

# AIDS in NEBRASKA & the World

## AIDS 101

**What is AIDS?**  
AIDS is a virus that attacks, mutates and destroys the body's defense system against disease, leaving a person unprotected against infection. There is no known cure for AIDS.

**Where did AIDS come from?**  
The AIDS virus has been detected in blood samples from Africa taken in the 1950s. Scientists estimate that the virus originated in eastern Zaire near the northern tip of Lake Tanganyika. The actual genesis of the virus is still unknown. One theory suggests that the virus was transferred to humans from the green monkey. People in Africa live in close contact with this monkey because it tends to forage in garbage and tends to bite or scratch when people try to chase it away. People in this region also frequently eat these monkeys.

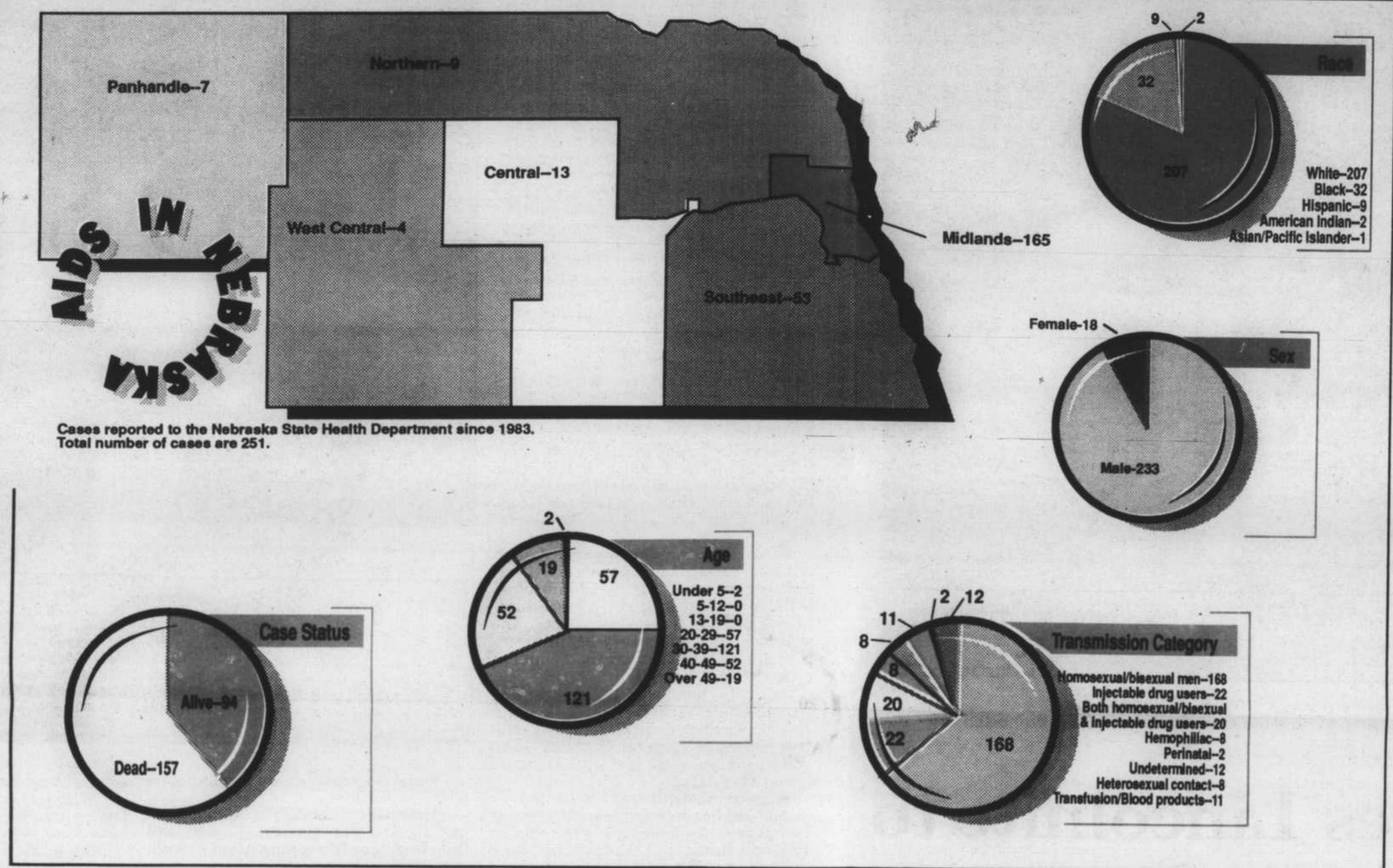
**Where has AIDS spread?**  
AIDS now is found in almost every country of the world. It appears to have spread from Zaire to the rest of Africa in the early 1970s and from Africa to Haiti by the end of the decade. From Haiti the virus was spread to the United States and Europe.

**How is AIDS spread?**  
Any transfer of bodily fluids can spread the AIDS virus. HIV has been found in blood, semen, breast milk and vaginal secretions. The virus can be transferred by vaginal or anal sex, contaminated needles (including tattooing) and breast feeding. There have been no documented cases of transmission through casual contact such as coughing, sneezing, shaking hands drinking from water fountains, using public toilets, kissing, crying or eating food prepared by someone with HIV or AIDS.

**How does AIDS kill?**  
AIDS kills a person by gradually destroying that person's immune system and leaving the body open to infections. Because the body has no defense against the infections, they become fatal.

**Can AIDS be called a plague?**  
In most countries of the world, AIDS is growing exponentially, i.e. during each unit of time the incidence of the disease is doubling, 1, 2, 4, 8, 16, 32. In doing this, the incidence of the disease was so minuscule when it first occurred within a country that it often was overlooked. The disease then spread rapidly and became a major problem before governments were prepared to deal with it. Because of this, several prominent researchers have termed AIDS a modern plague.

**When does a person who is HIV positive develop AIDS?**  
AIDS is a progressive disease. A person with HIV can live for up to 10 years before developing AIDS, depending on diet, physical condition and mental attitude. The newest definition describes AIDS as when a person's T-4 cell count falls below 200. A normal count is about 1,500. T-4 cells are the cells that fight infection and are what the HIV virus attacks.



Graphics by Scott Maurer

## Agency working to redefine AIDS

From Staff Reports

By redefining AIDS, the federal Centers for Disease Control could speed up prevention, treatment and medical benefits for people with HIV/AIDS, a CDC spokesman said.

Chuck Fallis, spokesman for the CDC, said an AIDS definition change, scheduled to take place in April, would give the CDC a better idea of the scope of the epidemic.

The current definition of AIDS requires the presence of an AIDS indicator condition such as wasting syndrome or Kaposi's Sarcoma before a physician can make an AIDS diagnosis.

"There are many people who are impaired," he said, "but don't have immune system problems."

The new definition would allow physicians to base their diagnoses on an individual's CD-4 lymphocyte, or T-4 cell, counts. The T-4 cell is the cell that helps the body fight infection.

AIDS would be diagnosed if an individual's count was 200 or less. A healthy person's count is between 1,000 and 1,500.

Preparation for the increased caseload was causing some delay in making the definition change, Fallis said.

Fallis said he could not estimate how many more AIDS cases there would be after the change.

### HIV ANTIBODY TESTING SITES

<b>Omaha:</b> Nebraska AIDS Project 3624 Leavenworth St. (402) 342-4233	Multicultural Awareness Center 1100 Military Rd. (402) 474-5231	<b>Gering:</b> Scotts Bluff Co. Health Dept. County Administration Bldg. (308) 635-3866	<b>Grand Island:</b> Grand Island/Hall Co. Health Dept. 105 East 1st St. (308) 381-5175
Charles Drew Health Center 2201 North 30th St. (402) 453-1433	<b>North Platte:</b> Nebraska Dept. of Health 200 South Silber St. (308) 535-8133	Scotts Bluff County Jail County Administration Bldg. (308) 436-7300	St. Francis Alcoholism & Drug Treatment Center 640 N. Darr Ave. (308) 389-5427
Douglas County Health Dept. 1201 South 42nd St. (402) 444-6875	<b>Kearney:</b> Nebraska Dept. of Health 3423 2nd Ave. (308) 234-8709	Homestead Halfway House (Women) 513 W. 24th (308) 635-2731 (Men) 1624 Avenue A (308) 632-7484	Hall County Jail 131 South Locust (308) 381-5200
Equilibria Medical Center 544 South 24th St. (402) 345-2252	<b>Lincoln:</b> Lincoln-Lancaster Co. Health Dept. 2200 St. Mary's Ave. (402) 471 8065	Eppley Treatment Center Regional West Medical Center 4021 Avenue B-South Unit (308) 635-3866	STD Clinic 217 West 2nd St. (308) 384-7625

**For more information on HIV or AIDS, please contact:**  
HIV/AIDS Program  
Nebraska Department of Health  
P.O. Box 95007  
Lincoln, Neb. 68509-5007  
(402) 471-2337

## New AIDS virus spreading to U.S.

SEATTLE (AP) — Only a few U.S. blood centers are testing for a rare but spreading strain of the AIDS virus despite fears that it could slip into the nation's blood supply.

More than 50,000 people in Europe, Africa, India, the former Soviet Union, and North and South America are infected with human immunodeficiency virus Type 2, the second virus known to cause AIDS, according to the World Health Organization. HIV-2 has been identified in at least 37 countries.

The mutation is widespread in Africa, where it primarily is spread heterosexually and has had an incubation period of up to 19 years. At least 43 cases of HIV-2 have been identified in the United States and Canada. Though rare, many experts say there is reason to believe HIV-2 will spread.

"HIV-2 could be a bigger heterosexual transmission threat" than HIV-1, the first AIDS virus discovered, said Michael Wandell, an epidemiologist and director of regulatory and clinical affairs for Genetic Systems. The Redmond-based company is the only federally licensed maker of HIV-2 tests.

While U.S. blood centers are required to test donated blood for HIV-1, testing for the rarer HIV-2 is not required. Experts disagree whether HIV-1 tests always will detect HIV-2.

The federal Food and Drug Commission is evaluating a September recommendation by its Blood Products Advisory Committee that mandatory universal HIV-2 testing be adopted nationwide by June 1.

Many HIV-1 tests now used are cross-reactive with HIV-2, and the committee's recommendation is being considered "purely for precautionary reasons," FDA spokesman Brad Stone said. "There's no reason to believe... that HIV-2 represents a significant risk to the blood supply."

The American Red Cross, the federal Centers for Disease Control and the FDA in 1990 said HIV-2 was too rare to spend time and money on testing. The CDC estimated testing every blood donor for HIV-2 would cost \$60 million annually.

"In view of the extremely low prevalence of HIV-2 infections in the U.S. population, there appears to be no public health need at this time to screen donors of blood or source plasma for antibodies to HIV-2 with this test," the FDA told blood centers.

Fewer than 20 of the nation's 2,400 blood banks and plasma centers — representing 5 percent, by volume, of all the blood collected — test for HIV-2, according to Donna DeLong, Genetic Systems' marketing and business development director.

"I think it is very possible that HIV-2-infected people are donating today in the U.S. and that blood has the potential to slip through and be transfused into an unsuspecting person," Wandell said.

A person with either strain of HIV may not show detectable signs of infection for up to six months. The CDC found that half of the reported HIV-2 cases in the United States in 1989 tested negative for HIV-1.

A 1991 study by Richard T. Schumacher, of Boston Biomedica Inc., with Portugal's National Health Institute revealed FDA-licensed HIV-1 tests detected HIV-2 in only 8 percent to 62 percent of specimens.

"We have an opportunity to prevent a public health problem. It might be in the blood supply. Why wait?" asked National Hemophilia Foundation Executive Director Alan P. Brownstein.

"When HIV-1 came to the U.S., we didn't know what it was," Brownstein said. "Now we see HIV-2 coming our way... Haven't we learned?"

## AIDS Glossary of Terms

**ADC** - AIDS dementia complex.  
**AIDS** - Acquired Immune Deficiency Syndrome, and impairment of the body's ability to fight disease.  
**AIC** - AIDS-related complex, precursor symptoms to AIDS.  
**AZT** - Now called Zidovudine or Retrovir, an antiviral medication taken by some people with AIDS.  
**Blood count** - A laboratory test to determine the number of red cells, white cells and platelets in the blood.  
**CD-4 cells** - Cells that acts as a dock for HIV.  
**CDC** - United States Center for Disease Control, which handles all infectious diseases.  
**Epidemic** - A disease that affects many people in a particular area at the same time.  
**GLSA** - Gay and Lesbian Student Association, student group on the UNL campus.  
**HIV** - Human Immunodeficiency Virus, a name for the AIDS virus, created as a compromise between the different names for the virus. Several types of HIV have been discovered, but the most common is HIV-1.  
**Kaposi's Sarcoma** - Rare cancer of the skin found in about one-third of AIDS patients.  
**Names Quilt** - A touring quilt made of panels created in remembrance of people who have died from AIDS.  
**NAP** - Nebraska AIDS Project, a non-profit AIDS education and support services agency.  
**PFLAG** - Parents and Friends of Lesbians and Gays, a support group.  
**Opportunistic infection** - What AIDS patients are susceptible to, infection by a micro-organism that may be common in the environment but causes disease only in a host with a poorly functioning immune system.  
**PWA** - People with AIDS, a name created because of the stigma associated with being called an AIDS patient or AIDS victim, when one was neither of the two.  
**SSD** - Supplementary Security Disability, a federal program to provide payments to the disabled who have been employed and have paid into Social Security.  
**SSI** - Supplementary Security Income, a federal program to provide payments to the indigent.  
**T-helper cell** - Same as CD-4 cells.  
**T-4 cells** - Same as CD-4 cells.  
**T-cells** - White blood cells, including both T-helper and T-suppressor cells, an important part of the immune system.  
**Virus** - A microscopic noncellular organism that depends on a living host cell for survival and causes many diseases such as the common cold, measles, mumps and chicken pox.

# HISTORY OF AIDS TIMELINE

1959: The first detection of HIV in Zaire (now DRC) according to two standard blood tests of stored blood conducted in 1981.

1960: First case of HIV, according to a rough estimate based on genetic sequencing calculations by Gerald Myers of Los Alamos National Laboratory, New Mexico.

1962: A new, fatal disease - later identified as AIDS - begins to spread among American homosexual men.

1963: An AIDS-like disease is found in Illinois, California and Massachusetts, but is later identified as the common cold. It turns out, however, that without certain work systems, 1963.

1965: The first report of HIV being removed from the blood supply in the District of Columbia.

1967: The "gay panic" steps found with respect to the AIDS virus.

1968: The AIDS virus isolated by Luc Montagnier in Paris.

1971: Some strains of human immunodeficiency virus (HIV) are found to be identical to the form of AIDS occurring in Africa. The speculation is that the virus was introduced to HIV-infected blood donors.