health Canada)
- 10) Weniger, B, Limpakarnjanarat, K, Ungchusak, K., et al. The epidemiology of HIV infection and AIDS in Thailand. *AIDS* 1991; **5 (2):S71-S85.**
- 11) UNAIDS and WHO, 1998, *Report on the global HIV/AIDS epidemic*, p.13.
- 12) WHO, 1997, *AIDS: No time for complacency*, New Delhi: WHO/SEARO, p.3.
- 13) WHO, 1997, *AIDS: No time for complacency*, New Delhi: WHO/SEARO, p.6.
- 14) UNAIDS and WHO, 1998, *Report on the global HIV/AIDS epidemic*, p.4.
- 15) Narain JP. AIDS in ASIA: The Epidemic Profile and Lessons Learnt So Far. In: Narain JP (WHO, SEARO, New Delhi). editor. AIDS IN ASIA The Challenge Ahead. 1st ed. New Delhi: Sage Publications; 2004. p. 19-41
- 16) Website of NACO, HIV/AIDS Indian Scenario, Status and trend of HIV/AIDS Epidemic in India up to 1999. <http://www.naco.nic.in/vsnaco/indianscene/overv.htm>
- 17) WHO South East Asia Region on STI, HIV and Tuberculosis. *AIDS watch*. Vol. 7 (1), Jan-April, 2002.
- 18) NACO: estimation of HIV infection, HIV estimates in India/[http/ www.naco.nic.in](http://www.naco.nic.in) dated 14/1/2004.)
- 19) *Surveillance of AIDS cases in India (as reported to NACO as 29 February 2004)* www.naco.nic.in downloaded on 17/3/04
- 20) National HIV/AIDS strategy (2002-2006), Nepal , HMG Nepal, MoH, National Centre for AIDS & STD Control, January 1993
- 21) Nepal 2001. Demographic and Health Survey Key Findings.
- 22) MAP. Monitoring the AIDS Pandemic within Asia and Pacific, Melbourne, Australia, Oct 4th, 2001
- 23) . MoH, National Centre for AIDS and STD control, Nepal (as of 31 August, 2004)
- 24) WHO.2004. WHO report 2004, global TB control, surveillance, planning and Financing

- 25) UNAIDS/WHO Epidemiological fact sheet 2002 update, Bhutan.
- 26) National HIV/AIDS strategic framework 2001-2006, Pakistan
- 27) HIV/AIDS situation in Pakistan, paper presented (Programme manager) TB/HIV co-infection workshop, 6-8 July 2004, Kathmandu
- 28) SAARC TB Centre. 2003. Special Publication on HIV/AIDS
- 29) Country report of Sri Lanka collected during visit for situation analysis, 11-13 August 2004
- 30) Country report of Maldives sent to SAARC TB Centre
- 31) HIV/AIDS strategy, Maldives
- 32) UNDP. 2002. Human development report 2002. Deepening Democracy in a fragmented world, Oxford University Press, p164.
- 33) UNAIDS. Report on Global HIV/AIDS epidemic, 2002.
- 34) National AIDS/STD programme, DGHS, MoHFW, Bangladesh. HIV in Bangladesh : is time running out? (Background document for the dissemination of the fourth round (2002) of national HIV and behavioural surveillance, Dhaka June 2003, p14.
- 35) Country report of Bangladesh sent to SAARC TB Centre
- 36) UNAIDS/WHO Epidemiological fact sheet 2002 update, Bhutan.
- 37) Country report of Bhutan presented in TB/HIV co-infection workshop, 6-8 July 2003, Kathmandu