

Public Health Update

December 2007

Take the Lead- Stop AIDS World AIDS Day, December 1, 2007 By Leslie Smith, MPH

December 1st is World AIDS Day! “Take the Lead- Stop AIDS”

World AIDS Day, held on December 1st each year, is an occasion for people around the world to raise awareness about the international health threat presented by HIV/AIDS. For more information about this event and HIV/AIDS, please visit: www.tchd.org/hivaids.htm

Epidemiology

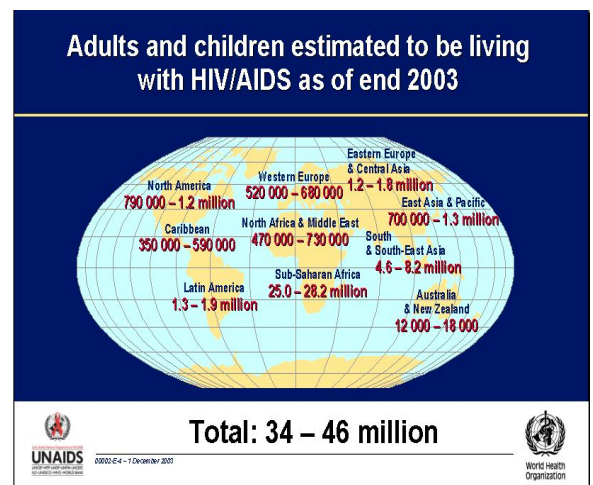
Human immunodeficiency virus (HIV) is the virus that causes acquired immunodeficiency syndrome (AIDS). HIV attacks the immune system. By damaging immune cells, HIV progressively destroys the body's ability to fight infections and certain cancers.

HIV was first identified in the U.S. in 1981 and has since become a major worldwide epidemic. It has been linked to unprotected sex and injection drug use. During the early 1980s, as many as 150,000 people became infected with HIV each year. By the early 1990s, through prevention efforts, this rate had dropped to about 40,000 each year, where it remains today. The number of AIDS cases began to fall dramatically in 1996, when new drugs became available for treatment. Today, more people than ever before are living with HIV and AIDS. According to the Centers for Disease Control and Prevention (CDC), more than 1,000,000 Americans may be infected with HIV; one-quarter of whom are unaware of their infection. Not knowing puts them and others at risk.

Global HIV/AIDS Trends

The global AIDS epidemic continues to grow and there is concerning evidence that some countries are seeing a resurgence in new HIV infection rates which were previously stable or declining. However, declines in infection rates are also being observed in some countries, as well as positive trends in sexual behaviors.

According to the latest UNAIDS/WHO 2007 AIDS Epidemic Update, the percentage of people living with HIV has leveled off and the number of new infections has fallen, in part as a result of HIV prevention programs. In 2007, 33.2 million people worldwide were estimated to be living with HIV, 2.5 million people became newly infected and 2.1 million people died of AIDS. Sub-Saharan Africa is most severely affected, with an estimated 22.5 million people with HIV, or 68% of the global total, living there.



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Trends in HIV/AIDS in Colorado

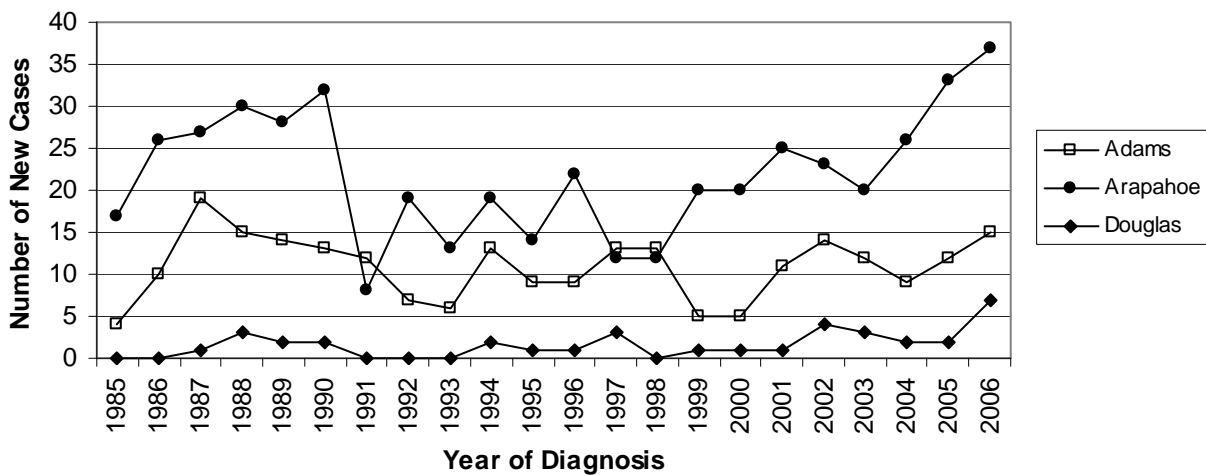
In Colorado, reporting of HIV/AIDS began in 1985, and as of June 30, 2007, there have been 6,182 reported cases of HIV infection and 8,845 cases of AIDS (see Table 1). Of those cases, males make up 90% of the HIV cases and 91% of the AIDS cases reported. Colorado’s HIV/AIDS epidemic is driven by sexual exposure, primarily among men who have sex with men (MSM), which continues to be the most significant risk group for males. HIV/AIDS continues to be geographically centered in the Front Range population, with the exception of injection drug users (IDUs) who appear more likely than other risk groups to live in rural areas. Additionally, the number of women living with HIV in Colorado has increased, but since the advent of new HIV treatment drugs, perinatal transmission has decreased dramatically.

Table 1: Cumulative HIV/AIDS Cases Reported in Adams, Arapahoe and Douglas Counties and Colorado, 1985 through June 30, 2007

County	HIV Cases (Non-AIDS)	AIDS Cases	Total Deaths
Adams County	243	418	236
Arapahoe County	521	727	363
Douglas County	40	68	27
State of Colorado	6182	8845	4968

Adams, Arapahoe and Douglas Counties have observed an increase in newly diagnosed HIV cases from 2004 through 2006 (see Figure 1). This rise may be attributed to more individuals getting tested. However, the number of new HIV cases does not necessarily reflect trends of HIV incidence (i.e., new infections) because some persons were infected recently and other were infected sometime in the past. From October 1, 2006-September 30, 2007, there were a total of 79 newly reported diagnosed HIV (non-AIDS) cases in Adams, Arapahoe and Douglas Counties (Adams, 16; Arapahoe, 58; and Douglas, 5). Males accounted for 75% (n=59) of these reported cases. Non-Hispanic Whites made up 57% (n=45) of the reported cases, followed by 27% (n=21) non-Hispanic Black reported cases. Over half (60%) of the reported cases were in the 30-49 age group at the time of diagnosis (37% among 30-39 year-olds and 23% among 40-49 year-olds).

Figure 1: Newly Diagnosed HIV (Non-AIDS) Cases by Year of Diagnosis in Adams, Arapahoe and Douglas Counties, 1985-1996.



Priority Groups for HIV Prevention in the United States

The HIV/AIDS epidemic is growing most rapidly among minority populations and is a leading killer of African-American males ages 25 to 44. AIDS affects nearly seven times more African-Americans and three times more Hispanics than Whites. In recent years, an increasing number of African-American women and children are being affected by HIV/AIDS.

African-Americans

Of all racial and ethnic groups in the U.S., HIV/AIDS have hit African-Americans the hardest. Even though African-Americans account for about 13% of the U.S. population, they account for about half (49%) of the people who get HIV and AIDS. In Colorado, in 2003, the HIV rate for African-Americans (20.6 per 100,000) was nearly four times the rate for Whites. African-Americans face many barriers, which may put them at a greater risk for infection. These include poverty, sexually transmitted diseases (STDs), and stigma (negative attitudes, beliefs, and actions directed at people living with HIV/AIDS or directed at people who do things that might put them at risk for HIV). In addition, African-Americans with AIDS often don't live as long as people of other races and ethnic groups with AIDS.

Hispanics/Latinos

The HIV/AIDS epidemic is a serious threat to the Hispanic community. In addition to being a population seriously affected by HIV, Hispanics continue to face challenges in accessing health care, prevention services, and HIV treatment. In 2004, HIV/AIDS was the fourth leading cause of death among Hispanic men and women aged 35 to 44. For Hispanic men living with HIV/AIDS, the most common exposures were sexual contact with other men, injection drug use, and high-risk heterosexual contact. For Hispanic women living with HIV/AIDS, the most common exposures were high-risk heterosexual contact and injection drug use.

Females

For women of all races and ethnicities, the largest number of HIV/AIDS diagnoses during recent years was for women aged 15–39. Today, women account for more than one quarter of all new HIV/AIDS diagnoses. If new HIV infections continue at their current rate worldwide, women with HIV may soon outnumber men with HIV. In some respects HIV and AIDS affect women in almost the same way they affect men. For example, women of color (especially African-American women) are especially affected and younger women are more likely than older women to get HIV. Women most commonly are infected with HIV by having sex with a man who has HIV and sharing injection drug works (needles, syringes, etc.) used by someone with HIV.

Men Who Have Sex with Men (MSM)

The term *men who have sex with men* refers to all men who have sex with other men, regardless of how they identify themselves (gay, bisexual, or heterosexual). The epidemic in Colorado continues to consist primarily of MSM and MSM/IDU (men who have sex with men/injection drug use), who comprise over 75% of cumulative cases of HIV and AIDS.

Injection Drug Users (IDU)

A well-known route of HIV transmission is from sharing syringes and other equipment for injection drug use. Racial and ethnic minority populations in the U.S. are most heavily affected by IDU-associated AIDS. In 2000, IDU-associated AIDS accounted for 26% of all AIDS cases among African-Americans and 31% among Hispanics, compared with 19% of all cases among Whites. IDU-associated AIDS accounts for a larger proportion of cases among women than among men. Since the epidemic began, 57% of all AIDS cases among women have been attributed to injection drug use or sex with partners who inject drugs, compared with 31% of cases among men. Non-injection drugs (such as "crack" cocaine and methamphetamines) also contribute to the spread of the epidemic when users trade sex for drugs or money, or when they engage in risky sexual behaviors that they might not engage in when sober.

Transmission and Risk Factors

HIV is not transmitted through day-to-day activities such as shaking hands, hugging, or a casual kiss. HIV is primarily found in the blood, semen, or vaginal fluid of an infected person. The virus is transmitted in 3 main ways: 1) Having sex (anal, vaginal, or oral) with someone infected with HIV; 2) Sharing needles and syringes with someone infected with HIV; and 3) Being exposed (fetus or infant) to HIV before or during birth or through breast feeding. HIV also can be transmitted through blood infected with HIV. However, since 1985, all donated blood in the U.S. has been tested for HIV. Therefore, the risk for HIV infection through the transfusion of blood or blood products is extremely low.

Individuals may be at increased risk for infection if they have:

- Injected drugs or steroids, using shared equipment (such as needles, syringes, cotton, water)
- Had unprotected (without condoms) vaginal, anal, or oral sex with MSM, multiple partners, or anonymous partners
- Exchanged sex for drugs or money
- Been given a diagnosis of, or been treated for, hepatitis, tuberculosis (TB), or an STD such as syphilis
- Received a blood transfusion or clotting factor during 1978–1985
- Had unprotected sex with someone who has any of the risk factors listed above

Signs and Symptoms

The only way for someone to know their HIV status is to be tested. Many infected people do not have symptoms for several years after becoming infected. Infected individuals may have an initial flu-like illness (may include fever, headache, tiredness and enlarged lymph nodes) within a month or two after exposure to the virus. These symptoms usually disappear within a week to a month and are often mistaken for other viral infections. During this period, individuals are very infectious, and HIV is present in large quantities in genital fluids.

More persistent or severe symptoms may not appear for 10 years or more after HIV first enters the body in adults, or within 2 years in children born with HIV infection. This period of asymptomatic infection varies greatly in each person. Even during the asymptomatic period, the virus is actively multiplying and killing CD4 positive T (CD4+) cells of the immune system. As the immune system becomes debilitated, opportunistic infections occur.

What can Health Care Providers do to identify and prevent HIV?

- **Test for HIV:** CDC now recommends testing for everyone aged 13-64.
- **Screen for high-risk behaviors:** Health care providers should remember to ask about sexual and drug use history among their 13-64 year old patients
- **Educate patients:** Health care providers should remember to offer education on HIV prevention, particularly to patients with high-risk behaviors

Testing/Diagnosis

Most HIV tests detect anti-HIV antibodies rather than the HIV virus itself. There are many different kinds of HIV tests, including rapid tests and home test kits. All HIV tests approved by the U.S. government are good at detecting HIV. A testing site can be located by visiting the CDC HIV testing database www.hivtest.org or by calling 1-800-CDC-INFO (1-800-232-4636) 24 hours/day. Personal information does not have to be given to use these services to find a testing site.

Testing Recommendations

The latest CDC recommendations on HIV testing include testing for everyone aged 13-64. As healthcare providers develop the capacity to implement these new guidelines, they should still continue to screen high risk groups. Identifying high risk groups involves getting both a detailed sexual and drug history. The new recommendations can be found at www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm.

These recommendations do not modify existing guidelines concerning HIV counseling, testing, and referral for persons at high risk for HIV who seek or receive HIV testing in nonclinical settings (e.g., community-based organizations, outreach settings, or mobile vans). The objectives of these new recommendations are to increase HIV screening of patients in health-care settings; foster earlier detection of HIV infection; identify and counsel persons with unrecognized HIV infection and link them to clinical and prevention services; and further reduce perinatal transmission of HIV in the United States. These revised recommendations update previous recommendations for HIV testing in health-care settings and for screening of pregnant women.

Treatment

Antiretroviral Treatment

Treatment has improved survival rates dramatically, especially since the introduction of highly active antiretroviral therapy (HAART) in 1995. Antiretroviral treatment guidelines for adult, adolescent and pediatric cases are available on the U.S. Department of Health and Human Services AIDSinfo website: <http://aidsinfo.nih.gov/Guidelines/Default.aspx?MenuItem=Guidelines&Search=On>.

Vaccine Trials and Other Clinical Trials

Preventive vaccines are intended to prevent HIV infection in HIV-negative individuals. Therapeutic vaccines are intended to improve the immune system of HIV-positive individuals. There are currently no HIV/AIDS vaccines approved for use; however, many are in clinical trial studies.

To locate a vaccine clinical trial, visit the U.S. Department of Health and Human Services AIDSinfo website: <http://aidsinfo.nih.gov/Vaccines/Default.aspx?MenuItem=Vaccines>.

To locate other trials studying HIV/AIDS, visit the U.S. Department of Health and Human Services AIDSinfo website: <http://aidsinfo.nih.gov/ClinicalTrials/Default.aspx?MenuItem=ClinicalTrials>.

Prevention/Education

Prevention is the best strategy for reducing the human and economic toll from HIV/AIDS. CDC's key prevention strategies include: 1) HIV prevention counseling, testing and referral services; 2) Partner notification, including partner counseling and referral services with strong linkages to prevention and treatment/care services; 3) Prevention for high-risk populations –including HIV-infected persons; 4) Health education and risk reduction activities; 5) Perinatal transmission prevention and 6) School-based HIV prevention.

Reporting requirements

HIV/AIDS is a 7-day notifiable disease for physicians and must be reported to the Colorado Department of Public Health and Environment (CDPHE) at 303-692-2700 or to Tri-County Health Department at 303-220-9200. Laboratories are required to report tests that indicate HIV/AIDS infection within 7 days www.cdphe.state.co.us/dc/Lablist.pdf. A complete list of notifiable diseases by physicians and healthcare providers in Colorado is available at: www.cdphe.state.co.us/dc/Medlist.pdf.

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For more information please contact your state or local health department:

Tri-County Health Department
(303) 220-9200/ after hours pager (303) 461-2342 www.tchd.org

Colorado Department of Public Health and Environment HIV/STD Program
(303) 692-2700/ after hours pager (303) 370-9395 www.cdphe.state.co.us/dc/HIVandSTD/index.html

Other resources

Centers for Disease Control and Prevention (CDC) www.cdc.gov/hiv/
Colorado AIDS Project www.coloradoaidsproject.org

References

Centers for Disease Control and Prevention. 10/18/2007 www.cdc.gov/hiv/topics/basic/index.htm

Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report: Cases of HIV infection and AIDS in the United States and Dependent Areas, 2005. Vol. 17, Revised June 2007.
www.cdc.gov/hiv/topics/surveillance/resources/reports/2005report/

Colorado Department of Public Health and Environment. Integrated Epidemiologic Profile of HIV and AIDS Prevention and Care Planning reported through June 2004.
www.cdphe.state.co.us/dc/HIVandSTD/HIV_STDSurv/profile3.pdf

U.S. Dept of Health and Human Services. HIV Infection and AIDS: An Overview. October 2007.
www.niaid.nih.gov/factsheets/hivinf.htm

United Nations AIDS/World Health Organization. 2007 AIDS Epidemic Update.
http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf

Selected Diseases by Date of Report Adams, Arapahoe, and Douglas Counties 2007 Year-to-date Through October

