

# Lifelines



from the National Cancer Institute

## **Cancer among Minorities with HIV/AIDS**

*By the National Cancer Institute*

Racial and ethnic minorities in America have been hit harder than white Americans by the HIV/AIDS epidemic—they make up about one-third of the population but two-thirds of all cases. In 2009, African Americans made up 14 percent of the population but accounted for 44 percent of all new HIV infections. And Hispanics made up 16 percent of the population but 20 percent of new cases in 2009.

All patients infected with HIV, including racial and ethnic minorities, are benefiting from new, more effective therapies developed over the last 15 years. But as patients are living longer, the distribution of cancer has shifted dramatically. While the types of cancer that have been typically associated with AIDS progression are on the decline in the HIV/AIDS population, other types of cancer are now on the rise.

### **A Tale of Two Diseases**

Cancer and HIV/AIDS has always been “a tale of two diseases,” according to researchers at the NCI. Infection with HIV not only weakens the immune system, leading to AIDS and increasing the risk of opportunistic infections, but also increases the risk of several types of cancer.

One of these cancers is Kaposi sarcoma, or KS. Before the HIV/AIDS epidemic, KS was extremely rare, but with the onset of the epidemic it became more common. Indeed, the increase in KS helped alert doctors to the epidemic in the first place. KS is now one of three cancers, along with non-Hodgkin lymphoma and invasive cervical cancer, whose presence is part of the criteria for defining whether a person infected with HIV has developed AIDS. In 1995, 51,414 people died of AIDS, and 34,000 people with HIV had developed one of these signature cancers in the previous five years.

Since then, “progress against HIV infection and AIDS, diagnoses once perceived as an automatic death sentence, has been striking,” said Dr. Robert Wiltout, director of NCI’s Center for Cancer Research. In 2005, AIDS deaths numbered about 17,000, a reduction of nearly 65 percent from a decade earlier. The incidence of “AIDS-defining” cancers also dropped over this period, from 34,000 in 1991 through 1995 down to about 10,000 between 2001 and 2005.

Thanks to better treatments, four times as many people were living with AIDS in 2005 as in 1991. Also, as people with HIV have begun living longer, they face an increased risk of other types of cancer, for several reasons: They often have more exposure to other viruses or agents that cause cancer, their immune systems are somewhat weakened, and the general risk of cancer increases with age.

The most common non-AIDS-defining cancers in patients with HIV are anal, lung, and liver cancers and Hodgkin lymphoma. These four cancers made up nearly half of all non-AIDS-defining cancers diagnosed in this population from 2001 through 2005. Higher risks for these cancers reflect co-infections such as human papillomavirus (HPV), hepatitis B and C viruses, and Epstein-Barr virus, as well as higher smoking rates in the HIV/AIDS population. Thus, although fewer people now die of AIDS, cancer is emerging as an important cause of death for the HIV-infected population.

### **Preventing cancer**

Preventing cancers that are increasing among the HIV-infected population is now a major focus of people who treat those with HIV. This effort includes trying to combat viral co-infections that cause cancer through prevention, screening, and treatment and avoiding exposure to other risk factors, such as smoking. Both men and women who are infected with HIV should discuss screening options for cancer with their medical providers. The risk of lung cancer can be reduced by quitting smoking. Because HIV-infected people have a higher risk of lung cancer, it is especially important that they do not smoke. Also, determining a patient's hepatitis status can sometimes lead to effective early intervention that may be able to reduce the risk of liver cancer.

Finally, for individuals who are not yet HIV infected, prevention of HIV-associated cancers should include prevention against HIV infection in the first place. And since many HIV-related cancers are caused by HPV, it is important for male and female children to be vaccinated against HPV infection before they are sexually active.

These prevention efforts are especially important for racial and ethnic minorities, who make up more than half of all HIV patients. Nearly four in five women with HIV/AIDS are from these groups, and an even greater number of children with the disease are also from these groups.

*The NCI has made substantial contributions to AIDS research since the beginning of the AIDS epidemic and today supports a broad and robust research program in this area. NCI leads the National Cancer Program and the NIH effort to dramatically reduce the burden of cancer and improve the lives of cancer patients and their families, through research into prevention and cancer biology, the development of new interventions, and the training and mentoring of new researchers. For more information about cancer, please visit the NCI web site at [www.cancer.gov](http://www.cancer.gov) or call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237). More articles and videos in the culturally relevant Lifelines series are available at [www.cancer.gov/lifelines](http://www.cancer.gov/lifelines).*