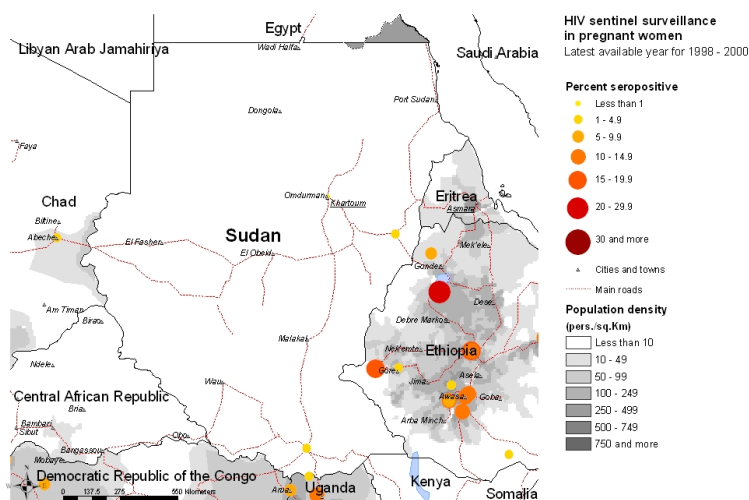


Estimated number of people needing antiretroviral therapy (0-49 years), 2005: **62 000**
 Antiretroviral therapy target declared by country: **20 000 by the end of 2005**



1. Demographic and socioeconomic data

	Date	Estimate	Source
Total population (millions)	2004	34.3	United Nations
Population in urban areas (%)	2005	40.7	United Nations
Life expectancy at birth (years)	2003	59	WHO
Gross domestic product per capita (US\$)	2002	394	Sudan Central Bureau of Statistics
Government budget spent on health care (%)	2002	6.3	WHO
Per capita expenditure on health (US\$)	2002	19	WHO
Human Development Index	2003	0.512	UNDP

^o= Percentage of young people 15-24 years who correctly identify two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy looking person can transmit HIV.

^{oo}=Percentage of young people 15-24 years reporting the use of a condom during sex with a non-regular partner in the last 12 months.

* In 2004, the Ministry of Health estimated that there were between 500 000 and 600 000 people living with HIV/AIDS in Sudan. HIV/AIDS estimates are currently under review. WHO/UNAIDS will provide updated HIV/AIDS estimates in May 2006.

** <2005 means that data exist but no update has been received since December 2004. This data should be interpreted cautiously, as they may reflect the situation in early 2004 or even 2003.

2. HIV indicators

	Date	Estimate	Source
Adult prevalence of HIV/AIDS (15-49 years)	2003	0.7 - 7.2%	WHO/UNAIDS
Estimated number of people living with HIV/AIDS (0-49 years)	2003	120 000 - 1 300 000*	WHO/UNAIDS
Reported number of people receiving antiretroviral therapy (0-49 years), 2005	<2005**	400	Sudan National AIDS Programme
Estimated number of people needing antiretroviral therapy (0-49 years), 2005	Dec 2005	62 000	WHO/UNAIDS
HIV testing and counselling sites: number of sites	Oct 2005	15	Sudan National AIDS Programme
HIV testing and counselling sites: number of people tested at all sites	Jun 2005	2 478	Sudan National AIDS Programme
Knowledge of HIV prevention methods (15-24 years)% - female ^o		NA	
Knowledge of HIV prevention methods (15-24 years)% - male ^o		NA	
Reported condom use at last higher risk sex (15-24 years)% - female ^{oo}		NA	
Reported condom use at last higher risk sex (15-24 years)% - male ^{oo}		NA	

3. Situation analysis

Epidemic level and trend and gender data

Sudan is experiencing the early stages of a generalized epidemic, and the predominant mode of transmission is heterosexual. WHO estimates indicate that, at the end of 2003, 220 000 women 15-49 years old and 21 000 children were living with HIV/AIDS. According to data from a sentinel survey conducted by the Sudanese National AIDS Control Programme in 2004, HIV prevalence was estimated to be 1.0% among pregnant women, 2.3% among people with tuberculosis and 1.9% among people with sexually transmitted infections. Estimates derived from the WHO/UNAIDS Meeting on HIV Estimations and Projections in 2003 indicate an average adult prevalence of HIV/AIDS of 2.3%. According to national sources, at the end of September 2004, 11 511 cases of HIV/AIDS had been reported to the Sudanese National AIDS Control Programme since the beginning of the epidemic. The overall HIV prevalence in southern Sudan is difficult to estimate, as the civil strife of the past 21 years has led to the collapse of infrastructure, creating pockets of relatively isolated areas along with widespread poverty and illiteracy. Limited epidemiological data show a low prevalence in southern Sudan, but after many years of war and its effects, this area is facing an environment that could result in an accelerated spread of HIV.

Major vulnerable and affected groups

Vulnerable groups include internally displaced people, refugees, sex workers, tea sellers, street children, truck drivers, prison inmates and police and armed forces personnel. Increased prevalence of HIV infection among these vulnerable groups is driven by unsafe sex related to long civil conflicts, displacement and high mobility and poverty. According to national estimates, the prevalence of HIV infection among vulnerable groups is 1% among antenatal care attendees, 10% among tea sellers in the southern district of Juba, 2% among prisoners, 1% among truck drivers, 1% among street children, 4% among sex workers and 4% among refugees. These figures represent data from government-controlled states in 2003. The existing data from southern Sudan show varying HIV prevalence rates: 1% in the general population in Rumbek (2003), 0.3% in a group of people with tuberculosis in Upper Nile (2001), 7% in the general population in Yambio (2000) and 3% in the general population in Yei County on the border (2003) with Uganda. The southern states are hardest hit with HIV/AIDS because of the lack of health services and health awareness, in addition to their proximity to high-prevalence neighbouring countries.

Policy on HIV testing and treatment

A ministerial decree endorsed by the government and stakeholders in March 2004 declared HIV/AIDS a priority disease and recommended that the national response strategy be based on simplified treatment and care guidelines in accordance with international standards. The decree also stated that, under approved HIV/AIDS grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria, services for voluntary testing and counselling and antiretroviral therapy and care for eligible people will be provided free of charge in the public sector. A policy on providing antiretroviral therapy was developed in support of the implementation of the Round 3 grant for HIV/AIDS from the Global Fund. The government is also committed to strengthening access to voluntary counselling and testing services.

Antiretroviral therapy: first-line drug regimen, cost per person per year



The cost of a first-line treatment regimen is US\$ 600 per person per year, using zidovudine + lamivudine + nevirapine. Discussions are underway with key suppliers on the possibility of reducing the prices of antiretroviral drugs as demand increases with treatment scale-up.

Assessment of overall health sector reponse and capacity

The Sudanese National AIDS Control Programme was established in 1987 and has been significantly strengthened in recent years. With strong political commitment from the highest levels, the Sudanese National AIDS Control Programme has developed a National Strategic Plan for 2004-2008 emphasizing multisectoral collaboration and community mobilization for a coordinated national response. In close collaboration with civil society, four parallel health service delivery systems work towards reducing the impact of HIV/AIDS: the public health system (primary health care structure, with 300 rural hospitals and referral structures at the state level); the health services of the police (including access to all 43 state prisons); the Armed Forces health services (also treating civilians); and the health services of nongovernmental organizations, working with many of the 4 million internally displaced people. Health system capacity is limited due to poor human resource capacity, a high burden of communicable diseases, low salaries, high staff turnover and uneven geographical distribution of financial and human resources. A national plan for scaling up access to treatment is being developed with support from WHO. Key strategic areas of the plan include fighting stigma and promoting a supportive environment for people living with HIV/AIDS; enhancing the quality and reach of voluntary counselling and testing services; developing human resource capacity; developing infrastructure to enable wider and equitable access to treatment; enhancing coordination with tuberculosis programmes; strengthening the drug procurement and supply management systems for drugs and diagnostics; mobilizing resources; establishing a monitoring and evaluation system for the treatment plan and integrating it with the national HIV/AIDS monitoring and evaluation plan; and reinforcing collaboration of partners from all sectors for scaling up treatment. Efforts are already underway to train health care workers. As of October 2005, 76 health care providers had been trained to deliver antiretroviral therapy in accordance with international standards. Two centres are reported to be currently providing antiretroviral therapy.

Critical issues and major challenges

In general, Sudan's health system suffers from a weak infrastructure in terms of human resources, health service coverage and funds. There are major disparities in the distribution of services and resources between and within states, between rural and urban areas and in states affected by conflict. The availability and accessibility of treatment and care are poor. Major bottlenecks for scaling up treatment and care include a lack of entry points and services for voluntary testing and counselling, weak health care services infrastructure and lack of human capacity in the public system and civil society. There have been delays in procuring HIV drugs and related supplies due to inadequate and parallel procurement and supply management systems. Stigma and discrimination remain present, even among health workers. Blood-banking facilities and regulations for blood testing do not exist in the south, which also suffers from a serious lack of health care personnel trained in antiretroviral therapy. The south is also experiencing a lack of access to key HIV/AIDS services, including access to information, distribution of condoms, voluntary counselling and testing, preventing the mother-to-child transmission of HIV and providing care for people living with HIV/AIDS, including antiretroviral therapy. The previous delay in finalizing the peace process and the conflict in Darfur are additional challenges to reaching those in need. With the signing of the peace agreement, up to an estimated 3.5 million refugees are expected to return to Sudan, resulting in an urgent need for prevention and care programmes specific to post-conflict situations. In particular, drug distribution mechanisms are needed to supply both remote areas and conflict areas.

4. Resource requirements and funds committed for scaling up treatment and prevention in 2004-2005

- WHO estimates that between US\$ 39.9 million and US\$ 64.6 million was required to support scaling up antiretroviral therapy to reach the WHO "3 by 5" treatment target of 21 500 people by the end of 2005.
- Sudan submitted a successful Round 3 proposal to the Global Fund to Fight AIDS, Tuberculosis and Malaria focusing on prevention and advocacy in the context of a multisectoral national response to HIV/AIDS. The grant was signed in January 2005, and a corresponding national plan of action has been developed. The total funding request was for US\$ 20.8 million, with two-year approved funding of US\$ 7.8 million. US\$ 3.2 million had been disbursed as of November 2005 for implementation of activities. The proposal does not cover the need to scale up antiretroviral therapy, except for US\$ 400 000 per year for treating 400 people at the originally expected price of US\$ 1000 per person per year. Given the potential for a drug price reduction, this funding is now expected to allow up to 1300 people to be treated per year. This proposal also envisages the establishment of 12 voluntary counselling and testing centres. Sudan also submitted a successful Global Fund Round 4 grant proposal in support of HIV/AIDS prevention and care for southern Sudan for total funding of US\$ 28.4 million and two-year approved funding of US\$ 8.8 million. The grant agreement was signed in June 2005. As of November 2005, a total of US\$ 3.7 million had been disbursed for implementation of activities. The plans are to expand access to voluntary counselling and testing, support capacity-building of health staff and provide antiretroviral therapy to 2592 people over five years.
- Government expenditure for HIV/AIDS is limited, with a total budget of US\$ 1.6 million for 2003. Some funds are also available from multilateral agencies, bilateral donors and international nongovernmental organizations.

5. Treatment and prevention coverage

- In 2003, WHO/UNAIDS estimated Sudan's total treatment need to be 43 000, and the WHO "3 by 5" treatment target was set at 21 500 people by the end of 2005 (based on 50% of estimated need). In 2005, WHO/UNAIDS estimated that the treatment need was 62 000 people. The government committed to providing treatment to 20 000 people by the end of 2005 and 40 000 people by the end of 2009.
- An estimated 400 people were receiving antiretroviral therapy at the end of 2004. This includes about 100 people receiving antiretroviral therapy from military hospitals (70 in Khartoum and 30 in Juba). Access to antiretroviral therapy services in southern Sudan is very limited. Efforts are underway to rehabilitate treatment and testing and counselling services in three cities - Juba, Wau and Malakal. Four additional sites are proposed to be established under the Global Fund Round 4 grant for the south.
- The Global Fund Round 4 grant is expected to provide antiretroviral therapy to 518 people by the end of year 2, which is targeted for June 2006.
- Voluntary counselling and testing services are expanding gradually. As of October 2005, 15 sites were providing voluntary counselling and testing services in the country. The number of people accessing voluntary counselling and testing services increased from about 900 people in September 2004 to 2478 people in June 2005.
- Services for the prevention of mother-to-child transmission are available at five sites, and 1523 women had accessed these services as of October 2005. Coverage of prevention of mother-to-child transmission services remains limited.

6. Implementation partners involved in scaling up treatment and prevention

Leadership and management

The Ministry of Health and the Sudanese National AIDS Control Programme coordinate and manage the overall HIV/AIDS programme, including the provision of antiretroviral therapy. The Ministry of Health also coordinates the legal and policy framework, programme evaluation and planning of human resources. WHO, UNICEF, UNDP and nongovernmental organizations contribute to the process of strengthening the health system. UNAIDS provides support for strategic planning, resource mobilization and coordination activities. The United Nations Theme Group on HIV/AIDS in Sudan plays a role in coordinating partner efforts. Members include United Nations agencies, national partners and representatives of international and national nongovernmental organizations. The Sudan AIDS Network represents the national nongovernmental organizations working on HIV/AIDS. Thematic technical working groups are established as necessary for work on technical issues. UNDP supports a Leadership Development Programme, focusing on capacity and leadership development at the national, state and community levels for scaling up antiretroviral therapy.

Service delivery

The Ministry of Health provides leadership in delivering HIV/AIDS prevention, care and treatment services. The Ministry of Defence and the Ministry of the Interior collaborate closely with the Ministry of Health in providing testing and counselling and in managing people living with HIV/AIDS at entry points. The Ministry of Health and partner nongovernmental organizations take the lead in planning and implementing activities related to capacity-building and site-level training. WHO and the German Gesellschaft für Technische Zusammenarbeit (GTZ) have assisted in establishing the Knowledge Hub for the Care and Treatment of HIV/AIDS in the Eastern Mediterranean for supporting capacity-building activities at the national and state levels. International nongovernmental organizations such as Family Health International and private-sector agencies such as John Snow, Inc. are involved in prevention, care and support activities. The Sudanese National AIDS Control Programme, the Central Medical Supplies and the General Directorate of Pharmacy of the Ministry of Health undertake procurement and supply management activities. Health services in southern Sudan are largely supported and run by nongovernmental organizations with assistance from the United States Agency for International Development, the Norwegian Agency for Development Cooperation and the European Union.

Community mobilization

Civil society groups increasingly collaborate with the Ministry of Health and the Sudanese National AIDS Control Programme in activities related to programme communication, capacity-building for people living with HIV/AIDS and treatment adherence and psychosocial support. The United Nations Population Fund, UNICEF and WHO provide support for integrating HIV/AIDS into school curricula and for social mobilization activities. UNDP, the Office of the United Nations High Commissioner for Refugees, the World Food Programme and the United Nations Industrial Development Organization support community mobilization efforts by building partnerships with nongovernmental organizations and providing support to people living with HIV/AIDS. About 50 national nongovernmental organizations are engaged in HIV/AIDS activities, coordinated by the Sudan AIDS Network. They play an important role in reaching out to vulnerable population groups. Local nongovernmental organizations such as the Sudan Council of Churches provide counselling, home care and support to people living with HIV/AIDS. UNAIDS supports advocacy efforts and activities to involve and mobilize people living with HIV/AIDS.

Strategic information

The Ministry of Health, with the support of WHO, provides leadership and management of strategic information activities, including systems for monitoring antiretroviral drug resistance, patient tracking and operational research. The United States Centers for Disease Control and Prevention, United Nations Population Fund and UNICEF also support epidemiological surveillance activities.

7. Staffing input for scaling up HIV treatment and prevention

WHO's response so far

- Conducting a series of missions to assess the HIV/AIDS situation and to support the development of a training course and materials on HIV/AIDS programme management
- Providing technical assistance for establishing the Knowledge Hub for the Care and Treatment of HIV/AIDS in the Eastern Mediterranean to support regional HIV/AIDS capacity-building with the support of WHO and the German Gesellschaft für Technische Zusammenarbeit (GTZ), supporting the development of a state-level HIV/AIDS capacity-building work plan and providing training for state-level programme managers via the Knowledge Hub
- Completing the national adaptation of the WHO Integrated Management of Adult and Adolescent Illness (IMAI) strategy and training a core group of trainers with expert patients, nurses and physicians, including organizing four weeks of practical training for Sudanese health care workers at sites delivering antiretroviral therapy, counselling and related treatment and care services in Uganda
- Supporting the development of a national operational plan for scaling up antiretroviral therapy
- Supporting the rehabilitation of centres for voluntary counselling and testing and antiretroviral therapy services
- Providing support to the Ministry of Health in developing the Global Fund Round 4 proposal and in implementing the Round 3 and Round 4 grants
- Providing support for national efforts to mobilize resources
- Conducting an assessment of the national procurement and supply management systems and developing a plan to strengthen national capacity in procurement and supply management
- Recruiting a National Programme Officer to assist the Ministry of Health in monitoring drug resistance related to HIV, tuberculosis and malaria
- Establishing an HIV/AIDS country team to support the government and other partners in scaling up antiretroviral therapy

Key areas for WHO support in the future

- Supporting the development of national standards for HIV/AIDS treatment and care for different levels of the health care system, including national guidelines on antiretroviral therapy
- Providing ongoing support for training various levels of health workers to deliver a comprehensive package of HIV/AIDS services
- Providing support for finalizing and implementing the national operational plan for scaling up antiretroviral therapy
- Providing support for improving drug procurement and supply management systems
- Providing support for efforts to monitor drug resistance
- Providing support for strengthening blood safety

Staffing input for scaling up HIV treatment and prevention

- Current HIV staffing in the WHO Country Office includes: an international HIV/AIDS Country Officer; an HIV/AIDS National Programme Officer; and a National Programme Officer supported by the Norwegian Agency for Development Cooperation for coordinating activities related to drug resistance monitoring for HIV, tuberculosis and malaria. A National Programme Officer for southern Sudan is being recruited. Additional Country Office staffing needs identified include one National Programme Officer for national capacity-building issues related to the Knowledge Hub for the Care and Treatment of HIV/AIDS in the Eastern Mediterranean as well as a National Programme Officer for each of the four regions in the country to link with the HIV/AIDS Country Officer.