

# KENTUCKY COUNTY HEALTH PROFILES, 2003

## 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 2003 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 2.6 percent of the enumerated population of Kentucky in 2003. 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 2003, the crude birth rate in Kentucky was 13.4 births per 1,000 population, down slightly up from 13.1 in 2002. The rate ranged from 6.0 per 1,000 in Lyon County to 21.0 per 1,000 in Christian 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 2003, the under 18 age-specific birth rate in Kentucky was 9.7 births per 1,000 females aged 10-17, down from 9.8 in 2002. The rate ranged from 0.0 per 1,000 in Robertson County and also Cumberland County to 30.6 per 1,000 in Wolfe County. Statewide, 3.9% of all births were to mothers under 18, compared to 4.0% in 2002.

**Weight less than 2,500 grams:** Low birth weight is a major contributing factor in infant mortality and long-term disability. In 2003, 8.8% of children

born in the state weighed less than 2,500 grams (5 lb. 8 oz.), a slight increase from the 2002 rate of 8.6. By county, this percent varied from a high of 18.6% in Lawrence County to a low of 1.9% in Hickman County.

**Mothers without prenatal care, 1st trimester:** Early prenatal care is associated with decreased risk of low birthweight and infant mortality. In 2003, 13.9% of Kentucky mothers did not receive prenatal care during the first trimester of pregnancy, compared to 14.3% in 2002. This measure ranged from 32.3% in Scott County to 4.1% 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 2003 was 337.4 per 1,000 live births, an increase from 333.0 in 2002. Carroll County had the highest rate, at 454.0 per 1,000, and Russell County had the lowest rate, 188.5 per 1,000.

**WHITE BIRTHS:** Due to the preponderance of whites in the total population of Kentucky (90.1%), 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 14.4 to 13.7, but the gap between blacks and whites in the under 18 birth rate widened slightly from 16.5 to 9.4 per 1,000 in 2002 to 16.8 to 9.2 in 2003. For the fifth consecutive year, more than one-fifth (20.2%) of black mothers did not receive prenatal care during the first trimester (compared to 13.2% 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 2003 the statewide rate was 6.8 infant deaths per 1,000 live births. Twenty-five counties recorded no infant deaths in 2003. Statewide, the infant mortality rate for whites was 6.4 deaths per 1,000 births, and for blacks it was 11.6 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 2003 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, 2003 and Medicaid utilizers, unduplicated, 2003:** These indicators measure medical care coverage by the Medicaid program for the financially and/or medically indigent. In the calendar year 2003, more than 870,000 people, 21.1% 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 813,000 persons, and comprised 19.7% of the population, a decrease of 3% from 2002. Owsley County ranked highest in Medicaid eligible percent (60.2), and Oldham County ranked lowest (6.0). The highest Medicaid utilizer percent was also in Owsley County (56.5), and the lowest was in Oldham County (6.1).

**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 2003, 11.5% of the total population received food stamps, and 2.7% of the total population were served by the WIC program. In 2003, 3.3% received AFDC benefits. Owsley County ranked highest in food stamp percent (44.9) and Owsley County was highest in AFDC percent (12.9). Wolfe County was highest in WIC percent (6.8).

**Persons in poverty, 2003:** In 2003 statistics, 14.7% of the population in Kentucky were below the poverty level, a narrow decrease from 14.8% in 2002. Kentucky counties ranged from 31.9% in Owsley County to 5.6% in Oldham County.

**Persons < 18 in poverty, 2003:** It is estimated that over one-fifth (20.7%) of the total population under the age of 18 lived in poverty in 2003, a decrease from 21.1% in 2002. Owsley County topped the list at 43.5%.

**Unemployed:** Unemployment rates, not seasonally adjusted, in 2003 ranged from a high of 12.2% in Magoffin County to 4.1% in Woodford County. The statewide rate was 6.2%.

**Median household income, 2003:** According to 2003 statistics, the median household income in Kentucky was \$36,663, up from \$35,875 in 2002. By county, median household income ranged from \$66,174 in Oldham County to \$17,434 in Owsley County.

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

**Mothers with less than 12 years of education:** In 2003, over one in five (20.7%) women giving birth had less than a high school education, an improvement over the 2002 percent of 21.1. This measure ranged from 44.4% in Menifee County to 4.8% in Robertson County.

**Transition rate (2002-2003):** This indicator measures the percent of high school graduates who successfully make the transition to employment, military service, or further schooling. Statewide, for the 2002-2003 school year, 96% of graduates made the transition successfully. Five counties recorded 100%. Elliott County had the lowest rate at 83.8%.

**Dropout rate (2002-2003):** During the 2002-2003 Kentucky school year, 2.2% of students in grades 7-12 dropped out of school. This rate ranged from 5.1% in Clark County to zero in Green and Hancock Counties.

**OCCUPATIONAL INJURIES:** In 2003, there were 130 fatal occupational injuries in the state, 24 agricultural, and 106 nonagricultural. Agricultural injury fatalities decreased, from 25 in 2002, and nonagricultural injury fatalities decreased from 109. 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, 37,272 nonfatal occupational injuries were reported in 2003, up from 36,994 in 2002. In 2003, 452 agricultural and 36,820 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 2003, there were 629 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 2,939 substantiated incidents of spouse abuse, a rounded rate of 0.9 per 1,000. Substantiated incidents of partner abuse numbered 1,564, a rate of 0.5 per 1,000.

**CHILD ABUSE AND NEGLECT:** Statewide in calendar year 2003, there were 2,941 substantiated incidents of child physical abuse, 1,190 of child sexual abuse, and 11,799 of child neglect. These resulted in rates of 3.0, 1.2, and 11.8 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 stayed the same as in 2002.

**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 2003, 189 homicides occurred in Kentucky, a decrease from 196 in 2002. The numbers of assaults increased and robberies and rapes decreased 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 2003, there were 928 persons killed and 47,406 persons injured in motor vehicle crashes in Kentucky.

The number of 2003 fatalities increased by 13 from the 2002 total of 915, while 2002 nonfatal injuries decreased by 2,722 from the previous year total of 50,128. Data also indicate that alcohol was a frequently contributing factor, often in fatal crashes, in which over a fourth (25.6%) 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 2003, 12,905 Kentucky mothers or 23.8%, out of 54,118 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 2003, there were 40,147 total resident deaths resulting in a crude rate of 974.9 deaths per 100,000 population. The age-adjusted rate (adjusted to the 2000 U.S. standard population) was 992.5 deaths per 100,000, a decrease from 1002.2 in 2002. By county, the age-adjusted rate ranged from 1383.7 per 100,000 in Wolfe County to 834.0 in Morgan 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 (69.1%) deaths.

**Diseases of heart** accounted for over one-fourth (28.1%) of total deaths, and was the leading cause of death in 2003, as it has been for many years. It was the leading cause in 96 of the state's 120 counties, and also accounted for almost one-fifth (18.8) of years of potential life lost. The statewide age-adjusted rate was 281.3 deaths per 100,000, down from 290.0 in 2002. The AAR ranged from 522.3 per 100,000 in Perry County to 176.7 in Magoffin County.

**Malignant neoplasms** (cancer), the second leading cause, was responsible for nearly a quarter (23.3%) of deaths statewide, and was the leading cause in 19 counties. Five counties reported the same number of deaths relating to diseases of the heart and malignant neoplasms. Malignant neoplasms, being more prevalent than heart disease among persons under 65, accounted for 22.2% of total YPLL. The statewide AAR, 225.4 per 100,000, had a slight decrease from 227.4 in 2002. Gallatin County had the highest AAR, 389.1 per 100,000, and Carlisle County had the lowest, 109.7

**Cerebrovascular disease** (stroke), the third leading cause statewide, was responsible for 6.1% of total deaths, but only 2.3% of YPLL. The statewide AAR was 61.9 per 100,000, down from 64.3 in 2002. The AAR ranged from 123.4 per 100,000 in Mason County to 0.0 in Owsley 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 2003, accounting for 6.0% of total deaths. The statewide AAR was 58.9 per 100,000, which was the same as the 2002. Among the counties, Wolfe had the highest AAR, at 134.3 per 100,000, and Monroe County had the lowest at 12.9 per 100,000.

**Unintentional injuries**, the fifth leading cause, accounted for only 5.6% 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 18.2% of the total. Unintentional injuries were the leading cause of death for ages 1-44.

The statewide AAR, 54.6 per 100,000, was higher than the 2002 rate of 50.8. The AAR ranged from 143.2 per 100,000 in Leslie County to 17.0 in Lyon 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 (35.6%) of all cancer deaths and was a major cause of death for persons 45 and older in 2003. The statewide age-adjusted rate was 79.2 per 100,000, down from 80.0 in 2002. Gallatin County had the highest rate at 183.2 per 100,000, and Bracken County had the lowest, 32.4 per 100,000.

**Motor vehicle crashes** were the greatest single cause of unintentional injuries resulting in death, responsible for almost half (41.7%) of such deaths. In addition, they accounted for 49.1% of all years of potential life lost due to unintentional injuries. The statewide AAR for motor vehicle crash deaths was 22.5 per 100,000, a slight increase from 21.9 in 2002. By county, the AAR ranged from 94.5 per 100,000 in Leslie County to 0.0 (five counties had no resident motor vehicle crash fatalities).

**Female breast cancer** was responsible for approximately one of every seven (13.8%) cancer deaths in women in 2003. The statewide age-adjusted rate was 25.4 deaths per 100,000 female population, down from the 2002 rate of 27.8. Fleming County had the highest AAR, at 71.3 per 100,000 women. Eight 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 2003 than those for whites. Statewide, the rate for all causes was 1195.1 per 100,000, higher than the rate of 993.2 for whites, and a decrease from 1204.0 in 2002. 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 57.5 per 100,000, almost twice the rate of 30.7 for whites. Unintentional injuries were the sixth leading cause among blacks, with an age adjusted rate of 33.1 per 100,000, lower than the white rate of 57.4. Assault was the ninth 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.

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