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AIDS Among African Americans in Kentucky

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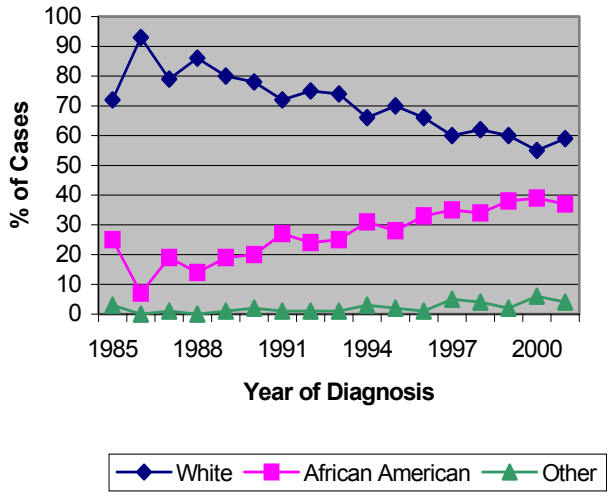
As of December 31, 2002, 3,867 persons had been diagnosed with AIDS in Kentucky and of these 1,139 were African American. Although the majority (68%) of Kentucky AIDS cases are White, the African American population in Kentucky has been affected disproportionately by the AIDS epidemic. As figure 1 shows, the proportion of AIDS cases diagnosed each year that are African American has increased throughout the course of the epidemic, while the proportion of White AIDS cases has decreased. The percentage of adult and adolescent AIDS cases with race reported as African American increased from 20% in 1990 to 37% in 2001.

Figure 1. Proportion of Adult and Adolescent AIDS Cases, by Race and Year of Diagnosis, 1985-2001, Kentucky

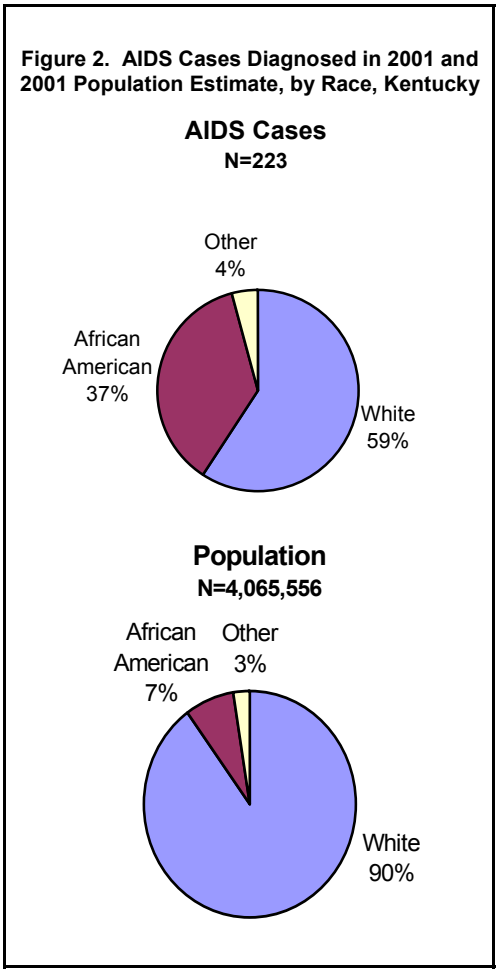


The distribution of cases among some racial groups is disproportional to the distribution in the general population. African Americans comprise approximately 7% of the Kentucky population, based on 2001 population estimates, yet comprised 37% of newly diagnosed AIDS cases in the year 2001. (Figure 2.) The AIDS rate for African Americans is approximately seven times higher than for persons of White and other races. The year 2001 AIDS incidence rate for African Americans in Kentucky was 27.7 per 100,000 population compared with a rate of 3.8 per 100,000 for persons of White and other races.

June Notes & Reports.....

AIDS Among African Americans in Kentucky.....1
Q Fever: A Zoonotic Disease.....3
Prevention and Control of Q Fever.....4
Changes in Rabies Laboratory Services.....4
Laboratory Criteria for SARS.....4
Selected Reportable Diseases in Kentucky.....5
Syndromic Surveillance.....5
Current Patterns of Hospitalization in the U.S.....6

Figure 2. AIDS Cases Diagnosed in 2001 and 2001 Population Estimate, by Race, Kentucky



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AIDS Among African Americans in Kentucky

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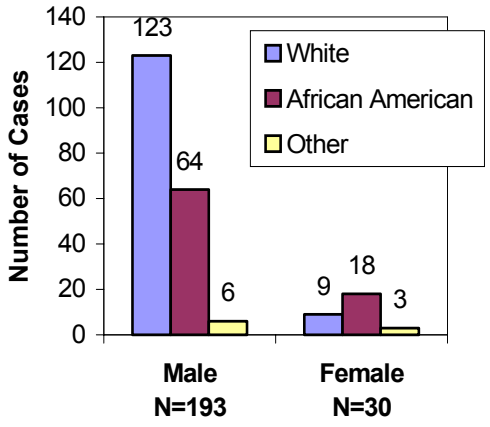
In 2001, 87% of diagnosed AIDS cases were among males. The largest portion of AIDS cases diagnosed among men in 2001 were White, followed by African American and persons of other races. In contrast, the majority of AIDS cases diagnosed among women in 2001 were African American. African Americans accounted for 60% of female AIDS cases followed by Whites and persons of other races. (Figure 3.)

Figure 3. AIDS Cases in Adults and Adolescents, by Sex and Race, Diagnosed in 2001, Kentucky



In Kentucky, the main mode of exposure to HIV among cumulative AIDS cases is men having sex with men (MSM). A higher percentage of adult and adolescent African American AIDS cases, 23%, are reported with a risk factor of Injecting Drug Use (IDU) compared to cases of White race, 8%. In addition, a larger proportion of African American AIDS cases are reported with heterosexual contact as the mode of exposure to HIV compared to White cases. (Table 1.)

Historically, the majority of cumulative African American AIDS cases reported in Kentucky reside in urban areas of the state. Seventy-seven percent of African American AIDS cases diagnosed in the year 2001 resided in either the Bluegrass Area Development District (ADD), which includes Lexington, or the North Central ADD, which includes Louisville, at the time of their AIDS diagnosis. The African American AIDS incidence rate for the year 2001 was 27.0 per 100,000 for the Bluegrass ADD and 35.1 per 100,000 for the North Central ADD. This compares to an incidence rate of 6.0 per 100,000 for the Bluegrass ADD and 7.5 per 100,000 for the North Central ADD for persons of White and other races.

As these statistics indicate, African Americans account for a disproportionate share of AIDS cases in Kentucky. Race and ethnicity alone do not make one more susceptible to HIV infection; however, the African American community faces several challenges. Poor access to health care, economic disadvantages such as higher unemployment rates and higher rates of poverty as well as the increased prevalence of risk behaviors and traditional beliefs may create barriers to life sustaining treatment and meaningful prevention messages. Ultimately, prevention could be the key to curtailing the HIV/AIDS epidemic, and continued emphasis must be placed on prevention interventions that are sensitive to the needs of the African American community.

Table 1. AIDS Cases in Adults and Adolescents by Exposure Category and Race, Reported through December 2002, Kentucky

Exposure Category	White Number	White (%)*	African American Number	African American (%)*	Other Number	Other (%)*
Men who have sex with men (MSM)	1731	(66)	400	(36)	25	(27)
Injection drug use (IDU)	204	(8)	257	(23)	22	(24)
MSM & IDU	144	(6)	74	(7)	4	(4)
Heterosexual contact	237	(9)	176	(16)	15	(16)
Other/not identified**	304	(12)	218	(19)	27	(29)
TOTAL	2620	(100)	1125	(100)	93	(100)

*Percentages may not total to 100 due to rounding

**Includes patients with hemophilia and transfusion-related exposures and those cases that are under investigation, deceased, lost to follow-up, refused interview, and persons whose mode of exposure remains undetermined after investigation.

HIV Update:

Experts estimate that 850,000 to 950,000 persons are currently living with HIV in the United States.

An estimated 300 infants contract HIV from their mothers each year.

40,000 people in the U.S. become infected with HIV every year.

One-fourth of those infected with HIV do not know they are infected and are not receiving appropriate medical care.

—Centers for Disease Control & Prevention

Q Fever: A Zoonotic Disease

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Background

Q or "Query" fever became a notifiable disease in the United States in 1999 and in Kentucky in 2001. Q fever is a zoonotic disease caused by *Coxiella burnetii* and has worldwide distribution. Only one case was reported in Kentucky in 2001; nine cases were reported in 2002. In 2002, eight of the nine cases occurred in males and all but one of the nine cases indicated exposure to goats. The age range for cases was from the mid-30s to the 70s, with illness onset from April through September. Several of these cases shared a common exposure area and indicate the need for more public awareness about Q fever and the associated risk from parturient goats and sheep. The Kentucky Department of Agriculture estimates the goat population in Kentucky may be as high as 150,000 animals, a ten-fold increase from the 1998 census of 15,000 goats.

Disease Transmission

The primary reservoirs of the bacteria, *C.burnetii* are cattle, sheep, and goats, with infections recognized in a wide variety of animals. Animals usually do not have clinical disease associated with *C. burnetii*, but abortion in sheep and goats is sometimes associated with this bacteria.

Large numbers of *Coxiella burnetii* organisms are shed during the birthing process from infected goats, sheep, and cows, contaminating the environment. The organisms are highly resistant to drying, heat, and many chemical disinfectants, allowing them to survive in the environment for extended periods of time. They also are excreted in milk, urine, and feces of infected animals. Humans are usually infected through inhalation of the organisms from contaminated surroundings such as barnyard dust, soiled clothing, and livestock trucks. Infection in humans requires very few organisms. Q Fever is on the bioterrorism biological watch list because it is a highly infectious airborne organism that may be inhaled by humans and it is resistant to disinfection.

Clinical Disease

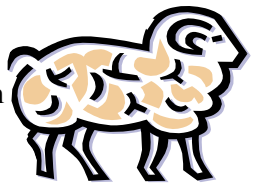
Approximately one-half of the people infected with *C. burnetii* will develop signs of clinical illness. The average incubation period is two to three weeks, but may be less in persons exposed to more organisms. Acute cases begin with one or more of the following symptoms: high fever, severe headache, fatigue, chills, and sweats. Non-productive cough, sore throat, nausea, vomiting, diarrhea, abdominal pain and chest pain are seen less frequently. Up to 50% of the patients will develop pneumonia and the majority will have abnormal liver function tests. Most patients do recover within several months, but there is a 1% to 2% death rate from the disease. Chronic Q fever, a more serious condition, is an infection that persists for six months or longer and often endocarditis develops as a complication. Although uncommon, the case fatality rate for chronic Q fever may be as high as 65%.

Laboratory Diagnosis

Diagnosis of Q fever is based on the symptoms in conjunction with serological testing for the Phase I and Phase II antigenic phases of *Coxiella burnetii*. Evaluation of the IgM and IgG responses to these two phases will assist the physician in the clinical diagnosis. To confirm the diagnosis, a convalescent serum sample should be submitted 3 to 6 weeks later for testing and a four-fold change in titer should occur. Culture of the organism or demonstration of the antigen or nucleic acid from a clinical specimen also will confirm a Q fever diagnosis.

Conclusion

In the past Q fever has been considered an occupational hazard for veterinarians, meat processors, livestock farmers, and researchers using sheep herds. New groups of people may be at greater risk now due to the changing agricultural scene and population changes in the state. The extent of the *Coxiella burnetii* organism in nature is unknown and people, especially those casually associated with sheep and goats, need to be aware of basic prevention and control measures for Q fever.



See next page for tips on
Prevention and Control of Q Fever

Prevention and Control of Q Fever

- Educate the public on sources of infection.
- Wash hands following animal contact and disinfect soiled clothing and boots with 5% bleach.
- Persons involved in high-risk activities, such as assisting in delivery of goats, sheep, and cattle should wear personal protective gear (protective clothing, obstetrical sleeves, and a mask covering mouth and nose).
- Appropriately dispose of placenta, birth products, fetal membranes, and aborted fetuses at facilities housing sheep and goats.
- Holding facilities for sheep and goats should be located away from populated areas and access restricted to barns housing potentially infected animals.
- Counsel persons at highest risk for developing chronic Q fever, especially persons with pre-existing cardiac valvular disease or individuals with vascular grafts.
- Use only pasteurized milk and milk products.
- Quarantine imported animals.

Attention Veterinarians and Environmentalists -

Changes in Rabies Laboratory Services

Rabies coverage will no longer be provided on weekends and holidays. Always ship animal heads to arrive during the week, Monday through Friday. If a human exposure case occurs near a weekend or holiday, we advise "hand" delivery of the specimen to the laboratory. If necessary, the head can be refrigerated and shipped the next work day. For longer periods, the head can be frozen and shipped later. Use only the container provided by the rabies laboratory, complete the submission form fully, and follow shipping instructions.

Call the rabies laboratory at (502) 564-4446 with any questions and to notify prior to shipping critical specimens. The Division of Epidemiology is available for case consultation at (502) 564-3418 or toll free at (888) 9-REPORT.

—Kentucky Department for Public Health
Division of Laboratory Services

Laboratory Criteria for SARS

In late April, the Centers for Disease Control and Prevention (CDC) added laboratory criteria for evidence of infection with the SARS-associated coronavirus (SARS-CoV) to its interim surveillance case definition.

As of May 21, a total of 355 cases of SARS had been reported in the United States; 290 were suspect cases and 65 were probable. Of the 65 probable SARS cases reported, seven were laboratory-confirmed using the new laboratory criteria. Twelve cases were considered probable, but were not laboratory-confirmed, either because the laboratory tests were not sensitive enough to pick up the SARS virus or because the illness was not caused by SARS virus. Laboratory results were undetermined for the remaining 34 probable cases; for some, testing was still in progress and, for others, suitable specimens were not available for testing.

Using the new laboratory criteria, a SARS case was laboratory-confirmed if one of the following was met:

- detection of antibody to SARS-CoV by indirect fluorescent antibody (IFA) or enzyme-linked immunosorbent assay (ELISA)
- isolation of SARS-CoV in tissue culture
- detection of SARS-CoV RNA by reverse transcriptase-polymerase chain reaction (RT-PCR), which must be confirmed by a second PCR test

It was noted that negative laboratory results for PCR, viral culture, or antibody tests obtained within 21 days of illness do not rule out coronavirus infection. In these cases, an antibody test of a specimen obtained more than 21 days after illness begins is needed to determine infection.

Most U.S. cases of SARS continue to be associated with travel; a small number of cases have resulted from secondary spread to household members or health care workers. CDC will continue to update the SARS case definition as new data become available, or if there are changes in the spread of SARS illness in the United States.

For more information about the SARS case definitions, see the CDC web site at http://www.cdc.gov.

—Centers for Disease Control and Prevention

Cases of Selected Reportable Diseases in Kentucky
(YTD Through April for Each Year)

Disease	2003	2002	5 year median
AIDS	60	106	104
Chlamydia	2584	2902	2634
Gonorrhea	1071	1126	1091
Syphilis (Prim. and Sec.)	16	31	31
Group A Streptococcus	10	6	10
Meningococcal Infections	0	4	11
Haemophilus influenzae, invasive	2	3	3
Hepatitis A	10	26	16
Hepatitis B	17	15	17
E. coli O157H7	2	3	3
Salmonella	80	77	80
Shigella	36	52	41
Tuberculosis	31	39	31
Animal Rabies	10	8	9
Motor Vehicle Injury Deaths	257	266	243

Vaccine Preventable	2003 YTD	Total in 2002
Diphtheria	0	0
Measles	0	0
Mumps	0	3
Pertussis	4	103
Polio	0	0
Rubella	0	0
Streptococcus pneumoniae	3	19
Tetanus	0	0

Influenza Statistics
For Confirmed Isolates
Influenza Season = October-May

Type	2002-2003 Through May 1	2001-2002 Total
A	26	158
B	192	3
Unknown	0	75
Total	218	236

Syndromic Surveillance

Syndromic surveillance is a function of public health surveillance and, therefore, exempt from HIPPA regulation when performed in that context.

KRS 214.010 requires every physician and every head of family to notify the local health department of the existence of diseases and conditions of public health importance when known by him/her to exist in a patient or family member. Furthermore, 902 KAR 2:020 states: "If, in the judgment of a health professional licensed under KRS Chapters 311 through 314, or a health facility licensed under KRS Chapter 216B, an unexpected **pattern of cases, suspected cases, or deaths** which may indicate a newly-recognized infectious agent, an outbreak, epidemic, related public health hazard, or an act of bioterrorism, such as smallpox, appears, a report shall be made immediately…." By definition a syndrome is a pattern of symptoms and/or signs that occur together indicative of a disease or condition. Therefore, surveillance of these syndromes (patterns) is an important part of public health surveillance.

—Division of Epidemiology and Health Planning
April 2003

Questions about syndromic surveillance and reporting under HIPPA provisions applicable to routine public health reporting? Contact the Kentucky Department for Public Health at 502/564-3418 or 1-888/973-7678.

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Report Shows Current Patterns of Hospitalization in the U.S.

The 32.7 million patients in the nation's hospitals in 2001 had a much shorter stay on average (4.9 days) than patients hospitalized in 1970 (7.8 days). Over the past three decades, the average length of a hospital stay dropped for all patients, except children, with the most dramatic decrease experienced by elderly patients whose hospital stay in 2001 (5.8 days) was less than half it had been in 1970 (12.6 days).

In 2001, most inpatients stayed in the hospital for three days or less, 27% stayed for 4 to 7 days, and only 16% stayed longer than a week, according to a recent report, "2001 National Hospital Discharge Survey," from the Centers for Disease Control and Prevention. The annual hospital survey collects national data on discharges from non-federal, short-stay hospitals.

In 2001, as in earlier years, the most frequent reason for hospitalization was heart disease, accounting for 4.3 million discharges. While the rate of hospitalization for most conditions has decreased over the past two decades, one condition—congestive heart failure—increased by 62% for those 65 years of age and over. This increase reflects the success through drugs and surgery in treating more acute forms of heart disease, such as heart attacks, thus extending the life of many elderly people and making it more likely they will develop a chronic heart problem

Elderly patients made up over 38% of the discharges, and used 46% of all inpatient days, even though they comprised only 12% of the population.

Cardiovascular conditions were associated with a significant portion of the 41 million procedures performed on hospital inpatients in 2001. For men, one-fifth of all procedures were cardiovascular; for women, only 10% were cardiovascular. Hospitals performed a million procedures to remove coronary artery obstructions and insert stents, 1.2 million cardiac catheterizations and almost 2 million arteriography and angiocardiography procedures. Just over 300,000 inpatients had coronary artery bypass graft procedures.

Other major reasons for hospitalization were psychoses (1.6 million), pneumonia (1.3 million), cancer (1.2 million), and fractures (1 million).

—Centers for Disease Control and Prevention