KENTUCKY COUNTY HEALTH PROFILES, 2000

APPENDIX I: DEFINITIONS & TECHNICAL NOTES

<u>**DEFINITIONS**</u>:

POPULATION

Total   2000 Census population for all residents

White - Number   Census population for white residents.

 - Percent of Total (White population / total population) x 100

Black-Number Census population for all black (African-American) residents

 - Percent of Total (Black population / total population) x 100

Other - Number Census population for all residents other than white or black (includes persons who identified themselves as "two or more races" on the 2000 Census)

 - Percent of Total (Other population / total population) x 100

65 and Older-Number Census population of all residents ages 65 and older

 - Percent of Total (Population 65 and older / total population) x 100

Under 18   Census population of all residents under 18 years of age

 - Percent of Total (Population under 18 / total population) x 100

TOTAL BIRTHS

All Ages - Number   Births to women of any age who have delivered a live infant. (A live birth is the complete expulsion or extraction from the mother of a product of human conception, irrespective of the duration of the pregnancy, which, after such expulsion or extraction, breathes or shows any evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles whether or not the umbilical cord has been cut or the placenta is attached. Heartbeats are to be distinguished from transient cardiac contractions; respirations are to be distinguished from fleeting respiratory efforts or gasps.)

 - Crude Birth Rate/1000 Population   Crude Birth Rate = [(number of live births) / (total population)] x 1000

Under 18 - Number   Births to women under the age of 18 who have given birth to a live infant

 - Birth Rate/1000 Female Population 10-17   Age-Specific Birth Rate = [(number of births to women under age 18) / (female population ages 10-17)] x 1000

Weight < 2,500 Grams - Number   Neonates, regardless of gestation age, whose weight at birth is less than 2,500 grams. A neonate is a live born infant.

 - Percent   Low Weight Birth Rate = [(number of live births weighing less than 2,500 grams) / (total live births)] x 100

Mothers w/o Prenatal Care 1st Trimester - Number   The number of mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy

 - Percent [(Number of mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy) / (total mothers)] x 100

Unmarried Births - Number Births to unmarried women

 - Rate / 1000 Live Births   Unmarried Birth Rate = [(number of births to unmarried women) / (total live births)] x 1000

WHITE BIRTHS

All Ages - Number Births to white women of any age who have delivered a live infant

 - Crude Birth Rate/1000 Population (White) Crude Birth Rate = [(number of white live births) / (total white population)] x 1000

Under 18 - Number Births to white women under the age of 18 who have given birth to a live infant

- Birth Rate/1000 Female Population 10-17 (White) Age-Specific Birth Rate = [(number of births to white women under age 18) / (white female population ages 10-17)] x 1000

Weight < 2,500 Grams - Number White neonates, regardless of gestation age, whose weight at birth is less than 2,500 grams.

 - Percent (White) Low Weight Birth Rate = [(number of white live births weighing less than 2,500 grams) / (total white live births)] x 100

Mothers w/o Prenatal Care 1st Trimester - Number The number of white mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy

 - Percent [(Number of white mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy) / (total white mothers)] x 100

Unmarried Births - Number White births to unmarried women

 - Rate / 1000 Live Births (White) Unmarried Birth Rate = [(number of white births to unmarried women) / (total white live births)] x 1000

BLACK BIRTHS

All Ages - Number Births to black women of any age who have delivered a live infant

 - Crude Birth Rate/1000 Population (Black) Crude Birth Rate = [(number of black live births) / (total black population)] x 1000

Under 18 - Number Births to black women under the age of 18 who have delivered a live infant

 - Birth Rate/1000 Female Population 10-17 (Black) Age-Specific Birth Rate = [(number of births to black women under age 18) / (black female population ages 10-17)] x 1000

Weight < 2,500 Grams - Number Black neonates, regardless of gestation age, whose weight at birth is less than 2,500 grams

- Percent (Black) Low Birth Weight Rate = [(number of black live births weighing less than 2,500 grams) / (total black live births)] x 100

Mothers w/o Prenatal Care 1st Trimester - Number The number of black mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy

 - Percent [(Number of black mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy) / (total black mothers)] x 100

Unmarried Births - Number Black births to unmarried women

Rate / 1000 Live Births (Black) Unmarried Birth Rate = [(number of black births to unmarried women) / (total black live births)] x 1000

INFANT MORTALITY

Total - Number Deaths at any time from birth up to, but not including, one year of age (364 days, 23 hours, and 59 minutes from the moment of birth)

 - Rate/1000 Births Infant Mortality Rate = [(number of infant deaths) / (total live births)] x 1000

White - Number White deaths at any time from birth up to, but not including, one year of age (364 days, 23 hours, and 59 minutes from the moment of birth)

 - Rate/1000 Births (White) Infant Mortality Rate = [(number of white infant deaths) / (total white live births)] x 1000

Black - Number Number of black deaths at any time from birth up to, but not including, one year of age (364 days, 23 hours, and 59 minutes from the moment of birth)

 - Rate/1000 Births (Black) Infant Mortality Rate = [(number of black infant deaths) / (total black live births)] x 1000

REPORTABLE DISEASE CASES

Primary and Secondary Syphilis Cases of primary and secondary syphilis reported during 2000

Pertussis Cases of pertussis reported during 2000

Hepatitis A   Cases of hepatitis A reported during 2000

Hepatitis B   Cases of hepatitis B reported during 2000

Tuberculosis   Cases of tuberculosis reported during 2000

***Chlamydia trachomatis* infections**   Cases of *Chlamydia trachomatis* infection reported during 2000

Animal Rabies   Cases of animal rabies reported during 2000

Foodborne Diseases   The sum of *Salmonella*, *Shigella*, and *Campylobacter* infections reported during 2000. This sum does not include all foodborne diseases, but is an indicator based on those most commonly reported.

SOCIOECONOMIC INDICATORS

Population per Primary Care Provider   The 1999 estimated resident civilian population divided by the number of FTE (full-time equivalent) primary care providers serving the county in 1999. Primary care is composed of the medical specialties of family practice, general practice, internal medicine, obstetrics/gynecology, and pediatrics. Comparable data for 2000 were not available.

Medicaid Eligible, FY 2000 - Number   The average monthly number of persons eligible for Medicaid services during state fiscal year 2000. Medicaid is a federal/state government matching program (Title XIX) designed to provide medical services to financially indigent and medically indigent persons. Eligibility criteria are defined as follows: Persons receiving a money payment for subsistence needs are automatically eligible for Medicaid and are designated as Categorically Needy. Such persons are Aid to Families with Dependent Children (AFDC) children/adults and Supplemental Security Income / State Supplementation (SSI/SS) aged, blind, and disabled recipients. Qualified Medicare Beneficiaries (QMBs) not previously eligible for Medicaid are designated as Other Needy. Other eligible persons are designated as Medically Needy Only.

- Percent of Total Population   [(Average monthly number of persons eligible for Medicaid) / (total population)] x 100

Medicaid Utilizers, Unduplicated, FY 2000 - Number   The average monthly unduplicated number of Medicaid eligible members having one or more paid claims for healthcare or related services during state fiscal year 2000

- Percent of Total Population   [(Average monthly number of Medicaid utilizers) / (total population)] x 100

- County Rank   The rank of the county by Medicaid recipients percent of total population. A rank of 1 indicates the highest percent.

Food Stamp Recipients - Number   The average number of persons who received food stamps per month during calendar year 2000 under guidelines issued by the US Department of Agriculture

- Percent of Total Population   [(Average monthly number of food stamp recipients) / (total population)] x 100

- County Rank   The rank of the county by food stamp recipients percent of total population. A rank of 1 indicates the highest percent.

Persons in Poverty, 1999 - Number   Total persons below the poverty level in 1999. Poverty level: The minimum level of money income adequate for families of different sizes, in keeping with American consumption patterns. These levels are determined by comparing individual or family income with annual income thresholds. The poverty thresholds are adjusted annually by the US Government to the basis of an index originated at the US Social Security Administration in 1964 and revised by federal interagency committees in 1969 and 1980.

- Percent of Total Population   The poverty rate, the percent of individuals or families with income below the poverty income thresholds

- County Rank   The rank of the county by poverty rate (percent of total population). A rank of 1 indicates the highest rate.

Persons < 18 in Poverty, 1999 - Number   Estimate of the total number of persons under age 18 below the poverty level in 1999

- Percent of Total under 18 Population   [(Number of persons under 18 in poverty) / (total persons under 18)] x 100

- County Rank   The rank of the county by percent of total population under 18. A rank of 1 indicates the highest percent.

Total AFDC Recipients - Number   Average monthly number of total (basic and unemployed parent) adult and child AFDC recipients during fiscal year 2000. Aid to Families with Dependent Children is a federal/state funded money payment program that provides for the basic subsistence needs of children who

are deprived of parental support or care due to death, continued absence, physical or mental incapacity of the parent and unemployment of the primary wage earner in two parent families. (The AFDC program has been renamed the Kentucky Transitional Assistance Program, K-TAP, but according to the Dept. for Medicaid Services, the medical component is still referred to as AFDC.)

- Percent of Total Population [(Number of AFDC recipients) / (total population) x 100

 - County Rank The rank of the county by AFDC recipients percent of total population. A rank of 1 indicates the highest percent.

Unemployed - Number A measure of those persons who are out of work and actively seeking employment

 - Percent of Civilian Labor Force [(Number of persons unemployed) / (number of persons in the civilian labor force as defined by the US Bureau of Labor Statistics)] x 100

 - County Rank   The rank of the county by unemployed percent of civilian labor force. A rank of 1 indicates the highest percent.

Median Household Income, 1999   Median total money income received by all persons who occupy an individual housing unit. The median is the value that divides a series of numbers arranged in order of magnitude, so that one-half of all observations lie above it and one-half lie below it. [Data by Area Development District were not available (NA).]

 - County Rank   The rank of the county by median household income. A rank of 1 indicates the highest median income.

Total WIC Recipients - Number   Number of persons served in December 2000 by the Kentucky Women, Infants, and Children Program

- Percent of Eligible Population [(Number of WIC recipients) / (population of children under 6 and women aged 15-44)] x 100. (This statistic should not be confused with the "% served" in the "Potentially Eligible Population Served by County" report prepared each month by the WIC Program, which is based on a different definition of the eligible population and less recent population data.)

EDUCATION

Mothers < 12 Years Education - Percent [(Number of live births to mothers with less than 12 years of education) / (total live births)] x 100

 - County Rank   The rank of the county by percent of mothers with less than 12 years of education. A rank of 1 indicates the highest percent.

Transition Rate (1999-2000) - Percent   [(Number of public high school graduates during the 1999-2000 school year who successfully made the transition to employment, military service, or further education) / (total public high school graduates)] x 100

Dropout Rate (1999-2000) - Percent [(Number of dropouts, grades 7-12) / (total students enrolled in grades 7-12 ("dropout membership"))] x 100, during the 1999-2000 school year

OCCUPATIONAL INJURIES

Fatal Injuries - Total   Total agricultural and nonagricultural work-related fatalities by county of occurrence

Nonfatal Injuries - Workers' Compensation Claims - Total   Total agricultural and nonagricultural work-related injuries not resulting in death, by county of occurrence; based on First Reports of Injury to Kentucky Department of Workers' Claims.

 - Agricultural Number of work-related injuries in agricultural occupations by county of occurrence. This includes establishments primarily engaged in agricultural production, forestry, commercial fishing, hunting and trapping, and related services.

 - Nonagricultural   Number of work-related injuries in nonagricultural occupations by county of occurrence. This includes manufacturing and nonmanufacturing occupations. Manufacturing includes establishments engaged in the mechanical or chemical transformation of materials and substances into new products. These establishments are usually described as plants, factories, or mills and characteristically use power driven machines and materials handling equipment. Establishments engaged in assembling component parts of manufactured products are also considered manufacturing if the new product is neither a structure nor a fixed improvement. Also included is the blending of materials, such as lubricating oils, plastics, resins, or liquors. Nonmanufacturing includes establishments engaged in mining; construction; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; services; public administration; and nonclassifiable establishments.

ADULT ABUSE INCIDENTS, FY 2001

Substantiated Incident   In this report, the status (worker's assessment after completion of the investigation) of an abuse or neglect report which is either: a) substantiated; b) found and substantiated, i.e., abuse or neglect found during an investigation that was not originally reported; or c) some indication.

Adult Abuse   The infliction of physical pain, injury, or mental injury upon an adult (a person 18 years of age or older, or a married person without regard to age)

Spouse Abuse   A situation in which a spouse inflicts physical pain, injury, or mental injury upon a spouse or deprives a spouse of reasonable services necessary to maintain his or her health and welfare

Neglect by Caretaker   The deprivation of services by a caretaker which are necessary to maintain the health and welfare of an adult

Self Neglect   A situation in which an adult, living alone or without a caretaker, is unable to provide or obtain for himself the services which are necessary to maintain his health and welfare

Exploitation   The improper use of an adult or an adult's resources by a caretaker or other person for the profit or advantage of the caretaker or other person

CHILD ABUSE / NEGLECT INCIDENTS

Substantiated Incident   In this report, the status (worker's assessment after completion of the investigation) of an abuse or neglect report which is either: a) substantiated; b) found and substantiated, i.e., abuse or neglect found during an investigation that was not originally reported; or c) some indication.

Physical Abuse   The nonaccidental injury of a child under 18 years of age which is the result of actions by a parent, guardian, or other designated (temporary or permanent) caretaker

Sexual Abuse   Contacts or interaction involving the use of children for sexual stimulation. The definition remains broad to include molestation and/or rape of a child by an adult or juvenile, as well as acts such as child pornography and prostitution.

Neglect   Inadequate or dangerous child-rearing practices. It is the failure or lack of prudent care for a child's well-being through lack of adequate supervision, food, clothing, shelter, education, or medical care.

VIOLENT CRIMES – OCCURRENCE

Homicide   The number of deaths due to homicide (ICD-10 codes X85-Y09, Y87.1) by county of occurrence. (Under ICD-10, deaths due to legal intervention are not included in homicides as they were under ICD-9.) The number of homicides in a given period may differ from the number of "murders" as reported by police, which are counted at the time of the offense (and so may not include persons who die later as a result of violent injury) and may include cases pending from earlier periods.

Rape   The number of reported rapes by county of occurrence. Rape is defined as the carnal knowledge of a person, forcibly or otherwise, against the person's will. These data include forcible rapes, assaults for the purpose of rape, and attempted forcible rapes; they exclude rapes where the victim is under the age of consent and no force is used.

Assault The number of reported Part I aggravated assaults by county of occurrence. Assault is the unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. Excluded from the Part I crime of aggravated assault are all assaults which do not include the use of a dangerous weapon and in which there was no serious or aggravated injury.

Robbery   The number of reported robberies by county of occurrence. Robbery is the felonious taking of the property of another by force, the threat of force, violence, and/or by putting the victim in fear. All attempts to rob are included.

MOTOR VEHICLE CRASHES – OCCURRENCE

Total Crashes   The total number of motor vehicle collisions that occurred on a trafficway or that occurred after the motor vehicle ran off the roadway, by county of occurrence. A collision is an unintended event that produces death, injury, or damage.

Fatal Injury Crashes   The number of motor vehicle crashes resulting in fatal injuries to one or more persons, by county of occurrence.

Nonfatal Injury Crashes   The number of motor vehicle crashes resulting in injury, other than fatal, to one or more persons, by county of occurrence. Also referred to as a personal injury collision.

Persons Killed   The number of persons killed in fatal injury crashes, by county of occurrence. Also referred to as fatalities.

Persons Injured   The number of persons injured in motor vehicle crashes, by county of occurrence

- Involving Drinking Drivers   The number of alcohol-related motor vehicle crashes. An alcohol-related crash is any in which an operator was observed to have been drinking by the officer investigating the crash.

LEADING AND SELECTED CAUSES OF RESIDENT DEATHS

Cause of Death   The underlying cause determined by using death certificate information and established nosological rules. The underlying cause is defined as that cause deemed responsible for the sequence of morbid events leading directly to death. All causes of death are coded in accordance with the *International Classification of Diseases, Tenth Revision* (ICD-10).

Rate   The number of deaths per 100,000 population in the specified age group. Rates for "all ages" are crude death rates for the total population. Rates for

each age group are age-specific rates. Age [cause]-Specific Death Rate = (number of deaths [from a specific cause] in specified age group / age group population) x 100,000

Age-Adjusted Rate   The hypothetical death rate that would have occurred if the observed age-specific rates were present in a population whose age distribution were that of a standard population. (See the following "Technical Notes" for a discussion of crude and age-adjusted rates.) Age-adjusted death rates in this report are per 100,000 population and are adjusted to the 2000 U.S. standard population. Age-Adjusted Death Rate = sum of (age-specific death rate per 100,000 population x standard population in corresponding age group) / (sum of the standard population)

Years of Potential Life Lost prior to age 75 (YPLL-75)   A measure of premature mortality that is calculated over the age range from birth to 75 years of age. (See the following Technical Notes for further discussion of YPLL-75.)

TECHNICAL NOTES:

Crude and Age-Adjusted death rates: The **crude death rate** indicates the true current risk of dying in a population. However, since the crude death rate is influenced by the age composition of a population as well as by the number of deaths by age group, the crude rate is not appropriate for comparisons between different populations. The **age-adjusted death rate** is used to indicate the relative risk of dying among different populations by relating them to a standard population. By removing the influence of the age composition, the age-adjusted rate allows for valid comparisons between different populations.

It is important to keep in mind that age-adjusted death rates cannot be accurately compared to crude rates or to rates adjusted to a different population standard. Effective with 1999 death data, a new population standard based on the projected year 2000 U.S. standard population was implemented in the United States. Consequently, comparisons between age-adjusted rates in the 1999 and 2000 reports and those in the 1996–1998 reports (based on the 1940 U.S. standard population) and those in *Kentucky County Health Profiles, 1995* (based on the 1970 U.S. standard population) are not valid.

Cause of death code groupings: ICD-10 cause of death codes are grouped in this report according to the groupings shown in Appendix III, Cause of Death - ICD-10 Codes. The leading causes for each population cohort in each county are from the 50 leading causes statewide. In most cohorts, the ten leading causes are shown. However, in many counties, particularly for a small population in which there were few deaths, fewer than ten causes may be shown, and their total may not equal the All Causes total, the residual being deaths from causes other than the leading 50.

Racial classification: The Kentucky Population Research program provided 2000 Census population counts in three racial categories: White, Black (African American), and Other. In the 2000 Census, respondents were allowed to identify themselves as members of "two or more races." These are included in the Other population. Consequently the Other population has increased from 0.8 percent of the total population in 1999 to 2.6 percent in 2000. However, as in past reports, 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. Consequently, in many cases the White and Black statistics may not sum to the total.

County ranks: County ranks are provided for several indicators in this report in order to provide a quick reference to the relative standings among the counties. The reader should be aware that in many cases the differences among counties in the statistic being ranked are extremely small, and the ranks could fluctuate widely as a result of minimal changes in the actual statistic. For these reasons, the county ranks should be used with caution.

Reliability of rates based on small numbers: Rate calculations based on small numbers of events are extremely subject to random variation, and therefore are likely to fail to represent a "true" situation and may fluctuate widely from year to year. There are no absolute rules as to how large a number should be in order to generate a reliable rate, but a rough guideline is that there should be at least 25 events for age-adjusted rates and 20 events for other rate calculations. Numerous rates failing to meet these guidelines are included in this report because they have traditionally been reported in the *Kentucky Annual Vital Statistics Report*, and readers have come to expect them, but due to the concerns expressed above, they should be used with extreme caution.

In rare cases in the cause of death tables, one may notice a rate of 0.0 in an age group in which at least one death occurred. This has resulted where the estimated population of the age group was zero. Therefore the rate is actually mathematically undefined, but was set to 0.0 in the table. Accordingly, the age-adjusted rate for the cause in which this situation occurred was also set to 0.0.

YPLL-75: Years of potential life lost prior to age 75 is calculated over the age range from birth to 75 years of age using eight age groups. The number of deaths for each age group is multiplied by the years of life lost, calculated as the difference between age 75 years and the midpoint of the age group. Years of potential life lost is derived by summing years of life lost over all age groups, rounded to the next whole year.

Beginning with the 1996 report, YPLL has been presented for persons under 75 years of age because the average life expectancy in the U.S. is over 75 years. In *Kentucky County Health Profiles, 1995,* YPLL was presented for persons under 65. Since YPLL-75 includes deaths to persons ages 65-74, total YPLL is greater, and deaths in the earlier age groups make up a smaller proportion of the total. Therefore, comparisons of YPLL between the 1996-2000 reports and the 1995 report are not valid.

State totals: In rare instances, county totals other than those derived from vital statistics (births and deaths) may not sum to the state total. Data may have been reported with unknown county of residence or, for other reasons, county totals may not sum to the state total in the original source.

Motor vehicle crashes: In its initial release, ICD-10 required that accidents that did not explicitly involve a "motor" vehicle were to be classified as involving "unspecified" vehicles, and coded to code V89.9. Consequently, in 1999 only 777 deaths were classified as resulting from motor vehicle crashes (and another 33 deaths were classified as "other land transport accidents" and coded to V89.9). Subsequently, the National Center for Health Statistics has changed the rule for U.S. data to include deaths coded to V89.9 as motor vehicle crash deaths if the injury occurred on a highway or street. This report incorporates this change in classification.