2004
Update

Liberia

EPIDEMIOLOGICAL FACT SHEETS
ON HIV/AIDS AND SEXUALLY TRANSMITTED INFECTIONS

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNHCR • UNICEF • WFP • UNDP • UNFPA
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HIV/AIDS estimates

In 2003 and during the first quarter of 2004, 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 1999 and 2001 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 generalised 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 that 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 2003

These estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 2003:

Adults and children	100,000		
Low estimate	47,000		
High estimate	220,000		
Adults (15-49)	96,000	Adult rate (%)	5.9
Low estimate	44,000	Low estimate	2.7
High estimate	200,000	High estimate	12.4
Children (0-15)	8,000		
Low estimate	3,400		
High estimate	19,000		
Women (15-49)	54,000		
Low estimate	25,000		
High estimate	110,000		

Estimated number of deaths due to AIDS

Estimated number of adults and children who died of AIDS during 2003:

Deaths in 2003	7,200
Low estimate	3,500
High estimate	15,000

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 17 at the end of 2003:

Current living orphans	36,000
Low estimate	24,000
High estimate	52,000

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 2003. 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 2004

Scant information on HIV prevalence is available for Liberia. No HIV sentinel surveillance system has yet been established. In Monrovia, 4 percent of antenatal clinic women tested positive for HIV in 1992 and 1993. In 1996 and 1997, HIV testing at various sites found no evidence of HIV infection among antenatal clinic attendees. In 1998, from an unspecified site, 10 percent of antenatal clinic attendees were found HIV positive. In 2002, HIV prevalence among women attending antenatal care clinics at 24 sites was 4.3 percent.

There is no information available on HIV prevalence among sex workers. In 1993, 8 percent of male STD clinic patients attending one site in Monrovia tested positive for HIV. The rate for female patients was 2 percent.

Basic indicators

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

DEMOGRAPHIC DATA	YEAR	ESTIMATE	SOURCE
Total population (thousands)	2004	3,487	UN population division database
Female population aged 15-24 (thousands)	2004	351	UN population division database
Population aged 15-49 (thousands)	2004	1,575	UN population division database
Annual population growth rate (%)	1992-2002	4.6	UN population division database
% of population in urban areas	2003	46.4	UN population division database
Average annual growth rate of urban population	2000-2005	5.3	UN population division database
Crude birth rate (births per 1,000 pop.)	2004	49.6	UN population division database
Crude death rate (deaths per 1,000 pop.)	2004	21.5	UN population division database
Maternal mortality rate (per 100,000 live births)	2000	760	WHO (WHR2004)/UNICEF
Life expectancy at birth (years)	2002	41.8	World Health Report 2004, WHO
Total fertility rate	2002	6.8	World Health Report 2004, WHO
Infant mortality rate (per 1,000 live births)	2000	136	World Health Report 2004, WHO
Under 5 mortality rate (per 1,000 live births)	2000	232	World Health Report 2004, WHO

SOCIO-ECONOMIC DATA	YEAR	ESTIMATE	SOURCE
Gross national income, ppp, per capita (Int.$)			
Gross domestic product, per capita % growth	2001-2002	1.6	World Bank
Per capita total expenditure on health (Int.$)	2001	127	World Health Report 2004, WHO
General government expenditure on health as % of total expenditure on health	2001	75.9	World Health Report 2004, WHO
Total adult illiteracy rate	2000	46.5	UNESCO
Adult male illiteracy rate	2000	29.8	UNESCO
Adult female illiteracy rate	2000	63.3	UNESCO
Gross primary school enrolment ratio, male	2000/2001	not available	UNESCO
Gross primary school enrolment ratio, female	2000/2001	not available	UNESCO
Gross secondary school enrolment ratio, male	2000/2001	not available	UNESCO
Gross secondary school enrolment ratio, female	2000/2001	not available	UNESCO

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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*

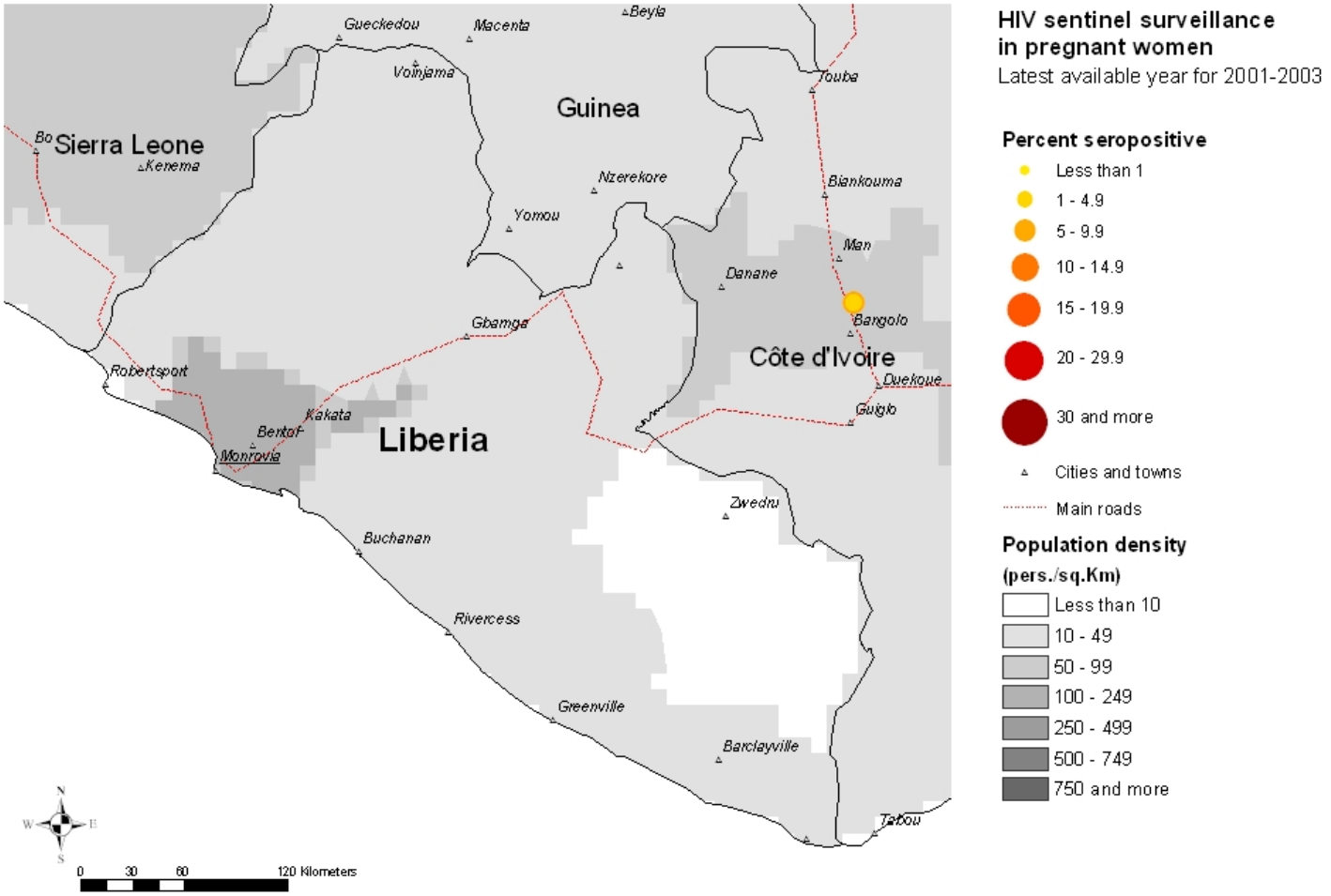
Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Pregnant women	Major urban areas	N-Sites						1.00	1.00										
		Minimum						3.70	3.96										
		Median						3.70	3.96										
		Maximum						3.70	3.96										
	Outside major urban areas	N-Sites						1.00				1.00	1.00	1.00				1.00	
		Minimum						5.74				0	0	10.10				4.30	
		Median						5.74				0	0	10.10				4.30	
		Maximum						5.74				0	0	10.10				4.30	
Sex workers																			
Injecting drug users																			
STI patients	Major urban areas	N-Sites							2.00										
		Minimum							2.17										
		Median							5.08										
		Maximum							8.00										
Men having sex with men																			
Tuberculosis patients	Major urban areas	N-Sites	1.00						1.00										
		Minimum	1.04						8.70										
		Median	1.04						8.70										
		Maximum	1.04						8.70										
	Outside major urban areas	N-Sites		1.00	1.00	1.00				1.00	1.00	1.00	1.00	2.00				1.00	
		Minimum		4.32	1.92	3.70				3.60	9.70	14.20	61.10	11.57				36.80	
		Median		4.32	1.92	3.70				3.60	9.70	14.20	61.10	11.89				36.80	
		Maximum		4.32	1.92	3.70				3.60	9.70	14.20	61.10	12.21				36.80	

*Detailed data by site can be found in the Annex.

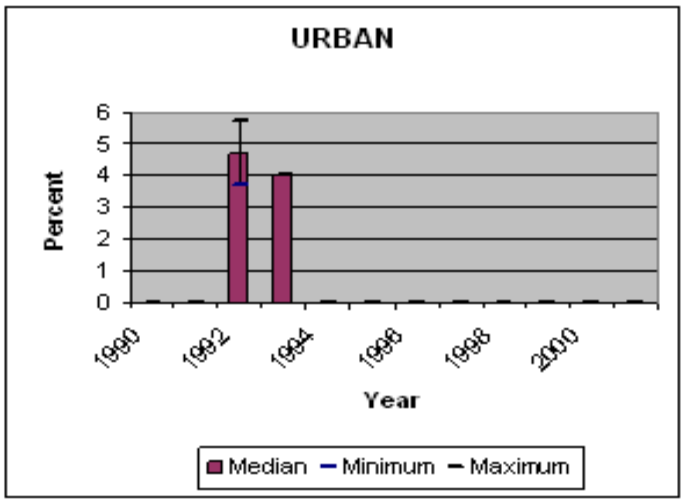
Maps & charts

Mapping the geographical distribution of HIV prevalence among different population groups may assist in interpreting both the national coverage of the HIV surveillance system as well in explaining differences in levels 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 in relation to population density, major urban areas and communication routes. For generalized epidemics, these maps show the location of prevalence of antenatal surveillance sites.

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 are presented for those countries where sufficient data exist.



Trends in HIV prevalence among antenatal clinic attendees



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

Reported AIDS cases

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 Anti-Retroviral Therapy (ART).

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
												10	9	4	13	11	8	59	114

1999	2000	2001	2002	2003	Total	UNK	Date of last report
79	81	52			532	18	11/15/2001

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 STIs are the same, as are the target audiences for interventions. In addition, strong evidence supports several biological mechanisms through which STIs facilitate HIV transmission by increasing both HIV infectiousness and HIV susceptibility. Thus, detection and treatment of individuals with STIs is an important part of an HIV control strategy. In summary, if the incidence/prevalence of STIs is high in a country, then there is the possibility of high rates of sexual transmission of HIV. Monitoring trends in STIs provides valuable insight into the likelihood of the importance of sexual transmission of HIV within a country, and is part of second generation surveillance. These trends also assist in assessing the impact of behavioural interventions, such as delaying sexual debut, reducing the number of sex partners and promoting condom use.

Clinical services offering STI care are an important access point for people at high risk for both STIs and HIV. Identifying people with STIs allows for not only the benefit of treating the STI, but for prevention education, HIV testing, identifying HIV-infected persons in need of care, and partner notification for STIs or HIV infection. Consequently, monitoring different components of STI prevention and control can also provide information on HIV prevention and control activities within a country.

STI syndromes

Reported cases	1996	1997	1998	1999	2000	2001	2002	2003	Incidence 2003

Comments:

Source:

Syphilis prevalence, women

Percent of blood samples taken from pregnat women aged 15-49 that test positive for syphilis - positive reaginic and treponemal test- during routine screening at selected antenatal clinics.

Year	Area	Rate	Range

Comments:

Source:

Estimated prevalence of curable STIs among female sex workers

- Chlamydia

Year	Area	Rate	Range

Comments:

Source:

- Gonorrhoea

Year	Area	Rate	Range

Comments:

Source:

Estimated prevalence of curable STIs among female sex workers (continued)

- Syphillis

Year	Area	Rate	Range

Comments:

Source:

- Trichomoniasis

Year	Area	Rate	Range

Comments:

Source:

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			
% of population with access to health services - urban			
% of population with access to health services - rural			
Contraceptive prevalence rate (%)	1990-1999	6	UNICEF/UNPOP
Percentage of contraceptive users using condoms			
% of births attended by skilled health personnel		not available	
% of 1-yr-old children fully immunized - DPT	2002	51	WHO/UNICEF
% of 1-yr-old children fully immunized - Measles	2001	78	WHO/UNICEF
% of ANC clinics where HIV testing is available			

Number of adults (15-49) with advanced HIV infection receiving ARV therapy as of June 2004

Adults on treatment

Number:

Source: WHO

Estimated number of adults (15-49) in need of treatment in 2003

Adults needing treatment

Number: 12,000

Source: WHO/UNAIDS

Coverage of HIV testing and counselling

Number of public and NGO services providing testing and counselling services.

Year	Area	N=

Comments:

Source:

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 asssessing changes over time as a result of prevention efforts. One of the main goals of the 2nd generation HIV serveillance 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, particulary with youg 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

Prevention indicator: Percentage of young people 15-24 who both correctly identify two ways of preventing the sexual transmission of HIV and who reject three misconceptions about HIV transmission.

Year	Male	Female

Comments:

Source:

Reported condom use at last higher risk sex (young people 15-24)

Prevention indicator: Proportion of young people reporting the use of a condom during sex with a non-regular partner.

Year	Male	Female

Comments: For this indicator only data will be shown if they were collected after 1998.

Source:

Age-mixing in sexual partnerships among youg women

The proportion of young women who have had sex in the last 12 months with a partner who is 10 or more years older than themselves.

Year	Area	Age group	Male	Female	All

Comments:

Source:

Reported non-regular sexual partnerships

Prevention indicator: Proportion of young people 15-24 having at least one sex partner other than a regular partner in the last 12 months.

Year	Male	Female

Comments:

Source:

Knowledge and behaviour (continued)

Ever used a condom

Percentage of people who ever used a condom.

Year	Area	Age group	Male	Female	All

Comments:

Source:

Adolescent pregnancy

Percentage of teenagers 15-19 who are mothers or pregnant with their first child.

Year	Percentage

Comments:

Source:

Age at first sexual experience

Proportion of 15-19 year olds who have had sex before age 15.

Year	Male	Female
1999	12	32

Comments:

Source: DHS

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. Thes activities should be monitored and have resources directed to problem aresas. The indicator below highlights the availability of condoms. However, even if condoms are widely available, this does not mean that individuals can or do acess 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

Comments:

Source:

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

Comments:

Source:

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

Comments:

Source:

Sources

Data presented in this Epidemiological Fact Sheet come from several 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.

AIDS Control Programme 1990 Sentinel Surveillance for HIV Infection in Liberia AIDS Control Programme, Monrovia, Liberia, April, report.

Barh, S. B. 1992 HIV/AIDS Surveillance Report, January - March, 1992 National AIDS Control Program.

Harris, J., J. Jones, D. Josiah 2002 HIV/AIDS Epidemiological Surveillance Report: January-December 2002 Epidemiological Surveillance Unit, National AIDS and STI Control Programme, Ministry of Health and Social Welfare, Republic of Liberia, unpublished document.

Liberia National AIDS Control Program 1993 Monthly HIV Surveillance Report: August 1 - 31, 1993 National AIDS Control Program, Monrovia, Liberia, report.

Liberia Ministry of Health and Social Welfare . .. 1997 Quartely HIV/AIDS/STD Epidemilogical Surveillance Report: December Unpublished report.

Liberia National AIDS and STD Control Programme 1999 HIV/AIDS/STD Epidemiological Surveillance Report Epidemiological Surveillance Unit, National AIDS and STD Control Programme, Ministry of Health and Social Welfare, Republic of Liberia, April, report.

Mintz, E., R. Peale, S. K. Mathur, et al. 1988 A Serologic Study of HIV Infection in Liberia Journal of Acquired Immune Deficiency Syndromes, vol. 1, no. 1, pp. 67-68.

U.S. Department of State 2000 Strengthening Our Response to the HIV/AIDS Pandemic Unclassified Cable, March, Monrovia, 001006.

Websites: **www.aids.africa.com**

Annex: HIV surveillance by site

Group	Area		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Pregnant women	Major urban areas	Monrovia						3.70	3.96										
	Outside major urban areas	24 sites																4.30	
		Not specified (1), Not specified						5.74						10.10					
		Various sites										0	0						
Sex workers																			
Injecting drug users																			
STI patients	Major urban areas	Monrovia							5.08										
Men having sex with men																			
Tuberculosis patients	Major urban areas	Monrovia	1.04						8.70										
	Outside major urban areas	24 sites																36.80	
		Not specified (1), Not specified		4.32	1.92	3.70								11.57					
		Not specified (2), Not specified												12.21					
		Various sites								3.60	9.70	14.20	61.10						