THE HEALTH
OF
KENTUCKY
A COUNTY ASSESSMENT
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EXECUTIVE SUMMARY

In general, Kentucky is a healthy place to live and work. Few diseases are endemic to the state and most of Kentucky’s workplaces are relatively safe. Many of the health problems in the state are due to poor lifestyle choices, which lead to otherwise preventable diseases and premature deaths. Modifiable behavioral risk factors—tobacco use, poor diet and physical inactivity—have been identified as the leading causes of mortality in the United States as a whole, as well as in Kentucky. While some diseases are due to risk factors that cannot be mitigated, such as age, sex, race, and genetics, most risk factors for chronic disease can be prevented or modified to improve health.

Given the diverse nature of Kentucky in terms of topography, socioeconomic factors, and education, the health status of Kentucky counties varies greatly when compared to state and national rates. In order to address the problems that undermine health, citizens, providers, and policymakers need to initiate change in the communities where they live, work, and participate in the healthcare system. However, local communities often lack the information and knowledge they need to take action. Data accessible to groups trying to improve their community’s health status and access to healthcare are usually taken from national or state studies and are not designed to give information specific to local problems. Statewide and regional studies aggregate data that often conceal the disparities that exist among counties, masking the true situation found at the local level. For example, the percentage of Kentucky adults who smoke is 29%, but the rate varies by county from a high of 36% to a low of 20%. In order to effectively plan interventions sensitive to health barriers and disparities, county-level data on all health and health-related issues are necessary.

The findings of The Health of Kentucky were organized around a set of risk factors and disease outcomes which, taken as a whole, would approximate a composite picture of the health of Kentucky’s counties. They were grouped into the following categories: behavioral/social factors, demographics, health access, and health outcomes. In addition, rates were provided for four types of cancer. In examining measures of behavioral and social factors, the report found smoking to be Kentucky’s greatest challenge. Cancer, cardiovascular disease, and respiratory illness are among the more well-known consequences of tobacco use. More than half of the individuals who smoke will die of a smoking-related illness, and more than 23% of all deaths in Kentucky are attributable to smoking, a modifiable health risk factor. Only five of Kentucky’s 120 counties have smoking rates below the national average.

Another major challenge is the combination of obesity and lack of physical activity. These risk factors are related to the increased incidence of cardiovascular disease, diabetes, stroke, and other health disorders. Only 10 of Kentucky’s counties are above the national average for physical activity and 78 are above the national average for obesity. Other measures of behavioral and social factors that were considered include oral health, motor vehicle deaths, violent crime offenses, drug arrests, and occupational fatalities. For all of these measures, except violent crime offenses, Kentucky is worse than the national average.

Of the demographic measures selected for study, high school graduation rates and per capita income are the greatest challenges for Kentucky. Better-educated individuals are more likely to have access to preventive healthcare and to engage in behaviors that benefit their health. Only nine of Kentucky’s counties have high school graduation rates above the national average. In 2005, Kentucky ranked 48th among the 50 states in the percentage of people age 25 and older who have a high school diploma or its equivalent and 47th in the percent who have a bachelor’s degree. Poverty is one of the most challenging issues in Kentucky. Economic status has a profound impact on health and well-being. Only five Kentucky counties have per capita incomes above the national average. The size of Kentucky’s older population will figure prominently in the health status of the state’s population, as the incidence of chronic disease and disability increases with age. Seventy-nine of Kentucky’s counties have a percentage of elderly population above the national average.

In examining measures of health access, the greatest challenge in Kentucky is the primary care physician-to-population ratio. Having a regular primary care physician is strongly associated with a positive health status. Rural areas have major difficulty in attracting and retaining primary care physicians. Almost half of Kentucky’s population lives in the state’s 85 rural counties. Only seven Kentucky counties have primary care physician-to-population ratios above the national average. Kentucky does well in regards to adequacy of prenatal care and immunization rates. Kentucky’s percentage of pregnant women receiving adequate prenatal care is above the national average and about half of the counties are
above the national rate. Eighty percent of Kentucky’s children are immunized and over half of the counties are above the national rate.

In looking at health outcomes, Kentucky is at or below the national average for low birthweight babies and infant mortality. For infectious diseases (HIV, hepatitis, and tuberculosis), the state is also well below the national average. For diabetes, Kentucky is above the national average and only sixteen counties are below the national average. Kentucky’s rate of adults with limited activities in previous month is above the national average and reflects the state’s high disability rate. Cardiovascular disease is the leading cause of death in Kentucky. There are 113 counties with rates above the national average. Kentucky’s cancer death rate is above the national average with 112 counties having rates above the national average. Kentucky’s mortality rate for all counties exceeds the national rate. Premature death rate is a good indicator of overall health status and a high rate reflects a decrease in work productivity and economic development. The premature death rate is above the national average in 88 counties.

The study looked at four specific cancer death rates. For lung/bronchus cancer, the state’s death rate is far higher than the nation’s. All of Kentucky’s counties have a rate above the national average. Kentucky also has a colorectal cancer death rate that is higher than the national average. Only five of Kentucky’s counties have a rate below the national average. Kentucky has a breast cancer death rate above the national rate. Only forty-eight of Kentucky’s counties have a rate below the national average. Kentucky has a prostate cancer death rate above the national average. Only thirty-one of Kentucky’s 120 counties have a rate below the national average.

This report from the Kentucky Institute of Medicine provides objective data and resource information about risk factors and disease outcomes. This information is meant to assist officials and concerned citizens at the county level in assessing the health of their community and making decisions that will improve health. A county profile and ranking was developed for each of Kentucky’s counties to focus attention on these critical factors at the state and county level.

Each county profile contains 25 items which have equal weight in a ranking of 1 (best) to 120 (worst) as a measure of the county’s health status relative to the other counties. The most and least healthy counties in Kentucky, according to the county profiles, are presented in Tables I and II. A complete ranking of the counties is presented in the County Profiles section of the report (page 25).

A key premise of this study is that individuals can avoid many serious illnesses and premature deaths by engaging in more healthful behaviors, such as not smoking, having a healthy diet, engaging in regular physical activity, using seatbelts and child safety restraints when driving, and using safety equipment at work and when using tools at home. The poor health that results from poor individual lifestyle choices is a significant liability to Kentucky’s capacity to realize economic development and prosperity. The unnecessary costs incurred by unhealthy individuals are borne by their community as economic losses. Advancing the health status of Kentuckians will improve productivity and the economic viability of the state. Kentucky cannot realize economic gains nor improve quality of life without a healthy populace.

The Health of Kentucky describes a process to help counties improve their health status and provides examples of communities which have undertaken health improvement activities. Guidance is provided for conducting local studies and surveys. The report also provides suggested community interventions, sample programs, and resources related to each of the measures included in the individual county profiles.

<table>
<thead>
<tr>
<th>Table I: Most Healthy Counties</th>
<th>Table II: Least Healthy Counties</th>
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<tbody>
<tr>
<td><strong>County</strong></td>
<td><strong>Rank</strong></td>
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<tr>
<td>Oldham</td>
<td>1</td>
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<td>Boone</td>
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<tr>
<td>Jessamine</td>
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<td>Anderson</td>
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<td>Spencer</td>
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<td>Daviess</td>
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<td>Clark</td>
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INTRODUCTION

The Commonwealth of Kentucky is a diverse state in terms of landscape, industry, rural/urban distribution of population, socioeconomic factors, level of education, and health. These measures of diversity emphasize the importance that living environments play in health assessment. Life, and therefore health, is likely to have many meanings, each derived from the distinct and complex set of circumstances that define any given community. To Kentuckians, community identification is often equated with county of residence.

Given the diverse nature of Kentucky and the importance placed on locality, efforts to address the problems that undermine health must begin with the citizens, providers, and policymakers in the communities where they live, work, and participate in our healthcare system. However, local communities often lack the information and knowledge needed to take action. Data accessible to groups trying to improve their community’s health status and access to healthcare are usually from national or state studies and are not designed to give information specific to local problems. State-level data aggregates our 120 counties or uses a sample so small that conclusions are only valid for the state as a whole or for large regions. While helpful, these data can conceal the disparities that exist among counties, masking the true situation found at the local level. For example, the percentage of adults who smoke in Kentucky is estimated at 29%; however, the rate varies by county from a high of 36% to a low of 20%. As this example shows, efforts and scarce resources need to be concentrated on geographic areas where health challenges drive down overall statistics and adversely affect the health rates of the entire Commonwealth. To effectively plan interventions specific to health barriers and disparities, county-level data on all health and health-related issues are necessary.

In light of this, the Kentucky Institute of Medicine has produced The Health of Kentucky, a report offering a profile of health at the county level. The variables presented are classified broadly as behavioral and social factors, demographics, health access, and health outcomes. Within these classifications, data are provided for 25 different measures for each county, which are compared to state and national benchmarks. The report also provides county rates for the four cancers which have the highest mortality rates in Kentucky to inform the efforts of community leaders in mitigating known causes of poor health outcomes and to advance critical preventive screening where necessary. Selections of data were guided by the availability of data over a sufficient time period to establish patterns or trends, rather than a single point in time, which may or may not be representative of actual circumstances. Based on the data gathered for the measures presented for each county, counties were ranked from 1 to 120 to illustrate their health status relative to other counties. Finally, for the purposes of comparison, select state maps that are color coded by quartile to illustrate gradations of county-level health status and a ranking table are provided. In total, these comparative data provide a comprehensive profile of health in Kentucky.

Local communities and the state can use the data and information offered in The Health of Kentucky to identify and address critical health issues and to lend urgency, direction, and purpose to planning and actions designed to confront those issues of the highest priority. This will allow the development of statewide policy that is sufficiently flexible to target high-need counties or groups of counties. The report provides citizens at the county level with the needed information, knowledge, and methodologies to make better health-related decisions, tailor policies to meet their particular needs, and engage elected officials in an informed debate over health policy.

One process communities can use to achieve health improvement is Community-Initiated Decision Making (CIDM). CIDM assists communities in their efforts to focus on specific health problems and develop action plans to reduce or eliminate them. In the CIDM process community participants gather, analyze, and interpret data, reflect community priorities and values, develop and enhance working relationships within the community, explore alternatives, prioritize needs, and develop and implement action plans for health improvement. This report provides information on how to implement a CIDM process as well as examples of how other communities have successfully addressed a particular health problem.

The state has many health and health-related problems as indicated by comparisons to national rates. Kentucky is ranked 49th for the percentage of persons who smoke, 45th in the percentage of adults who are obese, 49th in poor mental health days in the past month, 48th in poor physical health, 46th in cardiovascular deaths, 50th in cancer deaths, 42nd in premature deaths, and 50th in total mortality. All of these factors are interrelated. The state’s unfavorable rankings for premature death and total mortality are largely a result of equally unfavorable rates of chronic diseases. Chronic diseases, in turn, are often the result of health-damaging behaviors, par-
particularly tobacco use, physical inactivity, and poor nutrition. Therefore, chronic diseases, which account for 70% of Kentucky’s total mortality and are among the most prevalent and costly of all health problems, are highly preventable through improvements in personal behaviors and regular primary healthcare. Many of the health crises that confront Kentucky are derived from individual actions and behaviors that occur at the local level and, therefore, the local level is where actions to address these crises must begin.

It is important to note that education and health go hand in hand. Improvement in one improves the other, and good standing in both is needed to improve the quality of life of all Kentuckians. Healthy children are better learners, which is important considering the widespread personal and societal benefits associated with education. Educated people are more likely to understand the risks involved with poor health and are more likely to make better lifestyle choices. These choices will help prevent chronic diseases that lead to economic loss as well as early and preventable deaths in Kentucky. So, while improvements in health are needed to improve education, improvements in education also are needed to improve health. Education includes both formal education and increased health literacy. Residents accomplished in both respects can work to reduce health risk at the local level and, with the proper information, also engage state-level decision makers in informed discussions about community healthcare needs that are not entirely within their control, such as access to healthcare and employment.

Poor health is a significant liability that significantly undermines Kentucky’s drive for economic prosperity. To improve Kentucky’s health, it is important not to discount the significance of what people do, or do not do, as they go about the business of daily living. The costs incurred by unhealthy individuals are borne by their community, as citizens shoulder unnecessary economic losses. For example, the direct and indirect costs related to diabetes in Kentucky were $2.9 billion in 2002. Considering that an estimated 40% of the population between the ages of 40 and 70 are currently overweight or obese and are considered to be in a pre-diabetic phase, these costs are likely to increase if corrective and preventive measures are not taken. Improving personal health behaviors and advancing the health status of Kentuckians will also improve productivity and the economic competitiveness of the state. Industry has become increasingly reluctant to locate in communities with known or perceived health problems which generally are viewed as increasing the cost of doing business because of increased health insurance costs and worker absenteeism. To put it briefly, Kentucky cannot realize economic gains nor improve quality of life without a healthy populace.
METHODS

Twenty-five measures were used to form a profile of health risks and outcomes for each of Kentucky’s 120 counties. These measures were selected based on a review of health literature and deliberations by KIOM task force members.

The chosen measures are the most useful for identifying the impact of personal behaviors, social conditions, demographic characteristics, and access to healthcare on the health and well-being of county residents. Profile measures permit comparison of one’s county with rates of other counties, the state, and nation. The comparisons can be useful for determining what the level of health status is within a county for a particular measure and where improvements should be sought.

A key premise of this study is that individuals can avoid many serious illnesses and premature deaths by engaging in more healthful behaviors, such as not smoking, having a healthy diet, engaging in regular physical activity, using seatbelts and child safety restraints when driving, and using safety equipment at work and when using tools at home. This report includes measures that indicate the damages to health that occur by not practicing these good health behaviors. A summary measure for the high loss of life that results from years of avoidable health-damaging behaviors by Kentuckians is the total mortality rate. Another measure is years of potential life lost (YPLL). YPLL measures the years of life lost before age 75. Unlike most measures of mortality, including age-adjusted death rates, that reflect the disease processes in older age groups, YPLL puts the focus on the largely preventable loss of life at earlier ages.

The selection of data for our health measures was guided by the availability of data over a sufficient time to establish statistically reliable patterns or trends rather than measuring a single point in time. While this method might not meet the most stringent requirements of traditional asymptotic statistical testing, limitations are lessened with a focus on data trends and other statistical techniques for measures based on extrapolated or small samples.

Numeric values were obtained for each of the 25 health measures for each county using the same data source and method of calculation. Each county was then ranked from 1-120 for each measure. The highest rates for some measures, such as education and prenatal care, and the lowest rates for others, such as infant mortality and diabetes, were ranked, starting with a rank of 1 and continuing through 120, depending on the values. These ranks were combined for a total score for each county. Finally, county scores were ranked from 1-120 or healthiest to least healthy based on measures used in the study. Measures for lung cancer, breast cancer, prostate cancer, and colorectal cancer were included to supplement the information provided by the county profiles. However, the rates for these four leading causes of cancer deaths were not included in county scores or overall rankings. The reason for this is because the impact of death from the four types of cancer on county scores and rankings were captured in the profile measure, Total Mortality.

To obtain the strengths, challenges, and outliers for each county, a scale from 1-120 was applied to the rankings for each profile measure. Favorable values that were within 35% of the median were classified as strengths. Unfavorable values were classified as challenges, and unfavorable values 90% or higher compared to the median were classified as negative outliers. As the report shows, all counties are characterized by strengths, challenges, and outliers.

Much of public health assessment involves describing the health status of a defined community by looking at changes in the community over time or by comparing health events in that community to events occurring in other communities or the state as a whole. In making these comparisons, the number of health events depends in part on the number of people in the community. To account for growth in a community or to compare communities of different sizes, rates are developed to provide the number of events per population unit.

The frequency with which health events occur is almost always related to age. Chronic conditions occur more frequently in older adults because of a variety of physiologic consequences of aging. Mortality tends to increase rapidly after the age of 40. In fact, the relationship between age and risk often overshadows other important risk factors. It is customary to remove the effects of differences in age structure when comparing rates across populations by calculating age-adjusted rates. Age-adjusted rates were used for all death rates in this report. The age-adjustment process removes differences in the age composition of two or more populations to allow comparisons between these populations independent of their age structure.

The population, or denominator base, for calculating rates depends on the frequency of the event being measured. A base population of 100,000 is desirable for calculating most
death rates; however, a population of 1,000 live births was used for the infant morality rate. A ratio of full-time-equivalent (FTE) primary physician was used with a population of 3,500, which is the US Health Professional Shortage Area minimal standard. Some of the rates, such as smoking or diabetes, consisted of the percentage of persons who either engaged in a particular behavior or had a particular health condition.

Kentucky is blessed with quality data sources for population, vital statistics, birth and death reports, crimes and arrests, injuries, education, and many other important health and social measures. The Kentucky State Data Center, the Kentucky Cancer Registry, and the many data resources provided by the Kentucky State Police, and the Kentucky Cabinet for Family and Children and its divisions are some of the most important data sources. Kentucky has the largest in-state sample among the 50 states for the Behavioral Risk Factor Survey (BRFSS), which is done on an annual basis. Multiple years of data (1997-2004) from this survey were acquired for this study. The BRFSS sample design mandates a sample size (7,000 or more) sufficient to produce statistically reliable results for most measures for each of the state’s 15 Area Development Districts. Data were combined for multiple years for several measures to provide more stable rates at the county level. In a county which had no BRFSS data available for a particular indicator, the data for surrounding counties were averaged to provide an estimate of what the rates might be.

KIOM task force members carefully considered the issues related to using what some would consider small numbers for making calculations at the county level. A particular concern is that a small number of events, such as a particular cause of death, can fluctuate widely from year to year for reasons other than an actual change in the underlying frequency of occurrence of the event. To lessen this measurement problem, data results from multiple years were combined to get as statistically reliable rates as possible. Some rates, such as cancer mortality, involved 10 years of reporting. Other rates, such as deaths resulting from motor vehicle accidents were based on a combination of five years. This process produces more stable statistical measures and reflects long-term trends for such variables as death from lung cancer or obesity, a rate which has more than doubled from 1990 to 2004.
## Definitions and Sources of Measures

### Behavioral/Social Factors

**Prevalence of Smoking**
- The percentage of adults who smoke tobacco products regularly.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Prevalence of Youth Smoking**
- The percentage of middle and high school students who smoke tobacco products regularly.
  - Source: Tobacco Survey and Kentucky Youth Risk Behavior Survey

**Prevalence of Obesity**
- The percentage of the adults estimated to be obese, defined by having a body mass index (BMI) of 30.0 or higher. BMI is equal to your weight in pounds divided by your height in inches squared and then multiplied by 703.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Lack of Physical Activity**
- The percentage of adults who do not participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Oral Health**
- The percentage of adults with six or more permanent teeth removed because of tooth decay or gum disease.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Motor Vehicle Deaths**
- Number of deaths per 100,000,000 miles driven.
  - Source: Kentucky State Police Traffic Collisions in Kentucky (Annual Reports)

**Violent Crime Offenses (per 100,000 population)**
- Number of murders, rapes, and violent assaults.
  - Source: Kentucky State Police Crime in Kentucky (Annual Reports)

**Drug Arrests (per 100,000 population)**
- Number of drug arrests involving opium, cocaine, marijuana, narcotics, and other dangerous non-narcotic drugs.
  - Source: Kentucky State Police Crime in Kentucky (Annual Reports)

**Occupational Fatalities (per 100,000 workers)**
- Number of agricultural and non-agricultural work-related fatalities by county of occurrence.
  - Source: Kentucky Department of Labor, Census of Fatal Occupational Injuries

### Demographics

**High School Graduation**
- The percentage of adults 25 years or older who have graduated from high school.
  - Source: US Census and Kentucky State Data Center

**Per Capita Personal Income**
- Mean income computed for every man, woman, and child in a particular group.
  - Source: Bureau of Economic Analysis, US Department of Commerce

**Population Older Than 65**
- Percentage of population 65 or older.
  - Source: Kentucky State Data Center

### Health Access

**Uninsured Population**
- The percentage of the population age 18-64 not covered by private or public health insurance.
  - Source: US Census Small Area Estimation of Health Insurance Coverage and the Kentucky Health Insurance Survey

**Primary Care Physician to Population Ratio (HPSA 1:3,500)**
- Total of active non-federal general practitioners, family physicians, general internal medicine, and non-specialist pediatricians relative to the population group.
  - Source: Kentucky Board of Medical Licensure and National Center for Health Workforce Analysis: Area Resource File (2006 release)

**Adequacy of Prenatal Care**
- Percentage of pregnant women who received prenatal care based on the Adequacy of Prenatal Care Utilization Index.
  - Source: Kentucky Health Profiles, Kentucky Department of Public Health

**Immunization Coverage**
- Percentage of children ages 19 to 35 months who have received the suggested early childhood immunizations, including recommended dosages for DTP, poliovirus, MCV, HiB, HepB.
  - Source: Kentucky Health Profiles, Kentucky Department of Public Health
### Health Outcomes

**Low Birthweight Infants (percent of 1,000 live births)**
- Neonates, regardless of gestation age, whose weight at birth is less than 2,500 grams. A neonate is a live born infant.
  - Source: Kentucky Health Profiles, Kentucky Department of Public Health

**Infant Mortality (deaths per 1,000 live births)**
- Deaths at any time from birth up to, but not including, one year of age.
  - Source: Kentucky Health Profiles, Leading and Selected Causes of Death, Kentucky Department of Public Health

**Infectious Disease (cases per 100,000 population)**
- The occurrence of Acquired Immune Deficiency Syndrome (AIDS), tuberculosis and hepatitis (all types).
  - Source: Kentucky Reportable Disease System

**Prevalence of Diabetes (percent adults)**
- Adults told by their doctor that they have diabetes.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Limited Activity Days**
- Percent of adults who could not perform work or household tasks due to physical, mental, or emotional problems.
  - Source: Kentucky Behavioral Risk Factor Surveillance Survey

**Cardiovascular Deaths (per 100,000 population)**
- Deaths caused by diseases of the heart and arteries, especially heart attacks and strokes.
  - Source: Kentucky Health Profiles, Leading and Selected Causes of Death, Kentucky Department of Public Health

**Cancer Deaths (per 100,000 population)**
- Deaths caused by a group of diseases characterized by uncontrolled growth and spread of abnormal cells.
  - Source: Kentucky Cancer Registry Inquiry System

**Total Mortality (per 100,000 population)**
- Measure of all causes of death.
  - Source: Kentucky Health Profiles, Leading and Selected Causes of Death, Kentucky Department of Public Health

**Premature Death (YPLL-75 deaths per 100,000 population)**
- Years of Potential Life Lost prior to age 75 is a measure of premature mortality that is calculated over the age range from birth to 75 years of age.
  - Source: Kentucky Health Profiles, Leading and Selected Causes of Death, Kentucky Department of Public Health

### Cancer Death Rates

**Lung/Bronchus Cancer (deaths per 100,000 population)**
  - Source: Kentucky Cancer Registry Inquiry System

**Colorectal Cancer (deaths per 100,000 population)**
  - Source: Kentucky Cancer Registry Inquiry System

**Breast Cancer (deaths per 100,000 females)**
  - Source: Kentucky Cancer Registry Inquiry System

**Prostate Cancer (deaths per 100,000 males)**
  - Source: Kentucky Cancer Registry Inquiry System
The following is a detailed discussion for each variable used in the construction of health profiles for each of Kentucky’s counties. The focus for each variable is its relation to health-damaging behaviors that citizens can avoid, lessen, or reverse. Other important community measures related to health are briefly discussed, with an emphasis on changes that can be achieved through community initiatives that will improve health, help reduce unnecessary illnesses, and prevent premature deaths that result from the many poor health practices of Kentuckians.

### Behavioral / Social Factors

#### Prevalence of Smoking (percent adult population)
#### Prevalence of Youth Smoking (percent middle and high school students)

The most significant modifiable health risk factor for Kentucky, and the nation as a whole, is smoking and the use of tobacco products. Although the percentage of Kentucky adult smokers has declined from 35.9% in 1990, the percentage of the population who are smokers continues to lead the nation. Fully 29% of adult Kentuckians smoke compared with 21% of adults at the national level. Adult smoking rates for Kentucky counties vary from 20% (Shelby, Washington, Breathitt, McCracken, and Christian counties) to 36% (Garrard, Boyle, and Taylor counties). Only five Kentucky counties have smoking rates below the national average. Cigarette smoking is the leading avoidable cause of death in Kentucky and the nation. One in four women in Kentucky smoke during their pregnancy. Among high school students and adults, nearly one in three smoke cigarettes. Over 8,000 Kentuckians die annually from tobacco-related illnesses.

The first map below shows the Area Development Districts (ADDs) of Kentucky. The second map shows that there are patterns among the 15 ADDs where higher rates of smoking persist. Research has linked higher smoking rates, both for youths and adults, to areas of the state that traditionally grew tobacco for sale. Year after year, western counties in the Green River ADD, south central counties in the Barren River and Lake Cumberland ADDs, and eastern counties in the Cumberland Valley, Big Sandy, Gateway, FIVCO, and Buffalo Trace ADDs have some of the highest smoking rates. These counties also tend to have lower education and income levels, which strongly correlate with higher smoking rates.

Cancer, cardiovascular disease, and respiratory illness are among the more well-known consequences of tobacco use. Other less well-known diseases for which smoking is a contributing factor include infertility, gingivitis, osteoporosis, increased risks for cataracts, and cervical cancer. Smoking results in major decreases in quality of life and life expectancy for both those who smoke and those who are regularly exposed to secondhand smoke.

Smoking-attributable medical costs for Kentucky are approximately $1.2 billion annually; this is in excess of $300 for each of the more than 4 million people living in our Commonwealth.

Smoking has long been regarded as the single most preventable cause of premature death, especially lung cancer. Smoking and second-hand smoke also contribute to an array of chronic diseases and conditions, including cardiovascular disease (the leading cause of death for both Kentucky and the nation) and
chronic lower respiratory disease. Children who are exposed to secondhand smoke are more likely to experience poor lung growth, respiratory problems, and more frequent and severe asthma attacks. Moreover, children who live in households where their parents smoke are more likely to become smokers.

Kentucky has the highest rate of women who smoke during pregnancy and many other women breathe secondhand smoke during pregnancy, with both conditions contributing to low-birthweight deliveries and higher rates of infant mortality.

More than half of the individuals who smoke will die of a smoking-related illness, and more than 23% of all Kentucky deaths are attributed to smoking. Nationally, the CDC estimates that smoking or exposure to secondhand smoke causes 1 in 5 deaths per year. Further, an estimated 8.6 million people suffer from serious illness as a result of smoking. Beyond human suffering, smoking and the use of tobacco products burden the nation with $75 billion for healthcare and $92 billion in lost productivity every year.

The importance of preventing youth smoking cannot be overstated. It has long been established that more than 80% of adult smokers began smoking before they reached the age of 18, by which time more than half of them were smoking on a daily basis. Programs designed to prevent youth from starting to smoke, as well as to help them quit, are critical to the future health of our state. An estimated 25% of Kentucky high school-age students smoke, compared with 23% nationally. Youth smoking rates in Kentucky vary by county from 18% (Shelby, Washington, Breathitt, McCracken, Casey, and Christian counties) to 32% (Garrard, Boyle, and Taylor counties). Only 30 Kentucky counties have youth smoking rates below the national average.

The very young age at which so many Kentuckians start smoking is of particular concern: 10% of 6th graders and 28% of 7th graders, according to the Kentucky Youth Tobacco Survey, are smokers, and smoking among adolescents increases to 42% for high school seniors. To prevent smoking-related diseases, programs should direct aggressive smoking cessation and prevention programs at very young populations in the Commonwealth. Kentucky leads the nation with the highest mortality rates for lung and bronchus cancer deaths for both males and females and for whites and African-Americans, and high mortality rates linked to smoking-related diseases are a problem throughout the state.

Tobacco use is the leading cause of preventable death, disease, and unnecessary healthcare costs across Kentucky. If we better educate the public about the addictive qualities and health risks associated with using tobacco products and find a way to help the 50% of Kentucky smokers who say they want to quit, we will be taking a significant step toward improving health and preventing premature death in our state.

Prevalence of Obesity (percent adult population)

Lack of Physical Activity (percent adult population)

Healthy eating habits and exercise are essential to maintaining a healthy weight. Poor nutrition and limited physical activity have led to an increase in overweight and obese people throughout the country, as work has become more sedentary in general and diets are increasingly centered around prepared and restaurant foods. But the problem is more severe in Kentucky.

The rate of obesity is increasing rapidly both in Kentucky and the nation. An estimated 29% of adult Kentuckians are obese compared with a US average of 24%. Obesity rates for Kentucky counties range from 13% in Oldham County to 52% in Clay County. An estimated 38% of Kentuckians are considered overweight. Nationally, Kentucky ranks sixth in the combined percentages of overweight and obese people.

Obesity-related costs are very high and increasing for businesses and industry, the taxpayer, and other sectors of our economy. Every dollar spent on obesity prevention saves $3 to $5 in obesity-related medical costs. If we better educate the public about the addictive qualities and health risks associated with using tobacco products and find a way to help the 50% of Kentucky smokers who say they want to quit, we will be taking a significant step toward improving health and preventing premature death in our state.

The lack of physical activity, poor dietary choices, and obesity are linked with the increased risk of several medical conditions. About 32% of adult Kentuckians, compared with 24% of adults nationally, report no physical activity, the second poorest ranking in the country. Lack of physical activity rates for Kentucky’s counties vary from 12% in Oldham County to 60% in Nicholas County. Only 10 of Kentucky’s counties are below the national average. An important predictor and indicator of the extent of the problem is the number of high school students enrolled in physical education. As shown, Kentucky lags behind the rest of the nation in this measure.

**Oral Health**
*(percentage adults missing 6 or more teeth)*

Research has established links between poor oral health—cavities, missing teeth, and periodontal disease—and diseases that affect the whole body. Poor oral health has been linked to chronic illnesses such as heart disease, certain cancers, and premature birth. Lifestyle and behavioral factors figure clearly in poor oral health. The use of cigarettes or other tobacco products prevents healing in the mouth and exacerbates infection. The coexistence of poor oral health with high rates of chronic disease in Kentucky gives reason for heightened concern.

In 2004, Kentucky had the nation’s highest percentage of edentulous persons, those who have lost all their natural teeth due to tooth decay or gum disease. Kentucky ranks 8th in the proportion of adults who have lost at least one permanent tooth due to tooth decay or gum disease and 14th for adults who have lost six or more teeth. Among Kentucky adults, 37% have six or more missing teeth compared with 33% nationally. The percentage of adults missing six or more teeth in Kentucky varies by county from a high of 65% in Powell County to a low of 11% in Woodford County. Only 39 of Kentucky’s counties have rates below the national average.

**Motor Vehicle Deaths**
*(per 100,000,000 miles driven)*

Wearing seatbelts and using proper child safety devices are crucial to reducing motor vehicle death rates. Historically, the importance of seatbelt use to the health and safety of Kentuckians and the economy has been underestimated. As a consequence, the percentage of Kentuckians who use seatbelts (67%) is considerably lower than the national average (82%), ranking Kentucky 47th among states.

The lack of a safety restraint has both physical and economic consequences. The Kentucky Institute of Medicine attributes 64% of traumatic brain injuries and 35% of spinal cord injuries to motor vehicle crashes in which seatbelts were not used. The acute and chronic injuries associated with these accidents clearly increase medical costs, and that burden, in turn, is borne by the society at large through publicly-supported health insurance programs like Medicaid and Medicare, as well as higher insurance premiums.

### Estimated Economic Costs of Kentucky Traffic Collisions, 2002

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost Per Incident</th>
<th>Number Reported</th>
<th>Estimated Cost</th>
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<tbody>
<tr>
<td>Fatalities</td>
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<td>$997,350,000</td>
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<tr>
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<tr>
<td>Non-incapacitating Injuries</td>
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<td>Property Damage Only</td>
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<td>97,144</td>
<td>194,288,000</td>
</tr>
<tr>
<td><strong>Total Economic Cost</strong></td>
<td></td>
<td></td>
<td><strong>$2,114,455,400</strong></td>
</tr>
</tbody>
</table>

*Source: National Safety Council, Traffic Collisions in Kentucky Annual Reports*

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Kentucky’s recently implemented mandatory seatbelt law (January 1, 2007) is projected to increase seatbelt use 11% and result in 62 fewer fatalities a year, 388 fewer incapacitating spinal cord and traumatic brain injuries, and 1,051 fewer non-incapacitating injuries from accidents involving passenger vehicles and light trucks. It is also expected to save the Kentucky Medicaid fund alone some $40 million over the next decade. Kentucky State Police report 6 fatalities due to motor vehicle crashes over the highly traveled July 4th holiday in 2007 with the mandatory enforcement of the seatbelt law compared to 14 for the same period before the implementation of the law. Also, fewer traumatic brain injuries and other serious injuries were reported.

Kentucky has a motor vehicle death rate of 2.1 deaths per 100,000,000 motor vehicle miles, compared with a national rate of 1.5 deaths. The motor vehicle death rate for Kentucky’s counties varies from 0.0 in Edmonson and Menifee counties to 3.4 in Carroll County.

### Violent Crime Offenses
(per 100,000 population)

Violent Crime measures the effect of criminal behavior on a population’s health. It represents factors such as illegal drug use and various social ills. Violent crime measures the annual number of murders, rapes, robberies, and aggravated assaults per 100,000 population. Violent crime reflects an aspect of American lifestyle and is an indicator of health risk and death. Violent crime strongly correlates with drug arrests.

Kentucky has a violent crime rate of 267 per 100,000 population compared with 469 for the nation. However, the violent crime offense rate for Kentucky’s counties varies from a high of 1,420 in Daviess County to a low of 14 in Spencer County. Twenty-five of Kentucky’s counties have violent crime offense rate above the national average. Kentucky’s relatively low crime rate contributes to the physical well-being of citizens in most regions of the Commonwealth.

### Drug Arrests
(per 100,000 population)

Drug abuse has become a major health risk factor in Kentucky, in terms of the health cost to both the user and the state. Nationally, the total 2003 cost of drug-related problems was estimated at $181 billion, accounting for loss of productivity, healthcare costs, and drug-related crime. The estimated cost of drug abuse in Kentucky ranges from $2.5 to $3.6 billion annually. According to the Kentucky Needs Assessment program, about 375,000 adults and more than 50,000 adolescents need substance abuse treatment but are not receiving it.

The availability of drugs has affected the extent of substance abuse in the Commonwealth. The Kentucky Office of Drug Control Policy identifies marijuana and cocaine as being in high demand and availability. Cocaine abuse is more prevalent in north-central Kentucky whereas opiate abuse, which is mostly from prescription drugs, is more common in eastern Kentucky. The use of tranquilizers, stimulants, and marijuana are widespread throughout the state, but methamphetamine use is more prevalent in western Kentucky. The use of methamphetamine has been a problem, but the availability is declining due to Kentucky’s new regulation on purchasing over-the-counter drugs containing one of its main ingredients, pseudoephedrine. More methamphetamine is now being manufactured outside the country and imported into Kentucky.

Kentucky has a drug arrest rate of 1,046 per 100,000 population compared with a national rate of 700. The drug arrest rate for Kentucky’s counties varies from 37 in Oldham County to 2,764 in Graves County.

### Occupational Fatalities
(per 100,000 workers)

Occupational injuries are a major cause of loss of work productivity. Kentucky leads the nation in work-related injuries and illnesses. Nonfatal injuries are 28% higher and fatal injuries are 75% higher than the national rate. The state’s high rates of workplace injury and illness are largely due to the concentration of workers in high-risk industries, such as mining, agriculture, logging, and manufacturing.

Kentucky has an occupational death rate of 8 per 100,000 population compared with 5 at the national level. The occupational death rate for Kentucky’s counties varies from 0 in 21 counties to 47 in McCreary County. Only 39 of Kentucky counties have a rate below the national average.

Highway or transportation incidents, already a problem area in regard to health status in Kentucky, account for the manner in which most workplace fatalities (43%) occur, followed by being struck by an object or equipment (18%), assaults and violent acts (14%), falls (13%), exposure to harmful substances and environments (9%), and fires and explosions (3%). Between 1992 and 2005, the number of workplace fatalities

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8 University of Kentucky Center on Drug and Alcohol Research, Kentucky Needs Assessment Project, Adult and Adolescent Household Surveys, 22 Feb. 2007 <http://cdr.uky.edu/knap/>.

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The Health of Kentucky 18 Kentucky Institute of Medicine
attributable to highway incidents increased steadily until 1999 and then declined somewhat, though the number of deaths rose in 2004 and 2005. Similarly, deaths attributable to falls and workers being struck by an object rose over the same time period. The failure to use safety equipment and to follow standard safety practices are major contributing factors to high workplace injury rates.

Demographics

Characteristics of populations, such as educational status, age, and racial composition, are strongly indicative of health status, as well as barriers to access to healthcare and poor health status. People with less education are more likely to earn less and not be covered by health insurance. They also tend to have higher rates of risky health behaviors and associated higher rates of preventable illnesses and rates of premature death than people with more education.

High School Graduation (percent adults 25 or older)

Seventy-two percent of Kentuckians 25 years and older have graduated from high school. Though Kentucky has made substantial gains since 1990, cutting the gap between state graduation rates and the national average of 80%, there are very large differences among Kentucky counties. The high school graduation rate for Kentucky’s counties varies from 49% in Clay and Owsley counties to 87% in Oldham County.

The attainment of four-year undergraduate degrees has also increased in Kentucky from just 13.6% in 1990 to 19.3% in 2005, but increasing education rates at all levels in all states have effectively neutralized these gains relative to other states. In 2005, Kentucky ranked 48th among the 50 states in the percentage of people 25 years and older who have a high school diploma or its equivalent and 47th in the percentage who have a bachelor’s degree.

Education is strongly associated with lifestyle choices. The more educated individuals are the more likely they are to have access to preventative healthcare and to engage in behaviors that benefit their health.

Many of the non-communicable diseases that afflict and kill Kentuckians could be avoided or significantly reduced through education about the health risk factors that lead to these diseases. The importance of health should be stressed at a young age because many of the behavioral risks that detract from good health, such as smoking, are adopted during childhood or adolescence, and healthy lifestyles are easier to teach to the young. Outside the home, school systems provide the best environment to educate children about the importance of healthy behaviors, with student retention through high school graduation being important to this process.

It is estimated that increasing the number of high school graduates would significantly reduce crime-related costs and add billions of dollars to the economy for communities through the additional wages individuals could earn. Increasing the graduation rate and college matriculation of male students by only 5% could lead to combined savings and revenue of almost $8 billion each year nationally (Saving Futures at <www.all4ed.org>). The positive benefit to Kentucky’s economy of increasing education rates for males, especially in the state’s 43 high-poverty counties where males age 18 to 25 have extremely high dropout rates, would be tremendous.

Per Capita Personal Income

Economic status has a profound impact on health and well-being. In 2005 per capita personal income in Kentucky was $27,625 compared to a substantially higher national average of $33,689. Kentucky has 43 high-poverty counties, with poverty rates of 20% or higher, and 15 of the wealthiest and 35 of the poorest counties in terms of the latest estimates by the US Bureau of Economic Analysis.

Kentucky had the nation’s 8th highest poverty rate among states, 16.8% compared with a national average of 13.3% in 2005. For children under the age of 18 who lived in households below the poverty rate in the year preceding 2005, Kentucky’s rate of 22.5% ranked 10th highest among states, compared with a national average of 18.5%. While the poverty rate for older Kentuckians has declined substantially in recent years, 13.3% of people living in Kentucky who are 65 years and older live below the poverty level, compared with 9.9% nationally. Among states, Kentucky ranks fourth highest in poverty among older citizens.

Poverty is one of the most challenging issues we confront in Kentucky. Inequities persist and access to education, quality jobs, healthcare, and housing remain out of reach for many poor people. These conditions, including geographic isolation, have resulted in 33 Kentucky counties being classified

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The size of Kentucky’s older population will ultimately figure prominently in the health status of the state’s population, as the incidence of chronic illness, disease, and disability increases with age. Older Americans, however, are enjoying substantial improvements in their quality of life and functional capacity due to medical advances and increasingly active lifestyles, effectively redefining the aging process.

The Census Bureau estimates that Kentuckians age 65 or older comprised 11% of the state’s population in 2005, compared with the national rate of 13%. What appears to be alignment with the national rate, however, illustrates the need for county-level data. The elder population rates of Kentucky counties vary from a high of 19% in Hickman County to a low of 7% in Nelson County. Kentucky ranked 28th among the states in the portion of its population aged 65 and older. Importantly for the state’s health status, however, Kentuckians who are 65 and older have exceptionally high rates of personally ascribed disability, 48.6% compared with a national average of 40.5%. Kentucky ranks fourth in the nation in disability rates among persons age 65 and older, which indicates that, given the status quo or a worsening health status, the state will likely incur higher costs for the care of elders in the coming years as the baby boom population reaches retirement age.

### Health Access

The lack of universal access to healthcare and the growing cost of health insurance are fast becoming the most important domestic concerns in the United States. The Institute of Medicine estimated in 2004 that the lack of health insurance was the cause of 18,000 unnecessary deaths per year. In recent years, a growing number of employers have cut or eliminated benefits for current employees, as well as their retirees, to contain soaring cost obligations. As a result, individuals with low incomes or high medical needs are shouldering increased costs for medical care. For some these costs have become so burdensome that they are discouraged from seeking care when they think they need it, especially primary care.

The availability of providers also figures prominently in the accessibility of healthcare. In a disproportionately poor state, the cost of transportation is a critical access factor. Thus, sparsely located points of entry into the healthcare system diminish the likelihood that people will receive even basic preventive care, much less treatment for acute illness or chronic disease.

### Uninsured Population

Kentucky currently has a relatively high insured population compared to the United States. During the three-year period from 2003-2005 an estimated 86.4% of the state’s population had either public or private health insurance, which compared favorably to a national rate of 83.4%. The relatively high coverage rate for Kentucky though is partially explained by a higher than average Medicaid population, 15% in 2004 compared with 13% nationally. Uninsured rates in Kentucky counties vary from 8% in Hancock, Campbell, and Oldham counties to 25% in Owsley County. Close to a half million Kentuckians, including adults and children, do not have any type of health insurance coverage. Uninsured rates in Kentucky are especially high for children and young adults age 18-25. Many eligible children are not enrolled in the Kentucky Children’s Health Insurance Program (KCHIP). College students are especially vulnerable because of losing family coverage when turning age 18.

Large companies are more likely to provide health insurance for their employees, but small companies, those with fewer than 50 employees, are far less likely to do so. In Kentucky, 96% of small companies are quite small, employing fewer than 25 employees. Moreover, only 43% of these small employers provide their employees with health insurance, accounting for a substantial portion of the state’s uninsured population.

Since 2002, substantial percentages of Kentucky’s small firms report making changes in the terms of health insurance coverage: 60% increased deductibles and co-payments; 39% offered fewer benefits; 15% raised the employee contribution; and 14% limited provider choice. Despite these changes, 97% of small Kentucky companies that offer coverage plan to continue doing so. On the other hand, 93% of small companies that do not currently offer health insurance also do not plan to offer it in their next business year, primarily because it is too expensive (69%).

Whether people have health insurance has a great deal to do with where or whether they seek appropriate care. People

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with insurance (81%) are more likely to see a private doctor, whereas those without insurance are more likely to seek care at a free clinic or an emergency room. The uninsured are less likely than the insured to seek care when they need it at a rate of 70% to 22%, fill a prescription (54% vs. 21%), or obtain a diagnostic test (53% vs. 26%). Consequently, being uninsured is a significant risk factor for timely and appropriate detection and treatment of diseases.

**Primary Care Physician to Population Ratio 1:3,500**

The current minimal standard by the US Bureau of Primary Health Care, Health Resources and Services Administration (HRSA), for primary care physician-to-population ratio is 1 per 3,500. A more reasonable standard, 1 primary care physician per 2,000 population, more effectively provides standard and preventive care for populations with higher rates of health risk and illnesses. The minimal federal standard is not likely to adequately address the needs of a population such as Kentucky’s which has many citizens who are characterized by high rates of health-damaging behaviors and barriers to primary care. The state has an extremely high chronic disease burden, especially for cancer and heart disease, which requires a greater number of providers to provide an acceptable level of care.

Forty-four percent of the state’s population lives in 85 rural counties, 43 of which are classified as high-poverty with rates of 20% or more poverty. Kentucky is the tenth most rural state in the nation.

Kentucky’s primary care physician ratio is 2.5 per 3,500 population compared with a substantially higher national ratio of 3.7. This ratio varies among Kentucky counties from 0.0 in some rural counties (Hancock, Robertson, Elliot, and Menifee counties) to 5.5 in the metropolitan Fayette County. Only seven Kentucky counties have primary care physician ratios above the national average.

Having a regular primary care physician is strongly associated with a positive health status. Without access to basic healthcare, individuals are less likely to have information about avoiding disease and illness through the practice of healthy behaviors and have access to recommended preventive health screenings and early treatment of diseases, such as colorectal cancer, that lead to premature and unnecessary deaths.

An increase in the number of primary care physicians is associated with improved health outcomes for all causes of disease and deaths. Increases in primary care physicians have been shown to reduce rates of infant mortality and low birthweight, increase life expectancy, and to improve self-rated health. An increase of one primary care physician per 10,000 of population is associated with an average mortality reduction of 14.4 deaths per 100,000 population.

**Adequacy of Prenatal Care (percent pregnant women)**

It is desirable that women begin prenatal care in the first trimester of pregnancy and have regular care throughout pregnancy. Prenatal care helps protect the health of both mother and developing child.

While there are some disparities among counties in Kentucky, the state’s prenatal care system is vastly improved and continues to develop.

The percentage of pregnant women in Kentucky receiving adequate prenatal care is 85% compared with the US rate of 75%, and the rate varies from 74% in Scott and Fulton counties to 95% in Hancock and Oldham counties.

**Immunization Coverage (percent children 19-35 months)**

Eighty percent of Kentucky’s children are immunized compared with the US rate of 81%. The immunization rate for Kentucky varies from 70% in Scott and Fulton counties to 89% in Hancock and Oldham counties. This variation reflects an important disparity that needs to be addressed. Early immunizations protect children from life-threatening diseases and illnesses that can impair mental and physical development.

There is a growing concern that underinsured children and children of parents with low education are more at risk of not getting all of the recommended childhood immunizations.

**Health Outcomes**

The following health outcomes are from various measures which represent standard indicators for health and disease within a population.

**Prevalence of Low Birthweight (per 1,000 live births)**

The rate of low-birthweight children in Kentucky is 8 per 1,000 live births, which is the same as the US rate. Kentucky
county rates vary from 4 in Crittenden and Robertson counties to 13 in Nicholas County. Kentucky has made great progress in its delivery of prenatal care. However, this study suggests improvements are still possible in some counties. With Kentucky having the highest rate of women who smoke during pregnancy, increased attention needs to be given to programs that can reduce this rate. Improved nutrition and appropriate physical activity for women during pregnancy are also suggested.

**Prevalence of Infant Mortality**
(per 1,000 live births)

Kentucky’s infant mortality rate is 7 per 1,000 live births, which is the same as the US rate. Kentucky county rates vary from 2 in Carlisle County to 13 in Simpson and Clay counties per 1,000 live births. Researchers have used infant mortality as a measure to gauge the health of countries and states. While Kentucky has made great strides in improving prenatal and neonatal care and lowering its infant mortality rate, it should be motivated to reduce infant mortality even further based on the fact that two states have achieved rates below 5 per 1,000 live births.

**Prevalence of Infectious Disease**
(per 100,000 population)

Kentucky’s infectious disease rate is 8 per 100,000 population compared to the US rate of 23. Kentucky county rates vary from 0 in Greenup and Knox counties to 46 in Powell County. Kentucky has a very favorable infectious disease rate. The infectious disease rate is based on the occurrence of HIV/AIDS, tuberculosis, and all three forms of hepatitis. Data indicate a definite geographic clustering in urban areas of these diseases. This information can help promote attention and the development of appropriate prevention and treatment strategies.

**Prevalence of Diabetes**
(percent adults)

The prevalence of adult diabetes in Kentucky is 9% (US 7%). The rate for Kentucky counties varies from 3% in Oldham County to 16% in Casey County. Type II Diabetes has long been considered a disease of older age. However, the rate of diabetes has been increasing throughout the United States. This has also been true for Kentucky and increasingly includes children. Diabetes can be prevented or delayed by proper nutrition and physical activity. It is also a controllable disease that can be managed through treatment to normalize blood glucose levels, dilated eye exams, foot exams, and A1C checks. Kentucky’s diabetes rates tend to be much higher among African Americans, seniors, and persons living in the rural eastern counties.

**Limited Activities in Previous Month**
(percent adults)

Kentucky’s limited-activities-in-previous-month rate for adults is 28% (US 19%). Kentucky county rates vary from 11% in Spencer, Gallatin, Trimble and Garrard counties to 55% in Jackson, Carlisle and Powell counties. Kentucky tends to have the highest self-reported rate among the 50 states of activities limited because of some physical or mental condition. These rates tend to be higher among persons living in our rural eastern Kentucky counties. These rates are associated with higher rates of depression and other behavioral health measures.

**Cardiovascular Deaths**
(per 100,000 population)

Cardiovascular disease is the leading cause of death in Kentucky. In 2001, approximately 38% of all deaths occurred from cardiovascular disease (heart disease, 30%, and stroke, 8%). Approximately 14,500 Kentuckians died from cardiovascular disease in 2001. Kentucky ranks fourth highest for cardiovascular mortality in the nation, fifth highest for heart disease mortality, and twelfth in the nation for stroke mortality.

Research shows that specific risk factors increase the occurrence of cardiovascular disease. The major modifiable risk factors are high blood pressure, high blood cholesterol, cigarette smoking, lack of physical activity, poor dietary choices, and obesity. Each of these risk factors has high rates of occurrence in Kentucky.

Kentucky’s cardiovascular death rate per 100,000 population is 409 (US 326). Kentucky county rates vary from 263 in Edmonson County to 589 in Ballard County.

**Cancer Deaths**
(per 100,000 population)

Kentucky’s cancer death rate per 100,000 population is 237 (US 202). Kentucky county rates vary from 187 in Carlisle County to 295 in Wolfe County. Kentucky ranks the worst among the 50 states for cancer burden. This unfortunate fact is due largely to Kentucky having the highest lung/bronchus cancer death rate and a very high rate for colorectal cancer mortality. In 2004, the CDC predicted that 3,380 men and women in Kentucky would die of lung cancer and 890 would die from colorectal cancer. It was estimated that 600 women would die of breast cancer and 340 men would die from prostate cancer.
**Total Mortality**
(per 100,000 population)

Kentucky’s total mortality rate per 100,000 population is 987 (US 842). Kentucky county rates vary from 872 in Edmonson County to 1,325 in Wolfe County. Kentucky ranks among the 50 states as having the highest total mortality rate, largely due to its cancer and heart disease death rates.

**Premature Death**
(years lost per 100,000 population)

Kentucky’s premature death rate of years lost per 100,000 population is 9,111 (US 7,562). Kentucky counties’ total mortality rate per 100,000 population varies from 3,741 in Allen County to 20,084 in Edmonson County. Kentucky ranks 42nd among states in terms of premature death. The two largest proportions of this premature death rate are caused by cancer and heart disease.

**Cancer Death Rates**

<table>
<thead>
<tr>
<th>Lung/Bronchus Cancer Mortality, 1994-2004</th>
</tr>
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<tbody>
<tr>
<td>89 to 124%</td>
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<td>79 to 88%</td>
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<tr>
<td>73 to 78%</td>
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<tr>
<td>59 to 72%</td>
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</table>

**Lung/Bronchus Cancer**

Lung/bronchus cancer is the leading cause of cancer death in the United States and Kentucky where it is expected to claim an estimated 3,450 lives in 2007. This rate has remained relatively constant in recent years. The state’s lung/bronchus cancer death rate is far higher than the nation’s with 80 per 100,000 population compared to 55 nationally. The lung/bronchus cancer death rate for Kentucky’s counties varies from 59 in Larue and Cumberland counties to 124 in Gallatin County. All of Kentucky’s 120 counties have a rate above the national average. As the map shows, there is definite clustering of lung/bronchus mortality rates in regions of the state. The highest rates in the period from 1994-2004 are concentrated in eastern Kentucky and the region of Ohio, Butler, and Muhlenberg counties.

**Colorectal Cancer**

The third most common cancer among men and women is colorectal cancer. Early detection and education about the importance of screening will help save lives from this preventable cause of death.

Kentucky has a colorectal cancer death rate of 23 per 100,000 population compared with a US rate of 20. The colorectal cancer death rate for Kentucky’s counties varies from 16 in Edmonson County to 53 in Graves County. Only five of Kentucky’s 120 counties have a rate below the national average.

**Breast Cancer**

The most common type of cancer among women is breast cancer. Routine self-examination, mammography, early detection, and advances in the treatment of breast cancer have increased survival rates. Both lifestyle choices and genetics play a role in breast cancer.

Kentucky has a breast cancer death rate of 27 per 100,000 population compared with a national rate of 26. The breast cancer death rate for Kentucky’s counties varies from 10 in Crittenden County to 42 in Union County. Forty-eight of Kentucky’s 120 counties have a rate below the national average.

In spite of the significant gains made in the detection and treatment of breast cancer, it remains a threat to the health and longevity of women and compels due diligence in our efforts to ensure that women receive timely and appropriate preventive screening.

**Prostate Cancer**

**Prostate Cancer Mortality, 1994-2004**

<table>
<thead>
<tr>
<th>Prostate Cancer Mortality, 1994-2004</th>
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<tbody>
<tr>
<td>38 to 68%</td>
</tr>
<tr>
<td>33 to 37%</td>
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<tr>
<td>28 to 32%</td>
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<tr>
<td>11 to 27%</td>
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</table>

---
22 American Cancer Society, “Estimated …”
Prostate cancer is the most common type of cancer among males in the United States and the second leading cause of cancer mortality among men in Kentucky, behind only lung and bronchus cancer.

Kentucky has a prostate cancer death rate of 33 per 100,000 population compared with a national rate of 28. The prostate cancer death rate for Kentucky’s counties varies from 11 in Kenton and Estill counties to 68 in Cumberland County. Thirty-one of Kentucky’s 120 counties have a rate below the national average. The map on the previous page shows some definite patterns among counties for the two higher rates of prostate cancer.
COUNTY PROFILES

Kentucky’s counties are ranked from 1 to 120, with number 1 judged to be the healthiest and 120 the least healthy based on data for 25 health measures used to compile county health profiles. First, the values for each selected health measure were ranked from 1 to 120 independently, and then the scores, or ranks, for all 25 measures were combined for each county and ranked from 1 to 120 for a total score for each county. The Kentucky Institute of Medicine Task Force decided that values for each measure would not be weighted and that each measure would be given equal value in the county total scores. For some of the 25 health measures, data from multiple years were combined to produce more statistically reliable rates. This process might produce some rates that fail to reflect the full impact of recent interventions to improve outcomes for the 25 selected health profile measures and the four measures of cancer.
### Health Measures for All Kentucky Counties, Ranges and Comparative State and US Values

<table>
<thead>
<tr>
<th>Category</th>
<th>US</th>
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<tr>
<td><strong>Behavioral/Social Factors</strong></td>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>Prevalence of Obesity (percent adult population)</td>
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<td>Lack of Physical Activity (percent adult population)</td>
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<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<td>Per Capita Personal Income</td>
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<td>Uninsured Population (percent under age 65)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>Total Mortality (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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<td><strong>Cancer Death Rates</strong> (per 100,000 population)</td>
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<td>Garrard</td>
<td>37</td>
<td>McCreary</td>
<td>116</td>
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</table>

* Barren and Harrison counties are tied in terms of total score.
Adair County Health Synopsis

Adair County ranks among the counties that can most improve its health status by changing personal behaviors and social conditions that contribute to early and otherwise preventable deaths. The county has comparatively low rates of death due to prostate cancer and heart disease and stroke, even though these rates also can be greatly improved. Lung cancer death rates can be lowered through efforts to prevent youth from starting to smoke and help smokers quit or cut back with the aim of quitting. Colorectal and breast cancer deaths, and infant mortality can be reduced through early health services and screenings. The obesity epidemic affecting adults and, increasingly, children can be moderated through activities and exercises available to everyone in both rural and town settings. Increasing educational levels will contribute to economic development, higher incomes, health insurance coverage, and access to health and dental services. Oral health can be improved by educating parents and children about the negative impact of too many sugary snacks and the importance of brushing, flossing and regular dental cleanings to prevent tooth loss due to periodontal disease.
Allen County Health Synopsis

Of Kentucky’s 120 counties, Allen County has the lowest rate of premature death. Additionally, the county ranks below both state and national averages for breast cancer deaths and below the state average for colorectal cancer deaths. To enhance these strengths and improve overall health status, community leaders can increase awareness of county challenges and undertake both corrective and preventive measures to minimize them. The number of prostate cancer deaths can be lowered through regular screenings and early treatment, while campaigns to encourage the use of seatbelts and child restraints can significantly decrease motor vehicle deaths. Lung cancer mortality rates are another concern for Allen County, which can be relieved primarily through efforts to prevent youth smoking and encourage current smokers to cut back with the goal of quitting. Routine exercise will help decrease rates of obesity just as routine attention to dental care, including brushing, flossing and cleaning, will help improve oral health. As the county’s educational status improves, overall health status can be expected to improve as well. Combined, these measures will, over time, decrease days of limited activity and total mortality for Allen County.
Factors contributing to Anderson County’s positive health status include a minimal number of motor vehicle deaths and an obesity rate well below state and national levels. Health risk is also reduced by a strong high school graduation rate and a small percentage of uninsured persons. Outcomes of these and other favorable factors include a low incidence of diabetes, fewer deaths due to cardiovascular disease, and fewer premature deaths. Community leaders can add to these strengths by focusing on activities that reverse high-risk trends. Routine health screenings can help make early identification and treatment of breast, colorectal, and prostate cancer possible, bringing the total cancer death rate closer to the national average. Lung cancer death rates, which are below the state average but still well above the national average, can be lowered through campaigns to prevent youth from starting to smoke and help smokers to cut back with the aim of quitting. Physical inactivity can be counteracted through routine exercise, while increased awareness of the importance of good dental health habits will improve the county’s oral health as well as its overall health.
Ballard County ranks favorably in terms of health risks and outcomes for measures used in this study. The county’s strengths include good oral health, strong high school graduation rates, low infant mortality rates, and high rates of prenatal care and child immunization coverage. However, the county faces challenges, including adult and youth smoking, low levels of physical activity, high rates of diabetes and prostate cancer deaths, and a high proportion of elders in its population. The county ranks worst among counties for cardiovascular deaths and registers high rates for breast cancer deaths and low birthweights. Smoking cessation and/or reduction programs combined with efforts to encourage teenagers not to begin smoking will reduce lung/bronchus cancer and lead to other health improvements. Increased exercise will lower rates of obesity and diabetes and lower cardiovascular deaths. Regular screening and early detection and treatment will lower deaths from breast, prostate, colorectal, and other forms of cancer.
Barren County Health Synopsis

Barren County ranks well in terms of low rates of cardiovascular disease deaths and infant mortality, and the supply of primary care physicians. Major challenges for the county include a high rate of limited activity days in the past month, poor oral health, and a high proportion of elders among its residents. While its total cancer mortality rate is relatively low, Barren County has high colorectal and breast cancer death rates. Additionally, it has one of the state's highest rates of smoking and lack of physical activity. Smoking cessation and cutting back for current smokers, combined with efforts to prevent teens and young adults from starting to smoke, can help prevent lung/bronchus cancer and lead to other health improvements. Regular screening and early detection and treatment can prevent deaths from colorectal, prostate, breast, and other forms of cancer.
BATH
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 82

### Behavioral/Social Factors

<table>
<thead>
<tr>
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<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking</td>
<td>30</td>
<td>29</td>
<td>21</td>
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<tr>
<td>Prevalence of Youth Smoking</td>
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<td>Prevalence of Obesity</td>
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<tr>
<td>Lack of Physical Activity</td>
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<td>Oral Health</td>
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<td>Motor Vehicle Deaths</td>
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<td>Drug Arrests</td>
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<td>Occupational Fatalities</td>
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### Demographics

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<tr>
<td>High School Graduation</td>
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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older</td>
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### Health Access

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<td>Adequacy of Prenatal Care</td>
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### Health Outcomes

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<td>Prevalence of Diabetes</td>
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<td>Limited Activities in Previous Month</td>
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<tr>
<td>Cardiovascular Deaths</td>
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<td>409</td>
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<td>Cancer Deaths</td>
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<td>Total Mortality</td>
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<td>Premature Death</td>
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### Cancer Death Rates (per 100,000 population)

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<td>Breast</td>
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<tr>
<td>Prostate</td>
<td>36</td>
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### Bath County Health Synopsis

Bath County ranks well among Kentucky counties on low birthweights, the portion of adults with limited activity days in the past month, and cardiovascular disease death rates. However, the county faces many challenges in terms of health risks and outcomes. A low high school graduation rate contributes to many poor outcomes, including high rates of smoking, diabetes, and lung, colorectal, and prostate cancer deaths. In addition, the county needs to improve oral health to reduce unnecessary tooth loss. Bath County also has some of the state’s poorest rankings on occupational fatalities, obesity, and breast cancer mortality. Community efforts to reduce and prevent smoking and promote cancer screening will help lower the county’s high cancer death rates. Increased attention to worker safety education can help prevent occupational fatalities. Promotion of exercise and healthy nutrition can help lower the diabetes rate and positively affect oral health and other outcomes.

Strengths:
- Normal birthweight
- Active population
- Low cardiovascular deaths

Challenges:
- Smoking
- Oral health
- High school graduation
- Infant mortality
- Diabetes
- Lung/bronchus cancer
- Colorectal cancer
- Prostate cancer

Outliers:
- High obesity
- High occupational fatalities
- High breast cancer rate
Bell County Health Synopsis

Bell County has some serious health risks that contribute to poor health outcomes. The county compares favorably in terms of prenatal care, child immunization, smoking rates, and the availability of primary care physicians. Based on measures used for this study, however, Bell County faces serious health challenges in the lack of physical activity among adults, obesity, and diabetes. Additionally, high school graduation rates are low while uninsured rates are high. The county ranks among the worst for oral health and cardiovascular disease and lung cancer deaths. While the smoking rate is below the state average, it is above the U.S. rate and well above that of many other states. Anti-smoking campaigns and the creation of smoke-free zones can help reduce death rates for lung cancer and heart disease, as well as alleviate respiratory problems and poor oral health. Community leaders and health providers can encourage exercise and healthy nutrition to reduce obesity, diabetes rates, and cardiovascular disease deaths.
Numerous factors contribute to Boone County’s favorable health status. The county has the third highest percentage of high school graduates in the state, providing a strong foundation for reduced health risk, expanded access to health care, and enhanced community decision-making. County statistics compare positively to both state and national levels in several other categories, including obesity, lack of physical activity, oral health, motor vehicle deaths, diabetes diagnoses, and breast cancer deaths. When compared to other Kentucky counties, Boone also does well in per capita income, cardiovascular deaths, and total mortality, although these rates can be improved to match and better national rates. As a whole, these factors create a stable environment in which community leaders can work to overcome county challenges. Preventing youth from starting to smoke while encouraging current smokers to cut back and/or quit can help reduce lung cancer deaths. Additionally, prostate and colorectal cancer death rates, which exceed state and national levels, can be lowered through health screenings that increase the likelihood of early detection and successful treatment.

Boone County Health Synopsis

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>30</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>21</td>
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<td>Lack of Physical Activity (percent adult population)</td>
<td>21</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>23</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>Violent Crime Offenses (per 100,000 population)</td>
<td>248</td>
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<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>1,296</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>5</td>
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<table>
<thead>
<tr>
<th>Demographics</th>
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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<td>72</td>
<td>80</td>
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<td>Per Capita Personal Income</td>
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<td>$33,689</td>
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<td>Population Age 65 or Older (percent)</td>
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<table>
<thead>
<tr>
<th>Health Access</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>9</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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<table>
<thead>
<tr>
<th>Health Outcomes</th>
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<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>5</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
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<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>27</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>347</td>
<td>408</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>214</td>
<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>912</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>8,947</td>
<td>9,111</td>
<td>7,562</td>
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<table>
<thead>
<tr>
<th>Cancer Death Rates (per 100,000 population)</th>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>73</td>
<td>80</td>
<td>55</td>
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<tr>
<td>Colorectal</td>
<td>28</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>19</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>36</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

Strengths:
- Low obesity
- Good physical activity
- Good oral health
- Low motor vehicle deaths
- High graduation rate
- High per capita income
- Low diabetes
- Low cardiovascular deaths
- Low total cancer deaths
- Low total mortality
- Low breast cancer rate

Challenges:
- Lung/bronchus cancer

Outliers:
- High smoking
- High colorectal cancer rate
- High prostate cancer rate
Bourbon County Health Synopsis

Bourbon County compares well with Kentucky counties in terms of health risks and outcomes. The county has a good high school graduation rate, a physically active adult population, good access to primary care physicians, and a relatively low rate of obesity. However, the county has undesirable rates for smoking, occupational fatalities, individuals without health insurance, deaths from motor vehicle accidents, and deaths caused by cardiovascular disease (CVD). The county has very high rates of diabetes and deaths from some type of cancer. Community leaders may want to examine what patterns and types of occupational fatalities occur and how these relate to its industries and employment. This will enable a focus on specific worker training and safety programs aimed at lowering these rates. Emphasizing increased physical activity, improved nutrition, and smoking cessation will help reduce lung cancer and CVD deaths, diabetes, and obesity. Promoting regular screening and early detection and treatment will help prevent deaths from breast, colorectal, prostate, and other forms of cancer. Educational campaigns that encourage safe driving and the use of seatbelts and child restraints will help lower deaths from automobile accidents.
Boyd County Health Synopsis

Boyd County compares very favorably based on the measures of health risks and outcomes used for this study. The county has low rates of lung and breast cancer mortality, smoking, and motor vehicle deaths. It also has high rates of health insurance coverage, and a good oral health status, supply of primary care physicians, and high school graduation rate. Challenges for Boyd County include undesirable rates of low birthweights, infant mortality, diabetes, and cardiovascular deaths. The county has very high rates of colorectal and prostate cancer deaths and an older patient population. Emphasis on prenatal care, follow-up visits, not smoking during pregnancy, and avoidance of secondhand smoke can help reduce low-birthweight deliveries and infant mortality. Improved nutrition and increased exercise can help lower rates of diabetes and deaths due to heart disease and strokes. Community programs that stress regular screening and early detection and treatment can reduce colorectal, prostate, breast, and other forms of cancer.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 38

### Behavioral/Social Factors

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>36</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>32</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>29</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>46</td>
<td>32</td>
<td>24</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>36</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.0</td>
<td>2.1</td>
<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>266</td>
<td>267</td>
<td>489</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>734</td>
<td>1,046</td>
<td>700</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>5</td>
<td>8</td>
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### Demographics

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>77</td>
<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$25,040</td>
<td>$27,625</td>
<td>$33,689</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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### Health Access

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>11</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>3.3</td>
<td>2.5</td>
<td>3.7</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>86</td>
<td>85</td>
<td>75</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>81</td>
<td>80</td>
<td>81</td>
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### Health Outcomes

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>9</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>5</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>6</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>8</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>21</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>368</td>
<td>408</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>225</td>
<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,021</td>
<td>987</td>
<td>842</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>6,671</td>
<td>9,111</td>
<td>7,562</td>
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</table>

### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>81</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>32</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>31</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>32</td>
<td>33</td>
<td>28</td>
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</table>

### Boyle County Health Synopsis

Overall, Boyle County’s health status is positive. Strengths include a low percentage of uninsured residents and a low rate of infant mortality. The county also compares relatively well in terms of high school graduation rates, cardiovascular deaths, the incidence of diabetes, and the availability of primary care physicians. Areas that undermine the county’s health status include very high smoking rates and a high number of cancer deaths. Community initiatives to prevent youth smoking, encourage smoking cessation, and limit public exposure to secondhand smoke will help lower these statistics. Measures that increase access to and utilization of breast, colorectal, and prostate cancer screenings need to be considered. Emphasis also needs to be placed on the physical and financial importance of establishing healthy behavioral habits, such as regular physical activity, a balanced diet, and routine dental care.
Bracken County Health Synopsis

Bracken County’s low rate of uninsured residents could prove an important factor in decreasing health risk. Over time, improvements in the high school graduation rate will have a positive impact on economic factors, such as income levels, helping to form a strong foundation from which to build changes in behavioral and social factors. More immediately, efforts to encourage adherence to a healthy diet and increase physical activity will help lower obesity rates and, in turn, lower diabetes diagnoses and cardiovascular deaths. Healthy diets and lower rates of diabetes are important to oral health where too many sugary snacks, coupled with routine neglect of dental care and high smoking rates, make periodontal disease more common. Motor vehicle deaths could be reduced by promoting seatbelt and child restraint use. Efforts to curb high smoking rates will help lower the incidence of lung cancer, improve birthweights, and reduce infant mortality by reducing the number of mothers who smoke or are exposed to secondhand smoke while pregnant. Other cancer rates can be lowered through screenings for early detection and treatment.
BREATHITT
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 108

Behavioral/Social Factors

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult pop.)</td>
<td>20</td>
<td>29</td>
<td>21</td>
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<tr>
<td>Prevalence of Youth Smoking (percent kids)</td>
<td>18</td>
<td>25</td>
<td>23</td>
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<tr>
<td>Prevalence of Obesity (percent adult pop.)</td>
<td>35</td>
<td>29</td>
<td>24</td>
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<tr>
<td>Lack of Physical Activity (percent adult pop.)</td>
<td>37</td>
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<tr>
<td>Oral Health (percent adults with bad teeth)</td>
<td>48</td>
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<td>Motor Vehicle Deaths (per 100,000 miles)</td>
<td>2.6</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 pop.)</td>
<td>252</td>
<td>267</td>
<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 pop.)</td>
<td>1,106</td>
<td>1,046</td>
<td>700</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>12</td>
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<td>5</td>
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Demographics

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25+)</td>
<td>58</td>
<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income $18,432</td>
<td>$27,625</td>
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<td>Population Age 65+ (percent)</td>
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Health Access

<table>
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<th>Metric</th>
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<th>Nation</th>
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<tr>
<td>Uninsured Population (percent under 65)</td>
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<td>16</td>
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<tr>
<td>Primary Care Physicians to Population Ratio</td>
<td>2.6</td>
<td>2.5</td>
<td>3.7</td>
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<td>Adequacy of Prenatal Care (percent preg. women)</td>
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<td>Immunization Coverage (percent 19-35)</td>
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<td>81</td>
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Health Outcomes

<table>
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<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<td>8</td>
<td>8</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>12</td>
<td>7</td>
<td>7</td>
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<tr>
<td>Infectious Disease (per 100,000 pop.)</td>
<td>14</td>
<td>8</td>
<td>23</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<tr>
<td>Limited Activity (per 100,000 adults)</td>
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<td>19</td>
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<td>Cardiovascular Deaths (per 100,000 pop.)</td>
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<td>409</td>
<td>326</td>
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<td>Cancer Deaths (per 100,000 pop.)</td>
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<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 pop.)</td>
<td>1,217</td>
<td>987</td>
<td>842</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 pop.)</td>
<td>8,219</td>
<td>9,111</td>
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Cancer Death Rates (per 100,000 pop.)

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<thead>
<tr>
<th>Cancer Site</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>112</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>22</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>27</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>38</td>
<td>33</td>
<td>28</td>
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</tbody>
</table>

Breathitt County Health Synopsis

Breathitt County has some of the most serious health risks and undesirable outcomes based on measures used in this study. The county compares favorably in terms of smoking, diabetes, colorectal and breast cancer mortality, and the availability of primary care physicians. Serious challenges confronting the county include prostate cancer deaths, lack of physical activity, obesity, limited activity days, high school graduation rates, and oral health. Breathitt County ranks among the worst Kentucky counties in terms of health insurance coverage, lung cancer and cardiovascular disease deaths, and overall deaths due to cancer. Community health education campaigns that promote regular health screenings and early detection for breast, colorectal, prostate, and other forms of cancer can help lower high cancer rates for the county. Emphasizing exercise, healthy nutrition, and smoking reduction and/or cessation are also suggested for lowering health risks. Improvements in high school graduation and health insurance coverage rates can reduce poor health behaviors and improve health outcomes.
BRECKINRIDGE
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 61

A COMPARATIVE ASSESSMENT OF HEALTH RISK

Strengths:
Low obesity
Low diabetes
Low prostate cancer rate

Challenges:
Smoking
Population age 65 or older
Availability of primary care physicians
Breast cancer

Outliers:
High lung/bronchus cancer rate

Breckinridge County Health Synopsis

Breckinridge County ranks near the middle of Kentucky’s 120 counties. County strengths include a low number of deaths due to prostate cancer, a low incidence of obesity, a low number of motor vehicle deaths, and a rate of adults diagnosed with diabetes lower than the state level. A low number of years of life lost to premature death also numbers among the county’s positive outcomes. Along with these strengths, however, the county holds intermediate or poor rankings in several other categories due to high-risk personal behaviors and social conditions. Community leaders can improve the county’s health status by improving access to and utilization of child immunizations. Measures to increase the number of health screenings for breast and colorectal cancer should also be considered. High smoking rates can be counteracted by programs that discourage youths from smoking and encourage current smokers to cut back in an effort to fully quit. These efforts will help reduce lung cancer and cardiovascular deaths and improve other health outcomes.
Bullitt County Health Synopsis

Bullitt County is a relatively healthy county in terms of health risks and outcomes. The county has a favorable high school graduation rate and low rates of uninsured residents, infant mortality, and prostate cancer deaths. Challenges for the county are the high percentage of persons with six or more missing teeth and high rates for lung and colorectal cancer mortality. The county has very high rates of adults and youth who smoke. Community leaders may want to promote smoking cessation and/or reduction to reduce lung cancer and lessen the negative impact smoking has on other illnesses. Increasing awareness of regular testing and early detection and treatment can reduce the rates of colorectal and breast cancer. Bullitt County has a very high rate of diabetes. Encouraging exercise, healthy nutrition, and consultation with a primary care physician can help control and prevent diabetes.
BUTLER
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 103

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>29</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>26</td>
<td>25</td>
<td>23</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>45</td>
<td>29</td>
<td>24</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>24</td>
<td>32</td>
<td>24</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>42</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.3</td>
<td>2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>629</td>
<td>267</td>
<td>489</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>2,717</td>
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<td>700</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
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<table>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>61</td>
<td>72</td>
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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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<tr>
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<td>Primary Care Physician to Population Ratio (1,3,500)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>Total Mortality (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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<table>
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<tr>
<th>Cancer Death Rates (per 100,000 population)</th>
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<tr>
<td>Lung/Bronchus</td>
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<td>Breast</td>
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Butler County Health Synopsis

Butler County has several serious health risks and poor health outcomes. However, the county compares favorably among Kentucky counties with low rates of breast and colorectal cancer deaths, low limited activity days, and a good level of physical activity among adults. Community leaders will want to concentrate on raising the high school graduation rate and finding ways to increase access to primary care. Promoting increased exercise and healthy nutrition can help reduce the rates of obesity and diabetes. Regular screening and early detection and treatment can help reduce prostate, breast, colorectal and other forms of cancer. Smoking cessation and the creation of smoke-free zones to lessen the impact of secondhand smoke can help lower lung cancer death rates and improve respiratory health. Assurance of early prenatal care and follow-up visits for mother and child can lower infant mortality rates.
Caldwell County ranks among the best counties in terms of health risks and outcomes. It has a relatively low number of persons who are not covered by health insurance. In addition, its adults are physically active, and the county has low diabetes rates and few limited activity days. Also, the county has good prenatal care and child immunization coverage. Caldwell County is challenged by high rates of smoking and cardiovascular disease (CVD) and colorectal and breast cancer deaths. Community leaders might want to emphasize the value of regular screening and early detection and treatment to reduce rates of colorectal, breast, prostate, and other forms of cancer. Promoting exercise, healthy nutrition, and more physical exercise can lower the county’s high CVD rate and very high rate of obesity. Efforts to promote reductions in smoking with the goal of quitting and programs to educate and encourage children, teens, and young adults not to start smoking will help prevent heart attacks, strokes, and lower the county’s lung cancer rate.
Calloway County leads the state in several categories, including the prevalence of obesity, in which it holds Kentucky’s second lowest rate. Positive health outcomes, such as fewer overall cancer deaths and a low rate of diabetes, stem from favorable behavioral and social factors, including high rates of physical activity and good oral health. Additionally, a relatively low percent of uninsured residents helps to increase access to health care. Community leaders can decrease health risk by ensuring county strengths are maintained and county challenges are addressed. While prostate cancer deaths are low, numbers for colorectal and breast cancer are high. These figures can be lowered through more preventive screenings that increase the likelihood of early detection and treatment. In terms of lung cancer deaths and prevalence of smoking, the county registers below the state average, but remains above the national average. Both categories can be improved by efforts that prevent youth smoking coupled with programs that encourage current smokers to cut back and/or quit. Together, these measures will help reduce intermediate rates of total mortality, premature death, and days of limited activity.

Strengths:
- Low obesity
- Good physical activity
- Good oral health
- Well insured
- Low diabetes
- Low total cancer death
- Low prostate cancer rate

Challenges:
- Smoking
- Lung/bronchus cancer
- Colorectal cancer

Outliers:
- High breast cancer rate

Calloway County Health Synopsis

Calloway County leads the state in several categories, including the prevalence of obesity, in which it holds Kentucky’s second lowest rate. Positive health outcomes, such as fewer overall cancer deaths and a low rate of diabetes, stem from favorable behavioral and social factors, including high rates of physical activity and good oral health. Additionally, a relatively low percent of uninsured residents helps to increase access to health care. Community leaders can decrease health risk by ensuring county strengths are maintained and county challenges are addressed. While prostate cancer deaths are low, numbers for colorectal and breast cancer are high. These figures can be lowered through more preventive screenings that increase the likelihood of early detection and treatment. In terms of lung cancer deaths and prevalence of smoking, the county registers below the state average, but remains above the national average. Both categories can be improved by efforts that prevent youth smoking coupled with programs that encourage current smokers to cut back and/or quit. Together, these measures will help reduce intermediate rates of total mortality, premature death, and days of limited activity.
Rank: 13

**Behavioral/Social Factors**

<table>
<thead>
<tr>
<th></th>
<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>29</td>
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<td>21</td>
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<td>Prevalence of Youth Smoking (percent high school students)</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<td>37</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>287</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>1,350</td>
<td>1,046</td>
<td>700</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
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**Demographics**

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**Health Access**

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**Health Outcomes**

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**Cancer Death Rates**

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<tr>
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<td>Colorectal Cancer (per 100,000 population)</td>
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<td>Breast Cancer (per 100,000 population)</td>
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<tr>
<td>Prostate Cancer (per 100,000 population)</td>
<td>31</td>
<td>33</td>
<td>28</td>
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</tbody>
</table>

**Strengths:**
- Good oral health
- High graduation rate
- Well insured
- Availability of primary care physicians
- Low infant mortality
- Low cardiovascular deaths

**Challenges:**
- Smoking
- Lung/bronchus cancer
- Colorectal cancer

**Outliers:**
- High total cancer deaths
- High breast cancer rate

**Campbell County Health Synopsis**

Campbell County compares very favorably among Kentucky counties in terms of health risks and outcomes. The county has several strengths, including low rates of infant mortality and cardiovascular disease deaths. The county has a good supply of primary care physicians, good oral health, a low percentage of persons without health insurance, and a good high school graduation rate. The county, however, is confronted by high rates of smoking, and colorectal and lung cancer deaths. The community can reduce some of these health problems by emphasizing regular health screenings and early detection and treatment for colorectal, breast, prostate, and other forms of cancer. Promoting smoking cessation and/or reduction combined with education programs to help keep youth from starting to smoke or to quit smoking will help reduce the risk of lung/bronchus cancer and improve respiratory health.
Carlisle County Health Synopsis

Carlisle County is at the mid-point among Kentucky counties in terms of health risks and outcomes. The county has a favorable rate of high school graduation, a good level of physical activity among adults, relatively good oral health, and low rates of lung cancer and infant mortality when compared to rates for the state. The county has several areas in which community leaders can take initiatives to improve the health of its residents. By placing emphasis on regular screening and early detection and treatment the county can help lower death rates of colorectal, prostate, breast, and other forms of cancer. Also, community leaders can promote exercise and healthy nutrition to lower its rates of diabetes and obesity and to lower the rate of cardiovascular disease deaths. Smoking cessation, reduction, and prevention education can help reduce lung cancer deaths and yield a number of other related health improvements.
Carroll County has a number of challenges in terms of health risks and outcomes. The county compares favorably in terms of limited activity days among its adults, and it has comparatively low rates of diabetes diagnoses and prostate and breast cancer mortality rates. On the other hand, the lack of physical activity among adults, and high rates of low birthweights, persons not covered by health insurance, and colorectal cancer deaths pose substantial health challenges. Further, the county registers some of the state’s highest rates of smoking, occupational fatalities, cardiovascular disease deaths, and adults with six or more missing teeth. By focusing on the importance of cutting back, quitting, and, in the case of teenagers and young adults, never starting smoking, Carroll County can begin to address a critical health issue that has far-reaching effects.
### A Comparative Assessment of Health Risk

**Carter County Health Synopsis**

Carter County compares well for health risks and outcomes for prenatal care and child immunization. However, the county has several serious challenges and some very high rates for deaths caused by colorectal and lung cancer, and motor vehicle accidents. The county has a high percentage of residents without health insurance, poor access to primary care physicians, poor oral health, high rates of breast and prostate cancer mortality, and a very high rate of deaths due to heart attacks and strokes. Community leaders can promote early health screenings and detection and treatment for breast, colorectal, prostate, and other forms of cancer to help prevent deaths from these diseases. Smoking reduction, cessation, and prevention combined with the creation of more smoke-free zones in public spaces and workplaces can reduce lung cancer and the effects of secondhand smoke. Driver education and the use of seatbelts and infant restraints can help reduce injuries and deaths from motor vehicle accidents.

### Behavioral/Social Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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### Demographics

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<tr>
<td>Uninsured Population (percent under age 65)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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### Health Outcomes

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<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<td>19</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,104</td>
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<td>842</td>
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<td>Premature Death (years lost per 100,000 population)</td>
<td>7,817</td>
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### Cancer Death Rates (per 100,000 population)

<table>
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<th>County</th>
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<td>Lung/Bronchus</td>
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<td>Breast</td>
<td>30</td>
<td>27</td>
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</tr>
<tr>
<td>Prostate</td>
<td>32</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

### Strengths:

- Good prenatal care
- High immunization coverage

### Challenges:

- Smoking
- Oral health
- Uninsured population
- Availability of primary care physicians
- Cardiovascular deaths
- Breast cancer
- Prostate cancer

### Outliers:

- High motor vehicle deaths
- High lung/bronchus cancer rate
- High colorectal cancer rate
Youth smoking rates in Casey County are lower than state and national levels. The adult smoking rate is also low when compared to other Kentucky counties; however, it still warrants the need for campaigns that discourage new smokers and encourage current smokers to cut back with the goal of quitting. These measures could bring the rate under that of the nation and would also bring the number of deaths caused by lung cancer below a high state average. Breast cancer rates for the county are relatively low, but increased screenings that ensure early detection and treatment are needed to lower colorectal and prostate cancer deaths. Increasing awareness of the importance of regular physical activity will help lower obesity and diabetes statistics. Likewise, promoting diets low in sugary snacks along with the need for routine dental treatment, including cleanings, will improve the county’s oral health status. Efforts by community leaders to increase the high school graduation rate will eventually lead to a higher capacity to improve the county’s overall health status.
The Health of Kentucky

Kentucky Institute of Medicine

CHRISTIAN
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 54

Behavioral/Social Factors

<table>
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<th></th>
<th>County</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>20</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>18</td>
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<td>Prevalence of Obesity (percent adult population)</td>
<td>34</td>
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<td>30</td>
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<td>Drug Arrests (per 100,000 population)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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Demographics

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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>77</td>
<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$26,059</td>
<td>$27,625</td>
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<td>Population Age 65 or Older (percent)</td>
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Health Access

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<td>Uninsured Population (percent under age 65)</td>
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Health Outcomes

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<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

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<td>29</td>
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<tr>
<td>Prostate</td>
<td>37</td>
<td>33</td>
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Strengths:
- Low smoking
- Good oral health
- Low motor vehicle deaths

Challenges:
- Diabetes
- Cardiovascular deaths
- Total mortality
- Lung/bronchus cancer
- Colorectal cancer
- Breast cancer
- Prostate cancer

Outliers:
- High obesity
- Low health insurance
- Low immunization coverage

Christian County Health Synopsis

Good oral health and a low incidence of motor vehicle deaths are two strengths found in Christian County. The county is also one of only five Kentucky counties to have a prevalence of smoking below both state and national levels. In spite of this, the number of lung cancer deaths is still considerably high and calls for measures to further reduce smoking rates. In terms of physical activity, Christian County again exceeds the state average; however, reducing this rate is important to lowering a very high prevalence of obesity, which, in turn, will likely decrease the prevalence of diabetes. The percentage of high school graduates is another important category where the county ranks well in state but needs to compare better nationally. An increased education level will eventually lead to a higher capacity to understand and respond to health challenges. Rates of colorectal, breast, and prostate cancer deaths can be reduced through increased use of screenings for early detection and treatment. These measures, with improvements in child immunization coverage and the incidence of cardiovascular disease deaths, will help lower total mortality.
Positive health factors for Clark County include a strong per capita income, a low rate of uninsured residents, and favorable oral health habits. Other positive indicators include the second-lowest incidence of diabetes in the state, strong prenatal care and immunization coverage, and a low number of motor vehicle deaths. In addition to maintaining these positive conditions, community leaders can focus effort and resources on counteracting risky personal behaviors and unfavorable social conditions. Early detection and medical treatment, by way of routine screenings, can prevent prostate and colorectal cancer deaths. Lung cancer deaths are low for the state, but in the context of the nation they are still considerably high, necessitating campaigns to dissuade youth smoking and encourage current smokers to cut back or quit. Sedentary lifestyles can be addressed by promoting exercises, such as walking, at parks and facilities that are readily available to residents. These measures will work to decrease the percent of adults experiencing limited activity days and the number of years lost to premature death.
Clay County’s strengths include a prostate cancer mortality rate that is well below state and national levels, as well as a colorectal cancer rate that compares favorably with other Kentucky counties. To raise the overall health status to a comparable level, community leaders will need to promote changes in personal behaviors and social conditions. Regular physical activity, along with increased emphasis on good nutrition, can decrease both high obesity and diabetes rates. Low birthweight and infant mortality rates can be reduced through continued use of prenatal care as well as efforts to reduce the number of mothers who smoke or are exposed to secondhand smoke during pregnancy. Comprehensive initiatives designed to prevent smoking and encourage cessation will have broad-based health benefits, including improved oral health, healthier babies, and reductions in cancer and cardiovascular deaths. The number of motor vehicle deaths also need to be reduced for Clay County to achieve a lower rate of total mortality, which exceeds both state and national averages.
Clinton County Health Synopsis

Clinton County posts a low prevalence of obesity and strong figures in the categories of prenatal care and immunization coverage for children. Community leaders can increase the likelihood of improving the county’s health status in other areas by investing efforts and resources in raising educational outcomes, which correlate with more positive health decisions and a higher health status. Greater utilization of colorectal, breast, and prostate cancer screenings can help ensure that earlier detections and treatments occur. The number of lung cancer deaths can be lowered through campaigns that discourage youth from starting to smoke and encourage smokers of all ages to cut back with the goal of eventually quitting. Additionally, campaigns to discourage drunk driving and encourage seatbelt and child restraint use will help remedy the number of motor vehicle deaths. Efforts that target poor dietary and exercise habits may help lower rates for diabetes diagnoses and cardiovascular disease deaths.
Crittenden County registers the state’s lowest rate of breast cancer deaths and its second-lowest rate of low birthweights. Other strengths include a low prevalence of diabetes as well as a low rate of infant mortality. To improve the county’s overall health status, community leaders can focus efforts on changing high-risk personal behaviors and social conditions. Oral health can be improved by promoting awareness of the importance of routine dental care, including cleanings, brushing, and flossing. Similarly, increased awareness of the physical and financial benefits of regular activity, such as walking, will help lower obesity rates and may lead to fewer cardiovascular deaths. Routine screenings can decrease the number of deaths caused by colorectal cancer by increasing early detection and treatment. Lung cancer rates can be alleviated through campaigns that discourage youth from starting to smoke and encourage current smokers to cut back with the goal of quitting. Any measures that increase the county’s overall education level will make improvements in health status more feasible by elevating the capacity for change.
CUMBERLAND
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 98

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<thead>
<tr>
<th>Behavioral/Social Factors</th>
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<th>Nation</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>Prevalence of Obesity (percent adult population)</td>
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<td>Lack of Physical Activity (percent adult population)</td>
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<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>Drug Arrests (per 100,000 population)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
<td>11</td>
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Demographics

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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<td>72</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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<td>11</td>
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Health Access

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<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>86</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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Health Outcomes

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<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
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</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>7</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
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<td>8</td>
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<tr>
<td>Prevalence of Diabetes (adults)</td>
<td>6</td>
<td>9</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>35</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>11,348</td>
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Cancer Death Rates (per 100,000 population)

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<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>59</td>
<td>80</td>
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<tr>
<td>Colorectal</td>
<td>36</td>
<td>23</td>
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<tr>
<td>Breast</td>
<td>23</td>
<td>27</td>
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<tr>
<td>Prostate</td>
<td>68</td>
<td>33</td>
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Cumberland County Health Synopsis

Cumberland County is confronted by several poor health outcomes that are associated with personal behaviors, poor access to primary care, and economic and social conditions. On the positive side, county rates compare favorably with Kentucky peers on smoking, diabetes, infant mortality, and breast and lung cancer deaths. The county faces challenges related to the lack of physical activity, deaths due to automobile accidents, an inadequate supply of primary care physicians, and a high rate of occupational fatalities. Furthermore, the county has some of the state’s highest rates of prostate and colorectal cancer, obesity, poor oral health, and individuals not covered by health insurance. Community leaders can promote early screening, detection, and treatment to lower prostate and colorectal mortality rates. Educating county residents about the importance of healthy nutrition and exercise can reduce obesity and diabetes. Programs that assure adherence to safety training and use of safety equipment can reduce occupational fatalities. Driver education and the use of seatbelts and child restraints can help lower motor vehicle accidents deaths.
An assessment of the health of Daviess County reveals several strengths. A high education level, low rate of uninsured residents, and stable per capita income provide a firm foundation for economic growth and the attendant benefits of improved health. The county also ranks well in terms of youth smoking, prevalence of obesity, oral health, and motor vehicle deaths. While the combination of these healthy behaviors has worked to control health risk, community leaders can further improve their status by lowering intermediate figures and confronting challenges. Greater use of medical screenings, which ensure early detection and treatment, can lower colorectal cancer mortality rates, while lung cancer deaths can be reduced by encouraging current smokers to cut back and/or quit and preventing nonsmokers from starting. Reducing adult smoking levels will also positively affect instances of low birthweight and infant mortality by decreasing the number of mothers who smoke or are exposed to secondhand smoke during pregnancy. Physical inactivity is another challenge for Daviess County that can be counteracted through campaigns to increase awareness and promote participation in common exercises, such as walking.
The overall health status of Edmonson County ranks at the middle of Kentucky’s 120 counties. Many of its strengths come in categories where the county ranks highly. It ranks best in the state in terms of cardiovascular deaths, colorectal cancer deaths, and total mortality, although the latter remains above the national average. The county also has the second-lowest rate of motor vehicle deaths and the fifth lowest prevalence of obesity. These strengths are considerable, but unfortunately they are matched by areas of high health risk. Edmonson County has the highest level of premature death in the entire state. Statistics for smoking, per capita income, immunization coverage, and prostate cancer deaths also rank near the bottom. To increase the overall health status, community leaders need to maintain strengths while minimizing challenges. Efforts to encourage smokers to cut back with the aim of quitting, promote the importance of routine dental care, and increase access to and utilization of health screenings are needed.
A high level of physical activity in Elliott County and low rates of adults diagnosed with diabetes and cardiovascular disease deaths are likely interrelated. Rates of obesity, however, are high for the county. Sustained levels of physical activity and expanded exercise combined with attention to the importance of a balanced diet may help lower obesity rates. Total cancer deaths are also an area of concern for Elliott County. While breast and prostate cancer mortality remain relatively low, colorectal and lung cancer rates are substantially higher than state and national rates. The former can be alleviated through increased attention to health screenings that help ensure early detection and treatment, while the latter requires campaigns to reduce high smoking rates. More general health outcomes, such as limited-activity days, which are often the result of several health factors, require investments that will provide a broad foundation from which the county can achieve enduring change. Measures that increase the high school graduation rate will help accomplish this critical goal by enabling a higher capacity for change.
Estill County’s strengths include a low obesity rate and a low number of motor vehicle deaths. Prostate and breast cancer mortality rates also compare favorably though the total cancer death rate remains a concern. Community leaders can improve the county’s health status by promoting awareness of county challenges and increasing interventions into high-risk behaviors. Increased physical activity and improved diets can have a positive impact on several health outcomes, including the number of adults diagnosed with diabetes and the cardiovascular disease death rate. Decreasing smoking rates by encouraging smoking cessation and discouraging youth smoking will also lower health risk in myriad ways. Lung cancer and cardiovascular death rates will be alleviated, fewer mothers who smoke or are exposed to secondhand smoke during pregnancy will deliver low birthweight babies, and oral health will likely improve. In the case of oral health, vigorous attention to the importance of routine dental care will be needed. Any effort to improve Estill County’s health status can be expected, over the long term, to elevate the county’s economic status.
**Fayette County Health Synopsis**

Fayette County’s favorable health status is bolstered by the state’s second highest rate of high school graduation. Likewise, a high per capita income and a smaller percentage of uninsured persons help increase access to health care in a county with Kentucky’s highest proportion of primary care physicians. Other strengths include low numbers of motor vehicle deaths and adults missing six or more teeth, as well as a breast cancer rate lower than both state and national levels. While the number of cardiovascular deaths fares well at the state level, it could still be reduced to fall below the national standard. Increases in physical activity will help accomplish this and will also bring intermediate obesity and diabetes rates down to a similar level. Smoking rates and lung cancer deaths, again between state and national rates, necessitate further efforts to prevent youth smoking and encourage current smokers to quit. Colorectal and prostate cancer deaths can be countered with an increase in screenings for early detection and treatment. Together, these measures will help decrease premature death rates and days of limited activity, further diminishing an already low health risk.
**Fleming County Health Synopsis**

Positive health outcomes in Fleming County include low rates of both infant mortality and low infant birthweight, as well as a comparatively low number of years lost to premature death. The number of deaths attributed to breast cancer and prostate cancer are also low, as are motor vehicle deaths. Low obesity and diabetes rates may be further improved by raising awareness of the importance of exercise. To ensure that county strengths are maintained and health risks alleviated, community leaders must work to improve access to and utilization of health care. Child immunizations and screenings for colorectal cancer both need to become more prevalent. The county’s high incidence of lung cancer can best be addressed through attention to its smoking rates, which parallel the state’s very high rates. Well-organized campaigns of proven effectiveness need to be launched to prevent youth smoking and promote reductions in smoking with the goal of quitting. The county’s relatively poor oral health will also likely benefit from reductions in smoking combined with efforts to promote the importance of routine dental care.

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<th>Behavioral/Social Factors</th>
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<td>Lack of Physical Activity (percent adult population)</td>
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<th>County</th>
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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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<td>Low Birth Weight (per 1,000 live births)</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<td>Infectious Disease (per 100,000 population)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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FLOYD
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 85

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<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>Drug Arrests (per 100,000 population)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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<th>Demographics</th>
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<td>Per Capita Personal Income</td>
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<table>
<thead>
<tr>
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<th>County</th>
<th>State</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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<td>Low Birth Weight (per 1,000 live births)</td>
<td>8</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<td>Limited Activities in Previous Month (percent adults)</td>
<td>30</td>
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<td>19</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>412</td>
<td>408</td>
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<td>Cancer Deaths (per 100,000 population)</td>
<td>268</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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<thead>
<tr>
<th>Cancer Death Rates (per 100,000 population)</th>
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<tr>
<td>Lung/Bronchus</td>
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<tr>
<td>Prostate</td>
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Floyd County Health Synopsis

To improve Floyd County’s health status community leaders must add to the county’s strengths in primary care physician supply, access to prenatal care, and child immunization coverage. Deaths due to cardiovascular disease and the rate of diabetes diagnoses can both be linked to a high incidence of obesity and a lack of physical activity. Campaigns to promote the importance of healthy eating habits and routine participation in common activities such as gardening and walking can help improve these factors. Other interventions are needed in regards to smoking and poor oral health, often linked to smoking. Smoking can be counteracted through education that prevents new smoking and fosters cutbacks in current smoking, which will lower lung cancer rates. Encouraging regular brushing and flossing, as well as dental cleanings, can, along with smoking cessation, lower the risk of periodontal disease. Improved access to medical care can lower colorectal and breast cancer rates by increasing the use of screenings and, in turn, the chances of early detection and treatment.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 35

Behaviors/Social Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
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<tr>
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<td>Infectious Disease (per 100,000 population)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

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<th>Cancer Site</th>
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<tr>
<td>Prostate</td>
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Franklin County Health Synopsis

Franklin County’s high percentage of high school graduates, strong per capita income, and low rate of uninsured residents make a positive health environment more attainable. Risk behavior has been minimized in terms of oral health and motor vehicle accidents where the county ranks below state and national levels. Community leaders in Franklin County can concentrate efforts and funds on counteracting risky personal behaviors and social conditions. The number of breast cancer deaths is a significant problem and can be alleviated through further use of screenings that make early detection likely. Lung cancer is also a concern. Thus, lower smoking rates make campaigns against youth smoking and interventions encouraging smoking cessation an important consideration in improving the county’s health status. Also important is the need for increased physical activity, which can be achieved through common exercises such as walking. This will have a positive impact on the prevalence of obesity and may, in turn, lower the number of adults diagnosed with diabetes.
FULTON
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 99

Strengths:
- Good physical activity
- Availability of primary care physicians
- Active population
- Low colorectal cancer rate
- Low prostate cancer rate

Challenges:
- Smoking
- Oral health
- High school graduation
- Uninsured population
- Diabetes
- Cardiovascular deaths
- Lung/bronchus cancer
- Breast cancer

Outliers:
- High motor vehicle deaths
- High occupational fatalities
- Low birthweight
- High total mortality

Fulton County Health Synopsis

Fulton County is the only rural county in Kentucky with a substantial African-American population. The county has several strengths, including relatively low colorectal and prostate cancer mortality rates, low limited activity days, a good level of physical activity among adults, and a good supply of primary care physicians. The county does have several serious health risks and poor outcomes, including poor oral health and high rates of smoking, uninsured residents, diabetes diagnoses, and deaths from cardiovascular disease (CVD) and breast and lung cancer. The county has some of the highest rates of occupational fatalities, motor vehicle deaths, low birthweights, and total mortality found. Encouraging increased physical activity and improved nutrition will help reduce the risk of diabetes and CVD. Community programs that promote smoking cessation and smoke-free zones to lessen exposure to secondhand smoke can lower rates of lung cancer and low birthweights. Worker safety training can reduce occupational fatalities, and increasing awareness and access to early screening, detection, and treatment can lower cancer and overall mortality rates.
GALLATIN
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 58

Strengths:
- Low obesity
- Good oral health
- Low diabetes
- Active population

Challenges:
- Uninsured population
- Low birthweight
- Cardiovascular deaths
- Breast cancer
- Prostate cancer

Outliers:
- High smoking
- Low physical activity
- Limited primary care physicians
- High lung/bronchus cancer rate
- High colorectal cancer rate

Gallatin County Health Synopsis

Gallatin County ranks near the middle of Kentucky counties based on measures of health risks and outcomes used in this study. The county compares favorably in terms of oral health, obesity, diabetes, and limited activity days in the past month. Challenges for the county include high rates of low birthweights, cardiovascular disease and prostate cancer deaths, and individuals without health insurance. The county has the state's highest rate of lung/bronchus cancer deaths and very high rates of colorectal cancer deaths, smoking, and lack of physical activity. Programs that emphasize physical activity and improved nutrition can help improve heart health and reduce obesity and diabetes rates. Community programs for smoking cessation that encourage youth not to begin smoking and help smokers cut back with the goal of quitting will reduce lung cancer risk and improve respiratory health. Regular screening and early detection and treatment can reduce colorectal, breast, prostate, and other forms of cancer.
Garrard County is a fairly healthy county. Based on measures of health risks and outcomes used for this study, the county compares favorably for obesity, diabetes, and deaths caused by vehicle accidents, cardiovascular disease, and prostate cancer. Problems that compel the attention of community leaders include low birthweights, infant mortality, uninsured residents, breast and colorectal cancer mortality, inadequate access to primary care physicians, and a very high rate of smoking. Promoting regular screening and early detection and treatment can help lower mortality rates for breast, colorectal, and other forms of cancer. Improved access to primary care physicians will enable persons in need to acquire these life-saving services. Programs that encourage smoking cessation and smoke-free zones to limit the impact of secondhand smoke can have many health benefits for the county, especially reducing lung cancer deaths and the harmful effects from side-stream smoke for children and pregnant women.
Grant County residents have good health insurance coverage and low rates of obesity and cardiovascular and breast, prostate, and colorectal cancer deaths. It also has low rates of low birthweight deliveries and infant mortality. Despite these strengths, the county is confronted by a low high school graduation rate, a fairly low supply of primary care physicians, a high rate of limited activities, and poor oral health. The county has some of the higher rates for smoking, diabetes, and lung cancer deaths in the state. Community leaders can address these problems and help improve the health status of the county residents. Initiatives that encourage smokers to cut back with the goal of quitting and create smoke-free zones to reduce the harmful effects of secondhand smoke can help lower lung cancer death rates and have other health benefits. Promoting improved nutrition and more exercise can help lower the rate of diabetes as well as the risks of cardiovascular disease.
Graves County Health Synopsis

Graves County benefits from good oral health habits, a low prevalence of obesity, and fewer motor vehicle deaths than many of its fellow Kentucky counties. Also among its positive health outcomes is a low incidence of infant mortality. To improve the county health status, community leaders can undertake efforts to improve personal behaviors and social conditions that contribute to health risk. The county’s lowest rankings come in the area of cancer deaths. Mortality rates for colorectal, prostate, and breast cancer all are cause for concern and can be decreased through increased access to and utilization of health services, particularly routine screenings that make early detection and treatment more common. In several other categories, such as diabetes and cardiovascular deaths, Graves County holds intermediate state rankings. Smoking levels could be lowered through anti-smoking campaigns, which would help alleviate lung cancer deaths. By improving the high school graduation rate Graves County will enable higher incomes and a higher capacity to address health issues. These improvements will help to lower the high rate of total mortality, as well as intermediate statistics in premature death and days of limited activity.
Grayson County has low rates of obesity, motor vehicle deaths, low birthweights, infant mortality, and lung cancer deaths. However, the county has a low percentage of adults who regularly participate in physical activity, a behavior that may contribute to the county’s high rates of obesity, cardiovascular disease, and other poor health outcomes. County rates for smoking and prostate cancer deaths are among the highest in Kentucky. The county also has high rates of cardiovascular and colorectal and breast cancer deaths. Programs that promote smoking cessation and educate young people about the health risks of smoking can help lower lung cancer deaths, improve respiratory health, and reduce other health risks. Community initiatives to raise levels of awareness about the benefits of regular preventive screenings and early detection and treatment can help lower deaths rates from breast and other forms of cancer.
Green County has the third lowest number of deaths caused by cardiovascular disease in Kentucky. Rates of prenatal care, child immunization coverage, obesity, and motor vehicle deaths are also better than both state and national averages. While breast cancer mortality rates are relatively low, prostate and lung cancer mortality rates need improvement. Prostate cancer deaths can be prevented through the use of regular screenings that make early detection and treatment possible. Lowering lung cancer rates requires a reduced prevalence of smoking, which can be accomplished through campaigns that aim to prevent youth smoking and encourage smokers to cut back with the goal of quitting. Encouraging regular brushing and flossing, along with measures to increase the use of dental cleanings, can help improve the county’s oral health. Increasing physical activity and decreasing the prevalence of diabetes will contribute to fewer days of limited activity and help lower Green County’s total mortality.
Greenup County Health Synopsis

Within the state, Greenup County ranks well in terms of smoking, perhaps our gravest health risk. Youth rates are low and adult rates, while still above the national average, are below the high state level. However, decreasing these rates, and thereby lowering the number of lung cancer victims, must remain a goal. Similarly, the county holds a favorable rank in terms of colorectal cancer deaths, but deaths due to prostate and breast cancer are both considerably high, suggesting that the medical screenings need to increase. Access to health care in Greenup County is good. Figures for prenatal care and child immunization coverage are strong, and the uninsured population is small. Over time, access can be further increased through efforts that bring the high school graduation rate closer to the national average. More immediately, increased exercise can help lower obesity numbers, which would likely lower diabetes rates. Lowering numbers of premature deaths and days of limited activity, as well as other general health outcomes, will require the maintenance of county strengths and improvements to county challenges.
HANCOCK
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 21

Strengths:
Low smoking
Low obesity
Low motor vehicle deaths
Well insured
Low infant mortality

Challenges:
Physical activity
Diabetes
Cardiovascular deaths
Lung/bronchus cancer
Breast cancer
Prostate cancer

Outliers:
Limited primary care physicians
High colorectal cancer rate

Hancock County Health Synopsis

Hancock County is among the healthiest Kentucky counties in terms of health risks and outcomes. The county has high rates of health insurance coverage, and low rates of smoking, obesity, motor vehicle deaths, and infant mortality. However, the county has several areas in which it can improve. The percentage of adults who engage in regular physical activity is low. Moreover, it has high rates for diabetes, cardiovascular and breast, prostate, and lung cancer deaths. Hancock County has a very high rate of colorectal cancer mortality and a comparatively low supply of primary care physicians. Increasing the level of physical activity and improving nutrition can help prevent diabetes, cardiovascular disease, and even cancer. Regular screening can help lower rates of breast, colorectal, prostate, and other forms of cancer.
Hardin County Health Synopsis

Hardin County’s high school graduation rate exceeds both state and national averages. The county also has a stable income level and a comparatively small percent of uninsured residents. Together, these factors should prove conducive to community leaders’ efforts to counteract high-risk behaviors and increase access to and utilization of health care. While the county’s youth smoking rate falls just below the national average, incidence of adult smoking is still high, making campaigns that encourage reduction and cessation necessary. These actions would also lower the number of deaths due to lung cancer. High colorectal and breast cancer mortality rates can be moderated by increased screenings to ensure early detection and treatment. Campaigns to increase physical activity among residents, along with promotion of the importance of a healthy diet, can help to bring down the prevalence of obesity. Many additional statistics for Hardin County fall between state and national levels. While these figures may not be registered here as challenges, efforts to improve them should be a constant consideration.
The overall health risk in Harlan County is high but can be lowered if appropriate corrective actions are taken. In some categories, the change will be less dramatic. For instance, in terms of motor vehicle deaths, Harlan County rates are lower than both the state and national levels. However, in many other categories the change will need to be greater. Lowering smoking rates through actions that discourage youth smoking and encourage adults to cut back with the goal of quitting smoking will help alleviate high rates of lung cancer death. Other high cancer mortality rates, including those for colorectal and breast, can be moderated by screenings that help ensure early detection and timely treatment. Increased physical activity can lower the incidence of diabetes and cardiovascular deaths. Oral health can be improved by successful anti-smoking initiatives, as well as an emphasis on the importance of routine dental care, including brushing, flossing, and cleanings. Together, these measures will decrease premature death and total mortality.
HARRISON
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 45

Behavioral/Social Factors

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<th>County</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>82</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
<td>77</td>
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Health Outcomes

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>8</td>
<td>9</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>23</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>470</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,008</td>
<td>987</td>
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<td>Premature Death (years lost per 100,000 population)</td>
<td>9,329</td>
<td>9,111</td>
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Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>65</td>
<td>80</td>
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</tr>
<tr>
<td>Colorectal</td>
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<td>23</td>
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<td>26</td>
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</tr>
<tr>
<td>Prostate</td>
<td>21</td>
<td>33</td>
<td>28</td>
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</table>

Harrison County Health Synopsis

Harrison County has several strengths in terms of health risks and outcomes. The county has low rates of motor vehicle deaths, diabetes, and prostate and lung cancer deaths. County residents also enjoy comparatively good insurance coverage. Still, the county faces several health challenges, including high rates of smoking, low birthweights, and breast cancer mortality. In addition, the county has too many adult residents who fail to engage in regular physical activity, which helps explain why the county has some of the highest rates of obesity and cardiovascular deaths found. Another serious problem for Harrison County is a high rate of occupational fatalities that compels attention to workplace safety. Sustained community initiatives to reduce smoking, improve nutrition, increase exercise, and encourage regular primary care visits and cancer screenings can lower many of these risks.
Kentucky Institute of Medicine 77

The Health of Kentucky

HART
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 113

**Behavioral/Social Factors**

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>33</td>
<td>29</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>30</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
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<td>29</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>45</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>49</td>
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<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>9</td>
<td>8</td>
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**Demographics**

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>58</td>
<td>72</td>
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<tr>
<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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**Health Access**

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1,3,500)</td>
<td>1.3</td>
<td>2.5</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>75</td>
<td>80</td>
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**Health Outcomes**

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>12</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>34</td>
<td>28</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>447</td>
<td>409</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>205</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,029</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>8,383</td>
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**Cancer Death Rates (per 100,000 population)**

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>80</td>
<td>80</td>
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<tr>
<td>Colorectal</td>
<td>33</td>
<td>23</td>
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<tr>
<td>Breast</td>
<td>31</td>
<td>27</td>
</tr>
<tr>
<td>Prostate</td>
<td>38</td>
<td>33</td>
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</table>

**Strengths:**
Low obesity
Normal birthweight

**Challenges:**
Immunization coverage
Total cancer death

**Outliers:**
High smoking
Low physical activity
Poor oral health
Poor graduation rate
Low per capita income
Low health insurance
High cardiovascular deaths

**Hart County Health Synopsis**

Hart County compares favorably with other Kentucky counties in terms of obesity rates and birthweights. In many other areas, however, it falls short of state and national averages. To achieve a more thorough and consistent positive health status, community leaders should focus on changing the personal behaviors and social conditions that contribute to health risk. Increasing the county’s education level can influence economic outcomes, such as per capita income and health insurance coverage. In turn, these improvements may help ensure greater immunization coverage as well as increased use of medical screenings to lower the number of cancer-related deaths. Efforts to prevent youth smoking and to encourage current smokers to cut back and ultimately quit will lower Hart County’s significantly high rates for smoking and lung cancer deaths. Increasing physical activity and encouraging healthy diets also can lower the cardiovascular death rate. Broader awareness of the importance of routine dental treatment and the role smoking plays in poor oral health is essential to improving the county’s oral health status. Through these and other measures, health outcomes, such as the percent of adults experiencing limited-activity days, can be remedied.
Henderson County Health Synopsis

Henderson County’s number of motor vehicle deaths is less than half the national average, and the percent of uninsured residents bests both state and national levels. Per capita income is strong, and the high school graduation rate exceeds the state average. However, continual improvement of these statistics needs to remain a concern for community leaders. Additional attention and resources also need to be applied in several other areas. Bringing the rate of physical inactivity below the national average will help to do the same for the prevalence of obesity and, in turn, the number of adults diagnosed with diabetes. Increased exercise and healthier eating habits can decrease the incidence of cardiovascular disease as well. High cancer mortality rates can be lowered through screenings that make early detection and treatment possible. Efforts that discourage new smoking and encourage current smokers to cut back with the goal of quitting may help reduce the incidence of low birthweights by decreasing the number of mothers who smoke or are exposed to secondhand smoke during pregnancy.
Rank: 26

Behavioral/Social Factors

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>21</td>
<td>29</td>
<td>21</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>19</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>31</td>
<td>29</td>
<td>24</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>36</td>
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<td>24</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>28</td>
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<td>33</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000 miles driven)</td>
<td>1.5</td>
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<td>1.5</td>
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<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>469</td>
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<td>Drug Arrests (per 100,000 population)</td>
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Demographics

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<th>Nation</th>
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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>73</td>
<td>72</td>
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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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Health Access

<table>
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<th></th>
<th>County</th>
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<th>Nation</th>
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<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>13</td>
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<td>16</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<td>3.7</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
<td>83</td>
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Health Outcomes

<table>
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<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>9</td>
<td>8</td>
<td>8</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<td>7</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
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<td>8</td>
<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>9</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>14</td>
<td>28</td>
<td>19</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>407</td>
<td>409</td>
<td>326</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>226</td>
<td>237</td>
<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,088</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>8,203</td>
<td>9,111</td>
<td>7,562</td>
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Cancer Death Rates (per 100,000 population)

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<th></th>
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<tr>
<td>Lung/Bronchus</td>
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<td>80</td>
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<td>Colorectal</td>
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<td>23</td>
<td>20</td>
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<tr>
<td>Breast</td>
<td>19</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>38</td>
<td>33</td>
<td>28</td>
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</table>

Strengths:
- Low youth smoking
- Good oral health
- Well insured
- Low breast cancer rate

Challenges:
- Obesity
- Physical activity
- Diabetes
- Cardiovascular deaths
- Lung/bronchus cancer
- Colorectal cancer

Outliers:
- High prostate cancer rate

Henry County Health Synopsis

Henry County registers positively, below both state and national rates for youth smoking and oral health. Access to health care is also favorable due, in part, to a low percent of uninsured residents. Among the positive outcomes that result from such factors are fewer days of limited activity and a low rate of breast cancer mortality. To further minimize health risk, community leaders can focus on meeting health challenges that include the need to reduce smoking. By encouraging smokers to cut back with the goal of quitting and discouraging youth from starting, Henry County can help bring the adult smoking rate below the national average and, in turn, lower the number of lung cancer deaths, which are well above the national level. Increased awareness of the importance of regular physical activity, such as gardening and walking, can help lower the prevalence of obesity and cardiovascular disease. Increased utilization of health screenings for colorectal and prostate cancer could increase early detection and intervention, and reduce the number of related deaths. In general, improvements in high school graduation rates will increase the likelihood of significant and lasting health improvements.
Hickman County Health Synopsis

Hickman County has the highest per capita income of any Kentucky county, an economic advantage generally equated with positive health outcomes. Other strengths include a low youth smoking rate and a low rate of infant mortality. Additionally, the number of prostate cancer deaths is below both state and national levels. However, the rate of colorectal and breast cancer deaths needs attention. Community leaders can begin to lower these rates by undertaking actions that increase the use of screenings and, in turn, the incidence of early detection and treatment. Motor vehicle deaths can be decreased by heightening awareness of the need to use seatbelts, child restraints, and avoid drinking and driving. Educating residents on the importance of routine dental care and its role in overall health can help improve the county’s oral health status while the prevalence of obesity can be counteracted through regular participation in common exercises, such as walking, and healthy diets. A reduction in the incidence of diabetes will follow. Efforts to discourage new smoking and encourage smoking cessation will help lower smoking rates as well as the number of lung cancer deaths. Over time, a rising education level will help improve all health outcomes.
Hopkins County Health Synopsis

Hopkins County has a favorable supply of primary care physicians and low rates of motor vehicle deaths, diabetes diagnoses, and breast and colorectal cancer mortality. The county is challenged though by higher-than-desirable rates of smoking, cardiovascular deaths, uninsured residents, and infant mortality. Also, too many of the county’s adults fail to engage in regular physical activity, and the county has very high rates of occupational fatalities and low birthweights. Reducing smoking can help lower lung cancer mortality rates and lessening exposure to secondhand smoke, a particularly important goal for children and pregnant women. Increased exercise and improved nutrition can lower the risk of cardiovascular disease, diabetes, cancer, and other health conditions.
While it has a relatively low rate of infant mortality and a younger patient population, Jackson County faces some serious challenges in terms of health risks and outcomes. The county has high rates of smoking, obesity, diabetes, low birthweights, and deaths due to cardiovascular disease and breast, prostate, and colorectal cancers. Jackson County also has some of the highest rates of uninsured residents, poor oral health, limited activity, and lung cancer deaths. The county’s low high school graduation rate undermines its overall capacity to improve its health status. An increased emphasis on early prenatal care and visits after delivery coupled with efforts to discourage women from smoking during pregnancy while improving their nutrition can help reduce low birthweights and improve maternal health. Increased physical exercise and consumption of less fast food and more fruits and vegetables can help lower diabetes, cardiovascular deaths, and other health risks. Regular screening and early detection and treatment can help reduce mortality rates for breast, colorectal, prostate, and other forms of cancer.
Jefferson County Health Synopsis

Jefferson County is the largest metropolitan county in Kentucky and one of the healthier in terms of health risks and outcomes. The county has a very good supply of primary care physicians, relatively good oral health, a low percentage of persons without health insurance, a low smoking rate, a high percentage of adults engaged in regular physical activity, and a low rate of deaths due to cardiovascular disease. Even with these strengths, however, the county is confronted by high rates of obesity, diabetes, infant mortality, low birthweight deliveries, and high rates of breast, prostate, and lung cancer deaths. Jefferson County also has a comparatively high rate of infectious disease. Community initiatives to engage individuals at the youngest age possible in nutrition education, smoking prevention and cessation, exercise, and healthy behaviors will help reduce many of these risks. Targeting specific communities within the county relative to available health resources and needs can be effective in such a large and diverse county.
The favorable health status of Jessamine County is illustrated in many variables. The county holds the second-best ranking for physical activity in the state and also has a low number of days of limited activity due to physical or mental illness. The county registers below state and national levels in the number of motor vehicle deaths, adults missing six or more teeth, and the percentage of residents who lack health insurance. Low smoking rates are an additional strength, particularly among the youth population. Within the state, Jessamine County also fares well in terms of colorectal cancer deaths, cardiovascular deaths, total mortality, and the percent of high school graduates, although all of these levels could be improved to compare better to those of the nation. Challenges to the county include the number of deaths due to breast, prostate, and lung cancer. These can be reduced through screenings that increase the likelihood of early detection and treatment. Lowering these cancer rates and maintaining the county strengths will work to lower the rates of premature death and decrease an already minimal health risk.

**Strengths:**
- Low smoking
- Good physical activity
- Good oral health
- Low motor vehicle deaths
- High graduation rate
- Well insured
- Low cardiovascular deaths
- Low total mortality
- Low colorectal cancer rate

**Challenges:**
- Lung/bronchus cancer
- Prostate cancer

**Outliers:**
- High premature death
- High breast cancer rate

**Jessamine County Health Synopsis**

The favorable health status of Jessamine County is illustrated in many variables. The county holds the second-best ranking for physical activity in the state and also has a low number of days of limited activity due to physical or mental illness. The county registers below state and national levels in the number of motor vehicle deaths, adults missing six or more teeth, and the percentage of residents who lack health insurance. Low smoking rates are an additional strength, particularly among the youth population. Within the state, Jessamine County also fares well in terms of colorectal cancer deaths, cardiovascular deaths, total mortality, and the percent of high school graduates, although all of these levels could be improved to compare better to those of the nation. Challenges to the county include the number of deaths due to breast, prostate, and lung cancer. These can be reduced through screenings that increase the likelihood of early detection and treatment. Lowering these cancer rates and maintaining the county strengths will work to lower the rates of premature death and decrease an already minimal health risk.
In some categories, such as the number of motor vehicle deaths, personal behaviors and social conditions in Johnson County combine to lower health risk. In several others, however, the opposite is true. Community leaders need to focus efforts and resources on reversing these trends. Improving awareness of the health benefits of regular physical activity may help increase residents' participation in common exercises, such as walking. If adherence to healthy eating habits is also achieved, intermediate obesity numbers will be lowered, which can help reduce the prevalence of diabetes. Campaigns promoting smoking cessation along with those that discourage youth smoking can help lower the high rate of lung cancer. Increased use of cancer screenings, which would help bring colorectal and prostate cancer numbers closer to those for breast cancer, where Johnson County ranks well. A higher education level, which can lead to greater prosperity, would be conducive to the success of these and any other interventions.
Kenton County Health Synopsis

Kenton County is among Kentucky’s healthiest counties. The county has several strengths, including low rates of motor vehicle deaths, diabetes, and deaths attributable to cardiovascular disease and prostate, breast, and colorectal cancers. The county has a low percentage of persons without health insurance, a favorable rate of high school graduation, and a good supply of primary care physicians. However, Kenton County has undesirable rates of infant mortality, obesity, lung cancer, limited activity, infectious diseases, and one of the highest rates of smoking among Kentucky counties. Community leaders should consider initiating smoking cessation and smoke-free zone programs, strategies that can lessen the rate of lung cancer, improve respiratory health, and protect others from secondhand smoke, which is especially harmful to children and pregnant women. An increased emphasis on pregnancy planning and prenatal care could help lower infant mortality rates. Improved nutrition and increased exercise can help reduce obesity, prevent diabetes, and lessen other health risks.
Knott County has some serious health challenges in terms of health risks and outcomes. The county has high rates of smoking, uninsured individuals, and prostate and colorectal cancer deaths. Also, the county has comparatively poor oral health, a high percentage of adults who do not regularly engage in physical activity, and a low high school graduation rate. However, the county has a rate of breast cancer deaths below state and national averages. On the other hand, the county has some of the highest rates among Kentucky counties for cardiovascular and lung cancer deaths, diabetes, low birthweights, and infant mortality. These problems compel the attention of the county’s community leaders. Programs emphasizing improved nutrition and increased exercise can help prevent obesity, which will help reduce diabetes and heart disease. Regular screening and early detection and treatment can help reduce high colorectal and prostate cancer death rates. Smoking reduction and protection from secondhand smoke can help reduce lung cancer, low birthweights, infant mortality, and cardiovascular disease.
KNOX
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 81

Knox County has comparatively low rates of obesity, occupational fatalities, motor vehicle deaths, and breast and colorectal cancer mortality. However, the county faces some serious health challenges in that it registers very high rates on some health variables. Challenges include smoking, diabetes, low birthweights, cardiovascular deaths, and lack of physical activity among adults. The county has some of the highest rates for poor oral health, prostate and lung cancer deaths, and days of limited activity. The county has a very high percentage of persons without health insurance and a poor high school graduation rate. Smoking reduction initiatives, including the establishment of smoke-free zones to lessen the impact of secondhand smoke, is something community leaders may want to consider. Such an initiative would help reduce lung cancer and improve respiratory health. Improved nutrition and increased exercise can reduce obesity and help prevent diabetes, heart disease, and other illnesses. Periodic health screenings and early detection and treatment can help prevent deaths from breast, colorectal, prostate, and other forms of cancer.

Strengths:
Low obesity
Low motor vehicle deaths
Low occupational fatalities
Low colorectal cancer rate
Low breast cancer rate

Challenges:
Smoking
Physical activity
Low birthweight
Infant mortality
Diabetes
Cardiovascular deaths

Outliers:
Poor oral health
Poor graduation rate
Low health insurance
Limited activity
High lung/bronchus cancer rate
High prostate cancer rate

Knox County Health Synopsis

The Health of Kentucky
Kentucky Institute of Medicine

County State Nation

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>27</td>
<td>29</td>
<td>21</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>24</td>
<td>25</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>21</td>
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<td>Lack of Physical Activity (percent adult population)</td>
<td>43</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>45</td>
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<td>33</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>0.9</td>
<td>2.1</td>
<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>161</td>
<td>267</td>
<td>489</td>
</tr>
<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>636</td>
<td>1,046</td>
<td>700</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>3</td>
<td>8</td>
<td>5</td>
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</tbody>
</table>

Demographics

| High School Graduation (percent adults 25 or older) | 54 | 72 | 80 |
| Per Capita Personal Income | $19,700 | $27,625 | $33,689 |
| Population Age 65 or Older (percent) | 13 | 11 | 13 |

Health Access

| Uninsured Population (percent under age 65) | 21 | 15 | 16 |
| Primary Care Physician to Population Ratio (1:3,500) | 0.8 | 2.5 | 3.7 |
| Adequacy of Prenatal Care (percent pregnant women) | 86 | 85 | 75 |
| Immunization Coverage (percent children 19-35 months) | 81 | 80 | 81 |

Health Outcomes

| Low Birth Weight (per 1,000 live births) | 9 | 8 | 8 |
| Infant Mortality (per 1,000 live births) | 8 | 7 | 7 |
| Infectious Disease (per 100,000 population) | 0 | 8 | 23 |
| Prevalence of Diabetes (percent adults) | 9 | 9 | 7 |
| Limited Activities in Previous Month (percent adults) | 36 | 28 | 19 |
| Cardiovascular Deaths (per 100,000 population) | 440 | 409 | 326 |
| Cancer Deaths (per 100,000 population) | 241 | 237 | 202 |
| Total Mortality (per 100,000 population) | 1,089 | 987 | 842 |
| Premature Death (years lost per 100,000 population) | 8,831 | 9,111 | 7,562 |

Cancer Death Rates (per 100,000 population)

| Lung/Bronchus | 99 | 80 | 55 |
| Colorectal | 20 | 23 | 20 |
| Breast | 23 | 27 | 26 |
| Prostate | 41 | 33 | 28 |
The Health of Kentucky

LARUE

A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 30

Strengths:
- Low obesity
- Good physical activity
- Good oral health
- Well insured
- Low diabetes
- Low prostate cancer rate

Challenges:
- Smoking
- High school graduation
- Lung/bronchus cancer
- Colorectal cancer

Outliers:
- Low immunization coverage
- High infant mortality
- High breast cancer rate

### Behavioral/Social Factors

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>28</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>25</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
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<td>37</td>
<td>33</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.5</td>
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<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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### Demographics

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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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### Health Access

<table>
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<td>16</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<td>3.7</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>81</td>
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<td>Immunization Coverage (percent children 19-35 months)</td>
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### Health Outcomes

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<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>326</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>203</td>
<td>237</td>
<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>924</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>8,035</td>
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### Cancer Death Rates (per 100,000 population)

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<th></th>
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<th>Nation</th>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
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<td>80</td>
<td>55</td>
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<tr>
<td>Colorectal</td>
<td>24</td>
<td>23</td>
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<td>Breast</td>
<td>32</td>
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</tr>
<tr>
<td>Prostate</td>
<td>24</td>
<td>33</td>
<td>28</td>
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**Larue County Health Synopsis**

Among the positive health outcomes currently realized in Larue County are low incidences of prostate cancer death and adults diagnosed with diabetes. Good dental habits and a reasonably good rate of physical activity positively influence oral health and the low prevalence of obesity. The county’s health status also benefits from a low number of uninsured residents, although further access to and utilization of health care is needed to improve child immunization coverage as well as screenings for breast and colorectal cancer. Although Larue County has the lowest rate of lung cancer mortality in the entire state, it is still above the national average in this category. The prevalence of smoking also requires further action to achieve lower rates relative to the nation. These figures can be improved by discouraging youth from smoking and encouraging current smokers to cut back with the goal of quitting. Infant mortality rates may also decline when fewer mothers smoke or are exposed to secondhand smoke during pregnancy. Improvements in the high school graduation rate will, over time, yield broad-based health benefits.
**Laurel County Health Synopsis**

Laurel County ranks just below the middle of Kentucky counties based on health risks and outcomes. The county has health strengths that include low rates of smoking and breast and colorectal cancer deaths, and it is home to a younger patient population. The county has several challenges, however, with high rates of obesity, diabetes, physical inactivity, poor oral health, and cardiovascular and lung cancer deaths. In addition, the county has a limited supply of primary care physicians and a poor high school graduation rate. Among Kentucky counties, Laurel County has some of the highest rates for prostate cancer death and premature death. Regular health screenings and early treatment can help reduce deaths from breast, colorectal, prostate, and other forms of cancer. Community-wide initiatives to reduce smoking and protect others from the harmful effects of secondhand smoke through the creation of smoke-free zones can reduce lung cancer and reduce other health risks. Increased exercise and improved nutrition can lower obesity and reduce risks for diabetes and cardiovascular disease.
The Health of Kentucky

Lawrence County Health Synopsis

The strengths of Lawrence County include rates of infant mortality and motor vehicle deaths that are below both state and national averages, along with rates of prenatal care that are above both state and national averages. Despite these factors, the county faces many challenges in health behaviors. High smoking rates require preventive programs to encourage smokers to cut back with the goal of quitting and the creation of smoke-free zones to reduce exposure to secondhand smoke. These measures will also help decrease the county’s high lung cancer mortality rate. High rates of prostate and colorectal cancer deaths compel greater use of respective health screenings. Measures that emphasize the personal and community-wide importance of regular physical activity and improved diets can lower rates in several categories, including obesity, diabetes, and cardiovascular disease. Additional interventions in oral health, occupational fatalities, and high school graduation rates will have a positive impact on Lawrence County’s overall health status.
Lee County compares well to other Kentucky counties in terms of limited activity days. Other strengths include breast and prostate cancer death rates, which are lower than both state and national levels. However, total cancer deaths exceed these levels, as does the rate of total mortality. Community leaders can help reverse these trends by promoting awareness of county challenges and encouraging efforts to counteract them. The percent of adults diagnosed with diabetes in Lee County is more than double the national average. Increasing physical activity through common exercises and educating residents on the importance of a balanced diet can help check these rates. Lung cancer mortality rates are also twice those of the nation and can be lowered through efforts to prevent youth smoking and promote smoking reduction. Oral health can be improved by emphasizing the importance of routine dental care and raising awareness of the role smoking plays in periodontal disease. Efforts to increase screenings for colorectal cancer can help prevent unnecessary deaths.
### A Comparative Assessment of Health Risk

**Rank:** 107

#### Behavioral/Social Factors

<table>
<thead>
<tr>
<th></th>
<th>County</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>Lack of Physical Activity (percent adult population)</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>287</td>
<td>489</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>1,216</td>
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<td>700</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>9</td>
<td>8</td>
<td>5</td>
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#### Demographics

<table>
<thead>
<tr>
<th></th>
<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>53</td>
<td>72</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$18,982</td>
<td>$27,625</td>
<td>$33,689</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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#### Health Access

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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>18</td>
<td>15</td>
<td>16</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>1.5</td>
<td>2.5</td>
<td>3.7</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>88</td>
<td>85</td>
<td>75</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>83</td>
<td>80</td>
<td>81</td>
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#### Health Outcomes

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<td>7</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>1</td>
<td>8</td>
<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>13</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>32</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>371</td>
<td>409</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>241</td>
<td>237</td>
<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,154</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>8,550</td>
<td>9,111</td>
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</table>

#### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>92</td>
<td>80</td>
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<tr>
<td>Colorectal</td>
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<td>23</td>
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<tr>
<td>Breast</td>
<td>19</td>
<td>27</td>
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</tr>
<tr>
<td>Prostate</td>
<td>37</td>
<td>33</td>
<td>28</td>
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</tbody>
</table>

### Leslie County Health Synopsis

Leslie County’s rate of breast cancer deaths falls well below both state and national averages. Other strengths include high levels of prenatal care and immunization coverage, as well as a relatively low cardiovascular death rate. The county, however, faces numerous health challenges that stem from high-risk personal behaviors and social conditions. Community efforts are needed to increase the use of seatbelts, child restraints, and driver education and lower the number of fatal automobile injuries. Efforts to prevent youth smoking and promote cessation among current smokers are also needed to combat high rates of smoking and lung cancer deaths. Lower prostate and colorectal cancer mortality rates can be achieved through increased visits with primary care physicians and greater use of medical screenings. Over time, increasing the county’s low high school graduation rate will have positive influence on several health factors, including lack of physical activity, oral health, low birthweights, and years of life lost to premature death.
**Letcher County Health Synopsis**

*Although overall health risk is high in Letcher County, numerous strengths exist. The county has strong prenatal care and child immunization coverage, a low rate of prostate cancer death, and a relatively good supply of primary care physicians. Youth smoking is another area where the county does well when compared to state and national averages. Figures for adult smoking are relatively low but could benefit from campaigns that promote smoking cessation, which would also help lower the county’s very high rate of lung cancer deaths. Community initiatives are also necessary in the realm of oral health, where programs promoting the importance of regular brushing, flossing, and cleanings can lower the incidence of tooth decay and gum disease. Efforts to increase levels of physical activity and encourage improved diets can lower rates of obesity, diabetes, and cardiovascular disease. Other areas of concern include health insurance coverage, breast cancer deaths, occupational fatalities, and infant mortality. Investing effort and resources into improving the high school graduation rate will benefit all aspects of the county’s health status.*
LEWIS
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 69

Behavioral/Social Factors

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<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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Demographics

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Health Access

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<td>Infectious Disease (per 100,000 population)</td>
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<tr>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<td>28</td>
<td>19</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

<table>
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<tr>
<th></th>
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<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>74</td>
<td>80</td>
<td>55</td>
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<tr>
<td>Colorectal</td>
<td>34</td>
<td>23</td>
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</tr>
<tr>
<td>Breast</td>
<td>22</td>
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</tr>
<tr>
<td>Prostate</td>
<td>26</td>
<td>33</td>
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</tbody>
</table>

Strengths:
- Low obesity
- Active population
- Low lung/bronchus cancer rate
- Low breast cancer rate
- Low prostate cancer rate

Challenges:
- Physical activity
- Oral health
- Low birthweight
- Infant mortality
- Diabetes
- Cardiovascular deaths
- Colorectal cancer

Outliers:
- High smoking
- Poor graduation rate
- Low health insurance
- Limited primary care physicians

Lewis County Health Synopsis

Lewis County ranks near the middle of Kentucky counties in terms of health risks and outcomes. It has relatively low rates of obesity, limited activity days, and breast, prostate, and lung cancer mortality. The county faces health challenges for diabetes, inadequate physical activity, low birthweights, infant mortality, oral health, and cardiovascular and colorectal cancer deaths. Lewis County has one of the state’s highest rates of uninsured individuals and smoking while it registers one of the lowest rates for high school graduation and the availability of primary care physicians. Health risks can be reduced through several community-led programs. For example, smoking reduction will help reduce low birthweights, lung cancer deaths, other forms of cancer, and respiratory illnesses. Improved nutrition and increased physical activity will help lower the rate of obesity and reduce risks for diabetes, heart disease, and other illnesses. Health screenings and early treatment can reduce deaths from colorectal and other forms of cancer.
Lincoln County Health Synopsis

Lincoln County’s individual rankings vary from categories in which it leads the state to areas where it ranks among the lowest in the state. While breast and prostate cancer death rates are low, colorectal and lung cancer deaths remain a challenge. County strengths include low rates of diabetes and obesity, and good oral health. On the other hand, physical inactivity, and high rates of smoking and occupational fatalities warrant concern. Community leaders can favorably offset this balance through measures that discourage personal behaviors that result in poor health outcomes. An increased community emphasis on the physical and financial benefits of regular exercise and training programs for worker safety will help reverse high risks. High smoking rates can be addressed through community initiatives that discourage youth smoking and encourage current smokers to cut back with the goal of quitting. These measures will also reduce lung cancer deaths and lower the incidence of illnesses related to secondhand smoke exposure. Community leaders will also want to consider the challenges of high rates of motor vehicle deaths, cardiovascular deaths, infant mortality, and low high school graduation rates.
LIVINGSTON
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 48

### Behavioral/Social Factors

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<th></th>
<th>County</th>
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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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### Demographics

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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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### Health Access

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<tr>
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<td>Total Mortality (per 100,000 population)</td>
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### Cancer Death Rates (per 100,000 population)

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<tr>
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Livingston County Health Synopsis

The overall health status of Livingston County is fairly positive and includes a rate of infant mortality that is less than half that of state and national averages. Numbers for prenatal care, immunization coverage, youth smoking, and health insurance coverage are also favorable. The county also posts intermediate statistics in diabetes diagnoses, adult smoking, and adult physical activity. Decreasing health risk even further will require efforts by community leaders to counteract personal behaviors and social conditions that lead to poor health outcomes.

Increasing awareness of the importance of regular exercise and healthy diets can help lower the prevalence of obesity as well as the number of deaths related to cardiovascular disease. Initiatives that promote brushing and flossing as well as regular dental visits will help decrease the incidence of periodontal disease. Decreasing the intermediate motor vehicle death rate may require campaigns that promote seatbelt use and discourage drinking and driving. Other challenges include the limited availability of primary care doctors and the health needs of the county’s older population.
Logan County Health Synopsis

Positive health outcomes in Logan County include low prostate cancer death rates and low rates of adults diagnosed with diabetes, as well as fewer incidences of low birthweight and infant mortality. Among the factors contributing to these outcomes are a positive oral health status and a low number of uninsured residents. To decrease overall health risk in Logan County, community leaders should promote awareness of the county’s challenges and work together to overcome them. Increased physical activity and healthier diets can lower the obesity rate and also contribute to reducing the number of deaths related to cardiovascular disease. Smoking rates are well above both state and national levels, contributing to a high number of lung cancer deaths. To remedy this, efforts to prevent youth smoking and promote smoking reduction and cessation among current smokers are needed. Increased utilization of health care services, particularly child immunizations, is also needed. Regular health screenings will enable early detection and successful treatment and help reduce colorectal and breast cancer deaths.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

LYON

Rank: 66

Strengths:
Low motor vehicle deaths
Well insured
Normal birthweight
Low infant mortality
Low prostate cancer rate

Challenges:
Smoking
Physical activity
High school graduation
Per capita income
Days of limited activity
Premature death
Lung/bronchus cancer
Colorectal cancer

Outliers:
High obesity
Poor oral health
High diabetes
High breast cancer rate

Lyon County Health Synopsis

Lyon County ranks in the middle range of Kentucky’s 120 counties. Health status benefits from a low incidence of motor vehicle deaths, a low rate of uninsured residents, and a low number of prostate cancer deaths. Statistics in categories concerning infants are also strong. When it comes to smoking and lung cancer rates, Lyon County does well in Kentucky; however, when these numbers are compared to national levels, the need for anti-smoking campaigns becomes apparent. Starker health risk is found in several other areas. Community leaders can improve oral health through efforts to reduce smoking and encourage routine brushing and flossing as well as regular dental care. High diabetes rates can be moderated by attention to obesity rates. A county focus on healthier diets and increased physical activity is needed. Breast and colorectal cancer mortality rates can be decreased through increased use of screenings, making early detection and treatment more common. Together, these measures will help decrease premature death and days of limited activity.
Madison County Health Synopsis

Madison County is one Kentucky’s healthiest counties in terms of health risks and outcomes. It has good oral health and low rates of diabetes, smoking, motor vehicle deaths, and lung and colorectal cancer deaths. Other positives are found in rates of physical activity and insurance coverage. The county also has a relatively high rate of high school graduation and a good supply of primary care physicians. However, the county faces challenges such as higher-than-average death rates for breast and colorectal cancer. The county also has some of the state’s highest rates for cardiovascular deaths, which is possibly related to the size of the county’s older patient population. Increased community emphasis on regular primary care visits and screenings can help lower death rates for breast, prostate, and other forms of cancer. Early detection and treatment can save lives. Improved nutrition and increased physical activity can help reduce obesity and lessen the risks for diabetes, heart disease, and other illnesses. Attention to the needs of its older population and its impact on physician and other health resources also should become a focus of the county’s health planning.
Magoffin County Health Synopsis

Magoffin County has several strengths including low rates of infant mortality, cardiovascular and colorectal and prostate cancer deaths. Challenges the county faces include smoking, low-birthweight deliveries, motor vehicle deaths, a lack of physical activity, and lung cancer deaths. The county has a younger patient population which only marginally reduces the problem of an inadequate supply of physicians, on whom older persons tend to make more demands. Magoffin County also has some of the higher rates of obesity, diabetes, poor oral health, persons without health insurance, and breast cancer deaths. Community leaders can reduce many of the risks by encouraging healthier behaviors and targeting limited health resources on specific problems. Smoking cessation, smoke-free zones, improved nutrition, and increased exercise and cancer screenings can lower many of these risks and save lives. Reducing exposure to secondhand smoke and convincing women not to smoke during pregnancy can increase healthy birthweights. Use of seatbelts and child safety restraints can reduce injuries and deaths from automobile accidents.
Marion County Health Synopsis

Marion County is a relatively healthy county in terms of health risks and outcomes. It has low rates of colorectal, prostate, and lung cancer deaths. Its residents also enjoy high rates of health insurance coverage, and they are a physically active population. The county nevertheless registers some of the state’s higher cardiovascular death rates, and it has an inadequate supply of primary care physicians. It also faces challenges in oral health, obesity, low birthweight deliveries, and premature death. Improved nutrition and increased physical activity can reduce obesity and the risks of diabetes and heart disease. Emphasis on prenatal care as well as efforts to strongly discourage smoking among pregnant women and reduce their exposure to secondhand smoke will help prevent low birthweight deliveries.

### County State Nation

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>27</td>
<td>29</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>Prevalence of Obesity (percent adult population)</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
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<tr>
<td>Oral Health (percent adults missing 5 or more teeth)</td>
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<td>Motor Vehicle Deaths (per 100,000 miles driven)</td>
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<td>Violent Crime Offenses (per 100,000 population)</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>230</td>
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<td>700</td>
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<td>Occupational Fatalities (per 100,000 workers)</td>
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<table>
<thead>
<tr>
<th>Demographics</th>
<th>County</th>
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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>71</td>
<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$25,024</td>
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<td>Population Age 65 or Older (percent)</td>
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<tr>
<th>Health Access</th>
<th>County</th>
<th>State</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>85</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
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<td>7</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>Total Mortality (per 100,000 population)</td>
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</table>
Marshall County is one of the healthier Kentucky counties based on the measures of health risk and outcomes used for this study. The county has a comparatively low incidence of diabetes, and low rates of breast, prostate, and lung cancer deaths. In addition, the county has good health insurance coverage. Despite its strengths, the county faces health challenges, including high rates of obesity, physical inactivity, smoking, and limited activity days. The county is also home to an older population that is likely to consume additional health resources due to the increased likelihood of multiple chronic health conditions in this population. Increased physical activity and improved nutrition can help reduce obesity and the risks for diabetes, heart disease, and other illnesses. Smoking cessation and the creation of smoke-free zones to reduce the ill effects of secondhand smoke will help reduce the lung cancer death rate and improve respiratory health.
Martin County Health Synopsis

Martin County is characterized by health risks and outcomes that are found in several rural Kentucky counties. The county has comparatively low rates for smoking, occupational fatalities, and breast and colorectal cancer deaths. It also has a lower proportion of elderly in its population. While the county’s smoking rates are below Kentucky averages, the rate is above the U.S. rate and the much lower rates of some other states. In turn, the county has poor oral health and high rates of death due to heart attacks and strokes and lung cancer. Prostate cancer mortality rates are also high. Community leaders may want to consider campaigns that encourage smoking cessation and the creation of smoke-free zones to lessen the impact of secondhand smoke. Reduction of smoking can reduce lung cancer and other cancer rates, and improve respiratory and heart health. Regular screening can help lower rates of prostate and other forms of cancer. Educating and encouraging residents about improved nutrition and increased exercise can help reduce obesity and lessen the risks of heart attacks and strokes.
The Health of Kentucky

Kentucky Institute of Medicine 105

MASON

A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 64

Behavioral/Social Factors

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Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>74</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>25</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>24</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>31</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

Mason County Health Synopsis

Mason County’s youth smoking rate falls below both state and national levels. Efforts by community leaders to continue this trend and to bring adult smoking rates to a similar level will help lower lung cancer death rates that are well above the national average. Actions that encourage health screenings will help lower high colorectal cancer mortality rates and could bring them into the same range as the county’s low rates for breast cancer deaths. Obesity is also a concern that can be addressed by promoting healthy dietary habits and regular physical activity. These measures will also contribute to lowering the number of adults diagnosed with diabetes. Efforts to improve oral health are needed to better inform residents about the importance of good dental habits, routine care, and the links between smoking and periodontal disease. Mason County’s percentage of uninsured residents is less than state and national averages, which could have a positive impact in several areas. Raising the high school graduation rate would improve the county’s capacity to reverse health risks and lower total mortality.

Strengths:
- Low youth smoking
- Well insured
- Low breast cancer rate

Challenges:
- Physical activity
- Oral health
- High school graduation
- Per capita income
- Diabetes
- Total mortality
- Lung/bronchus cancer
- Colorectal cancer

Outliers:
- High obesity
- Low immunization coverage
- High infant mortality
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 27

**Behavioral/Social Factors**

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>20</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>18</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>17</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>26</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>27</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.5</td>
<td>2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>268</td>
<td>287</td>
<td>469</td>
</tr>
<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>1,716</td>
<td>1,046</td>
<td>700</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>7</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

**Demographics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>77</td>
<td>72</td>
<td>80</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>$25,555</td>
<td>$27,625</td>
<td>$33,689</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
<td>16</td>
<td>11</td>
<td>13</td>
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**Health Access**

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>12</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>1.5</td>
<td>2.3</td>
<td>3.7</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>89</td>
<td>85</td>
<td>75</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>84</td>
<td>80</td>
<td>81</td>
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</table>

**Health Outcomes**

<table>
<thead>
<tr>
<th>Metric</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>9</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>17</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>11</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>27</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>403</td>
<td>409</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>199</td>
<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>944</td>
<td>987</td>
<td>842</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>9,734</td>
<td>9,111</td>
<td>7,582</td>
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</table>

**Cancer Death Rates (per 100,000 population)**

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>72</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>39</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>23</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>42</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

**McCracken County Health Synopsis**

**Strengths:**
- Low smoking
- Low obesity
- Good oral health
- High graduation rate
- Well insured
- Low breast cancer rate

**Challenges:**
- Low birthweight
- Diabetes
- Cardiovascular deaths
- Lung/bronchus cancer

**Outliers:**
- High colorectal cancer rate
- High prostate cancer rate

Strong numbers in prenatal care and child immunization coverage are evidence of the accessibility of health care in McCracken County, which has a low percentage of uninsured residents. Rates for obesity, oral health, and breast cancer mortality are also favorable. Combined, these factors lead to an overall positive health status. McCracken County is one of only five Kentucky Counties with both youth and adult smoking rates below the national averages. Lung cancer rates, however, are still considerably high. Taken in the larger context, lowering all three of these rates should remain a goal of community leaders. High school graduation is another category where the county does well within Kentucky but would benefit from efforts to match and exceed the national average. In similar standing is the physical activity rate which, if increased and coupled with healthy diets, could help lead to fewer diagnoses of diabetes and deaths due to cardiovascular disease. Outliers for the county include high rates of colorectal and breast cancer deaths that can be remedied through the regular screenings. Together, these measures will contribute to fewer limited-activity days and fewer years of life lost to premature death.
The overall health risk for McCreary County is high and requires attention. The low number of deaths related to prostate cancer, as well as excellent prenatal care for pregnant mothers and immunization coverage, need to be matched by similar rankings in other categories. Community leaders face a number of challenges stemming from personal behaviors and social conditions. Promoting more physical activity, including common exercises such as walking, will have a positive impact upon the number of cardiovascular deaths, as well as the percent of adults who suffer from obesity and diabetes. Efforts to curb current and potential smoking will help reduce the county’s significantly high rates and lower the number of lung cancer deaths, which are more than double the national average. Improvements in the county’s very low high school graduation rate will be an investment in the county’s future economic status. The sum of these efforts, along with measures that increase awareness of the importance of oral health in overall health, will lower total mortality rates and lessen the overall health risk in McCreary County.
## McLean County Health Synopsis

McLean County has a good supply of primary care physicians and comparatively low rates of obesity and breast and colorectal cancer deaths. Some of the county’s health challenges include smoking, oral health, an aging population, and unfavorable lung and prostate cancer death rates. The county has some of the higher rates of diabetes, cardiovascular deaths (CVD), and occupational fatalities. Community leaders may want to consider smoking reduction initiatives that encourage cutting back with the goal of quitting, and create smoke-free zones to limit the harmful effects of secondhand smoke. These combined actions will help lower the lung cancer and CVD deaths, improve respiratory health, and lessen complications from diabetes. Regular screening and early detection and treatment can reduce mortality from breast, colorectal, prostate, and other forms of cancer. Reducing sugary snacks and encouraging regular brushing, flossing, and routine dental care can help improve oral health.

### Behavioral/Social Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>27</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>24</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>21</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>35</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>38</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.6</td>
<td>2.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>42</td>
<td>267</td>
<td>469</td>
</tr>
<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>50</td>
<td>1,046</td>
<td>700</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>16</td>
<td>8</td>
<td>5</td>
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</tbody>
</table>

### Demographics

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>73</td>
<td>72</td>
<td>80</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>$24,776</td>
<td>$27,625</td>
<td>$33,689</td>
</tr>
<tr>
<td>Population Age 65 or Older (percent)</td>
<td>14</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

### Health Access

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>13</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>2.5</td>
<td>2.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>91</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>86</td>
<td>80</td>
<td>81</td>
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</table>

### Health Outcomes

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>10</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>7</td>
<td>7</td>
<td>7</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>1</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>12</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>31</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>462</td>
<td>409</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>253</td>
<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,035</td>
<td>987</td>
<td>842</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>10,634</td>
<td>9,111</td>
<td>7,562</td>
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### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>83</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>19</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>22</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>36</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>
Meade County Health Synopsis

Meade County is a relatively healthy county based on measures of health risk and outcomes used for this study. It has a physically active population, a low incidence of diabetes, and low breast, colorectal, and prostate cancer death rates. However, the county faces challenges, including motor vehicle deaths, oral health, cardiovascular and lung cancer deaths. The county also has an older population that requires more medical resources, which places added stress on its inadequate supply of primary care physicians. A community focus on driver education for teenage and elderly drivers and an emphasis on using seatbelts and child safety restraints could help reduce motor vehicle injuries and deaths. Improved nutrition and increased physical activity can reduce obesity and the risks of diabetes, heart disease, and other serious health problems. Programs that discourage youth smoking and enable smokers to cut back with the aim of quitting, along with the creation of smoke-free zones to protect others from the ill effects of secondhand smoke, can help lower the lung cancer death rate and improve respiratory health.
Rank: 101

Menifee County has several strengths in terms of health risks, including low rates of motor vehicle deaths, cardiovascular, and breast, prostate, and lung cancer deaths. Despite these strengths, the county ranks among the state’s least healthy counties due to some the highest rates of obesity, physical inactivity, and colorectal cancer deaths. The county’s strengths suggest community leadership can help reduce other health risks and improve the quality of life and longevity of county residents. Regular screening and early detection and treatment can reduce deaths from breast, prostate, colorectal, and other forms of cancer. Improved nutrition and increased physical activity can reduce the rate of obesity and risks for diabetes, heart disease, and other illnesses. Smoking reduction can help lower the risks for low birthweight deliveries and infant mortality, heart disease, lung cancer deaths, and other illnesses.
## Mercer County Health Synopsis

Positive health outcomes experienced by Mercer County include a low number of adults experiencing days of limited activity, low rates of prostate cancer and cardiovascular disease deaths. The county’s high rate of health insurance coverage, relatively high education level, and low number of automobile-related fatalities all positively influence its low health risk. Community leaders can raise the county’s health ranking above the middle of the state’s 120 counties by focusing efforts and resources on counteracting high-risk personal behaviors. Increasing awareness of the importance of regular physical activity and a healthy diet can help lower the county’s obesity rate. The number of deaths caused by breast cancer can be lowered through increased access to and utilization of primary care physicians and their services, including screenings that help ensure early detection and treatment. Oral health, another area that hinders the county’s health status, can be improved through a community emphasis on routine brushing and flossing and regular dental visits. Smoking and lung cancer death rates, although relatively low for the state, are still high enough to warrant attention.

<table>
<thead>
<tr>
<th>Strengths:</th>
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</thead>
<tbody>
<tr>
<td>Low motor vehicle deaths</td>
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</tr>
<tr>
<td>High graduation rate</td>
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</tr>
<tr>
<td>Well insured</td>
<td></td>
</tr>
<tr>
<td>Active population</td>
<td></td>
</tr>
<tr>
<td>Low cardiovascular deaths</td>
<td></td>
</tr>
<tr>
<td>Low colorectal cancer rate</td>
<td></td>
</tr>
<tr>
<td>Low prostate cancer rate</td>
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<table>
<thead>
<tr>
<th>Challenges:</th>
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<tbody>
<tr>
<td>Smoking</td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td></td>
</tr>
<tr>
<td>Oral health</td>
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<tr>
<td>Lung/bronchus cancer</td>
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</table>

<table>
<thead>
<tr>
<th>Outliers:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low physical activity</td>
<td></td>
</tr>
<tr>
<td>High breast cancer rate</td>
<td></td>
</tr>
</tbody>
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### Mercer County Health Synopsis

<table>
<thead>
<tr>
<th>County</th>
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<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
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<td>25</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>50</td>
<td>32</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>42</td>
<td>37</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.0</td>
<td>2.1</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>430</td>
<td>267</td>
</tr>
<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>1,118</td>
<td>1,046</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>10</td>
<td>8</td>
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</table>

<table>
<thead>
<tr>
<th>Demographics</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>76</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>$23,138</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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<table>
<thead>
<tr>
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<tr>
<td>Uninsured Population (percent under age 65)</td>
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<td>79</td>
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<table>
<thead>
<tr>
<th>Health Outcomes</th>
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</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>8</td>
</tr>
<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>6</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>7</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>9</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>18</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>368</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>225</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>974</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>9,822</td>
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</table>

### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Death Rates</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>76</td>
</tr>
<tr>
<td>Colorectal</td>
<td>24</td>
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<tr>
<td>Breast</td>
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</tbody>
</table>
Metcalfe County has low rates of obesity, infant mortality, and motor vehicle deaths. The county, however, faces several health challenges, including higher-than-average rates for diabetes diagnoses, limited activity days, cardiovascular disease, and breast cancer deaths, as well as an inadequate supply of primary care physicians. The county also has some of the state’s highest rates for smoking, lack of physical activity, individuals without health insurance, and colorectal and prostate cancer deaths. The county’s strengths suggest that community-led efforts to improve health behaviors, lower health risks, and improve health outcomes would be beneficial. Regular screening and early detection and treatment can lower rates of mortality from breast, colorectal, and prostate cancer, all of which are high here. Smoking cessation programs that help persons cut back and quit smoking will help lower the lung cancer rate and improve respiratory health. Convincing young persons not to start smoking can have an even greater long-term benefit. Improving nutrition and increasing physical activity can reduce obesity and help prevent diabetes, heart disease, and other illnesses.
Community leaders in Monroe County can improve the county’s health status by increasing public awareness of health and undertaking actions to maintain county strengths while counteracting county challenges. Rankings in oral health, prenatal care, and infant mortality are strong, benefiting overall health. Rates for smoking and lung cancer fall under state levels but remain above national levels, thus warranting investment in anti-smoking campaigns. The scenario is the same in regards to physical activity. Increased participation in regular exercise can change this and will also help lower the prevalence of obesity. Lower obesity rates coupled with greater adherence to healthier diet habits can lower the incidence of diabetes and deaths due to cardiovascular disease. Preventing unnecessary colorectal cancer deaths requires increased use of screenings to ensure early detection and treatment. Together, these measures can minimize the years of life lost to premature death in Monroe County.
Montgomery County has low rates of violent crime, uninsured individuals, a good supply of physicians by state standards, and a younger patient population. Health challenges facing the county include smoking, obesity, diabetes, infant mortality, poor oral health, and high lung, colorectal, and breast cancer death rates. The county also has comparatively high rates of motor vehicle deaths. Community leadership can launch initiatives to help moderate these adverse health risks and outcomes by encouraging residents to adopt healthier behaviors and focusing health services on key problems. Improved nutrition and increased physical exercise will lower the rate of obesity and reduce the risks of diabetes, heart disease, and other serious illnesses. Regular primary care visits and screenings can help reduce deaths from lung, colorectal, breast, prostate, and other forms of cancer. Smoke-free zones and smoking cessation initiatives that discourage youth from starting and help smokers cut back and quit will reduce the rate of lung and other forms of cancer, improve respiratory health, and reduce illnesses in children and frail persons because of less exposure to secondhand smoke. Increased prenatal care will lower the rate of infant mortality. Use of seatbelts and child safety restraints will help reduce motor vehicle deaths.
Morgan County Health Synopsis

Morgan County has comparatively low rates of motor vehicle deaths, cardiovascular disease deaths below state and national rates, and low lung and prostate cancer death rates. The county nevertheless faces health challenges, including smoking, a lack of physical activity, diabetes, and colorectal cancer deaths. Moreover, the county’s older population must depend on an inadequate supply of primary care physicians. A high percentage of uninsured residents also limits access to care. The county has some of the state’s higher rates of obesity, breast cancer, poor oral health, and an occupational fatality rate more than four times the state average. Reducing smoking rates and exposure to secondhand smoke will help reduce the lung cancer death rate, improve respiratory health, and reduce the risks of low birthweights, infant mortality, and cardiovascular disease. Increased physical activity and improved nutrition also will help lessen the rate of obesity and lower the risks of diabetes, heart disease, and other illnesses. Early screening and detection and treatment will help reduce mortality from breast, colorectal, and prostate cancer.
Muhlenberg County faces some serious health challenges. Despite these problems, the county has strengths that indicate the potential for reducing health risks and saving lives. The county has comparatively low rates of smoking and occupational fatalities, and the availability of primary care physicians makes health care more accessible. Challenges that can effectively be addressed at the community level include low birthweights, infant mortality, obesity, cardiovascular disease, and breast, lung, and prostate cancer deaths. Other health problems for which the county has some of the state's highest rates are days of limited activity, physical inactivity, and colorectal cancer. Though lower than the state average, the county's smoking rate is higher than the national average as well as that of many states. Reductions in smoking would help reduce low birthweight deliveries, infant mortality, and lung cancer deaths. Improved nutrition and increased physical activity will also help reduce obesity and the risk for diabetes, cardiovascular, and other diseases. Regular primary care visits and screenings can reduce the risks of breast, colorectal, prostate, and other forms of cancer.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 16

**Strengths:**
- Low smoking
- Good physical activity
- Good oral health
- Low motor vehicle deaths
- Younger patient population
- Well insured
- Low diabetes
- Low cardiovascular deaths
- Low lung/bronchus cancer rate
- Low colorectal cancer rate

**Challenges:**
- Obesity
- Availability or primary care physicians
- Infectious diseases
- Days of limited activity
- Breast cancer
- Prostate cancer

**Outliers:**
- High premature death

**Nelson County Health Synopsis**

Nelson County is among the healthiest counties in Kentucky based on measures of health risks and outcomes used in this study. The county has low rates of smoking, diabetes, cardiovascular deaths, and colorectal and lung cancer deaths. County residents are physically active and enjoy high rates of health insurance coverage. County challenges include obesity, infectious diseases, and breast and prostate cancer death rates. The county also has a high rate of premature death. Improved nutrition and increased physical activity can reduce obesity and lower risks of diabetes, heart disease, and other illnesses. Early screening and detection and treatment can reduce mortality from breast, colorectal, prostate, and other forms of cancer.
Nicholas County has comparatively low rates of death attributable to cardiovascular disease and prostate cancer; however, the county faces several serious health risks, including high rates of occupational fatalities and lung cancer deaths and very high rates of low birthweights, physical inactivity, obesity, and colorectal cancer deaths. The county also has a low high school graduation rate and a limited supply of primary care physicians. Community leaders can initiate programs to help reduce these risks and save lives. Smoking cessation programs and the creation of smoke-free zones can help reduce lung cancer deaths and protect others from the harmful effects of secondhand smoke while increased attention to workplace safety training can help reduce occupational fatalities. Regular screening and early detection and treatment can help reduce deaths from colorectal, breast, and other forms of cancer. Improved nutrition and increased physical activity can help reduce obesity and the risks of diabetes, cardiovascular disease, and other health risks.
Rank: 74

Behavioral/Social Factors

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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<td>Lack of Physical Activity (percent adult population)</td>
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Demographics

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Health Access

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Health Outcomes

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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>Total Mortality (per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

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<tr>
<td>Prostate</td>
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Ohio County Health Synopsis

Ohio County has a comparatively low incidence of diabetes and good oral health among Kentucky counties. Health challenges for the county include smoking, obesity, occupational fatalities, low high school graduation rates, and high breast and lung cancer death rates. The county also has some of the highest rates of physical inactivity and prostate cancer deaths in the state. Improving nutrition and increasing physical activity at home, in schools, and at work can lower obesity and reduce risks of diabetes, cardiovascular disease, and other illnesses. Community initiatives to reduce smoking through cutting back, cessation, and the creation of smoke-free zones can lower lung and other cancer rates, improve respiratory health, and prevent harm to others from secondhand smoke. Regular screening and early detection and treatment can prevent deaths from breast, colorectal, prostate, and other forms of cancer.

Strengths:
- Good oral health
- Low diabetes

Challenges:
- Smoking
- Obesity
- Occupational fatalities
- High school graduation
- Availability of primary care physicians
- Lung/bronchus cancer
- Breast cancer

Outliers:
- Low physical activity
- High prostate cancer rate
Oldham County has the lowest health risks among all Kentucky counties based on measures for this study. The county has the highest percent of high school graduates, insured residents, and low rates of obesity and diabetes diagnoses. The county also ranks well in terms of oral health, motor vehicle deaths, cancer, and total deaths. Community leaders can work to maintain these favorable health conditions and improve others by encouraging healthy behaviors. While smoking and lung cancer deaths for Oldham County are less than the average rate for Kentucky, they remain substantially higher than U.S. rates. Oldham County also has breast, colorectal, and prostate cancer rates that are higher than rates for both Kentucky and the nation. Programs designed to encourage smokers to cut back with the goal of quitting combined with a strong effort to discourage youth from starting to smoke are actions that can help lower lung cancer and smoking-related deaths. Regular screening and early detection and treatment can reduce breast, colorectal, and prostate cancer deaths.
Owen County has low rates of lung cancer, motor vehicle deaths, and a relatively young patient population. On the other hand, the county is challenged by an undesirable incidence of diabetes and obesity and high rates of colorectal and prostate cancer deaths. The county also has a low high graduation rate and a limited supply of primary care physicians. Owen County has some of the higher rates of breast cancer mortality, physical inactivity, and poor oral health among Kentucky counties. Promoting regular screening and early detection and treatment can help prevent deaths from colorectal, prostate, breast, and other forms of cancer. Community leaders can initiate campaigns to improve nutrition and increase exercise; these efforts can include programs for the home, workplaces, schools, and other locations. Such programs can help reduce obesity and reduce the risks for diabetes and other diseases.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 111

Behavioral/Social Factors

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<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<td>Drug Arrests (per 100,000 population)</td>
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Demographics

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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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Health Access

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<tr>
<td>Uninsured Population (percent under age 65)</td>
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<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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Health Outcomes

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<td>Low Birth Weight (per 1,000 live births)</td>
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<td>Prevalence of Diabetes (percent adults)</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
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<td>Premature Death (years lost per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

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<th></th>
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<tr>
<td>Lung/Bronchus</td>
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<td>Colorectal</td>
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<td>Breast</td>
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<tr>
<td>Prostate</td>
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Owsley County Health Synopsis

Owsley County ranks very well in terms of birthweights, infant mortality, and obesity. However, these factors will remain isolated positives unless community leaders can intervene in the personal behaviors and social factors that increase health risk. In general, measures such as increasing the high school graduation rate that enable better decision making will also improve health outcomes. On a more specific level, lung cancer can be counteracted through anti-smoking campaigns, while increased awareness of the importance of a healthy diet and regular physical activity may lower the prevalence of diabetes and deaths due to cardiovascular disease. Periodontal disease can be reduced by educating adults and children about the dangers of consuming too many sugary snacks and the benefits of routine dental care, including cleanings. Greater use of cancer screenings, prenatal care, and immunizations are also needed to improve the county’s health status.
The overall health status of Pendleton County is fairly positive. The county has a breast cancer mortality rate lower than state and national averages as well as a favorable level of health insurance coverage. In spite of these strengths, however, many challenges face community leaders in the form of high-risk personal behaviors. Youth smoking is low but adult smoking, while it ranks favorably among Kentucky counties, remains high, necessitating efforts to encourage current smokers to cut back with the eventual goal of quitting and discourage youth from ever starting. Increasing awareness of the physical and financial importance of regular activity and a healthy diet can lead to lower obesity, diabetes, and cardiovascular death rates. Educating residents on the importance of routine dental care and habits, including daily brushing and flossing, can improve the county’s poor oral health. Community initiatives to make driver’s education, seatbelt use, and child restraints a priority will help lower the number of deaths due to motor vehicle accidents.
Perry County ranks 117 among Kentucky’s 120 counties on the health risk and outcomes measures used in this study. The county has a favorable supply of primary care physicians and is strong in terms of prenatal care for pregnant women and immunizations of children. Perry County, however, confronts several serious challenges, including high smoking rates for adults and youth, low levels of physical activity among adults, high obesity rates, and a low high school graduation rate that undermines the capacity for change. Community leaders can lower these health risks by encouraging smoking reduction and cessation and discouraging youth from starting to smoke. These improvements will help reduce the county’s very high rate of lung and bronchus cancer mortality. Promoting regular health screenings will yield more early detection and treatment and help reduce the high death rates due to breast, colorectal, and prostate cancer. Ultimately, improved education rates, expanded health insurance coverage, and the adoption of healthier lifestyles, including exercise and improved nutrition, will help lower the county’s high premature and total death rates.
## Pike County Health Synopsis

Pike County’s strengths include access to and utilization of prenatal care, immunization rates, and low rates of breast cancer deaths and premature death, all of which are better than those for the state and the nation. To ensure additional positive health outcomes, community leaders will need to counteract personal behaviors and social factors that increase health risk. Anti-smoking campaigns will help decrease lung cancer death rates, which exceed the state’s high rates. An emphasis on exercise, proper diet, and healthy weights will help lower high obesity rates and decrease the prevalence of diabetes and cardiovascular disease deaths. Pike County registers a high rate of physical inactivity. Encouraging routine dental care both at home, brushing and flossing, and through routine dental checkups, will help improve the county’s poor oral health. Additionally, increased medical screenings and treatment will help lower cancer mortality rates, while seatbelt and child restraint use, combined with campaigns against drunk driving, are needed to lower the number of motor vehicle deaths. Over time, increased education levels will heighten understanding and awareness of other county challenges and foster broad benefits.

### Behavioral/Social Factors

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<th>Factor</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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<td>Drug Arrests (per 100,000 population)</td>
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### Demographics

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### Health Outcomes

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>5</td>
<td>8</td>
<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>12</td>
<td>9</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>34</td>
<td>28</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>524</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,209</td>
<td>987</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>7,019</td>
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### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Lung/Bronchus</td>
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<td>80</td>
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<td>Colorectal</td>
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<td>23</td>
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<tr>
<td>Breast</td>
<td>22</td>
<td>27</td>
<td>26</td>
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<tr>
<td>Prostate</td>
<td>29</td>
<td>33</td>
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**Strengths:**
- Good prenatal care
- High immunization coverage
- Low premature death
- Low breast cancer rate

**Challenges:**
- Smoking
- Obesity
- Motor vehicle deaths
- High school graduation
- Colorectal cancer

**Outliers:**
- Low physical activity
- Poor oral health
- High diabetes
- High cardiovascular deaths
- High lung/bronchus cancer rate
In select categories Powell County compares well to other Kentucky counties as well as the nation. It has a low incidence of occupational fatalities, low birthweights, and motor vehicle deaths. However, when broader social measures and indicators are weighed, a high health risk becomes apparent. The county has rates of premature death, total mortality, and limited activity that are of concern. These outcomes are the result of interrelated personal behaviors and social factors that challenge the county. Efforts to increase the high school graduation rate will have a positive impact on the economic environment, raising per capita income and enabling greater access to and utilization of health services. More screenings for residents will increase incidence of early detection and treatment of breast, colorectal, and prostate cancer. Anti-smoking campaigns encouraging cessation and prevention will decrease smoking rates and deaths due to lung cancer. Residents informed about the financial and health benefits of increased physical activity are more likely to contribute to lower the incidence of diabetes and deaths due to cardiovascular disease. Likewise, promotion of the importance of regular brushing, flossing, cleanings, and fluoride treatments can effectively lower the prevalence of periodontal disease.
Rank: 11

### Behavioral/Social Factors

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>21</td>
<td>29</td>
<td>21</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>19</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>22</td>
<td>29</td>
<td>24</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>25</td>
<td>32</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>36</td>
<td>37</td>
<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>1.5</td>
<td>2.1</td>
<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>97</td>
<td>267</td>
<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>320</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>11</td>
<td>8</td>
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### Demographics

<table>
<thead>
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<th></th>
<th>County</th>
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<th>Nation</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>66</td>
<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$23,790</td>
<td>$27,625</td>
<td>$33,689</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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<td>11</td>
<td>13</td>
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### Health Access

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>15</td>
<td>15</td>
<td>16</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>2.3</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>93</td>
<td>85</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>87</td>
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<td>81</td>
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### Health Outcomes

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<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
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<td>8</td>
<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>10</td>
<td>9</td>
<td>7</td>
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<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>21</td>
<td>28</td>
<td>19</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>377</td>
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<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>232</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>986</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>13,469</td>
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<td>7,562</td>
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### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>78</td>
<td>80</td>
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<td>Colorectal</td>
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<td>Breast</td>
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<td>27</td>
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<tr>
<td>Prostate</td>
<td>35</td>
<td>33</td>
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### Pulaski County Health Synopsis

The overall health status of Pulaski County is favorable. The county has a good supply of primary care physicians, a younger population, and a low rate of obesity. The county also ranks well or intermediately in several other categories. Youth smoking is low and adult smoking, falling on the national average, is well below the state level. Adult physical activity is also relatively high but could still benefit from increased emphasis on the importance of regular exercise to overall individual and community health. In general, community leaders can lower the county’s already low health risk through initiatives that confront high-risk personal behaviors. Campaigns to increase the incidence of regular brushing and flossing among residents, along with increased access to and utilization of dental services, can improve the county’s oral health status. Increasing awareness of the necessity of colorectal and prostate cancer screenings can help to lower the high level of premature death.
Robertson County Health Synopsis

Robertson County has an active adult population, contributing to a low rate of obesity and, in turn, a low number of residents diagnosed with diabetes. Numbers for breast cancer deaths and the removal of permanent teeth are also favorable. Community leaders can garner additional strengths and improve the county’s overall health status by counteracting high-risk personal behaviors. The county’s lung cancer rate is low for Kentucky but still considerably above the national average, suggesting the importance of lowering smoking rates. Efforts to prevent youth smoking and to promote smoking cessation among adult and youth smokers should be considered. Motor vehicle deaths in the county can be prevented through increased use of seatbelts and child restraints, as well as programs that strongly discourage drinking and driving. Lowering prostate and colorectal cancer rates will require greater awareness and utilization of timely screenings. Other concerns for the county include a low high school graduation rate, a high incidence of cardiovascular deaths, an aging population, and a limited number of primary care physicians.
**ROCKCASTLE**

**A COMPARATIVE ASSESSMENT OF HEALTH RISK**

**Rank: 86**

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>32</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
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<tr>
<th>Demographics</th>
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<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<td>72</td>
<td>80</td>
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<tr>
<td>Per Capita Personal Income</td>
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<td>Population Age 65 or Older (percent)</td>
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<td>Low Birth Weight (per 1,000 live births)</td>
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<td>Infant Mortality (per 1,000 live births)</td>
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<tr>
<td>Infectious Disease (per 100,000 population)</td>
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<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>9</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>21</td>
<td>28</td>
<td>19</td>
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<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>375</td>
<td>409</td>
<td>326</td>
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<td>Cancer Deaths (per 100,000 population)</td>
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<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
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<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
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<table>
<thead>
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<th>Cancer Death Rates (per 100,000 population)</th>
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<th></th>
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<tr>
<td>Lung/Bronchus</td>
<td>80</td>
<td>80</td>
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<td>Colorectal</td>
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<tr>
<td>Breast</td>
<td>27</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>36</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

**Strengths:**
- Low motor vehicle deaths
- Active population

**Challenges:**
- Oral health
- Uninsured population
- Total cancer death

**Outliers:**
- High smoking
- High obesity
- Poor graduation rate
- Low per capita income
- High premature death

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**Rockcastle County Health Synopsis**

Health risk in Rockcastle County is unfavorable but can be lowered by changing personal behaviors and social factors contributing to early and otherwise preventable deaths. Community leaders can bring values in several categories down to a level similar to the county’s number of motor vehicle deaths, ensuring that such strengths do not stand alone. Oral health will benefit from increased use of routine dental services such as fluoride treatments and cleanings along with better brushing and flossing habits. The prevalence of obesity can be decreased by promoting healthy diets and encouraging regular participation in activities and common exercises. Cancer deaths can be prevented through the use of screenings that enable detection and treatment. Decreasing smoking rates by encouraging current smokers to cutback and discouraging potential smokers from starting will have a positive impact on the high lung cancer rate here. Investments in the county’s education level will lead to an improved economic environment, higher incomes and expanded access to care. These efforts will bring intermediate statistics below the national average in categories such as days of limited activities, while also making needed improvements to premature death and total mortality rates.
Rowan County Health Synopsis

Rowan County’s overall health status is favorable. The county has a strong supply of primary care physicians, a relatively young population, and good oral health habits. Numbers for infant mortality, low birthweights, and occupational fatalities are also favorable. These factors provide community leaders with a solid foundation from which they may work to further minimize poor health outcomes. Efforts to promote awareness of the risks associated with obesity, along with programs that promote increased activity and improved diets, can lower the county’s high rate of obesity. Colorectal, breast, and prostate cancers are all major outliers for the county. Increasing residents’ access to and utilization of preventive medical screenings can increase the incidence of early detection and treatment, lowering these rates. These efforts, with continued efforts in areas of strength, can help to optimize an already strong health environment.
Russell County has a favorable incidence of motor vehicle deaths as well as a prostate cancer rate well below state and national levels. Statistics for prenatal care and child immunization coverage are also strong. Positive health outcomes for the county include low infant mortality and fewer infants with low birthweights. In some categories considered challenges, Russell County actually compares well against fellow Kentucky counties; however, community leaders should still push to bring these statistics below the national level, especially when the interrelated nature of health factors is considered. Efforts to further decrease smoking will help lower very high lung cancer rates. Improved diets and increased physical activity will decrease the prevalence of obesity, which will likely help reduce diabetes diagnoses and deaths caused by cardiovascular disease. Measures that increase the high school graduation rate are an important investment in future income levels and development that can help expand access to health care. Increased use of screenings can prevent unnecessary cancer deaths, while increased use of dental treatments can lower the incidence of periodontal disease. Together, these measures will help lower Russell County’s total mortality and days of limited activity.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 14

Strengths:
- Low smoking
- Good oral health
- High graduation rate
- Younger patient population
- Well insured
- Low diabetes

Challenges:
- Motor vehicle deaths
- Availability of primary care physicians
- Breast cancer

Outliers:
- High obesity

Scott County Health Synopsis

Factors contributing to Scott County’s favorable health status include a young population and a percentage of uninsured residents lower than both state and national averages. The number of adults diagnosed with diabetes and the number of adults missing six or more permanent teeth are again better state and national averages. The county’s strong rate of high school graduation should help to ensure the longevity of these strengths as well as the likelihood of change occurring in areas of challenges. Among challenges, community leaders need to confront the state’s lowest rates of prenatal care and child immunization coverage. Deaths due to breast cancer are also a concern and can be reduced through increased use of medical screenings that lead to early detection and treatment. The rate of obesity is also high in the county, making programs that promote healthy diets and regular exercise a necessary consideration.
Shelby County Health Synopsis

Shelby County is one of only five Kentucky counties to have smoking rates below both state and national levels. Other strengths contributing to the county’s positive health status include a low incidence of diabetes and a low percentage of uninsured residents. Positive health outcomes for the county include fewer days of limited activity for adults and a relatively low rate of premature death. Efforts by community leaders to maintain these strengths are needed, as are further initiatives into areas of high health risk. The prevalence of obesity and the number of deaths due to cardiovascular disease are both high for the county. Efforts to decrease the former will also benefit the latter. These should include the promotion of regular physical activity, such as gardening or walking, as well as the importance of maintaining a healthy diet. Additionally, measures that increase the use of medical screenings and further decrease the prevalence of smoking can help to lower the number of breast and lung cancer deaths.
Simpson County Health Synopsis

Simpson County ranks in the middle of Kentucky’s 120 counties. The county’s strengths include good oral health and a low prevalence of obesity, as well as a low percentage of uninsured residents. Unfortunately, these strengths are matched by factors that undermine the county’s health status, including high rates of breast and colorectal cancer, cardiovascular and motor vehicle deaths, a lack of physical activity among adults, and an infant mortality rate that is almost double that of the state and the nation. In several other categories, such as the prevalence of diabetes, Simpson County holds intermediate rankings. The adult smoking rate, like the incidence of lung cancer, is below the state’s high average but remains above the national average. Efforts by community leaders to curb high-risk personal behaviors are needed to bring all rates to a favorable level. Initiatives might include the promotion of driver safety, increased physical activity, improved nutrition, cancer screenings, and smoking cessation.
Spencer County Health Synopsis

Outcomes that demonstrate the positive health status of Spencer County include Kentucky’s second lowest percentage of adults experiencing limited-activity days as well as low instances of diagnosed diabetes and infant mortality. The low rate of uninsured residents increases access to health services, including utilization of prenatal care and immunization coverage. The county also presents well in terms of oral health, breast cancer, and prostate cancer, registering below both state and national levels in all three categories. While these numerous strengths show that the overall health status of Spencer County is favorable, concerns remain. The number of colorectal cancer deaths and the percent of physically inactive adults are both more than double the national levels. Regular screenings that ensure early detection and treatment will improve the former, while the latter requires efforts to increase residents’ participation in common exercises, such as walking. Increased exercise, along with increased awareness of the importance of a balanced diet, will also reduce instances of cardiovascular death. In addition, Spencer County has areas, including adult smoking and lung cancer deaths, where health risk may not be alarming but would still benefit from attention.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Taylor County Health Synopsis

Taylor County’s strengths include strong prenatal care, good immunization coverage, and low incidences of diabetes and breast cancer deaths. The county’s health status also benefits from relatively good low rates of cardiovascular and lung cancer deaths, as well as the availability of primary care physicians. Community leaders can further decrease health risk through actions that work against high-risk personal behaviors and social conditions. Programs that prevent youth smoking and encourage smoking cessation are needed to lower the county’s high smoking rates and to decrease poor health outcomes related to secondhand smoke. Physical inactivity among adults is another serious concern, making increased awareness of the physical and financial benefits of regular exercise, such as walking, a necessary consideration. Motor vehicle deaths can be reduced through greater use of seatbelts and child restraints, as well as campaigns to strongly discourage driving under the influence of alcohol or drugs.
Todd County Health Synopsis

Todd County has low diabetes and obesity rates. The county faces several health challenges, including smoking, motor vehicle deaths, poor oral health, and high rates of colorectal cancer. A substantial number of residents are without health insurance which limits access to care. In addition, the county has very high rates of prostate cancer and cardiovascular deaths and limited access to primary care physicians. Regular medical screenings can help prevent deaths from breast, colorectal, prostate, and other forms of cancer. Driver education for teenagers and the elderly and the increased use of seatbelts and child restraints can help reduce injuries and fatalities from vehicle accidents. Smoking reduction and the creation of smoke-free zones to protect others from secondhand smoke can reduce lung cancer and produce other health benefits.
TRIGG
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 34

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>27</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
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</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>23</td>
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</tr>
<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>41</td>
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<td>33</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>373</td>
<td>267</td>
<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>810</td>
<td>1,046</td>
<td>700</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>6</td>
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<td>5</td>
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<tr>
<td>Lung/Bronchus</td>
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<td>Breast</td>
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<tr>
<td>Prostate</td>
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Trigg County Health Synopsis

Trigg County’s overall health status is positive. Strengths include a low percentage of uninsured residents, a relatively high per capita income level, and a low number of deaths due to breast cancer. The physical activity of the county’s adult population helps foster a low prevalence of obesity as well as a stable diabetes rate. Community leaders can take several approaches to further minimizing the overall health risk. Prostate and colorectal cancer deaths can be prevented through increased use of screenings which allow for early treatment while lung cancer deaths can be improved by decreasing the prevalence of smoking. While numbers in both categories are below the state averages, they are still considerably higher than the national average. Promoting awareness of the dangers of dental neglect can help prevent a prevalence of tooth loss and gum disease. Lowering the incidence of cardiovascular disease and increasing child immunization coverage will contribute to fewer years of life lost to premature death.
Community leaders in Trimble County have numerous strengths to maintain, including the state’s second-lowest rate of breast cancer death and third-lowest rate of physical inactivity. The county also holds intermediate rankings in lung cancer and cardiovascular deaths. Positive outcomes from these and other factors include a low number of adults who experience days of limited activity. Factors that limit the county’s overall health status include high-risk personal behaviors and social conditions that community leaders should make the focus of their efforts and resources. Trimble County’s poorest ranking comes in motor vehicle deaths, making increased community awareness and campaigns to encourage the use of seatbelts and child restraints an important consideration. Increased access to and utilization of colorectal and prostate cancer screenings are also needed to reduce the county’s high numbers of preventable deaths in these categories. Additional interventions in the areas of obesity, diabetes, oral health, and smoking should also be considered.
The Health of Kentucky

UNION

A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 105

Strengths:
Good oral health
Low occupational fatalities
Low colorectal cancer rate

Challenges:
Smoking
Obesity
Motor vehicle deaths
Population age 65 or older
Lung/bronchus cancer
Prostate cancer

Outliers:
High diabetes
High premature death
High breast cancer rate

Union County Health Synopsis

Union County has low rates of occupational fatalities, relatively good oral health, and a low rate of colorectal cancer. The county, however, faces serious challenges, including smoking, lung and prostate cancer, motor vehicle deaths, obesity, and an older population. The county also has some of the state’s highest rates of breast cancer, diabetes, and premature deaths. Smoking cessation, cutting back, and the creation of smoke-free zones can help reduce lung cancer, as well as health conditions worsened by secondhand smoke. Children, pregnant women, the frail, and elderly are especially susceptible to the harmful effects of secondhand smoke. Early screening and treatment can reduce deaths from breast cancer and other forms of cancer. The use of seatbelts and child restraints, driver education, and crackdowns on driving under the influence of alcohol or drugs can help reduce motor vehicle deaths and lower the premature death rate. A concerted effort to reduce unintentional accidents, especially among the young, can also prevent deaths that contribute to a high premature death rate.
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 43

Strengths:
Availability of primary care physicians
Low diabetes
Low colorectal cancer rate
Low prostate cancer rate

Challenges:
Smoking
Population age 65 or older
Infant mortality
Breast cancer

Outliers:
High premature death

Warren County Health Synopsis
Warren County has comparatively low rates of diabetes and colorectal and prostate cancer, and a good supply of primary care physicians. Yet the county has several challenges which can be improved with changes in behavior and the utilization of appropriate health services. Community leaders might want to give attention to its growing population of elderly, which tends to have specific needs and greater medical attention because of chronic conditions and mobility limitations. An emphasis on regular health screenings and early detection can help reduce the rates of breast, colorectal, prostate, and other forms of cancer. Improved nutrition, exercise, prenatal care, and reductions in smoking can help lower infant mortality and lessen the risks of diabetes and heart disease. Use of safety equipment and seatbelts and child restraints when driving can reduce the county’s rate of premature death.
Rank: 49

Strengths:
- Low smoking
- Well insured
- Low infant mortality
- Low cardiovascular deaths
- Low lung/bronchus cancer rate

Challenges:
- Obesity
- Physical activity
- Diabetes
- Colorectal cancer
- Prostate cancer

Outliers:
- High occupational fatalities
- High breast cancer rate

Washington County Health Synopsis

Washington County does moderately well in terms of health risks and outcomes. It has relatively low rates of smoking, infant mortality, lung cancer, deaths from heart attacks and strokes, and its citizens enjoy high rates of insurance for health care. However, the county is confronted by high rates of colorectal and prostate cancer, obesity, diabetes, and a low level of physical activity among adults. It also has very high rates of breast cancer and occupational fatalities. Community leaders might want to initiate a campaign to increase awareness of the role that regular screening and early detection and treatment can play in preventing deaths and treating breast, colorectal, prostate, and other forms of cancer. Programs that lead to improved nutrition and increased physical exercise can help reduce the rates of obesity and diabetes and lower the risks of heart disease. Worker safety training and the use of safety equipment and clothing can lead to fewer workplace injuries and fatalities.
Wayne County Health Synopsis

Wayne County is near the middle of Kentucky counties in terms of health risks and outcomes. The county has comparatively low rates of obesity, colorectal and breast cancer, deaths from heart disease and stroke, and occupational fatalities. The county, however, faces challenges related to high rates of limited activity days, inadequate physical activity, smoking, lung cancer, and deaths from motor vehicle accidents. The county has poor oral health, an inadequate supply of primary care physicians, and an increasing elderly population. The elderly tend to have more chronic illnesses and mobility limitations that place increased demands on the health care system and compel community awareness of these needs. Wayne County has very high rates of infant mortality, diabetes, prostate cancer, adults who have not completed high school, and uninsured residents. Promoting exercise programs in schools, parks, and worksites can have many health benefits, including reducing obesity and risks for diabetes, heart disease, and other diseases. Smoking cessation, cutting back, and creation of smoke-free zones can help lower lung cancer rates and reduce other health risks. Screening and treatment can help reduce prostate cancer and other forms of cancer.

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>29</td>
<td>29</td>
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<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
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<td>23</td>
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<tr>
<td>Prevalence of Obesity (percent adult population)</td>
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<td>Lack of Physical Activity (percent adult population)</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<td>37</td>
<td>33</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>2.1</td>
<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>267</td>
<td>489</td>
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<td>Drug Arrests (per 100,000 population)</td>
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<td>1,046</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
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<table>
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<tr>
<th>Demographics</th>
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<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
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<tr>
<td>Per Capita Personal Income</td>
<td>$19,368</td>
<td>$27,625</td>
<td>$33,689</td>
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<tr>
<td>Population Age 65 or Older (percent)</td>
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<td>11</td>
<td>13</td>
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<table>
<thead>
<tr>
<th>Health Access</th>
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<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>19</td>
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<td>16</td>
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<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
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<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
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<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
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<tr>
<th>Health Outcomes</th>
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<td>Low Birth Weight (per 1,000 live births)</td>
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<td>8</td>
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<tr>
<td>Infant Mortality (per 1,000 live births)</td>
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<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>1</td>
<td>8</td>
<td>23</td>
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<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>12</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>31</td>
<td>28</td>
<td>19</td>
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<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>373</td>
<td>409</td>
<td>326</td>
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<td>Cancer Deaths (per 100,000 population)</td>
<td>224</td>
<td>237</td>
<td>202</td>
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<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,046</td>
<td>987</td>
<td>842</td>
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<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>6,065</td>
<td>9,111</td>
<td>7,562</td>
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<td>Lung/Bronchus</td>
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<td>Breast</td>
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</tr>
<tr>
<td>Prostate</td>
<td>40</td>
<td>33</td>
<td>28</td>
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</table>

Strengths:
- Low obesity
- Low occupational fatalities
- Low cardiovascular deaths
- Low colorectal cancer rate
- Low breast cancer rate

Challenges:
- Smoking
- Physical activity
- Oral health
- Motor vehicle deaths
- Population age 65 or older
- Availability of primary care physicians
- Days of limited activity
- Lung/bronchus cancer

Outliers:
- Poor graduation rate
- Low health insurance
- High infant mortality
- High diabetes
- High prostate cancer rate
WEBSTER
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 63

Behavioral/Social Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>County</th>
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<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
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Demographics

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<td>Cancer Deaths (per 100,000 population)</td>
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Cancer Death Rates (per 100,000 population)

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<th>Cancer Type</th>
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<th>Nation</th>
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<tr>
<td>Lung/Bronchus</td>
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<tr>
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<td>Breast</td>
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<tr>
<td>Prostate</td>
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<td>33</td>
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</table>

Strengths:
Good physical activity
Low diabetes
Low cardiovascular deaths

Challenges:
Smoking
Oral health
Uninsured population
Lung/bronchus cancer
Colorectal cancer
Breast cancer
Prostate cancer

Outliers:
High obesity
Limited primary care physicians
Low birthweight
High infant mortality

Webster County Health Synopsis

Webster County is in the middle among Kentucky counties in terms of health risks and outcomes. Residents of the county have a good level of physical activity and comparatively low rates of diabetes and deaths from heart attacks and strokes. Health challenges for the county include high rates of breast, colorectal, prostate, and lung cancer. These cancer rates can be reduced and lives saved by regular screening visits and early detection and treatment. Smoking cessation, creation of smoke-free zones, and encouraging children and teens not to begin smoking can help reduce the lung cancer rate and improve respiratory health. The county has both a high rate of uninsured and lack of primary care physicians, which constitute major barriers to health services. The county has some of the highest rates of infant mortality, low birthweight deliveries, and obesity. Assuring prenatal care in early stages of pregnancy and follow-up visits can help increase normal deliveries and lower infant mortality. A community initiative to promote healthier nutrition and more exercise can help reduce obesity as well as many other health risks.
## WHITLEY

**A COMPARATIVE ASSESSMENT OF HEALTH RISK**

### Whitley County Health Synopsis

While Whitley County has good levels of physical activity rates among adults and primary care physician-to-population ratios, it faces challenges, including high rates of smoking, obesity, diabetes, motor vehicle accident deaths, and infant mortality. The county also has a comparatively low high school graduation rate, which affects the capacity for positive change. Whitley County numbers among the worst counties for poor oral health, occupational fatalities, and cardiovascular disease, lung, colorectal, and prostate cancer deaths. Community leaders can promote several strategies to lower risk and improve the health of residents. Driver’s education for teenagers and seniors and an emphasis on the use of seatbelts and child restraints can reduce automobile injuries and deaths. Improved nutrition, increased exercise, and smoking reduction can reduce the risk for heart disease, stroke, and diabetes. Smoking cessation and smoke-free zones can help reduce lung cancer deaths and improve respiratory health. Regular screening and early detection and treatment can reduce colorectal, prostate, and other cancer deaths.

<table>
<thead>
<tr>
<th>Behavioral/Social Factors</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>28</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>25</td>
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<td>23</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
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<td>24</td>
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<tr>
<td>Lack of Physical Activity (percent adult population)</td>
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<td>24</td>
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<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
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<td>37</td>
<td>33</td>
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<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
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<td>2.1</td>
<td>1.5</td>
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<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
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<td>267</td>
<td>469</td>
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<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>903</td>
<td>1,046</td>
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<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
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### Demographics

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<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>61</td>
<td>72</td>
<td>80</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>$20,086</td>
<td>$27,625</td>
<td>$33,689</td>
</tr>
<tr>
<td>Population Age 65 or Older (percent)</td>
<td>13</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

### Health Access

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>19</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>2.6</td>
<td>2.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>81</td>
<td>85</td>
<td>75</td>
</tr>
<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>76</td>
<td>80</td>
<td>81</td>
</tr>
</tbody>
</table>

### Health Outcomes

<table>
<thead>
<tr>
<th></th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>9</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>4</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>9</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>29</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>466</td>
<td>409</td>
<td>326</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>245</td>
<td>237</td>
<td>202</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,143</td>
<td>987</td>
<td>842</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>5,155</td>
<td>9,111</td>
<td>7,562</td>
</tr>
</tbody>
</table>

### Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>99</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>Colorectal</td>
<td>37</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>28</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Prostate</td>
<td>42</td>
<td>33</td>
<td>28</td>
</tr>
</tbody>
</table>

**Strengths:**

- Good physical activity
- Availability of primary care physicians

**Challenges:**

- Smoking
- Obesity
- Motor vehicle deaths
- High school graduation
- Infant mortality
- Diabetes
- Breast cancer

**Outliers:**

- Poor oral health
- High occupational fatalities
- High cardiovascular deaths
- High lung/bronchus cancer rate
- High colorectal cancer rate
- High prostate cancer rate
WOLFE
A COMPARATIVE ASSESSMENT OF HEALTH RISK

Rank: 120

Behavioral/Social Factors

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Smoking (percent adult population)</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
<td>Prevalence of Youth Smoking (percent high school students)</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Prevalence of Obesity (percent adult population)</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td>Lack of Physical Activity (percent adult population)</td>
<td>48</td>
<td>32</td>
</tr>
<tr>
<td>Oral Health (percent adults missing 6 or more teeth)</td>
<td>53</td>
<td>37</td>
</tr>
<tr>
<td>Motor Vehicle Deaths (per 100,000,000 miles driven)</td>
<td>2.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Violent Crime Offenses (per 100,000 population)</td>
<td>288</td>
<td>267</td>
</tr>
<tr>
<td>Drug Arrests (per 100,000 population)</td>
<td>2,128</td>
<td>1,046</td>
</tr>
<tr>
<td>Occupational Fatalities (per 100,000 workers)</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
</table>

Demographics

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Graduation (percent adults 25 or older)</td>
<td>54</td>
<td>72</td>
</tr>
<tr>
<td>Per Capita Personal Income</td>
<td>$17,241</td>
<td>$27,625</td>
</tr>
<tr>
<td>Population Age 65 or Older (percent)</td>
<td>13</td>
<td>11</td>
</tr>
</tbody>
</table>

Health Access

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured Population (percent under age 65)</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Primary Care Physician to Population Ratio (1:3,500)</td>
<td>0.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Adequacy of Prenatal Care (percent pregnant women)</td>
<td>82</td>
<td>85</td>
</tr>
<tr>
<td>Immunization Coverage (percent children 19-35 months)</td>
<td>77</td>
<td>80</td>
</tr>
</tbody>
</table>

Health Outcomes

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Weight (per 1,000 live births)</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Infant Mortality (per 1,000 live births)</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Infectious Disease (per 100,000 population)</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>Prevalence of Diabetes (percent adults)</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Limited Activities in Previous Month (percent adults)</td>
<td>36</td>
<td>28</td>
</tr>
<tr>
<td>Cardiovascular Deaths (per 100,000 population)</td>
<td>498</td>
<td>409</td>
</tr>
<tr>
<td>Cancer Deaths (per 100,000 population)</td>
<td>295</td>
<td>237</td>
</tr>
<tr>
<td>Total Mortality (per 100,000 population)</td>
<td>1,325</td>
<td>987</td>
</tr>
<tr>
<td>Premature Death (years lost per 100,000 population)</td>
<td>11,477</td>
<td>9,111</td>
</tr>
</tbody>
</table>

Cancer Death Rates (per 100,000 population)

<table>
<thead>
<tr>
<th>County</th>
<th>State</th>
<th>Nation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung/Bronchus</td>
<td>99</td>
<td>80</td>
</tr>
<tr>
<td>Colorectal</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td>Breast</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Prostate</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

Wolfe County Health Synopsis

Wolfe County has the highest health risks among all Kentucky counties based on measures used in this study. The county has both adult and youth smoking rates that are lower than the state average and an obesity rate lower than both state and national rates. However, community leaders might undertake to further lower the county’s smoking rates by promoting smoking reduction and cessation and encouraging youth not to smoke. Reducing individual smoking and exposure to side-stream smoke would lower the county’s high lung cancer death rate and other illnesses associated with smoking. Activities can be undertaken to increase physical activity and improve nutrition, which would help lower the county’s very high rates of diabetes and deaths due to cardiovascular disease. Wolfe County needs improvement in its high school graduation rate and economic development, which would help increase its per capita income and lower the percentage of its residents without health insurance coverage. Regular screening and early detection and treatment are required to lower the county’s high rates of breast, colorectal, and prostate cancer. These collective and sustained activities would, over time, reduce the county’s high rates of premature death and cancer death.
With both a per capita income level and a high school graduation rate above the state and the national average, it is not surprising to find that Woodford County has an uninsured population rate that is below both state and national levels. This economic stability is undoubtedly related to well-being in oral health, in which the county holds the highest ranking for the entire state, as well as a level of physical activity that is, again, above state and national averages. Low percentages of adults are obese, and, in turn, the rate for diagnoses of diabetes is low. Maintenance of this health status compels continued efforts in areas of strength coupled with efforts by community leaders to improve on county challenges. Colorectal and prostate cancer rates, which are significantly higher than state and national averages, can be alleviated, in part, through screenings that help to ensure early detection and treatment. Additionally, while rates for cardiovascular and lung cancer deaths, and smoking fall below the state average, they are still considerably above the national average and require attention. Campaigns to raise public awareness and promote healthy diets, regular physical activity, and smoking cessation are worth considering.
After reading *The Health of Kentucky* and reviewing the county health profiles, concerned county leaders might want to take the next step toward improving the health of their community. The first task is bringing concerned citizens together to jointly review this publication and decide if they believe their county has serious health issues they would like to know more about and consider initiating community actions that address the problem. If the answer is yes, then you should explore the process of how you do health planning. An initial planning step is to inventory the health and health-related interventions that impact your county. In this process you might find several existing interventions for a particular issue. The most important thing you can do is to form a group to coordinate these activities as a whole. It is not necessary to invent your own process. The best approach is to look at what some communities in Kentucky have already done and adapt one of these models to your particular circumstances and the approach you wish to take.

**Community-Initiated Decision Making**

One approach is the Community-Initiated Decision Making (CIDM) process utilized by the Delta Rural Network Project (KDRNP) to enhance health resources and services in Kentucky’s 19 rural Mississippi River Delta counties. It is an organized process whereby citizens of a community focus on a common concern(s) and develop an action plan to address the problem(s). It is an empowering activity that gives the community a voice. CIDM uses a participatory, action-oriented research process premised on the belief that “people have the right and duty to participate individually and collectively in the planning and implementation of their healthcare” (WHO and UNCF, 1978). CIDM is an interactive and recursive process where participants engage in observation, reflection, and action.

Engaging in CIDM requires participants to reflect upon a problem(s); gather, analyze, and interpret data; explore alternatives; prioritize needs; and develop and implement action plans. It is crucial that participants understand that the process is not linear, that steps/activities are repeated all along the way. CIDM is a vehicle for rational, informed decision making by ALL segments of the community. Healthcare providers and community leaders participate, but they do not dictate outcomes. The process is not only democratic, but also one that enhances community understanding, incubates new leadership, and fosters creative solutions. The CIDM process is designed to:

1. engage citizens to identify local health problems;
2. reflect community priorities and values;
3. develop and enhance working relationships among individuals and groups; and
4. promote a sense of collective identity and future.

When the process is repeated within a community, there is a “ripple” effect whereby more and more individuals become actively involved in community issues and participate in decision making. The broader the representation is in decision making, the greater the likelihood that solutions will endure. Processes at every stage of preparation and implementation are designed to enable the community to commit to an overall plan of action. This planning approach results in a dynamic situation in which many program activities cannot be predetermined because they will arise from the felt and expressed needs of those participating in the process.

Resources: Kentucky’s Delta Rural Network Project (KDRNP) at <http://kydap.net>

**Mobilizing for Action through Planning and Partnerships**

Another health planning approach is Mobilizing for Action through Planning and Partnerships (MAPP). MAPP is a planning process sponsored by the National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control. It is a strategic approach to community health improvement. This tool is designed to help communities improve health and quality of life through community-wide strategic planning. Community ownership is the fundamental component of MAPP. Because the community’s strengths, needs, and desires drive the process, MAPP provides the framework for creating a truly community-driven initiative. Community participation leads to collective thinking and, ultimately, results in effective, sustainable solutions to complex problems.
Broad community participation is essential because a wide range of organizations and individuals contribute to the public’s health. Public, private, and voluntary organizations join community members and informal associations in the provision of local public health services. The MAPP process brings these diverse interests together to collaboratively determine the most effective way to conduct public health activities.

Information is available at <http://mapp.naccho.org> or by contacting:

MAPP Program Staff
National Association of County and City Health Officials
1100 17th Street, NW, Second Floor
Washington, DC 20036
Phone: (202) 783-5550 Fax: (202) 783-1583
Email: mapp@naccho.org

MAPP has been used successfully in Kentucky. The MAPP Peer Assistance Network (PAN) provides local public health agencies and other organizations with technical assistance and resources from experienced MAPP users. The participating agency in Kentucky is the Northern Kentucky District Health Department <http://www.nkyhealth.org/mx/hm.asp?id=home>.

Requests for assistance will be fielded by NACCHO staff (contact information above) and routed to the appropriate MAPP mentor(s) based on areas of expertise and geographic location. Sending your technical assistance questions to NACCHO staff through the PAN will allow them to track frequently asked questions and develop additional technical assistance resources. The following sites have fully implemented the local instrument of the National Public Health Performance Standards (NPHPS), (i.e., they have submitted their data to the NPHPS Partners for analysis) as part of their MAPP process:

- Montgomery County Health Department
- Northern Kentucky Health Department
- Pike County Health Department
- Whitley County Health Department

The Kentucky State Office of Rural Health is a resource for clinicians, students, community leaders, state agencies and legislators for information about rural healthcare. With financial and educational programs supported by the State Office of Rural Health, it is committed to being partners with hospitals, community organizations, and non-profit groups, in promoting healthcare in rural Kentucky <http://www.mc.uky.edu/ruralhealth/sorh/>.

**Conducting a Local Study**

Communities might decide to conduct local surveys or studies. Below are some websites that provide guidance for conducting such studies:

- **Conducting a Community Health Assessment** Community Sample, Community Sample Survey, and Conducting Community Focus Groups <http://www.cthaned.org>.
- **Kentucky State Office of Rural Health** Community-Initiated Decision-Making Process (CIDM) What is involved in conducting a community health assessment? <http://www.mc.uky.edu/ruralhealth/sorh/>
COMMUNITY INTERVENTIONS

Interventions by Measure

This section contains suggested community interventions, sample programs, and resources related to each of the measures used in the county profiles. It should be noted that these suggestions are illustrative and not definitive. Within the scope of this report, it was not possible to inventory and rank the relative importance and effectiveness of every intervention program in place at the national, state, and county levels. As suggested in the preceding planning section, an initial planning step is to inventory all of the health and health-related interventions that impact your individual county. In this process, you might find that you already have several interventions for a particular issue and that the most important thing you can do is to form a group to coordinate these activities as a whole.
# SMOKING

## What Communities Can Do

- Prevent young people from starting to smoke.
- Promote the efforts of young people and adults to quit smoking.
- Eliminate exposure to environmental tobacco smoke (ETS).
- Target smoking cessation and reduction programs to children, young adults, and pregnant women.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Tobacco Free Academy, sponsored by the Ashland Boyd County Health Department, is a free, two-hour program for students in grades 4, 5, and 6 designed to ensure that they never start smoking.</td>
<td><a href="http://www.ket.org/commonhealth/models/Tobaccofree.htm">http://www.ket.org/commonhealth/models/Tobaccofree.htm</a></td>
</tr>
<tr>
<td>Kentucky Center for Smoke-Free Policy</td>
<td><a href="mailto:kcsp00@lsv.uky.edu">kcsp00@lsv.uky.edu</a> <a href="http://www.mc.uky.edu/tobaccopolicy/">http://www.mc.uky.edu/tobaccopolicy/</a></td>
</tr>
<tr>
<td>The Jefferson County Smoke Free Coalition focuses on eliminating exposure to ETS. The primary partners are the Louisville Metro Health Department and Jefferson County Medical Society.</td>
<td><a href="http://www.louisvilleky.gov/Health/Tobacco+Prevention+and+Cessation+Program.htm">http://www.louisvilleky.gov/Health/Tobacco+Prevention+and+Cessation+Program.htm</a> <a href="http://jctobacofree.com/smokefreerest.aspx">http://jctobacofree.com/smokefreerest.aspx</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Youth Tobacco Cessation</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Tobacco Use Prevention Media Campaigns: Lessons Learned from Youth in Nine Countries</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Preventing Smoking During Pregnancy National Center for Chronic Disease Prevention and Health Promotion</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>“Not Ready to Quit Smoking? Try Cutting Back” Author: Jennifer Nachbur</td>
<td><a href="mailto:Jennifer.Nachbur@uvm.edu">Jennifer.Nachbur@uvm.edu</a></td>
</tr>
</tbody>
</table>

"Not Ready to Quit Smoking? Try Cutting Back" Author: Jennifer Nachbur
# OBESITY AND OVERWEIGHT

## What Communities Can Do

Insure that Kentucky’s School Nutrition and Physical Education Act is fully implemented in your community’s schools to develop and implement a wellness policy that includes vigorous physical activity each day and sets minimal nutritional standards for all food and beverage programs.

Extend and fully fund community-based efforts to reduce obesity, and forge stronger partnerships with private industry to gain support in offering healthy options to consumers.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC’s State-Based Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kentucky’s School Nutrition and Physical Education Act (KY SB 172 2005, Act No. 84)</td>
<td><a href="http://legislative.kea.org">http://legislative.kea.org</a> (Quick Bill Search)</td>
</tr>
<tr>
<td>School Nutrition and Physical Education</td>
<td><a href="http://www.healthyamericans.org">http://www.healthyamericans.org</a></td>
</tr>
<tr>
<td>Centers for Disease Control — Overweight and Obesity</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Partnership for a Fit Kentucky</td>
<td><a href="http://www.fitky.org">http://www.fitky.org</a></td>
</tr>
<tr>
<td>Kentucky Physical Activity Program</td>
<td><a href="http://chfs.ky.gov/dph/ach/cd/Physicalactivityprogram.htm">http://chfs.ky.gov/dph/ach/cd/Physicalactivityprogram.htm</a></td>
</tr>
</tbody>
</table>
## LACK OF PHYSICAL ACTIVITY

**What Communities Can Do**

- Post motivational signs next to elevators and escalators to encourage the use of nearby stairs for weight loss and other health benefits.

- Use large-scale, high-intensity, community-wide campaigns with sustained high visibility. Promote messages regarding physical activity through television, radio, newspaper columns and inserts, and trailers in movie theaters. Provide community support in the form of self-help groups, physical activity counseling, community events, and the creation of walking trails.

- Provide information on skill development and easy ways to be active. An example is the University of Kentucky Health Education through Extension Leadership’s “Get Moving Kentucky” campaign. [www.ca.uky.edu/heel/moving.htm](http://www.ca.uky.edu/heel/moving.htm)

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERB Summer Score Card (Lexington, Fayette County)</td>
<td><a href="http://www.verbsummerscorecard.com">http://www.verbsummerscorecard.com</a></td>
</tr>
<tr>
<td>Partnership for a Fit Kentucky</td>
<td><a href="http://www.fitky.org">http://www.fitky.org</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centers for Disease Control Physical Activity Topics</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
</tbody>
</table>
# DENTAL HEALTH

## What Communities Can Do

- Increase public awareness of oral health benefits.
- Increase knowledge of non-dental providers.
- Assure access to optimally fluoridated water.
- Establish an oral cancer education program.
- Strengthen school oral health programs.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEAL Kentucky</td>
<td><a href="http://www.mc.uky.edu/dentistry/service/overview.html">http://www.mc.uky.edu/dentistry/service/overview.html</a></td>
</tr>
<tr>
<td>Ronald McDonald House Charities Mobile Dental Program—Serving Central Kentucky</td>
<td><a href="http://www.mc.uky.edu/dentistry/service/overview.html">http://www.mc.uky.edu/dentistry/service/overview.html</a></td>
</tr>
<tr>
<td>Regional Dental Program at the UK Center for Rural Health in Hazard/Ronald McDonald Care Mobile</td>
<td><a href="http://www.mc.uky.edu/ruralhealth/">http://www.mc.uky.edu/ruralhealth/</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting Oral Health</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
</tbody>
</table>
### MOTOR VEHICLE DEATHS

#### What Communities Can Do

<table>
<thead>
<tr>
<th>Increase the proper use of child safety restraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Child safety seat laws</td>
</tr>
<tr>
<td>• Community-wide information and enhanced enforcement</td>
</tr>
<tr>
<td>• Distribution and education campaigns</td>
</tr>
<tr>
<td>• Incentive and education programs</td>
</tr>
<tr>
<td>• Education programs when used alone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increase the use of safety belts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Public Announcements</td>
</tr>
<tr>
<td>• Education campaigns</td>
</tr>
<tr>
<td>• Enhanced monitoring of the primary enforcement seatbelt law</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reduce alcohol-impaired driving</th>
</tr>
</thead>
<tbody>
<tr>
<td>• .08 blood alcohol concentration (BAC) laws</td>
</tr>
<tr>
<td>• Lower BAC laws for young or inexperienced drivers</td>
</tr>
<tr>
<td>• Minimum legal drinking age laws</td>
</tr>
<tr>
<td>• Sobriety checkpoints</td>
</tr>
<tr>
<td>• Intervention training programs for servers of alcoholic beverages</td>
</tr>
<tr>
<td>• Mass media campaigns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School-based instructional programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Peer organization programs</td>
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<tr>
<td>• Social norming programs</td>
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</tbody>
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<thead>
<tr>
<th>Designated driver programs</th>
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<tbody>
<tr>
<td>• Population-based campaigns</td>
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<tr>
<td>• Incentive programs</td>
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</tbody>
</table>

#### Sample Programs

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Kentucky Automobiles &amp; Transportation</td>
<td><a href="http://kentucky.gov/Portal/Category/res_transportation">http://kentucky.gov/Portal/Category/res_transportation</a></td>
</tr>
</tbody>
</table>

#### Resources

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Kentucky House Bill #86 Traffic regulations, General Assembly Commonwealth of Kentucky amending Section 1. KRS 189.125 adding primary enforcement of wearing seatbelts</td>
<td><a href="http://www.lrc.ky.gov">http://www.lrc.ky.gov</a></td>
</tr>
<tr>
<td>What Communities Can Do</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td></td>
</tr>
<tr>
<td>Communities, in close cooperation with state and local law enforcement officials, should consider instituting or strengthening existing programs in the following areas:</td>
<td></td>
</tr>
<tr>
<td>- Gun Violence Prevention</td>
<td></td>
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<tr>
<td>- Domestic Violence Prevention</td>
<td></td>
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<tr>
<td>- Reducing Drugs in the Neighborhood</td>
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<tr>
<td>- Police Officers in the Neighborhood</td>
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<tr>
<td>- Community Revitalization</td>
<td></td>
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<tr>
<td>- Internet Safety</td>
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<tr>
<td>- Reentry of Offenders into the Community</td>
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<tr>
<td>- Community Outreach</td>
<td></td>
</tr>
<tr>
<td>- Kidnapping/Missing Persons</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blueprints for Violence Prevention</td>
</tr>
<tr>
<td>Weed and Seed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Department of Justice, What We Do: Foster Safe Communities</td>
</tr>
<tr>
<td>Reducing and Preventing Youth Violence</td>
</tr>
<tr>
<td>Families are Healthy and Safe, Reducing Violent Crime</td>
</tr>
<tr>
<td>Indianapolis Metropolitan Police Department Crime Prevention</td>
</tr>
<tr>
<td>Kentucky Crime Prevention Coalition</td>
</tr>
</tbody>
</table>
# Drug Abuse

## What Communities Can Do

Communities should consider prevention interventions that focus on young people:

- Provide education to demonstrate that accurate and sufficient information presented in a culturally relevant manner can effect behavioral change and reduce incidence and prevalence of drug use.
- Provide a social competence component on peer leadership groups for youth in high-risk environments.
- Provide educational groups for parents to learn about child development.
- Train a core of community leaders ("impactors") to develop and implement a community action plan to change both formal and informal policies in the community with the intent of limiting the exposure to and availability of alcohol and drugs in the community.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maine Judicial Branch, Adult Drug Court</td>
<td><a href="http://www.courts.state.me.us/mainecourts/drugcourt/index.html">http://www.courts.state.me.us/mainecourts/drugcourt/index.html</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Action for Drug Prevention</td>
<td><a href="http://www.communityprevention.net">http://www.communityprevention.net</a></td>
</tr>
<tr>
<td>Preventing Drug Abuse among Children and Adolescents</td>
<td><a href="http://www.drugabuse.gov/Prevention/Prevopen.html">http://www.drugabuse.gov/Prevention/Prevopen.html</a></td>
</tr>
<tr>
<td>Planning for Drug Abuse Prevention in the Community</td>
<td><a href="http://www.drugabuse.gov/Prevention/planning.html">http://www.drugabuse.gov/Prevention/planning.html</a></td>
</tr>
<tr>
<td>Applying Prevention Principles to Drug Abuse Prevention Programs</td>
<td><a href="http://www.drugabuse.gov/Prevention/applying.html">http://www.drugabuse.gov/Prevention/applying.html</a></td>
</tr>
<tr>
<td>Examples of Research-Based Drug Abuse Prevention Programs</td>
<td><a href="http://www.drugabuse.gov/Prevention/examples.html">http://www.drugabuse.gov/Prevention/examples.html</a></td>
</tr>
<tr>
<td>Michigan’s Network to Support and Expand Community Substance Abuse Prevention</td>
<td><a href="http://www.preventionnetwork.org">http://www.preventionnetwork.org</a></td>
</tr>
<tr>
<td>Directory of DUI Programs in Kentucky</td>
<td><a href="http://mhmr.ky.gov/mhsas/dui_directory.asp">http://mhmr.ky.gov/mhsas/dui_directory.asp</a></td>
</tr>
<tr>
<td>Driving Under the Influence Program</td>
<td><a href="http://www.adp.ca.gov/DUI.asp">http://www.adp.ca.gov/DUI.asp</a></td>
</tr>
<tr>
<td>Kentucky Cabinet for Health and Family Services</td>
<td><a href="http://mhmr.ky.gov">http://mhmr.ky.gov</a></td>
</tr>
<tr>
<td>Recovery Kentucky Program</td>
<td><a href="http://www.kyhousing.org/page.asp?sec=72&amp;id=320&amp;fragment=0&amp;SearchType=AND&amp;terms=Recovery+Kentucky+Program">http://www.kyhousing.org/page.asp?sec=72&amp;id=320&amp;fragment=0&amp;SearchType=AND&amp;terms=Recovery+Kentucky+Program</a></td>
</tr>
</tbody>
</table>
# OCCUPATIONAL HEALTH

## What Communities Can Do

<table>
<thead>
<tr>
<th>What Communities Can Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance</td>
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<tr>
<td>Assessment</td>
</tr>
<tr>
<td>Prevention</td>
</tr>
<tr>
<td>Sustainability</td>
</tr>
<tr>
<td>Population-based approaches</td>
</tr>
<tr>
<td>A holistic approach</td>
</tr>
<tr>
<td>A strong scientific base to guide activities</td>
</tr>
<tr>
<td>An evolving and dynamic approach</td>
</tr>
<tr>
<td>Put the public into public health</td>
</tr>
</tbody>
</table>

## Sample Programs

<table>
<thead>
<tr>
<th>Sample Programs</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety and Health Achievement Recognition Program (SHARP): Model safety and health program wins recertification for Richmond meat distributor</td>
<td><a href="http://kentucky.gov/Newsroom/environment/SHARP+company.htm">http://kentucky.gov/Newsroom/environment/SHARP+company.htm</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
<th>Resources</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worksite Guide to Community Preventive Services Website, Centers for Disease Control and Prevention</td>
<td><a href="http://www.thecommunityguide.org/worksite/">http://www.thecommunityguide.org/worksite/</a></td>
</tr>
<tr>
<td>Office of Occupational Safety and Health</td>
<td><a href="http://www.labor.ky.gov/osh/">http://www.labor.ky.gov/osh/</a></td>
</tr>
</tbody>
</table>
# HIGH SCHOOL GRADUATION

## What Communities Can Do

<table>
<thead>
<tr>
<th>Case Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earn and Learn Opportunities</td>
</tr>
<tr>
<td>After-School Activities</td>
</tr>
<tr>
<td>Service Learning Opportunities</td>
</tr>
</tbody>
</table>

## Sample Programs

|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|

## Resources

<table>
<thead>
<tr>
<th>Communities In Schools: After-School Toolkit: Building Sustainable High-Quality After-School Programs</th>
<th><a href="http://www.cisnet.org/working_together/after-school.asp">http://www.cisnet.org/working_together/after-school.asp</a></th>
</tr>
</thead>
</table>
### ECONOMIC DEVELOPMENT

#### What Communities Can Do

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Develop an Understanding of Community Economic Development</td>
</tr>
<tr>
<td>2</td>
<td>Evaluate Your Community’s Economy</td>
</tr>
<tr>
<td>3</td>
<td>Assess Your Community’s Strengths and Weaknesses</td>
</tr>
<tr>
<td>4</td>
<td>Set Economic Development Goals</td>
</tr>
<tr>
<td>5</td>
<td>Develop an Implementation Plan</td>
</tr>
</tbody>
</table>

#### Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Center for Rural Development, Somerset, KY</td>
<td><a href="http://www.centertech.com">http://www.centertech.com</a></td>
</tr>
<tr>
<td>Model Workforce Development Partnership for Ohio, Kentucky, West Virginia</td>
<td><a href="http://www.arc.gov/index.do?nodeId=2935">http://www.arc.gov/index.do?nodeId=2935</a></td>
</tr>
</tbody>
</table>

#### Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain Association of Appalachian Community Economic Development</td>
<td><a href="http://www.maced.org">http://www.maced.org</a></td>
</tr>
<tr>
<td>Kentucky Community and Technical College System</td>
<td><a href="http://www.kctcs.edu">http://www.kctcs.edu</a></td>
</tr>
<tr>
<td>Kentucky Science and Technology Corporation Rural Innovation Fund</td>
<td><a href="http://www.kstc.com">http://www.kstc.com</a></td>
</tr>
<tr>
<td>Kentucky Cabinet for Economic Development</td>
<td><a href="http://www.thinkkentucky.com">http://www.thinkkentucky.com</a></td>
</tr>
</tbody>
</table>
# SENIORS

## What Communities Can Do

Develop and support the following services, many of which have government financial support:

- Home Delivered Meals
- Homemaker Services
- In-Home Care
- Transportation Services
- Congregate Meals
- Hospice Services

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Center for Healthy Aging Model Programs Project</td>
<td><a href="http://www.healthyagingprograms.com">http://www.healthyagingprograms.com</a></td>
</tr>
<tr>
<td>Using the Evidence Base to Promote Healthy Aging</td>
<td></td>
</tr>
<tr>
<td>CHAMPS: Community Healthy Activities Model Program For Seniors</td>
<td><a href="http://www.ucsf.edu/champs/">http://www.ucsf.edu/champs/</a></td>
</tr>
<tr>
<td>Volunteer Richmond</td>
<td><a href="http://www.volunteerrichmond.ca">http://www.volunteerrichmond.ca</a></td>
</tr>
</tbody>
</table>

## Resources

<table>
<thead>
<tr>
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<th>Website</th>
</tr>
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<tbody>
<tr>
<td>Kentucky Homeplace</td>
<td><a href="http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm">http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm</a></td>
</tr>
<tr>
<td>Kentucky Association of Hospices and Palliative Care</td>
<td><a href="http://www.kah.org">http://www.kah.org</a></td>
</tr>
<tr>
<td>Older American’s Act</td>
<td><a href="http://www.aoa.gov/about/legbudg/oaaliegbudg_oaa.asp">http://www.aoa.gov/about/legbudg/oaaliegbudg_oaa.asp</a></td>
</tr>
<tr>
<td>Home and Community Based Care for the Elderly</td>
<td><a href="http://www.dhhs.state.nh.us/DHHS/BEAS/home-community.htm">http://www.dhhs.state.nh.us/DHHS/BEAS/home-community.htm</a></td>
</tr>
<tr>
<td>Chronically Ill Medicaid Program</td>
<td><a href="http://www.dhhs.nh.gov/DHHS/MEDICAIDPROGRAM/default.htm">http://www.dhhs.nh.gov/DHHS/MEDICAIDPROGRAM/default.htm</a></td>
</tr>
<tr>
<td>Model programs for the old and the young to come together</td>
<td><a href="http://www.siu.edu/offices/iii/Publications/model.html">http://www.siu.edu/offices/iii/Publications/model.html</a></td>
</tr>
<tr>
<td>Meals on Wheels</td>
<td><a href="http://www.mealcall.org">http://www.mealcall.org</a></td>
</tr>
</tbody>
</table>
## HEALTHCARE FOR THE UNINSURED

### What Communities Can Do

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
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</tr>
<tr>
<td>Kentucky Children’s Health Insurance Program (KCHIP)</td>
<td></td>
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<tr>
<td>Federally Qualified Health Centers</td>
<td></td>
</tr>
<tr>
<td>Kentucky Homeplace</td>
<td></td>
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<tr>
<td>Health Kentucky</td>
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<tr>
<td>Federally supported primary healthcare and outreach services to persons who are homeless</td>
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<tr>
<td>Free Clinics</td>
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</table>

### Sample Programs

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<tr>
<td>Kentucky Homeplace</td>
<td>[<a href="http://www.mc.uky.edu/ruralhealth/LayHealth">http://www.mc.uky.edu/ruralhealth/LayHealth</a> KY_Homeplace.htm](<a href="http://www.mc.uky.edu/ruralhealth/LayHealth">http://www.mc.uky.edu/ruralhealth/LayHealth</a> KY_Homeplace.htm)</td>
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<tr>
<td>Health Kentucky</td>
<td><a href="http://www.healthkentucky.org">http://www.healthkentucky.org</a></td>
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### Resources

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<tbody>
<tr>
<td>Kentucky Children’s Health Insurance Program (KCHIP)</td>
<td><a href="http://chfs.ky.gov/dms/KCHIP.htm">http://chfs.ky.gov/dms/KCHIP.htm</a></td>
</tr>
<tr>
<td>Kentucky Primary Care Association</td>
<td><a href="http://www.kypca.net">http://www.kypca.net</a></td>
</tr>
<tr>
<td>Free Clinics</td>
<td><a href="http://www.freeclinics.us">http://www.freeclinics.us</a></td>
</tr>
<tr>
<td>Kentucky Free Clinic Association</td>
<td>(270) 889-9340</td>
</tr>
</tbody>
</table>
## IMPROVING ACCESS TO HEALTHCARE

### What Communities Can Do

Communities must find more refined ways of measuring access to care before addressing issues of physician recruitment and retention. There are several questions that need to be asked.

- How many primary care physicians are there in or adjacent to the county?
- Are they accepting new patients?
- Are they accepting new Medicaid patients?
- Are they accepting new Medicare patients?
- Do they accept indigent patients?
- Do you have a safety net provider in your community (Community Health Center, Homeless Health Center)?
- Are large numbers of people seeking primary care in the hospital emergency room?
- Do existing providers in your community think there is a need for additional physicians?

A major step toward answering these questions is to initiate a planning activity for your community.

### Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>URL</th>
</tr>
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<tbody>
<tr>
<td>Kentucky Homeplace</td>
<td><a href="http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm">http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm</a></td>
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<tr>
<td>Health Kentucky</td>
<td><a href="http://www.healthkentucky.org">http://www.healthkentucky.org</a></td>
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</table>

### Resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Healthy Communities Access Program (CAP), Bureau of Primary HealthCare, Health Resources and Services Administration, USDHHS</td>
<td><a href="http://bphc.hrsa.gov/cap/Default.htm">http://bphc.hrsa.gov/cap/Default.htm</a></td>
</tr>
</tbody>
</table>
## Immunizing Children

<table>
<thead>
<tr>
<th>Immunizations Children Need</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Polio (OPV/IPV)</td>
<td>• Haemophilus influenzae type b (Hib)</td>
</tr>
<tr>
<td>• Diphtheria-Tetanus-Pertussis (DTaP)</td>
<td>• Hepatitis B</td>
</tr>
<tr>
<td>• Tetanus-Diphtheria (Td)</td>
<td>• Chickenpox (VZV)</td>
</tr>
<tr>
<td>• Measles-Mumps-Rubella (MMR)</td>
<td>• Hepatitis Pneumococcal disease (Prevnar™)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What Communities Can Do</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Support local health department public awareness campaigns.</td>
<td></td>
</tr>
<tr>
<td>See that your community enforces school and child care immunization regulations.</td>
<td></td>
</tr>
<tr>
<td>Promote immunization awareness, education, and training for healthcare providers and the general public.</td>
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</tr>
<tr>
<td>Develop effective partnerships between the community, the local health department, and local healthcare providers.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample Programs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Immunization</td>
<td><a href="http://www.metrokc.gov">http://www.metrokc.gov</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National Immunization Program (NIP)</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Vaccines for Children Program (VFC)</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Kentucky Department of Public Health Immunization Program</td>
<td><a href="http://chfs.ky.gov/dph/epi/immunizationprograms.htm">http://chfs.ky.gov/dph/epi/immunizationprograms.htm</a></td>
</tr>
<tr>
<td>Immunization Action Council</td>
<td><a href="http://www.immunize.org">www.immunize.org</a></td>
</tr>
<tr>
<td>HRSA – Maternal and Child Health Information Resource Center (MCH IRC)</td>
<td><a href="http://mchb.hrsa.gov/mchirc/">http://mchb.hrsa.gov/mchirc/</a></td>
</tr>
</tbody>
</table>

**Q:** If I have specific questions about the shots my child needs and when to get them, where can I get this information?

**A:** The best place to start is with your State (or Territory) VFC Program Coordinator who can answer any questions about vaccines and/or recommendations.

There are many other helpful resource links, including contacting the CDC Information Contact Center at 1-800-CDC-INFO (1-800-232-4636), http://www.cdc.gov, or emailing your questions to cdcinfo@cdc.gov
MATERNAL AND CHILD CARE

What Communities Can Do

The community should develop and support programs that encourage women to:

- Have a pre-pregnancy checkup.
- Consume a multivitamin containing 400 micrograms of the B vitamin folic acid (the amount found in most multivitamins) every day before and in the early months of pregnancy.
- Stop smoking. On average, smokers have smaller babies than non-smokers, and maternal exposure to secondhand smoke also may decrease the baby’s birthweight.
- Stop drinking alcohol and/or stop using illicit drugs or prescription or over-the-counter drugs (including herbal preparations) not prescribed by a doctor aware of the pregnancy. Drug and alcohol use limits fetal growth and can cause birth defects.

Once pregnant:

- Get early, regular prenatal care.
- Eat a balanced diet with enough calories (usually about 300 calories a day more than normal for women). Since a fetus is nourished by what a mother eats, it can suffer if the mother eats poorly.
- Gain enough weight. Healthcare providers recommend that a woman of normal weight gain 25-35 pounds during pregnancy.

Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado Prenatal Plus Program</td>
<td><a href="http://www.cdphe.state.co.us/pp/womens/PrenatalPlus.html">http://www.cdphe.state.co.us/pp/womens/PrenatalPlus.html</a></td>
</tr>
<tr>
<td>Nurse-Family Partnership: Organizing for National Expansion</td>
<td><a href="http://www.bridgespan.org/kno_case_nfp.html">www.bridgespan.org/kno_case_nfp.html</a></td>
</tr>
</tbody>
</table>

Resources

<table>
<thead>
<tr>
<th>Resource</th>
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</thead>
<tbody>
<tr>
<td>March of Dimes: Professionals and Researchers</td>
<td><a href="http://www.marchofdimes.com">http://www.marchofdimes.com</a></td>
</tr>
<tr>
<td>Lifestyles for the Pregnant, Breastfeeding, or Postpartum Woman</td>
<td><a href="http://chfs.ky.gov/dph/ach/mch/healthierlifestyles.htm">http://chfs.ky.gov/dph/ach/mch/healthierlifestyles.htm</a></td>
</tr>
</tbody>
</table>
# INFANT MORTALITY

## What Communities Can Do

Support public information campaigns and promote liaison between health providers and public health programs that support and encourage women to take part in the following programs:

- The National Folic Acid Campaign
- “Back to Sleep” campaign: Sudden Infant Death (SIDS)
- Reducing mother-to-child HIV transmission
- Maternal and Child Health Services Block Grant (Title V)
- Reducing Teen Pregnancy
- Healthy People 2010 Infant Mortality Goals

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
</table>
| Voices of Appalachia Healthy Start, Whitley County, KY | [http://www.hrsa.gov](http://www.hrsa.gov)  
| Infant Mortality and Every Child Succeeds (ECS) | [http://www.everychildsucceeds.org](http://www.everychildsucceeds.org) |

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
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</tr>
</thead>
<tbody>
<tr>
<td>The National Folic Acid Campaign</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Sudden Infant Death (SIDS)</td>
<td><a href="http://www.nichd.nih.gov/health/topics/Sudden_Infant_Death_Syndrome.cfm">http://www.nichd.nih.gov/health/topics/Sudden_Infant_Death_Syndrome.cfm</a></td>
</tr>
<tr>
<td>National Campaign to Prevent Teen Pregnancy</td>
<td><a href="http://www.teenpregnancy.org">http://www.teenpregnancy.org</a></td>
</tr>
</tbody>
</table>
### INFECTIOUS DISEASE

#### What Communities Can Do

**HIV/AIDS:** Communities need to work closely with their local health department to insure that the following program elements are in place:

- An effective community planning process
- Epidemiological and behavioral surveillance; compilation of other health and demographic data relevant to HIV risks, incidence, or prevalence
- HIV counseling, testing, and referral, and partner counseling and referral, with strong linkages to medical care, treatment, and prevention services
- Health education and risk-reduction activities, including individual, group, and community-level interventions
- Accessible diagnosis and treatment of other STDs
- Public information and education programs
- Comprehensive school health programs
- Training and quality assurance
- HIV prevention capacity-building activities
- An HIV prevention technical assistance assessment and plan
- Evaluation of major program activities, interventions, and services

**Tuberculosis:** Communities need to work closely with their local health department to insure that the following program elements are in place:

- Conducting overall planning and development of policy
- Identifying persons who have clinically active TB
- Managing persons who have or who are suspected of having disease
- Identifying and managing persons infected with M. tuberculosis
- Providing laboratory and diagnostic services
- Collecting and analyzing data
- Providing training and education

**Hepatitis A, B, and C:** Communities should support their local health department in programs that focus on persons with HIV/AIDS, active drug users and those with a history of drug use, the homeless, uninsured individuals, and those with mental health issues, and consider providing the following services:

- Primary care including HIV care
- Crisis stabilization
- Linkage to healthcare/social services
- Opiate detox/treatment with buprenorphine
- Drug treatment case management
- Substance abuse and mental health counseling
- Non-opiate drug treatment placement
- Hepatitis B and C screening
- Hepatitis A and B vaccination (using rapid 3-week schedule) for specified populations
- HIV testing and counseling
- Free condoms, safer sex education, and safe injection practice education
- Bi-weekly program for prophylactic TB medication
- Initiation of psychotropic medication
- HIV case management
- HIV medication adherence program
Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis A, B, and C Prevention Programs</td>
<td><a href="http://www.hepprograms.org/">http://www.hepprograms.org/</a></td>
</tr>
<tr>
<td>Information and Programs for Adults and Adolescents at Risk</td>
<td></td>
</tr>
<tr>
<td>The IHS HIV/AIDS Program</td>
<td><a href="http://www.ihs.gov/MedicalPrograms/HIVAIDS/">http://www.ihs.gov/MedicalPrograms/HIVAIDS/</a></td>
</tr>
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Resources

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<tbody>
<tr>
<td>HIV/AIDS Branch, Kentucky Department of Public Health</td>
<td><a href="http://chfs.ky.gov/dph/epi/hivaidsh.htm">http://chfs.ky.gov/dph/epi/hivaidsh.htm</a></td>
</tr>
<tr>
<td>Tuberculosis</td>
<td><a href="http://www.phppo.cdc.gov">http://www.phppo.cdc.gov</a></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td><a href="http://chfs.ky.gov/dph/epi/tb.htm">http://chfs.ky.gov/dph/epi/tb.htm</a></td>
</tr>
<tr>
<td>Kentucky Tuberculosis Control Program</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A, B, and C</td>
<td><a href="http://www.hepprograms.org">www.hepprograms.org</a></td>
</tr>
<tr>
<td>Hepatitis A, B, and C</td>
<td><a href="http://www.cdcnpin.org">http://www.cdcnpin.org</a></td>
</tr>
</tbody>
</table>
# Diabetes

## What Communities Can Do

- Expand diabetes primary prevention activities.
- Develop an ongoing public awareness campaign.
- Community programs to promote healthy diet and exercise can reduce the development of type 2 diabetes for nonsmokers without pre-diabetes. For smokers, there is a need to maintain adequate weight control after stopping smoking.
- Reduce diabetes-related health disparities among minority populations.
- Provide quality diabetes pregnancy-related care and education to women.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-Based Diabetes Prevention &amp; Control Programs</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>South Carolina</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Green River District Health Department</td>
<td><a href="http://www.healthdepartment.org">http://www.healthdepartment.org</a></td>
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</table>

## Resources

<table>
<thead>
<tr>
<th>Resource</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Michigan Department of Community Health, Diabetes Prevention &amp; Management</td>
<td><a href="http://michigan.gov/mdch/0,1607,7-132-2940_2955_2980---,00.html">http://michigan.gov/mdch/0,1607,7-132-2940_2955_2980---,00.html</a></td>
</tr>
<tr>
<td>Kentucky Diabetes Network</td>
<td><a href="http://www.kentuckydiabetes.net">http://www.kentuckydiabetes.net</a></td>
</tr>
</tbody>
</table>
ADULTS LIMITED IN ANY ACTIVITIES BECAUSE OF PHYSICAL, MENTAL, OR EMOTIONAL PROBLEMS

<table>
<thead>
<tr>
<th>What Communities Can Do</th>
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</thead>
<tbody>
<tr>
<td>Communities can start and support programs that promote healthy behaviors and emphasize personal responsibility for good health.</td>
</tr>
<tr>
<td>Community leaders can help identify and find ways to remove barriers to access to healthcare for their local residents.</td>
</tr>
<tr>
<td>Community leaders can help assure that the array of prevention and treatment services are available within a reasonable travel time and that these services address physical and behavioral health needs.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Sample Programs</th>
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</thead>
<tbody>
<tr>
<td>Lewis County Primary Care Center</td>
</tr>
<tr>
<td>Diabetes and Heart Care Cooperatives through local community health centers</td>
</tr>
<tr>
<td>Kentucky mental health, mental retardation, and substance abuse centers</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Resources</th>
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</thead>
<tbody>
<tr>
<td>Kentucky Primary Care Association</td>
</tr>
<tr>
<td>Kentucky Association Regional Programs</td>
</tr>
</tbody>
</table>
# HEART DISEASE AND STROKE

## What Communities Can Do

Encourage local businesses to promote cardiovascular health in their work sites. For example, employers can offer health screenings and follow-up services to help employees control their blood pressure and cholesterol levels. Employees can be trained to recognize the signs of a heart attack and stroke and how to respond.

Educating the public about the signs of heart attack and stroke and the importance of calling 911 quickly is an important step to improving the chances for survival and minimizing the damage that can occur following a heart attack or stroke.

Encourage the members of your community to avoid tobacco use, eat healthier foods, control diabetes, and be more physically active.

## Sample Programs

<table>
<thead>
<tr>
<th>Program</th>
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</tr>
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<tbody>
<tr>
<td>Kentucky Heart Disease and Stroke Prevention Program</td>
<td><a href="http://chfs.ky.gov/dph/ach/cd/cardiovascular.htm">http://chfs.ky.gov/dph/ach/cd/cardiovascular.htm</a></td>
</tr>
<tr>
<td>Kentucky Homeplace</td>
<td><a href="http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm">http://www.mc.uky.edu/ruralhealth/LayHealth/KY_Homeplace.htm</a></td>
</tr>
<tr>
<td>Heart Disease in the Bluegrass State</td>
<td><a href="http://www.kyma.org/Committees/CRH/HD_Stroke.htm">http://www.kyma.org/Committees/CRH/HD_Stroke.htm</a></td>
</tr>
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</table>

## Resources

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<tr>
<td>Centers for Disease Control and Prevention, Chronic Disease Prevention Division for Heart Disease and Stroke</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>American Heart Association</td>
<td><a href="http://www.americanheart.org">http://www.americanheart.org</a></td>
</tr>
</tbody>
</table>
**PREMATURE DEATH**

**What Communities Can Do**

Premature Death is a good measure of the general health of the population. In looking at the Years of Potential Life Lost (YPLL) due to premature death, over 65% of Kentucky’s YPLL is attributed to unintentional injuries, cancer, and heart disease. The preceding community intervention suggestions under the headings “Motor Vehicle Deaths” and “Heart Disease and Stroke,” as well as the cancer interventions (Lung/Bronchus, Colorectal, Breast, and Prostate) beginning on the following page, would make a major contribution toward reducing premature deaths in Kentucky.

**Sample Programs**

<table>
<thead>
<tr>
<th>Program</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logan Alive! Employee Wellness Program</td>
<td>Logan Aluminum Company, Logan County</td>
</tr>
<tr>
<td>Lewis County Community Health Center</td>
<td>Lifestyle Enhancement Activity Program</td>
</tr>
<tr>
<td>Fit for Life: Healthy Lifestyles</td>
<td>Owensboro Public School System</td>
</tr>
</tbody>
</table>

**Resources**

<table>
<thead>
<tr>
<th>Resource</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Smoking Cessation</td>
<td><a href="http://personnel.ky.gov/benefits/wellness/smokecess.htm">http://personnel.ky.gov/benefits/wellness/smokecess.htm</a></td>
</tr>
</tbody>
</table>
LUNG/BRONCHUS CANCER

What Communities Can Do
Communities should concentrate on reducing rates of smoking (see the previous community interventions suggestions under the heading “Smoking”). It has also been reported that diets high in fruits and vegetables may provide some protection from lung/bronchus cancer. This should be considered as an additional health benefit of encouraging healthy diets.

Radon
After smoking, radon is the second leading cause of lung cancer. Radon can enter buildings through many paths, such as cracks in the foundation, utility penetrations, sump pumps, and floor drains. Because most people spend as much as 90% of their time indoors, indoor exposure to radon is an important concern. The only way to tell if a building has elevated levels of radon is to have it tested. Communities wanting to reduce radon exposure should support campaigns to encourage individuals, businesses, and government to test their buildings. This should be done with your local health department. Test kits are inexpensive and easy to use.

- Year-Long Testing: Year-long radon test kits are available from most county health departments at no charge. If your county does not have the radon test kits, call 502-564-4856 and request a kit from the state radon program (chfs.ky.gov/dph/info/phps/radontesthome.htm).
- Short-Term Testing: The quickest way to test is with short-term tests. There are many kinds of low-cost “do it yourself” radon test kits you can get through the mail or in hardware stores and other retail outlets.

Sample Programs
| Cooper-Clayton County Programs | http://www.kcp.uky.edu/cc_classes.htm |

Resources
| Listing of Kentucky local health departments | http://chfs.ky.gov/dph/Local+Health+Department.htm |
| Cooper-Clayton County Programs | http://www.kcp.uky.edu/cc_classes.htm |
| The Kentucky Radon Program | http://chfs.ky.gov/dph/info/phps/radongas.htm |
| Kentucky Tobacco Quit Line | 1-800-QUITNOW (1-800-784-8669) |
# Colorectal Cancer

## What Communities Can Do

Develop programs that encourage people to lower their overall cancer risk by:

- Increasing fiber intake
- Decreasing fat intake
- Decreasing alcohol consumption
- Quitting or decreasing smoking
- Regular screening for everyone 50 or older
- Regular exercise
- Eating a diet rich in fruits and vegetables
- Taking supplemental calcium and folate
- Taking a daily aspirin
- Limiting consumption of red and processed meat
- Advocating for healthy food in the workplace
- Improving access to recreation, parks, and trails
- Supporting development of parks, sidewalks, bike paths, and rails-to-trails programs

## Sample Programs

<table>
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<tr>
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<td>Colon Cancer Foundation Home website</td>
<td><a href="http://www.coloncancerfoundation.org">http://www.coloncancerfoundation.org</a></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention Colorectal (Colon) Cancer</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>Kentucky Cancer Prevention Research Center</td>
<td><a href="http://ukprc.uky.edu/staff.htm">http://ukprc.uky.edu/staff.htm</a></td>
</tr>
<tr>
<td>Kentucky Cancer Consortium</td>
<td><a href="http://www.kycancerc.org">http://www.kycancerc.org</a></td>
</tr>
</tbody>
</table>
# What Communities Can Do

The community should develop and support programs that encourage women over age 40 that are low-income and without health insurance or adequate health insurance to:

- Maintain a low-fat diet.
- Consult with a physician before taking any hormone-containing drugs.
- Follow recommended early detection guidelines.
- Encourage early detection and prompt treatment. A physical examination, mammography, and breast self-examination (BSE) make up the conventional early detection approach.
- Encourage regular breast exams:
  - At least every three years between the ages of 20 and 40
  - Every year after age 40
  - Monthly breast self-examination

Develop community events. For example, health fairs in community centers, homeless shelters, and churches.

- Free breast examinations by physicians, mammograms, and education on self-examinations are available at each event.
- Other health screening activities available, such as blood pressure monitoring and glucose testing.
- Follow-up arrangements for abnormal examinations and mammograms.

## Sample Programs

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Community Breast Cancer Screening Program</td>
<td><a href="http://www.metrohealth.org/body.cfm?id=1669">http://www.metrohealth.org/body.cfm?id=1669</a></td>
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## Resources

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<tr>
<td>American Cancer Society – Information and Resources for Breast, Colon, Lung, Prostate, and Other</td>
<td><a href="http://our.cancer.org">http://our.cancer.org</a></td>
</tr>
<tr>
<td>Kentucky Cancer Consortium</td>
<td><a href="http://www.kycancerc.org">http://www.kycancerc.org</a></td>
</tr>
<tr>
<td>Susan G. Koman for the Cure</td>
<td><a href="http://cms.komen.org/komen/index.htm">http://cms.komen.org/komen/index.htm</a></td>
</tr>
<tr>
<td>Kentucky Women’s Cancer Screening Program</td>
<td><a href="http://chfs.ky.gov/dph/ach/mch/cancerscreening.htm">http://chfs.ky.gov/dph/ach/mch/cancerscreening.htm</a></td>
</tr>
</tbody>
</table>
PROSTATE CANCER

What Communities Can Do

Support prostate awareness campaigns by:
- Developing and/or supporting community campaigns to convince men age 50 or older to be screened for prostate cancer: a digital rectal exam (DRE) and a prostate-specific antigen (PSA) blood test.
- Encouraging diets that are low in animal fat and high in fruits and vegetables.
- Making men aware that early prostate cancer usually does not cause symptoms.

Sample Programs

Norton Cancer Institute Prevention & Early Detection Program: Free Cancer Screenings (502) 629-1234

Resources

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<tr>
<td>Prostate Cancer Foundation</td>
<td><a href="http://www.prostatecancerfoundation.org">http://www.prostatecancerfoundation.org</a></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention Prostate Cancer</td>
<td><a href="http://www.cdc.gov">http://www.cdc.gov</a></td>
</tr>
<tr>
<td>NIH Senior Health: Prostate Cancer – Causes and Risk Factors</td>
<td><a href="http://nihseniorhealth.gov/listoftopics.html">http://nihseniorhealth.gov/listoftopics.html</a></td>
</tr>
<tr>
<td>Medicare Prostate Cancer Screening (PSA)</td>
<td><a href="http://www.medicare.gov/health/prostate.asp">http://www.medicare.gov/health/prostate.asp</a></td>
</tr>
<tr>
<td>Survivorship &amp; Support</td>
<td><a href="http://www.mskcc.org">http://www.mskcc.org</a></td>
</tr>
<tr>
<td>Kentucky Cancer Consortium</td>
<td><a href="http://www.kycancerc.org">http://www.kycancerc.org</a></td>
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</tbody>
</table>
POLICY RECOMMENDATIONS

1) Encourage community leadership to address health issues.
   a. Initiate community-based decision-making activities to:
      i. Review KIOM’s report: *The Health of Kentucky: A County Assessment*.
      ii. Inventory current intervention programs operating in the county.
      iii. Institute a mechanism for coordinating current intervention programs.
      iv. Set county goals and objectives for improving health.
      v. Identify gaps in current programs.
      vi. Develop priorities for health improvement programs.
      vii. Develop a county health plan.

2) Address the impact of education and economic development activities on health.
   a. Programs to improve education
      i. Stay in school programs
      ii. Technical school alternatives
      iii. Demonstrations that the community values education
      iv. Adult education and literacy programs
   b. Economic development programs
      i. Improve local infrastructure to make the community more business friendly.
      ii. Coordinate technical education with specific business needs.

3) Health specific interventions
   a. Encourage collaboration between the local public health department and local board of education to improve school health programs. Encourage similar coordination between the Kentucky Cabinet of Health and Family Services and the Department of Education in support of local collaboration.
   b. Expand narrowly focused health programs to address the needs of both the individual and the family.
   c. Improve integration of behavioral and physical health services.

4) Reduce smoking in Kentucky from 29% to at least the U.S. average of 21%.
   a. Introduce school education programs that teach children the harmful health effects of smoking and provide positive reasons not to begin smoking.
   b. Develop community programs that involve women in education and support groups that encourage them not to smoke, use drugs, or other harmful substances during pregnancy.
   c. Encourage insurance companies to cover smoking cessation programs and nicotine patches as standard benefits.
   d. Advocate that Kentucky become smoke-free in all public places.

5) Promote state-financed health insurance coverage for screening and prevention services, including dental care, for all children from birth to age 17 (100,000 in 2005).

6) Increase the educational level among Kentuckians.
   a. Increase the high school graduation rate to 85%, which would place the state among the top five in the nation.
   b. Increase opportunities for adult evening and after-work education.
   c. Encourage attendance in community college, technical and vocational education programs.
   d. Form a partnership of major civic and health organizations to promote education for health improvement and economic development in Kentucky.
   e. KIOM will contact the Prichard Committee for Education Excellence and Chamber of Commerce to initiate forming the partnership for health and education improvement.
7) Reduce obesity in Kentucky from 29% to the US average of 24%.
   a. Encourage community leaders and media to promote ongoing initiatives for healthy weight loss and healthy nutrition among children, teenagers, and adults.
   b. Make available resources that enable safe exercise and other physical activities, such as creating walking and bicycle paths and making school gymnasiums available in evenings and on weekends.
   c. Promote physical education and exercise programs in all schools.

8) Reduce occupational fatalities in Kentucky from 8 per 100,000 to the US rate of 5.
   a. Require employers to enforce and monitor the use of safety equipment by employees.
   b. Implement drug screening programs for all employees.

9) Reduce motor vehicle fatalities in Kentucky from 2.1 per 100,000,000 miles driven to the U.S. rate of 1.5.
   a. Encourage the Kentucky State Police and other law enforcement officials to continue the strong implementation of the state’s mandatory enforcement seatbelt law.
   b. Improve secondary roads through pot hole repair, guardrails, culvert signs and lighted signals, and removal of dangerous roadside trees.

10) Reduce low-birthweight infants in Kentucky from 8 per 1,000 live births to a rate of 5.
    a. Develop community programs that involve women in education and support groups that encourage not smoking, using drugs, or other harmful substances during pregnancy.
    b. Encourage healthy nutrition, exercise, and supportive services for targeted high-risk mothers during pregnancy.

11) Reduce the percentage of Kentuckians with six or more missing teeth from 37% to the U.S. rate of 33%.
    a. Encourage insurance coverage for an annual dental examination and cleaning.
    b. Promote pediatric dental sealant programs for all children.
    c. Require a dental exam prior to entering school for the first time.

12) Increase the number of primary care physicians in Kentucky’s 55 rural counties that have been designated by the US Health Resources Services Administration as Health Professional Shortage Areas (HPSAs) for primary medical care.
    a. Study improved models for healthcare that better utilize healthcare professionals in providing access to primary medical and behavioral healthcare.
    b. Continue KIOM’s ongoing physician workforce assessment.
    c. Identify medical student applicants who are more likely to choose a primary care specialization and to practice in a medically underserved community.
    d. Identify underserved areas and the number of physicians required to assure access to primary medical care.

13) Lessen the cancer death rate in Kentucky from 237 per 100,000 population to 202.
    a. Reduce smoking rates among adults from 29% to 21%.
    b. Increase early health screenings for breast, colon and prostate cancer.