

KENTUCKY COUNTY HEALTH PROFILES, 2004

SUMMARY

HEALTH AND SOCIAL INDICATORS

POPULATION: Accurate and reliable population statistics are fundamental to any population-based health status analysis. All population figures used in this report are 2004 population estimates provided by Kentucky Population Research, Urban Studies Institute, University of Louisville, and all population-based rates have been computed using these numbers. These counts were provided in three racial categories: White, Black (African American), and Other (see Technical Notes for change in the definition of Other). Races other than White and Black comprised 2.2 percent of the enumerated population of Kentucky in 2004. Due to limitations of space and the extremely small numbers of the Other population at the county level, statistics disaggregated by race in this report are presented for the White and Black populations only.

Also due to limitations of space, rates for many indicators in this report have not been included. Basic population data have been provided to allow the reader to calculate additional rates as need be.

TOTAL BIRTHS: Birth statistics are extremely important measures of health status as they serve as an indicator of a broad range of nutritional, environmental, and other health-related factors in a population.

Crude birth rate: In 2004, the crude birth rate in Kentucky was 13.5 births per 1,000 population, up slightly up from 13.4 in 2003. The rate ranged from 6.6 per 1,000 in Lyon County to 19.4 per 1,000 in Gallatin County.

Under 18 birth rate: Births to teen mothers are a major public health concern as they are associated with higher rates of low birthweight and infant mortality and create educational, social, and economic problems for both mother and child. In 2004, the under 18 age-specific birth rate in Kentucky was 9.4 births per 1,000 females aged 10-17, down from 9.7 in 2003. The rate ranged from 0.0 per 1,000 in Lyon County and also Trigg County to 25.9 per 1,000 in Carroll County. Statewide, 3.6% of all births were to mothers under 18, compared to 3.9% in 2003.

Weight less than 2,500 grams: Low birth weight is a major contributing factor in infant mortality and long-term disability. In 2004, 8.7% of children

born in the state weighed less than 2,500 grams (5 lb. 8 oz.), a slight decrease from the 2003 rate of 8.8. By county, this percent varied from a high of 17.5% in Lawrence County to a low of 0.0% in Lyon County.

Mothers without prenatal care, 1st trimester: Early prenatal care is associated with decreased risk of low birthweight and infant mortality. In 2004, 25.2% of Kentucky mothers did not receive prenatal care during the first trimester of pregnancy. Due to a change in the way that entry to prenatal care was calculated in 2004, these data are not comparable to prior years. This measure ranged from 68.4% in Letcher County to 12.1% in Spencer County.

Unmarried mothers: Unmarried mothers tend to have poorer birth outcomes than married mothers because they are disproportionately young, less educated, and are more likely to be poor. Among the factors related to births to unmarried mothers are higher rates of teenage pregnancy, lack of prenatal care, and low weight births. Statewide, the rate of births to unmarried mothers in 2004 was 347.6 per 1,000 live births, an increase from 337.4 in 2003. Fulton County had the highest rate, at 477.8 per 1,000, and Morgan County had the lowest rate, 208.3 per 1,000.

WHITE BIRTHS: Due to the preponderance of whites in the total population of Kentucky (90.4%), birth indicators for the white population closely mirror the total in both ranking and rates, but they tend to be slightly lower.

BLACK BIRTHS: The major indicators of birth outcomes continued to be less favorable for blacks than for the rest of the population, but the gap between blacks and whites narrowed for some indicators. The percent of low birth weight births to black mothers decreased from the previous year, from 13.7 to 13.2, also the gap between blacks and whites in the under 18 birth rate decreased slightly from 16.8 to 9.2 per 1,000 in 2003 to 15.5 to 8.7 in 2004. A little less than one-third (31.3%) of black mothers did not receive prenatal care during the first trimester (compared to 24.0% for whites). Single-year black birth statistics, in particular, in most Kentucky counties should be used with great caution due to the very small numbers involved.

INFANT MORTALITY: The infant mortality rate is one of the most universal and understandable measures of a population's health status. In 2004 the statewide rate was 6.8 infant deaths per 1,000 live births. Twenty-four counties recorded no infant deaths in 2004. Statewide, the infant mortality rate for whites was 6.2 deaths per 1,000 births, and for blacks it was 14.9 per 1,000. One should be particularly careful in using these rates at the county level due to the small numbers involved.

REPORTABLE DISEASE CASES: Despite the significant progress made in the reduction in incidence of infectious diseases in this century, they remain an important cause of illness and death. In addition, surveillance of infectious diseases continues to be of extreme importance in the face of new diseases and newly resistant pathogens, which may emerge in the future. This report records the number of cases reported during 2004 of syphilis, pertussis, hepatitis A, hepatitis B, tuberculosis, *Chlamydia trachomatis* infections, animal rabies, and an index of foodborne diseases, the sum of *Salmonella*, *Shigella*, and *Campylobacter* infections.

SOCIOECONOMIC INDICATORS: Economic and social factors have long been associated with health status. Living conditions and health behaviors associated with poverty have such enormous implications for health that they cannot be ignored in any investigation of health status.

Medicaid eligible, 2004 and Medicaid utilizers, unduplicated, 2004: These indicators measure medical care coverage by the Medicaid program for the financially and/or medically indigent. In the calendar year 2004, more than 852,000 people, 20.6% of the population of Kentucky, were eligible for Medicaid services. The number of unduplicated utilizers, i.e., eligible members having one or more paid claims, was over 785,000 persons, and comprised 19.0% of the population, a slight decrease from 2003; however a Medicaid data collection system modification was initiated during this period. Owsley County ranked highest in Medicaid eligible percent (55.5), and Oldham County ranked lowest (6.0). The highest Medicaid utilizer percent was also in Owsley County (53.7), and the lowest was in Oldham County (5.3).

Food stamp recipients, AFDC (Aid to Families with Dependent Children) recipients, and WIC (Women, Infants, and Children) recipients: These measures present data on the proportions of the population who accessed programs for the indigent. In calendar year 2004, 13.3% of the total population received food stamps, and 2.8% of the total population were served by the WIC program. In 2004, 3.6% received AFDC benefits. Owsley County ranked

highest in food stamp percent (44.2) and Owsley County was highest in AFDC percent (12.7). Wolfe County was highest in WIC percent (7.2).

Persons in poverty, 2004: In 2004 statistics, 16.1% of the population in Kentucky were below the poverty level, an increase from 14.7% in 2003. Kentucky counties ranged from 34.8% in Owsley County to 6.1% in Oldham County.

Persons < 18 in poverty, 2004: It is estimated that over one-fifth (22.0%) of the total population under the age of 18 lived in poverty in 2004, an increase from 20.7% in 2003. Owsley County topped the list at 46.9%.

Unemployed: Unemployment rates, not seasonally adjusted, in 2004 ranged from a high of 12.9% in Magoffin County to 3.8% in Woodford County. The statewide rate was 5.6%.

Median household income, 2004: According to 2004 statistics, the median household income in Kentucky was \$37,046, up from \$36,663 in 2003. By county, median household income ranged from \$68,130 in Oldham County to \$18,377 in Owsley County.

EDUCATION: Educational attainment is closely related to socioeconomic status and also has implications for health.

Mothers without a high school diploma or GED: In 2004, over one in five (21.9%) women giving birth had less than a high school education, an increase from 20.7 percent in 2003. This measure ranged from 41.9% in Clay County to 10.1% in Spencer County. Due to a change in the way that education was reported beginning in 2004, these data are not comparable to prior years.

Transition rate (2003-2004): This indicator measures the percent of high school graduates who successfully make the transition to employment, military service, or further schooling. Statewide, for the 2003-2004 school year, 96% of graduates made the transition successfully. Six counties recorded 100%; Carlisle, Lyon, Robertson, Rockcastle, Union, and Wolfe. Elliott County had the lowest rate at 80.3%.

Dropout rate (2003-2004): During the 2003-2004 Kentucky school year, 2.2% of students in grades 7-12 dropped out of school. This rate ranged from 7.4% in Menifee County to zero percent in Green County.

OCCUPATIONAL INJURIES: In 2004, there were 128 fatal occupational injuries in the state, 22 agricultural, and 106 nonagricultural. Agricultural

injury fatalities decreased, from 24 in 2003, and nonagricultural injury fatalities stayed the same. A complete accounting of occupational injuries other than those resulting in fatality is difficult to obtain in Kentucky. The most complete nonfatal injury data available by county are from Workers' Compensation claims, which do not record all occupational injuries, particularly agricultural. Nevertheless, 33,377 nonfatal occupational injuries were reported in 2004, down from 37,272 in 2003. In 2004, 552 agricultural and 32,825 nonagricultural injuries were recorded.

ADULT ABUSE: Adult abuse and neglect are important causes of injury and death, and they are increasingly recognized as public health problems. In Kentucky in 2004, there were 640 substantiated incidents of adult abuse (abuse by someone other than spouse or partner), a rate of 0.2 per 1,000 persons 18 and older, and 3,166 substantiated incidents of spouse abuse, a rounded rate of 1.0 per 1,000. Substantiated incidents of partner abuse numbered 1,938, a rate of 0.6 per 1,000.

CHILD ABUSE AND NEGLECT: Statewide in calendar year 2004, there were 2,594 substantiated incidents of child physical abuse, 997 of child sexual abuse, and 12,433 of child neglect. These resulted in rates of 2.6, 1.0, and 12.6 per 1,000 persons under age 18, respectively. Child physical abuse decreased and child neglect increased from the previous year. The child sexual abuse rate decreased slightly from 1.2 in 2003.

VIOLENT CRIMES: Violence, both domestic and nondomestic, is increasingly recognized as a serious public health problem. Acts of intentional violence are often related to socioeconomic conditions and have major impact

on the health of a community. In 2004, 216 homicides occurred in Kentucky, an increase from 189 in 2003. The numbers of assaults decreased and robberies and rapes increased from the previous year. Data on violent crimes are reported by county of occurrence.

MOTOR VEHICLE CRASHES: Motor vehicle crashes are one of the greatest causes of unintentional injury and death, and affect all age groups. In 2004, there were 964 persons killed and 45,228 persons injured in motor vehicle crashes in Kentucky.

The number of 2004 fatalities increased by 36 from the 2003 total of 928, while 2004 nonfatal injuries decreased by 2,178 from the previous year total of 47,406. Data also indicate that alcohol was a frequently contributing factor, often in fatal crashes, in which over a fourth (26.5%) involved drinking drivers. Data on motor vehicle crashes are presented in the health and social indicators table by county of occurrence.

TOBACCO USAGE AMONG PREGNANT WOMEN: Smoking during pregnancy can cause many medical problems including increased risk of premature birth, low birth weight, miscarriage, and stillbirths. Cigarette smoke contains many toxic chemicals and is extremely hazardous to a developing baby. In 2004, 14,448 Kentucky mothers or 26.0%, out of 55,489 known responses, voluntarily reported tobacco usage during their pregnancy.

LEADING AND SELECTED CAUSES OF RESIDENT DEATHS

Cause of death statistics have long been among the most ascertainable, readily available, and comparable of all health status indicators for a population. Virtually 100% of deaths are recorded, and causes of death are assigned by established and consistent nosological procedures. Numbers and crude rates for all ages and each of eight age groups, age-adjusted rates (AAR), and years of potential life lost prior to age 75 (YPLL-75) are shown for each leading and selected cause. Explanations of the calculation of age-adjusted rates and YPLL-75 are included in Definitions and Technical Notes in the Appendix. The ten leading causes for the total, white, and black populations, as well as a set of selected causes are presented for each county.

LEADING CAUSES - TOTAL POPULATION: In Kentucky in 2004, there were 38,646 total resident deaths resulting in a crude rate of 933.4 deaths per 100,000 population. The age-adjusted rate (adjusted to the 2000 U.S. standard population) was 921.9 deaths per 100,000, a decrease from 992.5 in 2003. By county, the age-adjusted rate ranged from 1375.9 per 100,000 in Wolfe County to 669.2 in Robertson County.

The top five leading causes of death, diseases of heart, malignant neoplasms, cerebrovascular disease, chronic lower respiratory diseases, and unintentional injuries, accounted for nearly seven out of every ten (68.4%) deaths.

Diseases of heart accounted for over one-fourth (27.1%) of total deaths, and was the leading cause of death in 2004, as it has been for many years. It was the leading cause in 83 of the state's 120 counties, and also accounted for almost one-fifth (18.0) of years of potential life lost. Three counties reported the same number of deaths for diseases of the heart and malignant neoplasms. The statewide age-adjusted rate was 250.3 deaths per 100,000, down from 281.3 in 2003. The AAR ranged from 416.7 per 100,000 in Wolfe County to 121.7 in Robertson County.

Malignant neoplasms (cancer), the second leading cause, was responsible for nearly a quarter (24.0%) of deaths statewide, and was the leading cause in 34 counties. Malignant neoplasms, being more prevalent than heart disease among persons under 65, accounted for 21.7% of total YPLL. The statewide AAR, 215.0 per 100,000, showed a decrease from 225.4 in 2003. McCreary County had the highest AAR, 383.6 per 100,000, and Cumberland County had the lowest, 117.1.

Cerebrovascular disease (stroke), the third leading cause statewide, was responsible for 6.0% of total deaths, but only 2.4% of YPLL. The statewide AAR was 56.5 per 100,000, down from 61.9 in 2003. The AAR ranged from 135.6 per 100,000 in Shelby County to 18.1 in Hickman County.

Chronic Lower Respiratory Diseases (CLRD) (previously called chronic obstructive pulmonary diseases, or COPD) includes such diseases as chronic bronchitis, emphysema, and asthma. CLRD was the fourth leading cause of death in Kentucky in 2004, accounting for 5.9% of total deaths. The statewide AAR for 2004 was 54.4 per 100,000, which was lower than 2003 of 58.9. Among the counties, Wolfe had the highest AAR, at 200.8 per 100,000, and Allen County had the lowest at 14.2 per 100,000.

Unintentional injuries, the fifth leading cause, accounted for only 5.7% of total deaths. However, due to their affect on younger as well as older age groups, they were the third greatest cause of years of potential life lost prior to age 75, making up 19.0% of the total. Unintentional injuries were the leading cause of death for ages 1-44.

The statewide AAR, 53.0 per 100,000, was lower than the 2003 rate of 54.6. The AAR ranged from 152.3 per 100,000 in Magoffin County to 10.0 in Carroll County.

SELECTED CAUSES - TOTAL POPULATION: The following causes were selected as a result of their being included either in the Assessment Protocol for Excellence in Public Health (APEXPH) core data set or in the Centers for Disease Control's consensus set of health status indicators.

Lung cancer accounted for over one-third (36.2%) of all cancer deaths and was a major cause of death for persons 45 and older in 2004. The statewide age-adjusted rate was 77.1 per 100,000, down from 79.2 in 2003. McCreary County had the highest rate at 190.3 per 100,000, and Robertson County had the lowest, reporting no deaths for 2004.

Motor vehicle crashes were the greatest single cause of unintentional injuries resulting in death, responsible for almost half (43.2%) of such deaths. In addition, they accounted for 52.9% of all years of potential life lost due to unintentional injuries. The statewide AAR for motor vehicle crash deaths was 22.8 per 100,000, a slight increase from 22.5 in 2003. By county, the AAR ranged from 88.1 per 100,000 in Owsley County to 0.0 (three counties had no resident motor vehicle crash fatalities).

Female breast cancer was responsible for approximately one of every seven (13.5%) cancer deaths in women in 2004. The statewide age-adjusted rate was 24.4 deaths per 100,000 female population, down from the 2003 rate of 25.4. Powell County had the highest AAR, at 116.6 per 100,000 women. Fourteen counties had no deaths attributable to female breast cancer.

The remaining selected causes, chronic liver disease and cirrhosis, assault (homicide), congenital malformations, and drug-induced deaths had relatively low age adjusted rates, but are important indicators for particular age groups and because of their relationships to socioeconomic and lifestyle factors.

LEADING CAUSES - WHITE: As is the case for birth statistics, due to the preponderance of whites in the total population of Kentucky, the leading causes

of death for the white population closely mirror the total population in both ranking and rates.

LEADING CAUSES - BLACK: Age-adjusted rates for most leading causes of death for blacks were greater in 2004 than those for whites. Statewide, the rate for all causes was 1095.4 per 100,000, higher than the rate of 920.6 for whites, and a decrease from 1195.1 in 2003. Blacks experienced the same top two leading causes, but their AARs were considerably higher. Diabetes mellitus was the fourth leading cause with an AAR of 57.7 per 100,000, more than twice the rate of 27.2 for whites. Unintentional injuries were the fifth leading cause among blacks, with an age adjusted rate of 39.7 per 100,000, lower than the white rate of 54.9. Assault was the seventh leading cause of death for blacks. Alzheimer's disease, the seventh leading cause among whites, was not among the top ten causes for blacks. The reader should be particularly cautious in using black rates in many counties since they are based on very small populations.

References:

- Centers for Disease Control and National Association of County Health Officials. *APEXPH: Assessment Protocol for Excellence in Public Health*. March 1991.
- Curtin LR, Klein RJ. Direct Standardization (age-adjusted death rates). *Healthy People 2000 Statistical Notes*, no. 6-revised. Hyattsville, Maryland: National Center for Health Statistics. March 1995.
- Kentucky Department for Health Services. *Healthy Kentuckians 2000, Mid-Decade Review*. Frankfort, Kentucky: Division of Epidemiology. June 1996.
- Kentucky Department for Public Health. *Consensus Set of Health Status Indicators, Kentucky 1998*. Frankfort, Kentucky: Division of Epidemiology & Health Planning. 1998.
- Kentucky Department for Public Health. *Kentucky Annual Vital Statistics Report, 2004*. Frankfort, Kentucky: Kentucky State Center for Health Statistics. April 2006.
- Kentucky Department for Public Health. *Kentucky County Health Profiles, 2003*. Frankfort, Kentucky: Kentucky State Center for Health Statistics.
- National Center for Health Statistics. *Health, United States, 1998 with Socioeconomic Status and Health Chartbook*. Hyattsville, Maryland. 1998.
- National Center for Health Statistics. *Healthy People 2000 Review, 1998-99*. Hyattsville, Maryland: Public Health Service. 1999.