

**Brazil**

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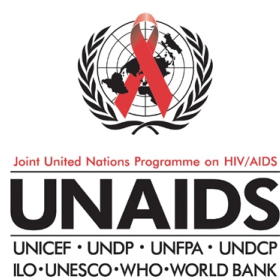
## **Epidemiological Fact Sheets**

on HIV/AIDS  
and Sexually  
Transmitted  
Infections



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**2002 Update**



## Estimated number of people living with HIV/AIDS

In 2001 and during the first quarter of 2002, UNAIDS and WHO worked closely with national governments and research institutions to recalculate current estimates on people living with HIV/AIDS. These calculations are based on the previously published estimates for 1997 and 1999 and recent trends in HIV/AIDS surveillance in various populations. A methodology developed in collaboration with an international group of experts was used to calculate the new estimates on prevalence and incidence of HIV and AIDS deaths, as well as the number of children infected through mother-to-child transmission of HIV. Different approaches were used to estimate HIV prevalence in countries with low-level, concentrated or generalized epidemics. The current estimates do not claim to be an exact count of infections. Rather, they use a methodology that has thus far proved accurate in producing estimates which give a good indication of the magnitude of the epidemic in individual countries. However, these estimates are constantly being revised as countries improve their surveillance systems and collect more information.

Adults in this report are defined as women and men aged 15 to 49. This age range covers people in their most sexually active years. While the risk of HIV infection obviously continues beyond the age of 50, the vast majority of those who engage in substantial risk behaviours are likely to be infected by this age. The 15 to 49 range was used as the denominator in calculating adult HIV prevalence.

### ■ Estimated number of adults and children living with HIV/AIDS, end of 2001

These estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 2001:

<b>Adults and children</b>	<b>610,000</b>		
<b>Adults (15-49)</b>	<b>600,000</b>	<b>Adult rate (%)</b>	<b>0.7</b>
<b>Women (15-49)</b>	<b>220,000</b>		
<b>Children (0-15)</b>	<b>13,000</b>		

### ■ Estimated number of deaths due to AIDS

Estimated number of adults and children who died of AIDS during 2001:

<b>Deaths in 2001</b>	<b>8,400</b>
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### ■ Estimated number of orphans

Estimated number of children who have lost their mother or father or both parents to AIDS and who were alive and under age 15 at the end of 2001:

<b>Current living orphans</b>	<b>130,000</b>
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### UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance

Global Surveillance of HIV/AIDS and sexually transmitted infections (STIs) is a joint effort of WHO and UNAIDS. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, initiated in November 1996, guides respective activities. The primary objective of the Working Group is to strengthen national, regional and global structures and networks for improved monitoring and surveillance of HIV/AIDS and STIs. For this purpose, the Working Group collaborates closely with national AIDS programmes and a number of national and international experts and institutions. The goal of this collaboration is to compile the best information available and to improve the quality of data needed for informed decision-making and planning at national, regional, and global levels. The Epidemiological Fact Sheets are one of the products of this close and fruitful collaboration across the globe.

Within this framework, the Fact Sheets collate the most recent country-specific data on HIV/AIDS prevalence and incidence, together with information on behaviours (e.g. casual sex and condom use) which can spur or stem the transmission of HIV.

Not unexpectedly, information on all of the agreed-upon indicators was not available for many countries in 2001. However, these updated Fact Sheets do contain a wealth of information which allows identification of strengths in currently existing programmes and comparisons between countries and regions. The Fact Sheets may also be instrumental in identifying potential partners when planning and implementing improved surveillance systems.

The fact sheets can be only as good as information made available to the UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. Therefore, the Working Group would like to encourage all programme managers as well as national and international experts to communicate additional information to them whenever such information becomes available. The Working Group also welcomes any suggestions for additional indicators or information proven to be useful in national or international decision-making and planning.

## Assessment of the epidemiological situation ( 2002)

The HIV/AIDS epidemic in Brazil is showing clear signs of stabilization. The incidence of AIDS has remained stable over the last five years at around 20,000 new cases per year, or 14 new cases per 100,000 population, and HIV prevalence also appears to be stabilizing across all sentinel surveillance studies conducted in the last four years.

In 2000, 16,477 samples collected at 140 ANC sites were analyzed as part of sentinel surveillance of pregnant women. The national HIV prevalence in ANC settings was found to be 0.61%. When disaggregated by size of urban population, the prevalence in cities with more than one million inhabitants was found to be 1.25%. In cities with populations 500,000-1,000,000, the prevalence was 0.34%, cities with populations between 200,000-500,000 had a prevalence of 0.46%, municipalities with populations 50,000-200,000, a prevalence of 0.50%, and among cities with fewer than 50,000 inhabitants, 0.22%.

Based on this study, it was estimated that in 2000 there were 597,443 individuals of both sexes between the ages of 15-49 years, with HIV infection in Brazil, corresponding to a prevalence of 0.65%. UNAIDS estimates for the end of 2001 place the figure at 610,000 individuals living with HIV/AIDS, a prevalence of 0.65%.

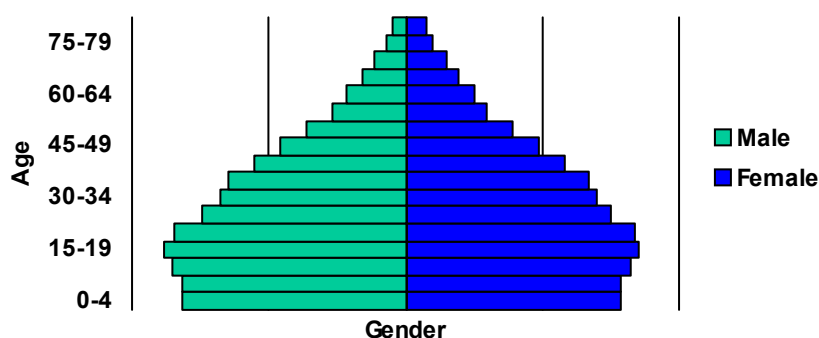
A 2001 study on 869 IDUs in 5 urban areas found a median prevalence of 36.9%. A study of sex workers conducted in 2000 with 2712 women in 8 cities found median HIV prevalence to be 6.1%.

Between March 1997 and October 2001 seven rounds of surveillance were conducted to establish the prevalence of HIV among STI patients. In total, 41,229 patients were tested, averaging 5,890 patients across 32 clinics per round. Median HIV prevalence for the period was 2.9%, with a decreasing trend from 4.2% in March 1997 to 2.7% in October 2001.

In 2001, estimates of incidence and prevalence were developed for other STIs. Of the STIs examined, HPV prevalence was highest, at 15.17%, followed by HSV2 (0.76%), I. vaginalis (3.4%), I. pallidum (2.06%), trichomoniasis (1.92%), and gonorrhoea (0.71%). Incidence was highest for I. vaginalis (5.1%), followed by trichomoniasis (2.32%), gonorrhoea (1.82%), I. pallidum (1.10%), HPV (0.81%) and HSV-2 (0.76%).

## Country Information

## Population pyramid, 2001



Indicators	Year	Estimate	Source
Total Population (thousands)	2001	172,559	UNPOP
Population Aged 15-49 (thousands)	2001	96,894	UNPOP
Annual Population Growth	1995-2000	1.3	UNPOP
% of Urban Population	2000	163	UNPOP
Average Annual Growth Rate of Urban Population	1995-2000	2.0	UNPOP
GNI Per Capita (US\$)	1999	4,350	World Bank
GNI Per Capita Average Annual Growth Rate	1999	-4.0	World Bank
Per Capita Expenditure of Health	1998	309	World Bank
% of Government Budget Spent on Health Care	1998	9.0	WHO
Total Adult Literacy Rate	1997	84	UNESCO
Adult Male Literacy Rate	1997	84	UNESCO
Adult Female Literacy Rate	1997	84	UNESCO
Male Primary School Enrolment Ratio	1983	106.6	UNESCO
Female Primary School Enrolment Ratio	1983	98.0	UNESCO
Male Secondary School Enrolment Ratio	1980	30.8	UNESCO
Female Secondary School Enrolment Ratio	1980	36.2	UNESCO
Crude Birth Rate (births per 1,000 pop.)	1995-2000	20	UNPOP
Crude Death Rate (deaths per 1,000 pop.)	1995-2000	7	UNPOP
Maternal Mortality Rate (per 100,000 live births)	1995	260	WHO
Life Expectancy at Birth	1995-2000	67	UNPOP
Total Fertility Rate	1995-2000	2.3	UNPOP
Infant Mortality Rate (per 1,000 live births)	1995-2000	42	UNPOP
Under 5 Mortality Rate	1995-2000	44	UNPOP

For consistency reasons the data used in the above table are taken from official UN publications.

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### HIV prevalence in different populations

This section contains information about HIV prevalence in different populations. The data reported in the tables below are mainly based on the HIV database maintained by the United States Bureau of the Census where data from different sources, including national reports, scientific publications and international conferences are compiled. To provide a simple overview of the current situation and trends over time, summary data are given by population group, geographical area (Major Urban Areas versus Outside Major Urban Areas), and year of survey. Studies conducted in the same year are aggregated and the median prevalence rates (in percentages) are given for each of the categories. The maximum and minimum prevalence rates observed, as well as the total number of surveys/sentinel sites, are provided with the median, to give an overview of the diversity of HIV-prevalence results in a given population within the country. Data by sentinel site or specific study from which the medians were calculated are printed at the end of this fact sheet.

The differentiation between the two geographical areas Major Urban Areas and Outside Major Urban Areas is not based on strict criteria, such as the number of inhabitants. For most countries, Major Urban Areas were considered to be the capital city and - where applicable - other metropolitan areas with similar socio-economic patterns. The term Outside Major Urban Areas considers that most sentinel sites are not located in strictly rural areas, even if they are located in somewhat rural districts.

#### ■ HIV sentinel surveillance

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Pregnant women	Major Urban Areas	N-sites		1	1	2	1	6	2	7	5	3	55	55	64	128		
		Minimum		3.5	3.7	0	0.8	0	0.1	0	0.3	0.6	0.7	0.4	0.6	0.4		
		Median		3.5	3.7	0.6	0.8	0.3	0.2	0.3	0.8	0.7	0.9	0.5	0.8	0.6		
		Maximum		3.5	3.7	1.2	0.8	2.2	0.3	2.6	2.7	2.6	1	0.7	1	0.7		
	Outside Major Urban Areas	N-sites											4	3	3	1		
		Minimum											0.6	0.4	0.6	0.4		
		Median											0.9	0.9	1	0.4		
		Maximum											9.1	3.5	3	0.4		

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Sex workers	Major Urban Areas	N-sites	2	1	2		3		1	2			1	1				
		Minimum	3	10.8	3		8		11.2	1.6			8.3	17.8				
		Median	3.75	10.8	3		9.5		11.2	3.95			8.3	17.8				
		Maximum	4.5	10.8	3		14		11.2	6.3			8.3	17.8				
	Outside Major Urban Areas	N-sites	2		1	1		1										
		Minimum	0		2	0		4.6										
		Median	0		2	0		4.6										
		Maximum	0		2	0		4.6										

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Injecting drug users	Major Urban Areas	N-sites			3	3	3	3			5	4		1	1		
		Minimum			48.4	4.6	23	31.3			14.4	29		28	42		
		Median			53.1	33	34.3	33			53.1	57.5		28	42		
		Maximum			64.8	58	57	76.5			71.8	71		28	42		

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
STI patients, Males/both & females	Major Urban Areas	N-sites			2	1		9	10	10	8	3	36	38	39	25	
		Minimum			0	3.4		1.3	1	0	0.3	1	2.9	2.6	2.6	2.2	
		Median			0.31	3.4		4.8	2.35	5.05	4.26	1.4	3.3	3	3	2.7	
		Maximum			0.62	3.4		22.7	15.3	22.7	18	1.9	3.8	3.4	3.4	3.1	
	Outside Major Urban Areas	N-sites											2	5	2	2	
		Minimum											8.3	0.3	1.7	4.2	
		Median											8.45	2.8	2.7	10.6	
		Maximum											8.6	12.8	3.7	17	

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Men who have sex with men	Major Urban Areas	N-sites				1		1									
		Minimum				20.3		30.4									
		Median				20.3		30.4									
		Maximum				20.3		30.4									
	Outside Major Urban Areas	N-sites		1		1											
		Minimum		19		12											
		Median		19		12											
		Maximum		19		12											

#### ■ Additional data

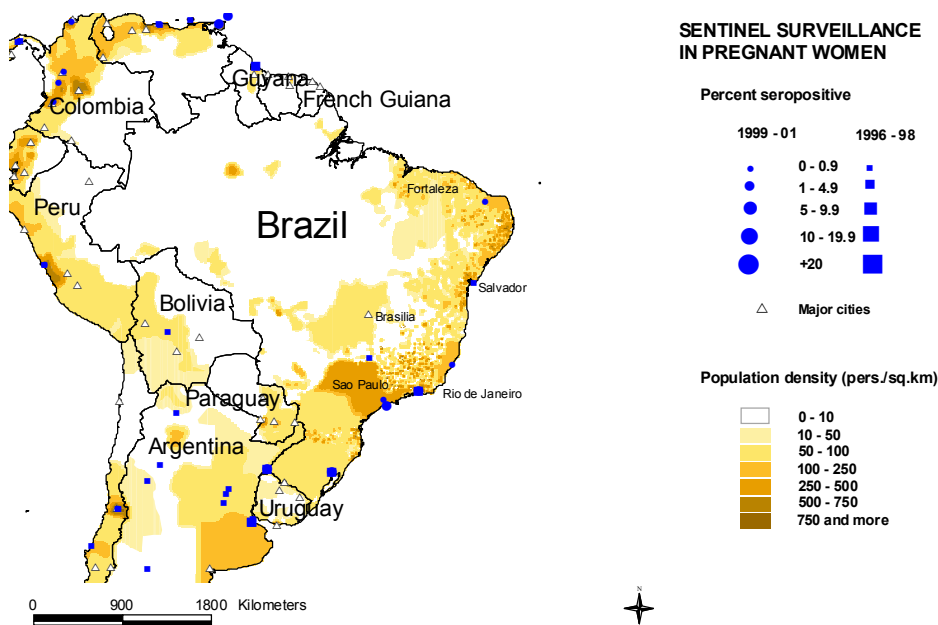
Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Blood donors																	

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Tuberculosis patients	Major Urban Areas	N-sites		2	2	1	2	1	1	1		2					
		Minimum		1.3	0.8	8.7	6.4	2.9	0.4	6.2		10.4					
		Median		2.2	3	8.7	7.1	2.9	0.4	6.2		34.2					
		Maximum		3.1	5.2	8.7	7.8	2.9	0.4	6.2		58					

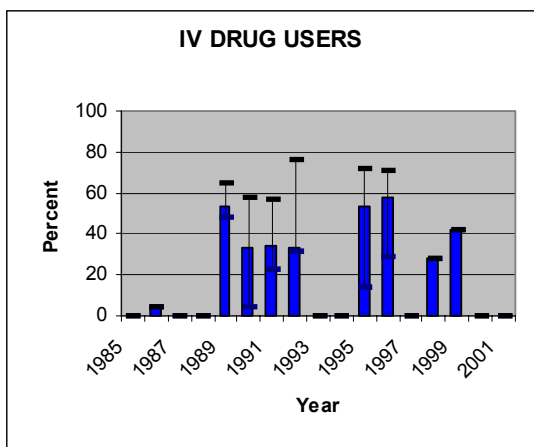
**Maps of HIV sentinel sites**

Mapping the geographical distribution of HIV sentinel sites for different population groups may assist in interpreting both the national coverage of the HIV surveillance system as well in explaining differences in levels and trends of prevalence. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, in collaboration with the WHO Public Health Mapping Team, Communicable Diseases, is producing maps showing the location and HIV prevalence of HIV sentinel sites in relation to population density, major urban areas and communication routes.

Trends in antenatal sentinel surveillance for higher prevalence countries, or in prevalence among selected populations for countries with concentrated epidemics, are a new addition. These will be presented for those countries where sufficient data exist.



**Trends in HIV prevalence in high risk groups**



Median prevalence and ranges are shown in areas with more than one sentinel site.

The boundaries and names shown and the designations used on the map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. WHO 2002, all rights reserved.

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### Reported AIDS cases

#### AIDS cases by year of reporting

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
			39	140	573	1206	2832	4585	6371	8993	11921	15060	16829	18341	20357	22943	23546	24017	20009	15013	

2001 Total Unk

3024	215799	
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Date of last report: 9-Nov-2001

Following WHO and UNAIDS recommendations, AIDS case reporting is carried out in most countries. Data from individual AIDS cases are aggregated at the national level and sent to WHO. However, case reports come from surveillance systems of varying quality. Reporting rates vary substantially from country to country and low reporting rates are common in developing countries due to weaknesses in the health care and epidemiological systems. In addition, countries use different AIDS case definitions. A main disadvantage of AIDS case reporting is that it only provides information on transmission patterns and levels of infection approximately 5-10 years in the past, limiting its usefulness for monitoring recent HIV infections.

Despite these caveats, AIDS case reporting remains an important advocacy tool and is useful in estimating the burden of HIV-related morbidity as well as for short-term planning of health care services. AIDS case reports also provide information on the demographic and geographic characteristics of the affected population and on the relative importance of the various exposure risks. In some situations, AIDS reports can be used to estimate earlier HIV infection patterns using back-calculation. AIDS case reports and AIDS deaths have been dramatically reduced in industrialized countries with the introduction of HAART (Highly Active Anti-Retroviral Therapy).

#### AIDS cases by mode of transmission

Hetero: Heterosexual contacts.

Homo/Bi: Homosexual contacts between men.

IDU: Injecting drug use. This transmission category also includes cases in which other high-risk behaviours were reported, in addition to injection of drugs.

Blood: Blood and blood products.

Perinatal: Vertical transmission during pregnancy, birth or breastfeeding.

NS: Not specified/unknown.

Sex	Trans. Group	<97	1997	1998	1999	2000	2001	Unkn.	Total	%
All	All	130190	23546	24017	20009	15013	3024		215799	100.0
	Hetero	26385	7481	9108	8011	6650	1573		59208	27.4
	Homo/Bi	39591	4859	5292	4250	3108	598		57698	26.7
	IDU	27273	3892	3246	2531	1891	276		39109	18.1
	Blood	2663	127	38	22	10	1		2861	1.3
	Perinatal	3503	831	724	597	311	41		6007	2.8
	Other knowr	0	0	0	0	0	0		0	0.0
	Unknown	30775	6356	5609	4598	3043	535		50916	23.6
Male	All	101915	16137	16112	13246	9824	1981		159215	100.0
	Hetero	13812	3565	4184	3718	3093	790		29162	18.3
	Homo/Bi	39591	4859	5292	4250	3108	598		57698	36.2
	IDU	22114	3139	2583	2011	1543	224		31614	19.9
	Blood	1959	88	29	19	8	1		2104	1.3
	Perinatal	1713	393	375	279	170	20		2950	1.9
	Other knowr	0	0	0	0	0	0		0	0.0
	Unknown	22726	4093	3649	2969	1902	348		35687	22.4
Female	All	28275	7409	7905	6763	5189	1043		56584	100.0
	Hetero	12573	3916	4924	4293	3557	783		30046	53.1
	IDU	5159	753	663	520	348	52		7495	13.2
	Blood	704	39	9	3	2	0		757	1.3
	Perinatal	1790	438	349	318	141	21		3057	5.4
	Other knowr	0	0	0	0	0	0		0	0.0
	Unknown	8049	2263	1960	1629	1141	187		15229	26.9
NS	All									
	Hetero									
	IDU									
	Blood									
	Perinatal									
	Other knowr									
	Unknown									

#### AIDS cases by age and sex

Sex	Age	<97	1997	1998	1999	2000	2001	Unkn.	Total	%
All	All	130190	23546	24017	20009	15013	3024		215799	100.0
	0-4	3710	756	688	542	290	29		6015	2.8
	5-9	610	120	96	101	68	10		1005	0.5
	10-14	413	57	43	49	22	7		591	0.3
	15-19	3199	386	405	308	213	36		4547	2.1
	20-24	14871	2210	2097	1699	1267	263		22407	10.4
	25-29	28081	4631	4512	3598	2680	533		44035	20.4
	30-34	28883	5485	5518	4423	3293	690		48292	22.4
	35-39	20885	4017	4238	3750	2775	548		36213	16.8
	40-44	13212	2660	2804	2429	1907	384		23396	10.8
	45-49	7335	1468	1644	1393	1152	247		13239	6.1
	50-54	4046	836	942	820	689	124		7457	3.5
	55-59	2348	457	474	444	325	76		4124	1.9
	60+	2014	385	457	380	281	59		3576	1.7
	NS	583	78	99	73	51	18		902	0.4
Male	All	101915	16137	16112	13246	9824	1981		159215	100.0
	0-4	1859	357	350	251	154	13		2984	1.9
	5-9	369	65	51	49	39	5		578	0.4
	10-14	326	40	26	28	14	3		437	0.3
	15-19	2294	205	194	148	97	16		2954	1.9
	20-24	10781	1310	1169	933	668	138		14999	9.4
	25-29	21899	3069	2901	2310	1632	331		32142	20.2
	30-34	23285	3976	3857	3032	2222	463		36835	23.1
	35-39	17081	2938	3011	2624	1973	383		28010	17.6
	40-44	10866	1924	2002	1696	1344	268		18100	11.4
	45-49	5988	1074	1184	960	789	178		10173	6.4
	50-54	3201	566	658	594	469	78		5566	3.5
	55-59	1898	298	321	305	210	53		3085	1.9
	60+	1600	259	316	261	173	41		2650	1.7
	NS	468	56	72	55	40	11		702	0.4
Female	All	28275	7409	7905	6763	5189	1043		56584	100.0
	0-4	1851	399	338	291	136	16		3031	5.4
	5-9	241	55	45	52	29	5		427	0.8
	10-14	87	17	17	21	8	4		154	0.3
	15-19	905	181	211	160	116	20		1593	2.8
	20-24	4090	900	928	766	599	125		7408	13.1
	25-29	6182	1562	1611	1288	1048	202		11893	21.0
	30-34	5598	1509	1661	1391	1071	227		11457	20.2
	35-39	3804	1079	1227	1126	802	165		8203	14.5
	40-44	2346	736	802	733	563	116		5296	9.4
	45-49	1347	394	460	433	363	69		3066	5.4
	50-54	845	270	284	226	220	46		1891	3.3
	55-59	450	159	153	139	115	23		1039	1.8
	60+	414	126	141	119	108	18		926	1.6
	NS	115	22	27	18	11	7		200	0.4
NS	All									
	0-4									
	5-9									
	10-14									
	15-19									
	20-24									
	25-29									
	30-34									
	35-39									
	40-44									
	45-49									
	50-54									
	55-59									
	60+									
	NS									

## Curable Sexually Transmitted Infections (STIs)

The predominant mode of transmission of both HIV and other STIs is sexual intercourse. Measures for preventing sexual transmission of HIV and STI are the same, as are the target audiences for interventions. In addition, strong evidence supports several biological mechanisms through which STI facilitate HIV transmission by increasing both HIV infectiousness and HIV susceptibility. Also significant is the observation of a sharp decline in the concentration of HIV in genital secretions when the infection is treated. Monitoring trends in STI can provide valuable information on the sexual transmission of HIV as well as the impact of behavioural interventions, such as promotion of condom use.

Clinical services offering STI care are an important access point for people at high risk for both AIDS and STIs, not only for diagnosis and treatment but also for information and education. Therefore, control and prevention of STIs have been recognized as a major strategy in the prevention of HIV infection and ultimately AIDS. One of the cornerstones of STI control is adequate management of patients with symptomatic STIs. This includes diagnosis, treatment and individual health education and counselling on disease prevention and partner notification. Consequently, monitoring different components of STI control can also provide information on HIV prevention within a country.

### ■ Reported STI syndromes

Syndrome	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total	Unk
Urethral discharge								797	2077	10992	22058	19188	55112	
Genital Ulcer								49	101	1088	2706	2861	6805	
Vaginal discharge								4375	12525	40245	130528	157383	61917	
Lower Abdominal Pain								0	0	2034	13585	25758	41377	
Neonatal conjunctivitis								0	2	66	25	31	124	

Date of last report: 9-May-2002

### ■ Incidence of urethral discharge, men

Year	Area	Age Group	Rate	N=
1997			1.73	
1998			4.45	
1999			23.84	
2000			48.96	
2001			42.06	

Comments: Incidence (100,000) in men, aged 15-49

Sources: Ministry of Health

### ■ Syphilis prevalence, women

Percent of blood samples taken from women aged 15-24 that test positive for syphilis during routine screening at selected antenatal clinics.

Year	Area	Age Group	Rate	N=
1997			2.8	
1998			1.4	
1999			2.3	
2000			2.0	
2001			1.7	

Comments:

Sources: Sentinel sites, Ministry of Health

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### Estimated size of populations at increased risk of HIV infection

	Year	Area	High estimate	Low estimate
Number of female sex workers				
Number of injecting drug users	2000	All	800,000	
Number of men who have sex with men	2002		2,801,758	

Comments:

Sources:

Ministry of Health

### Health service and care indicators

HIV prevention strategies depend on the twin efforts of care and support for those living with HIV or AIDS, and targeted prevention for all people at risk or vulnerable to the infection. It is difficult to capture such a large range of activities with one or just a few indicators. However, a set of well-established health care indicators may help to identify general strengths and weaknesses of health systems. Specific indicators, such as access to testing and blood screening for HIV, help to measure the capacity of health services to respond to HIV/AIDS - related issues.

#### ■ Access to health care

Indicators	Year	Estimate	Source
% of population with access to health services - total:	1998	100	Ministry of Health
% of population with access to health services - urban:	1998	100	Ministry of Health
% of population with access to health services - rural:	1998	100	Ministry of Health
Contraceptive prevalence rate (%):	1996	76.7	UNICEF/UNPOP
Percentage of contraceptive users using condoms:	1996	4.3	Ministry of Health
% of births attended by skilled health personnel:	1996	87.6	WHO
% of 1-yr-old children fully immunized - DPT:	2000	90	WHO/UNICEF
% of 1-yr-old children fully immunized - Measles:	2000	100	WHO/UNICEF
% of ANC clinics where HIV testing is available:			
% of PLWHA who have access to ARV:			

#### ■ Number of people living with HIV/AIDS (PLWHA) receiving highly active antiretroviral therapy (HAART)

	1995	1996	1997	1998	1999	2000	2001	Total	Unk
People initiating HAART therapy	0	0	35900	19700	17400	14500	17650	105150	

#### ■ Coverage of HIV Voluntary Counselling and Testing (VCT)

Number of functioning VCT sites per 100,000 population aged 15-49.

Year	Area	N=	Rate
2002	All	208	0.22

Comments:

Sources: Ministry of Health



## Knowledge and behaviour

In most countries the HIV epidemic is driven by behaviours (e.g.: multiple sexual partners, injecting drug use) that expose individuals to the risk of infection. Information on knowledge and on the level and intensity of risk behaviour related to HIV/AIDS is essential in identifying populations most at risk for HIV infection and in better understanding the dynamics of the epidemic. It is also critical information in assessing changes over time as a result of prevention efforts. One of the main goals of the 2nd generation HIV surveillance systems is the promotion of a standard set of indicators defined in the National Guide (Source: National AIDS Programmes, A Guide to Monitoring and Evaluation, UNAIDS/00.17) and regular behavioural surveys in order to monitor trends in behaviours and to target interventions.

The indicators on knowledge and misconceptions are an important prerequisite for prevention programmes to focus on increasing people's knowledge about sexual transmission, and, to overcome the misconceptions that act as a disincentive to behaviour change. Indicators on sexual behaviour and the promotion of safer sexual behaviour are at the core of AIDS programmes, particularly with young people who are not yet sexually active or are embarking on their sexual lives, and who are more amenable to behavioural change than adults. Finally, higher risk male-male sex reports on unprotected anal intercourse, the highest risk behaviour for HIV among men who have sex with men.

### ■ **Knowledge of HIV prevention methods**

Proportion of people citing correctly at least two acceptable ways of protection from HIV infection.

Year	Area	Age Group	Male	Female	All
1999	All	16-65			98

Comments:

Sources: Ministry of Health

### ■ **Misconception about AIDS (no incorrect beliefs)**

Proportion of people who correctly reject the two most common local misconceptions about AIDS transmission or prevention, and who know that a healthy looking person can transmit AIDS

Year	Area	Age Group	Male	Female	All
1999	All	16-65			83

Comments:

Sources: Ministry of Health

### ■ **Median age at first sexual experience**

The age by which one half of young men or young women aged 15-24 have had penetrative sex (median age) of all young people surveyed.

Year	Area	Age Group	Male	Female	All
1999	All	16-19	15	15	15
		20-24	16	17	16

Comments:

Sources: Ministry of Health

### ■ **Higher risk sex in the last year (adults)**

Proportion of adult respondents who have had sex with a non-regular (non-marital, non-cohabiting) partner in the last 12 months, of all adult respondents reporting sexual activity in the last 12 months.

Year	Area	Age Group	Male	Female	All
1999	All	16-65	30.3	5.1	18.5

Comments:

Sources: Ministry of Health

### ■ **Young people having multiple partners in last year (youth)**

Proportion of respondents who have had sex with more than one partner in the last 12 months.

Year	Area	Age Group	Male	Female	All
1996	All	15-24	38.3	4.5	
1999		16-25	56.7	13.6	35.9

Comments:

Sources: DHS  
Ministry of Health

## Knowledge and behaviour

### ■ Condom use in last higher risk sex (adults)

The percentage of adult respondents who say they used a condom the last time they had sex with a non-regular (non-marital, non-cohabiting) partner, of those who have had sex with such a partner in the last 12 months.

Year	Area	Age Group	Male	Female	All
1996	All	15-49		30.3	
		15-59	56.0		
1999		16-65	63.3	69.2	64

Comments:

Sources: DHS  
Ministry of Health

### ■ Young people using a condom during premarital sex (youth)

Proportion of young single people who used a condom at last sex.

Year	Area	Age Group	Male	Female	All
1996	all	15-19	61	34	
		15-24	60	33	
		20-24	60	31	

Comments:

Sources: DHS

### ■ Commercial sex in the last year

Proportion of men reporting sex with a sex worker in the last 12 months.

Year	Area	Age Group	Rate	All
2000	All	17-20	17.4	

Comments: Army Conscripts

Sources: Ministry of Health

### ■ Reported condom use in commercial sex

Proportion of men reporting condom use the last time they had sex with a sex worker, of those who report having had sex with a sex worker in the last 12 months.

Year	Area	Age Group	Rate	All
2000	All	17-20	66.7	

Comments: Army Conscripts

Sources: Ministry of Health

### ■ Higher risk male-male sex in the last year

The percentage of men who have had anal sex with more than one male partner in the last 6 months, of all men surveyed who have had sex with a male partner.

Year	Area	Age Group	Rate	All
1999	Sao Paulo	18-50	71.4	648

Comments:

Sources: Bela Vista Cohort Study

### ■ Injecting drug users sharing equipment at last injection nationwide

Percentage of injecting drug users active in the last month who report sharing injecting equipment the last time they injected drugs.

Year	Area	Age Group	Rate	All
2001	5 Urban areas		80.7	869

Comments:

Sources: Projeto Ajude II

## Prevention Indicators

Male and female condoms are the only technology available that can prevent sexual transmission of HIV and other STIs. Persons exposing themselves to the risk of sexual transmission of HIV should have consistent access to high quality condoms. AIDS Programs implement activities to increase both availability of and access to condoms. These activities should be monitored and have resources directed to problem areas. The indicator below highlights the availability of condoms. However, even if condoms are widely available, this does not mean that individuals can or do access them.

### ■ **Condom availability nationwide**

Total number of condoms available for distribution nationwide during the preceding 12 months, divided by the total population aged 15-49.

Year	N	Rate
2001	600,000,000	15.4

Comments:

Sources: Ministry of Health

### ■ **Prevention of mother-to-child transmission (MTCT) nationwide**

Percentage of women who were counselled during antenatal care for their most recent pregnancy, accepted an offer of testing and received their test results, of all women who were pregnant at any time in the preceding two years.

Year	N	Rate
2000	2234	72.5

Comments: Study conducted in 12 cities, responsible for the reporting of 42% of the AIDS cases in the country.

Sources: Ministry of Health

Blood safety programs aim to ensure that the majority of blood units are screened for HIV and other infectious agents. This indicator gives an idea of the overall percentage of blood units that have been screened to high enough standards that they can confidently be declared free of HIV.

### ■ **Screening of blood transfusions nationwide**

Percentage of blood units transfused in the last 12 months that have been adequately screened for HIV according to national or WHO guidelines.

Year	N	Rate
2000	1,827,937	100

Comments:

Sources: Ministry of Health

## 12 - Brazil

### Sources

Data presented in this Epidemiological Fact Sheet come from several different sources, including global, regional and country reports, published documents and articles, posters and presentations at international conferences, and estimates produced by UNAIDS, WHO and other United Nations agencies. This section contains a list of the more relevant sources used for the preparation of the Fact Sheet. Where available, it also lists selected national Web sites where additional information on HIV/AIDS and STI are presented and regularly updated. However, UNAIDS and WHO do not warrant that the information in these sites is complete and correct and shall not be liable whatsoever for any damages incurred as a result of their use.

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**Websites:      National AIDS Programme: [www.aids.gov.br](http://www.aids.gov.br)**

# 13 - Brazil

## Annex: HIV Surveillance by site

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001			
Pregnant women	Major Urban Areas	Belem						0.00		0.20										
		Belo Horizonte								0.00										
		Campinas						0.30												
		Fortaleza							0.30											
		Itajai						2.20		1.30										
		Joinville									0.80									
		Porto Alegre								2.60	2.30			3.30	1.60			4.00		
		Recife							0.10	0.10	0.70	0.30								
		Rio de Janeiro						0.80	0.30		0.30	2.70	2.60	0.60	1.00	1.00	1.60			
		Salvador						0.00												
		Salvador, Bahia											0.70							
		Santos				3.50	3.70													
		Sao Paulo						1.20		0.50		0.00	0.70					0.10		
		Uberaba											0.60							
		Outside Major Urban Areas		Five areas											1.00	0.40				
				Guanaja											0.80	0.90	1.00			
				Sorocaba															0.40	
Uruguaiana														9.10	3.50	3.00				
Vitoria																0.60				

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001			
Sex workers	Major Urban Areas	Belo Horizonte								6.30										
		Campinas		10.80				9.50												
		Fortaleza									1.60									
		Rio de Janeiro	4.50		3.00					11.20										
		Santos	3.00		3.00			14.00						8.30						
		Sao Paulo						8.00								17.80				
		Outside Major Urban Areas		Minas Gerais	0.00			0.00												
				Paranagua						4.60										
				Presidente Prudente	0.00		2.00													

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Injecting drug users	Major Urban Areas	Bauru				58.00												
		Campinas			64.80							35.00						
		Itajai												71.00				
		Rio de Janeiro				33.00	34.30	31.30			14.40		29.00		28.00			
		Salvador				4.60					53.10		51.00					
		Santos						57.00	76.50			71.80	64.00			42.00		
		Sao Paulo				53.10		23.00										

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001			
STI patients, Males/both & females	Major Urban Areas	BI Cuiaba							1.10											
		BI Aracaju						1.30	2.00	0.90										
		BI Belem						5.20	3.30											
		BI Belo Horizonte				0.00		2.30	2.30	3.50	3.30									
		BI Brasilia						2.90	2.40		2.40									
		BI Campo Grande						2.40		2.20	2.50									
		BI Chapeco									0.30									
		BI Corumba									1.70									
		BI Fortaleza								1.00			1.90							
		BI Juiz de Fora										6.50								
		BI Kubenkroke										0.00								
		BI Porto Alegre										6.60	6.70							
		BI Rio de Janeiro							22.70		22.70									
		BI Salvador				0.62	3.40		9.30	9.40				1.00						
		BI Santos									12.50									
		BI Sao Paulo							15.30											
		Fortaleza											1.40							
		MI Porto Alegre							4.80	5.40										
		MI Rio de Janeiro										18.00								
		MI Sao Paulo									15.30	16.14								
		Rio de Janeiro											5.22							
		Sao Paulo									1.11	8.60								
		Outside Major Urban Areas		BI Center West area											2.80					
				BI North area												0.30				
				BI Northeast area												2.20				
				BI South area												12.80				
				BI Southeast area												6.00				
				Five areas													1.70			
				MI Five areas													3.70			
				MI Uruguaiana											8.30			17.00		
				Uruguaiana											8.60			4.20		

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
Men having sex with men	Major Urban Areas	Rio de Janeiro			20.30													
		Sao Paulo						30.40										
		Outside Major Urban Areas	Bahia state	19.00		12.00												

### Additional data

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Blood donors																	
Tuberculosis patients	Major Urban Areas	Campinas					6.40			6.20		58.00					
		Fortaleza							0.40								



Rio de Janeiro  
Salvador

	3.10	5.20			2.90					10.40				
	1.30	0.80	8.70	7.80										