

# The Health Improvement Collaborative of Greater Cincinnati

The *Health Improvement Collaborative of Greater Cincinnati* is a broad-based, not-for-profit organization comprised of area health care stakeholders including hospitals, physicians, employers, consumers, insurers and public health agencies. It is a neutral ground for stakeholders to come together to solve difficult issues for the good of the entire community. Members are committed to working together to positively impact the overall welfare of the two million residents in the 14-county area including Southwestern Ohio, Northern Kentucky and Southeast Indiana.

*Collaborative* members work together to measure health status in the region and enhance the area's quality of health care. The *Collaborative* is a long-standing organization that has earned respect in the community since its establishment in 1992 as a subsidiary of the Greater Cincinnati Health Council.

**The *Collaborative's* mission is to stimulate continuous, significant, measurable improvement in the health of the people of Greater Cincinnati through collaborative leadership.**

The *Collaborative* is the proud recipient of the American Hospital Association's Carolyn Boone Lewis Living the Vision Award.

Current initiatives of the *Collaborative* include:

**Community Health Assessment Committee:** regularly measures the overall health status of Greater Cincinnati through a community survey\* and actively identifies health improvement opportunities. Two subcommittees assist in carrying out its work: the **Communication and Dissemination Subcommittee** and the **Measurement and Analysis Subcommittee**.

**Data Analysis Committee:** compiles, analyzes and interprets data from area hospitals concerning length of stay, charges and mortality. Participating hospitals then use the data to improve hospital performance.

**Health Living/Healthy Weight Task Force:** works to improve the health of Greater Cincinnati area residents by helping to identify and address issues of environment and lifestyle that contribute to obesity.

**Low Birth Weight Task Force:** develops and oversees improvement projects related to low birth weight and guides the work of its major subcommittees: **Neighborhood Partnering** and **Multiple Births**.

**Clinical Goals Committee:** reviews recommended opportunities for health improvement and reviews implementation plans for the initiatives selected.

**Public Health Committee:** identifies and implements effective strategies to assist the *Collaborative* in partnering with the public health system to provide a proactive voice for public health in the region.

**Planning and Funding Committee:** guides the strategic and financial planning efforts of the *Collaborative*.

**Regional Terrorism Readiness Program:** uses federal grant funds to improve and coordinate the terrorism response efforts of Tristate police, fire, EMS, HAZMAT, hospital and other responders.

**Greater Cincinnati Health Bridge** is a non-profit subsidiary of the *Collaborative*. Its mission is to create a cost-effective, secure, electronic networking infrastructure to allow physicians, health systems, managed care organizations and others to communicate more effectively and efficiently.

Health Bridge has its own Board of Trustees, committee structure, staff and strategic planning process.

The *Collaborative* is also a partner in the work of the **Health Care Data and Trends Task Force**, which is working to ensure an adequate supply of physician specialists and other health professionals in the area, and is also involved in efforts to improve the retention and recruitment of minority health professionals in Greater Cincinnati.

Earlier task forces have included work in the areas of improving the early detection and treatment of depression, diabetes education and treatment and a flu-shot coordination and community awareness efforts. These projects have been completed or have now been successfully transitioned to others in the community.

Also housed within the *Collaborative* is the **Facial Foundation of Greater Cincinnati**, an independent effort of three health systems and a group of physicians in the area that provide free treatment and reconstructive surgery to battered women, victims of criminal violence, and others who may be in need of these services but are unable to pay.

\* To view the Community Health Status Survey results via the web, log onto [www.the-collaborative.org](http://www.the-collaborative.org) and click on the link for Measurement Tools to find the Community Health Status Survey 2002 and related resources.

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# Introduction

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How healthy is our Tristate community? The Fall 2003 report of *Indicators of Healthy Communities* attempts to answer this question. This report has been expanded from its first issue in December 1997, and again in 2000, and now includes 46 indicators that capture multiple and diverse aspects of health and wellness. When pertinent, comparisons are made to the 2000 Indicators Report.<sup>1</sup>

*Indicators of Healthy Communities*, compiled by the Community Health Assessment Committee<sup>2</sup> of the Health Improvement Collaborative of Greater Cincinnati, represents partial fulfillment of a broad-based, shared vision of Collaborative participants to monitor changes in the overall health of the Tristate region, spur community-wide discussion, and identify priority health improvement opportunities.

The report is unique in its geographic focus, covering eight counties in Southwestern Ohio, four in Northern Kentucky, and two in Southeastern Indiana<sup>3</sup>.

An explanatory narrative written by a community expert accompanies each indicator to assist the reader in interpreting the data presented.

It is anticipated that the information contained in this report will cause the reader to ask questions about their health and lifestyles, as well as to evaluate our strengths and weaknesses as an interdependent community of citizens. Better yet, it is hoped this report will motivate you to join your colleagues and fellow community members in taking action to improve some aspect of community health.

*Indicators of Healthy Communities 2003* is a work in process. As new data become available, the information will be merged into the report. Over time, categories of indicators may be changed and improved. However, the report's underlying premise — to establish a baseline of the Tristate's health and well-being that will serve as a catalyst for community dialogue and action — remains the same.

We welcome your thoughts and comments.

Community Health Assessment Committee  
Health Improvement Collaborative  
of Greater Cincinnati  
Fall 2003

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<sup>1</sup> United Way of Greater Cincinnati and Sustainable Cincinnati also release reports that compile indicators of community health, each somewhat different in scope. The Health Improvement Collaborative is committed to sharing data collected in this report with these other organizations in order to reduce duplication of resources and to improve community awareness of opportunities to enhance the overall health and well-being of the area.

<sup>2</sup> The Community Health Assessment Committee, a committee of the Health Improvement Collaborative of Greater Cincinnati, was formed in 1995 to develop and implement a plan to measure the overall health status of the community, track changes over time, and identify opportunities to improve health. The committee is one of several initiatives of the Health Improvement Collaborative of Greater Cincinnati.

<sup>3</sup> This report covers the following counties: Adams, Brown, Butler, Clermont, Clinton, Hamilton, Highland and Warren in Ohio; Boone, Campbell, Grant and Kenton in Kentucky; and Dearborn and Ripley in Indiana.

# Purpose

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*Indicators of Healthy Communities* has been created to measure and monitor the health of the 14-county Tristate community and track progress over time. The report is intended to provide a “snapshot in time” of each county in the Tristate area and to serve as a baseline measure for past and future data. When possible, regional and national benchmarks are provided, as well as comparable Healthy People 2010 Objectives as published by the U.S. Department of Health and Human Services.

The indicators were chosen to provide a broad cross-section of the factors that influence one’s potential to live a healthy life. Indicators are based, in part, on the health concerns of area residents identified originally through a survey first conducted in

1996<sup>1</sup> and expanded and repeated in 1999, and again in 2002. The indicators were modified as a result of feedback from the original survey and the first issue of this report in December 1997. The indicators reflect the realization that multiple factors — including the economy, access to care, lifestyle choices, chronic disease incidence, crime, and the environment — all contribute to a community’s health and well-being.

While the reader is encouraged to use caution in drawing specific conclusions from these broad indicators, it is hoped that the report will stimulate community discussion, suggest potential improvement opportunities, and serve as a catalyst for health improvement action.

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<sup>1</sup> In the summer of 1996, the Community Health Assessment Committee, formerly the Community Health Status Steering Committee, commissioned a phone survey of 1,000 households in the 14 counties noted on page 6. The 70-question survey focused on three areas: health concerns, health behaviors and perceptions of personal health status. The survey was expanded and repeated in 1999 and 2002 and is the source of a number of findings included in this report

# How to Use this Guide

There are many measures of “health;” only some are contained in this report. Those included are intended to provide a “snapshot” of the Tristate’s health at a given point in time. These indicators are not meant to provide an in-depth look at any one area of health or well-being.

Information is based on data both readily available within the time constraints set for this report and accessible for multiple counties. Emphasis was also placed on choosing indicators that can be tracked across state lines.

Some of the data presented are from the 1999 and 2002 Greater Cincinnati Community Health Status Surveys, large-scale telephone surveys conducted by the Community Health Assessment Committee in 1999 and 2002<sup>1</sup> (see methodology for more details). It is important to note that the telephone survey data are self-reported.

An explanatory narrative accompanies each indicator. The purpose of the narrative is to assist the reader in interpreting the data presented on the indicator. Within each narrative the background defines the indicator and notes issues that may impact the adequacy of the measure or magnitude of the problem. The key findings section describes the situation in Greater Cincinnati for each indicator relative to various state or national benchmarks. In the discussion, area health experts provide an explanation for the data, an insight into factors surrounding the indicator, and make suggestions for further analysis or preventative steps.

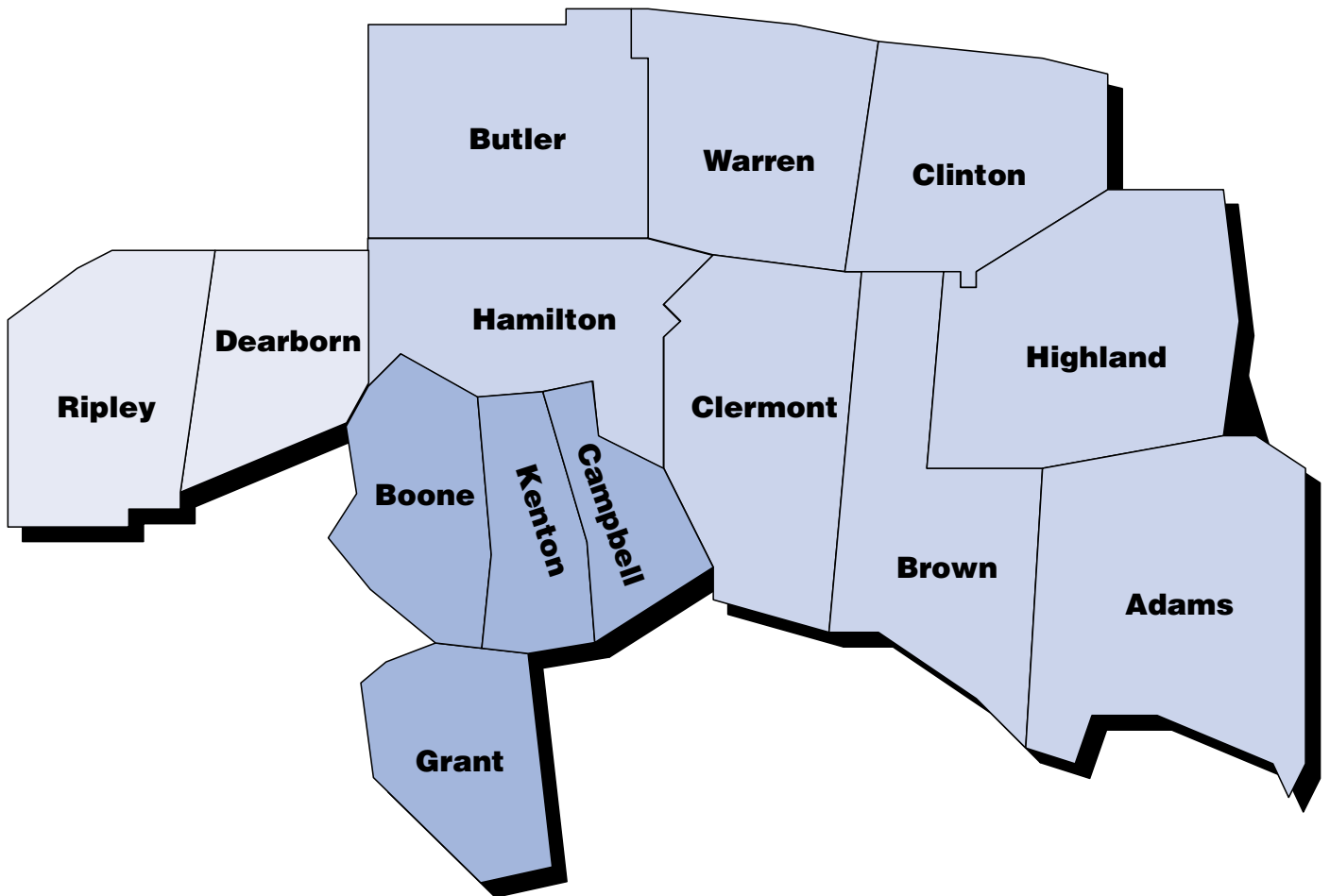
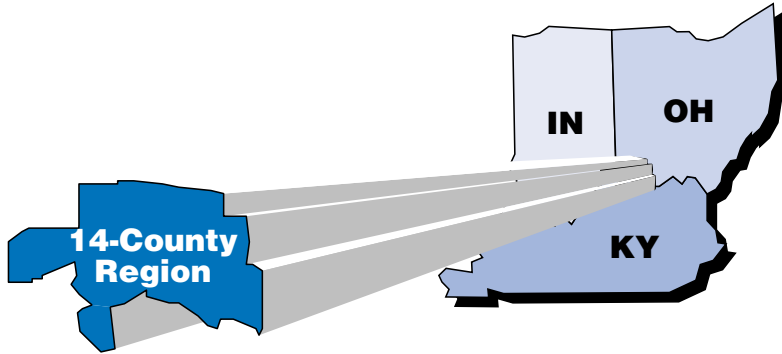
The reader is encouraged to use caution in drawing conclusions from the data about differences among various counties or county regions. Racial, socioeconomic and age disparities cannot be ignored as factors that may impact the various indicators; however, the report is intended to present data on a broad level and is not intended to address such issues. The report can serve as a tool to indicate areas in which further research may be useful. Every attempt was made to present reliable data; however, the reader should use caution in interpreting data, as they were not tested for statistical significance.

Some rates have been annualized, that is a five-year or four-year average was calculated in place of reporting the current annual rate. This was done to provide a truer baseline “snapshot” for counties that, due to smaller populations, could have considerable variation in rates from year to year. Average rates noted for the states of Ohio, Indiana and Kentucky are averages for each state in its entirety rather than for the subset of counties from each state that are included in this report.

Finally, the community profile is not intended to compare county to county, but rather to provide baseline measures for each county so that the progress of each can be tracked over time. Some data not readily available on a county-by-county basis are tracked by groups of counties.

<sup>1</sup> Indicators in this report that are from the Community Health Status Surveys are indicated in the title. For a number of these indicators, the data from the 1999 and 2002 surveys were merged in order to avoid small number problems with the data; this enables the reporting of county-specific results. Although those percents are based on the 1999 and 2002 data combined, there may have been significant changes in the individual year percentages between 1999 and 2002. Therefore, data should be interpreted with caution.

# The 14-County Greater Cincinnati Area



# Executive Summary

This report, *Indicators of Healthy Communities Greater Cincinnati 2003*, attempts to answer the question, “How Healthy Is Our Tristate Community?” The report, which includes 45 different indicators that reflect a broad spectrum of factors impacting health, was first issued in December 1997 by the Health Improvement Collaborative of Greater Cincinnati. The purpose of the report now, as then, is to provide a “snapshot in time” of each county in the 14-county Tristate region, and to serve as a baseline for past and future data. Where possible, regional and national benchmarks are provided, as well as comparable Healthy People 2010 data published by the U.S. Department of Health and Human Services.

The report was created to measure and monitor the health of the overall community and to track progress over time. It is hoped it will be used extensively by the members of the Collaborative (see appendix) as well as by public and private organizations in the area to identify shared opportunities to improve health.

The indicators chosen fall into nine main areas; each is summarized below. In the full report, a narrative written by an area health expert accompanies each indicator to assist the reader in interpreting the data presented.

## Key Findings

The key findings listed reflect both areas of strength and areas where improvement opportunities exist. The purpose of this report is to provide a broad overview of the Tristate’s health; there is no attempt to prioritize findings. The Health Improvement Collaborative’s Community Health Assessment Committee, which oversaw compilation of this report, continues to examine the data and to work within and outside of the Collaborative’s structure to spur action on a wide range of health-related initiatives.

## Demographic Overview of Greater Cincinnati

### Population

- The Tristate’s population grew 2.0 percent between 1998 and 2001 to more than two million residents. Warren County is the 45<sup>th</sup> fastest growing county in the United States, and Boone County is 96<sup>th</sup>.

### Unemployment

- Annual unemployment rates in the Tristate are generally lower than the nation as a whole, with the exception of Adams and Highland counties.

### Poverty

- Adams County is the only county in the Tristate to exceed the U.S. poverty rate of 11.9 percent. Brown, Hamilton, Highland, and Grant counties are similar to the national benchmark, while other counties fall below.

### High school completion

- In 2000, over 80 percent of the U.S. population had a high school diploma, but Adams, Brown, Grant and Highland counties had appreciably lower rates of completion.

## Environmental Factors Influencing Health

### Ozone levels

- Greater Cincinnati generally met Environment Protection Agency goals from 1998 to 2002, a significant improvement over the 1980s.

### Air Quality Index

- In 2001, Greater Cincinnati air quality was rated “good” on at least 52 percent of the days in all counties measured, and “unhealthful” no more than 1 percent of the days.

### Drinking water quality

- Greater Cincinnati generally met Environment Protection Agency goals from 1998 to 2002, with six counties having no health-based violations, seven counties having one violation, and one county having two violations.

# Executive Summary

## Maternal, Child and Infant Health

### Infant mortality

- The regional infant mortality rate is seven or eight deaths per 1,000 live births.
- The regional rate is similar to the U.S. average but greater than that of other industrialized nations and higher than the Healthy People 2010 rate of 4.5 births per 1,000 live births.
- Most counties in the area are at or below the corresponding state rates; Hamilton County and Brown County, however, are higher.

### Low birth weight

- Low birth weight is a major risk factor for poor infant health and increased risk of death.
- The area rate, like the U.S. rate, remains high compared to that of other developed countries.
- Causes of the continued elevation of low birth weight merit additional investigation in the Tristate.

### Teen births

- Adams, Clinton, Hamilton and Highland counties have a higher rate than Ohio, whereas Brown, Butler, Clermont and Warren counties have a lower rate.
- In Kentucky, only Kenton County is above the state rate, while both area Indiana counties are below the Indiana state rate.

### Prenatal care

- There appears to be less use of first trimester prenatal care in the Indiana counties included in this report than in the Ohio or Kentucky counties that are included.
- Dearborn County receives less prenatal care than the state rate for Indiana.
- The rate for those not receiving pre-natal care in Adams, Brown and Clinton counties is higher than the state rate for Ohio.
- The prenatal care rates for Boone, Campbell and Kenton counties indicate they are doing better than the state of Kentucky, while Grant County is somewhat worse.

### Children in poverty

- All 14 counties in this report have lower rates than the national average with the exception of Adams County.
- Butler, Clermont, Warren, Boone, Campbell and Kenton counties have appreciably lower rates than their corresponding state rates; Adams County has a noticeably higher rate than that of its state.

## Health Behaviors

### Blood pressure

- Over 96 percent of area residents report having had their blood pressure checked within the previous two years.

### Cholesterol

- Over 78 percent of area residents report having had their blood cholesterol levels checked within the previous five years.

### Mammography

- Over 82.5 percent of Tristate women 50 years of age or older report having had a mammogram within the last two years.

### Pap smear

- Over 82 percent of women in the area report having had a Pap smear within the past two years.

### Overweight and obesity rates and physical activity

- The height and weight reported by area adults indicate well over half are either overweight or obese.
- Almost 60 percent of area residents report they engage in physical activity at least three times per week.

### Seat belt use

- Over 68 percent of area adults report they always wear a seat belt.

### Oral health

- Over 73 percent of area adults report visiting a dentist or dental clinic for any reason within the past two years, but Campbell and Grant counties fall well below this area average.

# Executive Summary

## Behavioral and Mental Health

### Acute alcohol drinkers

- Almost 9 percent of area adults report consuming five or more drinks on the days they drank alcoholic beverages in a previous 30-day period.

### Cigarette smoking

- While almost 1 in 4 adults in the United States smokes, the Greater Cincinnati region with 33 percent currently smoking is almost 50 percent higher than the national average.

### Smokeless tobacco

- The Greater Cincinnati area has 3.8 percent of adults using smokeless tobacco, higher than the 0.4 percent national average.

### Depression

- 14 percent of area adults report that they have been diagnosed with depression.

## Infectious Diseases

### Tuberculosis

- Only three counties in the region have achieved the Healthy People 2010 goal of 1.0 or fewer cases per 100,000 population.
- Two groups – foreign-born immigrants and homeless men – have a high incidence of tuberculosis in this community, a situation in need of close monitoring by health officials.

### Chlamydia

- Regional rates for chlamydia are lower than the national rate and the appropriate state rates with two exceptions: Hamilton County exceeds both the national and Ohio rates; Kenton County is about equal to the national rate, but exceeds the state rate for Kentucky.

### Syphilis

- Hamilton County rates remain higher than state and national rates.

## AIDS

- All Tristate counties have rates of people living with HIV/AIDS that are below their respective state rates and the national rate, with two exceptions—Hamilton County has a much higher rate than the U.S. and Ohio rate, and Kenton County has a higher rate than its state rate.
- Due in part to new drug treatments, the number of people living with HIV/AIDS in the U.S. is increasing even though AIDS incidence rates have been declining until recently.

## Health Services Utilization

### Quality of care

- 87 percent of Greater Cincinnati adults report being fairly well or very satisfied with the quality of care they receive.

### Availability of care

- 83 percent of Greater Cincinnati adults report being fairly well or very satisfied with the availability of health care services.
- The degree to which individuals report being satisfied with the availability of care varies among counties. Residents of Highland, Warren and Dearborn counties report being less satisfied than those residing in Ripley, Campbell and Kenton counties.

### Cost of care

- 54 percent of adults in Greater Cincinnati report that the cost of the health care they receive is reasonable. Persons who report feeling the cost of care is unreasonable tend to be in the middle age group with a high school education or less.

### Percent uninsured

- An average of 8.6 percent of adults report being without health insurance at the time of the Community Health Status studies (August 1999 and August, 2002).
- According to survey results, the percent uninsured varies by poverty status; 23 percent of individuals with incomes below poverty level report being uninsured at the time of the survey compared to 6 percent with incomes above poverty level.

# Executive Summary

## Potentially avoidable hospitalizations

- Almost 8 percent of hospitalizations of persons under age 65 in the area are potentially avoidable; this percentage is lower than the national rate of 9.4 percent.

## Discharge rates

- Hospital discharge rates locally are lower than rates for the total United States in 10 of 15 primary diagnosis categories.
- Circulatory system diseases are by far the most frequent reason for hospitalization in our area and nationally.
- Respiratory diseases (predominately pneumonia) are the second most frequent reason for hospitalization locally as well as nationally.

## Mortality

### Overall

- Overall mortality rates are not significantly different among local counties than corresponding state rates with the exception of Boone County, which has an overall mortality rate that is significantly lower than the rate for the state of Kentucky as a whole.

### Heart disease and stroke

- Coronary heart disease mortality rates for most Greater Cincinnati counties are lower than state rates with the exception of Adams, Clermont, Highland, and all area Kentucky counties.
- Stroke mortality rates in the region are comparable to state rates except for Ripley County, whose rate is appreciably higher.

## Cancer

- Average annual age-adjusted cancer death rates for the years 1994 to 1998 are higher in Greater Cincinnati than for the United States as a whole.
- Average annual age-adjusted lung cancer death rates for the years 1994 to 1998 are higher in Greater Cincinnati than for the United States as a whole. In fact, the Tristate area has some of the highest rates in the country.
- Average annual age-adjusted female breast cancer death rates in Greater Cincinnati are similar to the average rate for the United States as a whole.
- Average annual age-adjusted colon cancer death rates in Greater Cincinnati are similar to the average rate for the United States as a whole, with the exceptions of considerably higher rates in Highland, Dearborn and Campbell counties.

## Injury Deaths

### Suicide

- Average annual age-adjusted death rates for suicide for the years 1994 to 1998 are similar to the rate for the United States as a whole, and no county met the Healthy People 2010 goal of 5.0 suicides per 100,000 population.

### Homicide

- In the Tristate's Ohio counties, the average annual age-adjusted death rates for homicide for the years 1994 to 1998 are lower than the rate for the United States as a whole.
- Rates in Tristate counties in Indiana and Kentucky are similar to the U.S. rate.

### Motor vehicle deaths

- Average annual age-adjusted death rates for motor vehicle deaths for the years 1994 to 1998 varied by county, with over 70 percent of area counties above the U.S. rate.

# Executive Summary

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## Conclusion

These broad measures of health are intended to provide an overview of the area's health status at a given point in time. The report was designed to be able to track these indicators over time and therefore track improvement in the area's health as well as identify potential improvement opportunities.

The reader is encouraged to ask questions about the data presented. In some cases, the data may be more useful in raising questions than in providing answers. Further research may be needed to fully answer these questions and to gain a thorough and complete understanding of any specific indicator.

While the reader is encouraged to use caution in drawing specific conclusions from these broad indicators, it is hoped that this report will stimulate community discussion, suggest areas where opportunity for improvement exists or further research is needed, and serve as a catalyst for health improvement action.



# **Demographic Overview of Greater Cincinnati**

The metropolitan area of Cincinnati is comprised of three states—Ohio, Kentucky and Indiana. Throughout this report, this 14-county area is referred to as Greater Cincinnati or the Tristate. Because the area is divided among states, but considered a single metropolitan area, there are many special considerations to take when looking at what occurs within it. This section attempts to provide a demographic description of Greater Cincinnati to help the reader understand the population on which the rest of the report's indicators are based.

# 2001 Total Population Estimates by County

Ohio	
Adams County	27,566
Brown County	42,890
Butler County	337,013
Clermont County	181,673
Clinton County	40,987
Hamilton County	835,362
Highland County	41,439
Warren County	169,025
14-County Area 2,103,191	
Indiana	
Dearborn County	46,109
Ripley County	26,523
Kentucky	
Boone County	90,489
Campbell County	88,362
Grant County	23,237
Kenton County	151,366

**Notes:**

\*Warren County is the 45th fastest growing county (4.6 percent growth) in the United States with 10,000 or more population in 2002 (July 1, 2001 to July 1, 2002).

\*\*Boone County ranks 96th with a growth rate of 3.6 percent.

**Source:**

U.S. Census Bureau: PCT1: Total Population and U.S. Census Bureau Table CO-EST2002-10: 100 Fastest Growing Counties in 2002

# 2000 Age, Racial, Gender and Marital Structure of Greater Cincinnati

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## Age Composition of Greater Cincinnati

< 15 years .....	22%
15-44 years .....	44%
45-64 years .....	22%
65+ .....	12%

## Racial Composition of Greater Cincinnati

Caucasian .....	85%
African American .....	11%
Hispanic* .....	1%
Other .....	3%

## Gender Composition of Greater Cincinnati

Male .....	49%
Female .....	51%

## Marital Status of Greater Cincinnati of Population 15 years or older

Married .....	55%
Widowed .....	7%
Separated/Divorced .....	12%
Not Married .....	26%

**Note:**

\* Hispanic population has more than doubled in last 10 years

**Source:**

U.S. Census Bureau: P8: Sex by Age & Total Population, U.S. Census Bureau: P4: Hispanic or Latino, and Not Hispanic or Latino by Race

U.S. Census Bureau: DP-2: Profile of Selected Social Characteristics: 2000

# 2000 Annual Unemployment Rate

Adams County	7.6		
Brown County	5.3		
Butler County	4.0		
Clermont County	3.5		
Clinton County	4.4		
Hamilton County	5.0		
Highland County	6.1		
Warren County	3.0		
		State of Ohio	5.0

Dearborn County	3.3		
Ripley County	3.3		
		State of Indiana	4.9

Boone County	3.1		
Campbell County	3.9		
Grant County	5.4		
Kenton County	3.5		
		State of Kentucky	5.7

United States  
5.8

**Source:**

U.S. Census Bureau: QT-P24: Employment Status by Sex:200

# 1999 Percentage of People of All Ages Below the Poverty Threshold

Adams County	18.5	<div style="border: 2px solid black; padding: 10px; width: 150px; margin: 0 auto;"> <b>State of Ohio</b>      <b>11.0</b> </div>
Brown County	11.2	
Butler County	8.3	
Clermont County	7.5	
Clinton County	9.4	
Hamilton County	11.9	
Highland County	11.5	
Warren County	5.2	

Dearborn County	6.6	<div style="border: 2px solid black; padding: 10px; width: 150px; margin: 0 auto;"> <b>State of Indiana</b>      <b>8.7</b> </div>
Ripley County	6.8	

Boone County	6.1	<div style="border: 2px solid black; padding: 10px; width: 150px; margin: 0 auto;"> <b>State of Kentucky</b>      <b>14.3</b> </div>
Campbell County	9.3	
Grant County	11.8	
Kenton County	9.1	

**United States**  
**11.9**

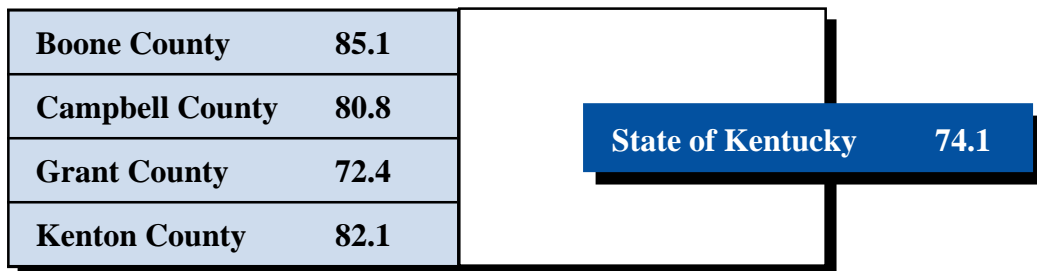
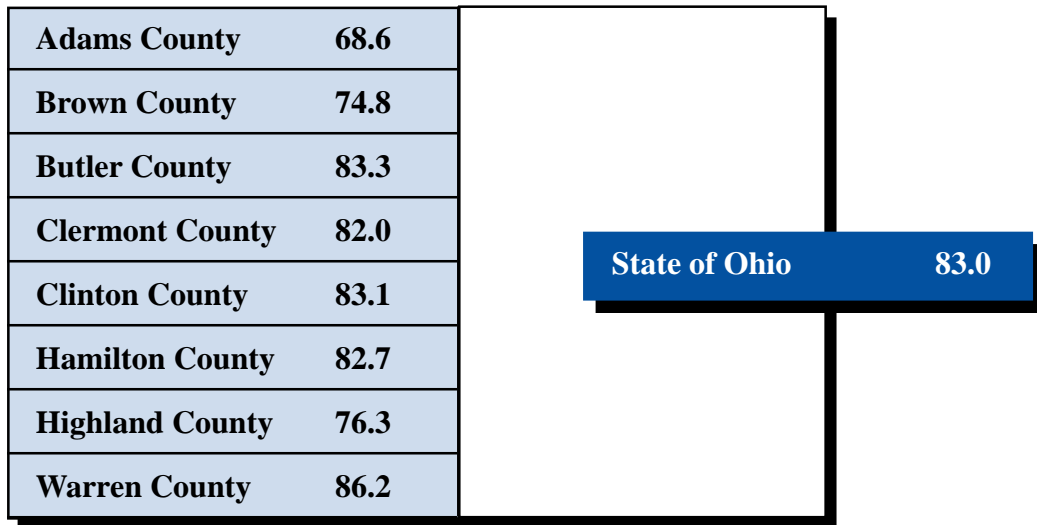
**Note:**

The poverty threshold is not a federal poverty level. The poverty threshold is defined by the federal government and is used in calculating federal poverty levels. For more information, see the Methodology Section.

**Source:**

U.S. Census Bureau: Tables: A99-00, A99-39, A99-21, A99-18

# 2000 Percent of Population 25 Years and Over with a High School Diploma\*

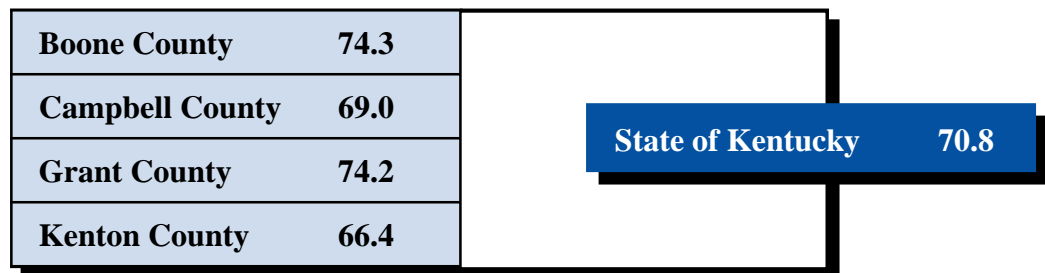
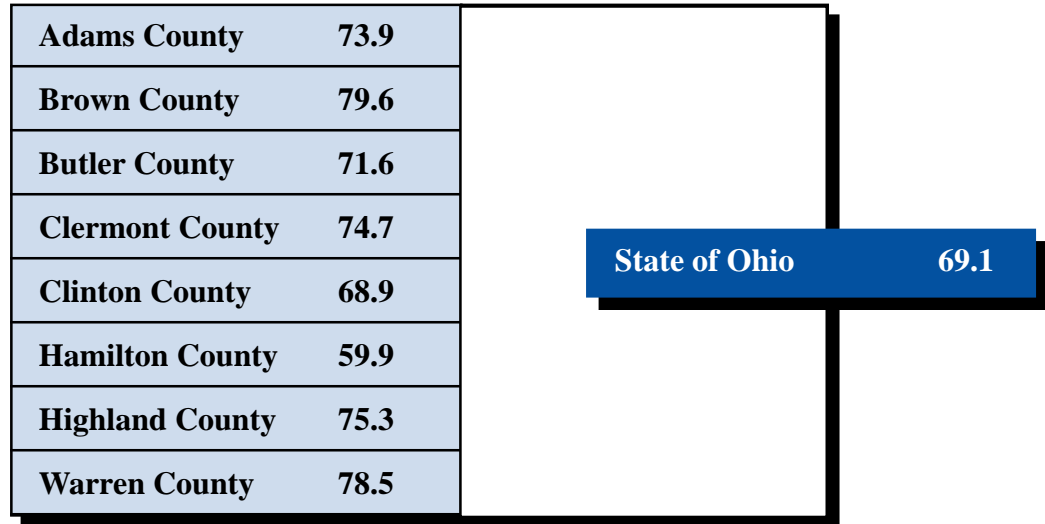


<b>United States</b>	<b>80.4</b>
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**Note:**  
\*Includes Graduate Equivalent Degree (GED)

**Source:**  
U.S. Census Bureau: QT-P20: Education Attainment by Sex:2000

# 2000 Home Ownership Rate



**United States**  
66.2

**Note:**

The home ownership rate is computed by dividing owner households by the total number of occupied households

**Source:**

U.S. Census Bureau: QT-H2 Tenure, Household Size & Age of Household:2000

# Demographic Overview of Greater Cincinnati

The 14-county Greater Cincinnati area grew 2 percent from 1998 to 2001, increasing from 2,061,800 to 2,103,191 residents, while the U.S. population grew 2.8 percent during the same period. The latest numbers available suggest little future change for the Tristate area in overall population. The 2002 population estimates from the U.S. Census Bureau show only slight variation in the population numbers overall, but does show a continuing decrease in urban counties like Hamilton County, and a continued boom in formerly rural counties such as Warren County.

Both the Tristate region and the United States in general are experiencing an aging population. This has many implications on the resource balance and delivery of health care services. In the Tristate, approximately 44 percent of the population is between the ages of 15 and 44 years. Older adults, ages 45 and over, make up 34 percent, with 12 percent of those people over age 65. In regards to the racial composition of Greater Cincinnati, there is a decrease in the percentage of white residents (85 percent, compared to 88 percent in 1998) and a slight increase in the number of non-white residents to 15 percent, which is predominantly African-American. There has been a large and steady increase in the number of Hispanic residents in the Tristate area, with the population more than doubling in the last 10 years to make up 1 percent of Greater Cincinnati. The population is divided fairly evenly between the female (51 percent) and male (49 percent) genders.

The annual unemployment rates of each of the Tristate area counties are generally lower than the national rate of 5.8 percent, with the exception of Adams (7.6 percent) and Highland (6.1 percent) counties, which have the highest unemployment rates in the area. These two counties, along with Brown County (5.3 percent), also have unemployment rates above the State of Ohio average (5.0 percent). All of the area Kentucky and Indiana counties are below the states' annual unemployment rate (5.7 percent and 4.9 percent, respectively). Warren (3.0 percent) and Boone (3.1 percent) counties have the lowest rates in the area.

According to 1999 data (the latest data available), Adams County (18.5 percent) and Hamilton County are the only counties in Greater Cincinnati to meet or exceed the U.S. poverty rate of 11.9 percent. However, Adams, Brown, Hamilton and Highland counties all exceed the State of Ohio rate of 11.0 percent; while Warren County (5.2 percent) is substantially below the state rate. All of the area Kentucky counties are below the State of Kentucky rate (14.3 percent), which is higher than the national rate. Boone County (6.1 percent) is substantially lower than the state rate. Both of the area Indiana counties are below the State of Indiana rate of 8.7 percent.

In 2000, over 80 percent of the U.S. population 25 years or older has a high school diploma, but Adams (68.6 percent), Brown (74.8 percent), Highland (76.3 percent), Ripley (78.9 percent), and Grant (72.4 percent) counties have appreciably lower rates of high school completion. All other Ohio and Indiana counties are approximately at their respective state rates, which are higher than the U.S. rate. The area Kentucky counties, with the exception of Grant County, have high school completion rates substantially greater than the state rate (74.1 percent), which is significantly less than the national rate, as well as the Ohio and Indiana rates.

Overall, the entire Tristate area has dramatically increased its home ownership rate compared to a decade ago. The Hamilton County home ownership rate (59.9 percent) is considerably lower than both the State of Ohio rate (69.1 percent) and the U.S. rate (66.2 percent). However, one should take into account that the home ownership rate of the City of Cincinnati (39 percent) differs greatly from the rest of Hamilton County, and thus lowers the overall county rate. Also, the Clinton County (68.9 percent) home ownership rate is below the state rate. Both of the Indiana counties have home ownership rates above their state rates (71.4 percent), while only Boone and Grant counties are above the State of Kentucky rate (70.8 percent).



# Environmental Factors Influencing Health

Three environmental indicators were chosen as indices of Greater Cincinnati environmental conditions. They are Ozone Levels, Air Quality Index (AQI) levels (formerly Pollutant Standards Index, or PSI), and Primary Drinking Water Standards. The first two indicators measure primarily air quality, while the last one measures water quality. In the 2000 Indicators Report, Toxic Release Inventory (TRI) levels were reported; and while TRI is an important environmental indicator, it may not necessarily be a good indicator of the community's health. Therefore, the decision was made not to include TRI levels in this report. In future years, additional measures may be added on water quality and solid waste to broaden our understanding of the environment in Greater Cincinnati.

# 1998–2002 Total Days Exceeding Air Quality Standards for Ozone Levels

Ohio	
Adams County	N/A
Brown County	0
Butler County	3
Clermont County	4
Clinton County	2
Hamilton County	2
Highland County	N/A
Warren County	2

Indiana	
Dearborn County	N/A
Ripley County	N/A

Kentucky	
Boone County	0
Campbell County	0
Grant County	N/A
Kenton County	1

**Notes:**

A measure of ozone (O<sub>3</sub>) above the standard level of 120 parts per billion (ppb) on a one-hour average as collected by the U.S. Environmental Protection Agency at monitoring sites within an area.

N/A indicates a county does not have a monitoring site collecting ozone data. The addition of a Brown County monitoring site has been made since the last Indicators Report.

High temperatures, brilliant sunshine and stagnant air contribute to high levels of evaporation from fuel storage tanks, fuel systems and auto refueling activities emitted by millions of cars and trucks. Also daily emissions of nitrogen oxides and hydrocarbons by millions of cars and trucks are a major contributor to low-level ozone pollution during these atmospheric conditions.

**Source:**

U.S. Environmental Protection Agency's Office of Air Quality Planning and Standards

# Ozone Levels

## Background

Unlike the ozone layer miles above us that protects us from ultraviolet light from the sun, ozone that we breathe irritates our lungs and can lead to heart and lung problems. Unlike most pollutants, ozone does not come directly from tailpipes or smokestacks, but forms when other pollutants “cook” in the sunlight. Ozone is sometimes known as smog, whose name comes from the combination of smoke and fog. It is always found at some distance downwind from where the original pollutants (called ozone precursors) were released. Because prevailing winds in the area typically blow from the southwest, the counties to the northeast of the release site are often affected.

The Federal Government’s Environmental Protection Agency (EPA) had set an ozone limit of 120 parts per billion (ppb)—also known as the one-hour average—in the air at any given time, which was thought to be safe for most people. Recently, the EPA has decided to lower the limit to 80 ppb, also known as the eight-hour average, which should be safe for almost everybody, but the new limit is not yet in effect. Areas will be classified and rules for implementation will be in effect for the new eight-hour standard by spring 2004. Enforcement occurs when any one of the regional ozone monitors reads over the limit more than once a year. Most major cities have ozone problems, and automobiles are a big part of the problem in most communities.

## Key Findings

In general, Greater Cincinnati met current EPA goals in recent years. This represents a significant improvement from the 1980s. Clermont County had the most days exceeding the limit (4 days), followed by Butler County (3 days) during this time period. Clinton, Hamilton, and Warren counties each had two days of violations, and Kenton County had one day exceeding levels. Overall, we compare similarly with nearby cities. For example, Franklin County (Columbus, Ohio) had one day exceeding ozone levels, and Cuyahoga County had three days.

## Discussion

The good news is that ozone levels have been decreasing dramatically since Congress passed the Clean Air Act and created the Environmental Protection Agency (EPA) almost 30 years ago. In the 1980s, Greater Cincinnati ozone levels exceeded the limits an average of nearly 14 times per year. In the 1990s, the area was down to below four a year. Because the region was low enough in the last three years, the EPA will likely redesignate Greater Cincinnati as complying with the Clean Air Act for the one-hour standard. Two more changes are in the works, including a lowering of the amount of sulfur in gasoline, and a lowering in the allowable release of a pollutant called oxides of nitrogen. These changes will continue to cause ozone levels in Greater Cincinnati to fall during the 2000s.

However, there is bad news. Scientific research has shown that the old limit of 120 ppb did not protect enough people from harm on days with high ozone, and a new limit of 80 ppb, the eight-hour standard, was adopted, and will be implemented in spring 2004. If that limit had been in effect last year, Greater Cincinnati would have exceeded the limit many times. Most of these incidences happened during what local environmental organizations called “smog alerts.” These “bad” days can often be predicted in advance, and if everyone would cut back on burning fossil fuels like gas, oil and coal on these days (in cars, boats, lawnmowers, electric power plants, etc.), going over the ozone limits could be prevented on some days. For more local information, visit the Hamilton County Department of Environmental Services at [www.hcdoes.org](http://www.hcdoes.org), or call 513.946.7777.

# 2001 Air Quality Index (AQI)

	Percent of Days AQI was...			Highest AQI Value
	(0-50) Good	(51-100) Moderate	(101-200) Unhealthful	
<b>Adams</b>	100%	<1%	0%	51
<b>Butler</b>	66%	34%	0%	97
<b>Clermont</b>	71%	29%	0%	87
<b>Clinton*</b>	52%	47%	1%	101
<b>Hamilton</b>	64%	36%	<1%	106
<b>Warren*</b>	58%	42%	0%	85
<b>Dearborn</b>	99%	1%	0%	55
<b>Boone*</b>	67%	33%	0%	83
<b>Campbell</b>	70%	30%	0%	95
<b>Kenton</b>	76%	24%	0%	62

**Notes:**

Data not collected in Brown, Highland, Ripley and Grant counties.

\* Clinton, Warren and Boone counties only measured AQI during the months of April through October, when the higher air temperatures tend to affect the air quality.

Air Quality Index (AQI) [formerly Pollutant Standard Index (PSI)]: An approximate indicator of overall air quality because it takes into account all of the pollutants measured within a county (sulfur dioxide, nitrogen dioxide, particulate matter and lead).

**Source:**

U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards

# Air Quality Index (AQI)

## Background

The Air Quality Index (AQI), formerly called the Pollutant Standard Index (PSI), is a tool to inform the public about air quality problems that could affect their health. The index tracks the levels of six pollutants. These include ozone (the indicator in the previous section) as well as oxides of nitrogen, sulfur dioxide, lead, carbon monoxide and particulates. Each of these pollutants has a limit set by the EPA. The AQI is the percentage of the limit of the worst of the pollutants on that day. For example, the limit for ozone is 120 ppb. If ozone is the worst pollutant on a day and its level reaches 60 ppb (half of the limit, or 50 percent) then the index score for that day is 50 (the level of the worst pollutant/the limit of the worst pollutant = index score).

Values are attached to ranges of the index so that 0-50 is the good range, 50-100 is moderate, and 100-200 is unhealthy. In Greater Cincinnati, ozone is the pollutant most likely to cause problems that give rise to AQI numbers in the unhealthy range. Other cities often have problems with other pollutants, but ozone is a national problem.

## Key Findings

In 2001, air quality in the Ohio counties that make up the Greater Cincinnati area, as measured by the AQI, was good on 67 percent of the days, moderate on 31 percent of the days and unhealthy on 1 percent of the days. Hamilton County scored the highest measurement in the area during this time period (106), followed by Clinton County (101). Adams County had the lowest value, with the highest values not exceeding 51. Only two Ohio counties in Greater Cincinnati, Clinton and Hamilton counties, had any days that fell in the unhealthful range, and Clinton County had enough unhealthful days to constitute a 1 percent total. In Kentucky, Kenton County had the highest value with 95, but Boone County had the fewest percent of good days. Data are not collected in Brown, Highland, Ripley and Grant counties.

## Discussion

The average air quality in spring, fall and winter is usually in the good range. Generally, during June, July and August the average air quality is in the moderate range, with most of the unhealthy days occurring in these months. The reason for this seasonality is that ozone is usually Greater Cincinnati's cause of poor air quality, and ozone formation occurs when pollutants (oxides of nitrogen and volatile organic compounds) "cook" in the sunlight on hot days. In fact, it can be predicted that almost any day the temperature is above 85 degrees with lots of sun and not much wind (which blows the pollutants away), there will be a problem with ozone.

Likely modifications in limits set for individual pollutants in the index will be altering how the Tristate community does with respect to the Air Quality Index. First, when the acceptable ozone limit is reduced, Greater Cincinnati will have more days in the unhealthy range than it currently does. Another change is in the definition of fine particulates from a larger (10 micrometer) to a smaller (2.5 micrometer) size. The smaller particulate penetrates the lungs more, and causes more adverse health effects. The net effect is that Greater Cincinnati will likely be exceeding the limits for the new particulate size more often than the old particulate size. The end result will be higher pollutant standard index scores as these changes are implemented. One additional change is that a new category is being carved out at the top of the moderate range that will be called "unhealthy for sensitive subgroups." Sensitive subgroups would include those people with heart and lung conditions as well as children.

# 1998–2002 Total Days in Violation of Primary Drinking Water Standards For Health Based Violations

	Number of Violations*	Number of Water Systems**	Number of People Served
Adams County	0	8	25,548
Brown County	0	12	40,084
Butler County	2	23	329,872
Clermont County	0	10	155,592
Clinton County	1	7	21,297
Hamilton County	1	20	856,914
Highland County	1	6	44,540
Warren County	1	29	166,427
Dearborn County	0	9	35,929
Ripley County	1	8	23,942
Boone County	1	9	70,566
Campbell County	0	1	150
Grant County	1	5	27,344
Kenton County	0	3	259,276

**Notes:**

\* Health Based Violations are based on National Primary Drinking Water Regulations (NPDWRs or primary standards) which are legally enforceable standards that apply to public water systems. A violation occurs when amount of a contaminant exceeds maximum contaminant levels (MCL) or water was not treated properly. Non-health based violations such as monitoring and reporting are not included in this data set.

\*\* Water Systems data include Community Water Systems and Non-Transient Non-Community water systems (such as schools). Data do not reflect individual well systems and Transient water systems—systems that do not consistently serve the same people—such as rest stops, campgrounds, gas stations, etc.).

**Source:**

EPA Safe Drinking Water Information System (SDWIS)

# Drinking Water Standards

## Background

The United States enjoys one of the best supplies of drinking water in the world. Nevertheless, many of us who once gave little or no thought to the water that comes from our taps are increasingly asking the question, “Is my water safe to drink?” While tap water that meets federal and state standards generally is safe to drink, threats to drinking water quality and quantity are increasing. From short-term disease outbreaks linked to contaminated drinking water to restrictions on water use during droughts, we can no longer take our drinking water for granted.

Most community water suppliers deliver high quality drinking water to millions of Americans every day. Of the more than 55,000 Community Water Systems in the United States, only 8.6 percent reported a violation of one or more drinking water health standards in 1996. Nationwide, drinking water systems have spent hundreds of billions of dollars to build drinking water treatment and distribution systems, and they spend an additional \$22 billion per year to operate and maintain them. Additional monies became available in 1997 to upgrade drinking water systems and implement local source water protection activities.

Drinking water standards are based on National Primary Drinking Water Regulations (NPDWRs or primary standards), which are legally enforceable standards that apply to public water systems. The Safe Drinking Water Information System (SDWIS) contains information about public water systems and their violations of EPA’s drinking water regulations, as reported to EPA by the states. These regulations establish maximum contaminant levels (MCL), treatment techniques, and monitoring and reporting requirements to ensure that water systems provide safe water to their customers.

This report focused only on health-based violations, which occur when the amount of a contaminant exceeds maximum contaminant levels or the water is not treated properly. Non-health based violations such as monitoring and reporting are not included in this data set.

## Key Findings

There are 150 public water systems in the Tristate community, and over 2 million people are served by these systems. In 2002, six counties—Adams, Brown, Clermont, Dearborn, Campbell and Kenton counties—had no violations of health-based drinking water standards. Butler County was the only county in the area with two violations; the rest of the counties not previously mentioned had only one violation.

## Discussion

It is important to note that all sources of drinking water contain some naturally occurring contaminants. Because water is the universal solvent, many materials are easily dissolved upon contact. At low levels, these contaminants generally are not harmful in our drinking water. Removing all contaminants would be extremely expensive and in nearly all cases would not provide greater protection of health. A few of the naturally occurring substances may actually improve the taste of drinking water and may have nutritional values at low levels.

Each time a public water system (PWS) experiences a violation of a health-based drinking water standard, the PWS is required to notify consumers and to instruct consumers about what to do to minimize or eliminate health concerns. For example, if a PWS has a bacteria violation, the PWS will notify consumers of a boil advisory, or if a nitrate violation is noted, the PWS will notify consumers of a no use advisory. While most violations are fixed quickly, the notification requirement ensures that consumers are kept aware of any possible health concerns from violations of a health-based drinking water standard.

It should be stressed that we need to take more individual and community-level responsibility for drinking water quality. Everyone needs to help prevent contaminants from entering source waters in the first place. Protection of the watershed goes hand-in-hand with ensuring the appropriate treatment is provided by your utility.

Information on water quality in your area is available from several sources, including your local public health department and your water supplier. You can determine whom to contact by checking your water bill or by calling your local town hall. State agencies also can provide extensive information on your water supply and its quality. Each state has a department responsible for drinking water quality. EPA maintains general water resources information at its headquarters and in its 10 regional offices. Other groups, such as environmental organizations, also may be able to provide information.

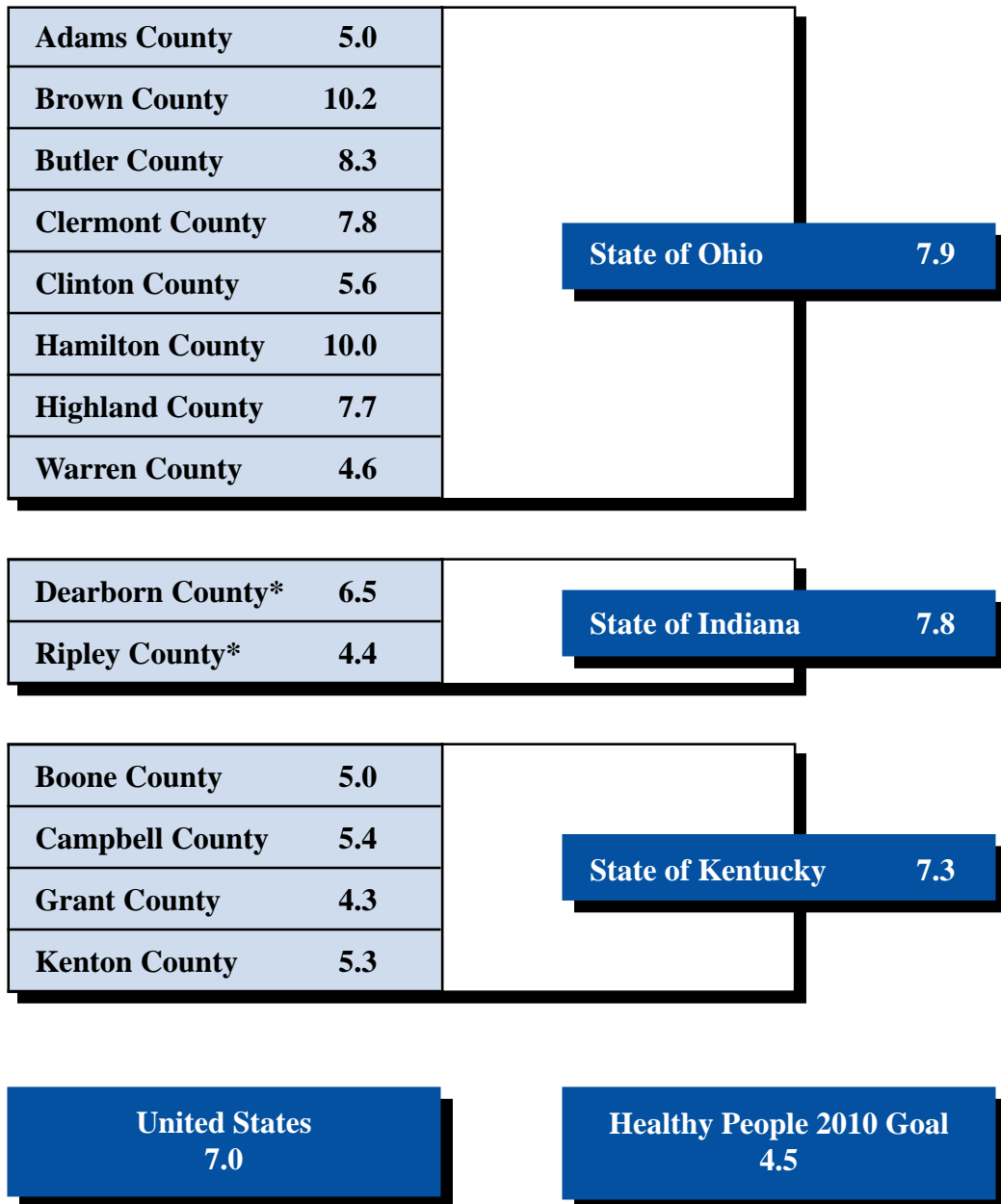
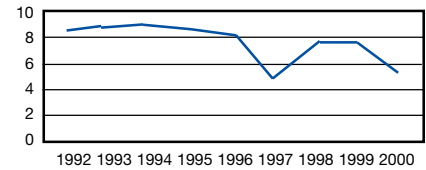


# **Maternal, Child and Infant Health**

Health experts traditionally track several indicators to gauge the health and well-being of mothers and infants. These include infant mortality rate, percentage of low birth weight infants, the teen birth rate, and percentage of pregnant women not receiving first-trimester prenatal care. These important indicators allow examination of trends that can result in improvement efforts to optimize a healthy birth. In addition, tracking of the percent of children living in poverty also allows programs to be developed for those children most at risk for a wide range of educational, social and physical problems as they grow. This section finds some geographic differences among Tristate counties in a number of these factors.

# 1997–2000 Average Annual Infant Mortality Rate (All Races) Per 1,000 Live Births

Community Infant Mortality Rate Trend



**Notes:**

\*Yearly sample size is less than 20; therefore, there is high variability in the data from year to year.

The Healthy People 2010 goal corresponds to Objective 16.1.

**Source:**

Centers for Disease Control and Prevention

# Infant Mortality

## Background

Infant mortality, death of a child before her or his first birthday, is commonly used as a measure of the health of populations, such as regions, states or countries. It is an important indicator because it is relatively easy to measure and because it correlates with other measures of population health. As the infant mortality rate decreases, other measures of the health of our population such as longevity and chronic disease rates tend to improve as well.

In international comparisons, the U.S. infant mortality rate ranks approximately 20th. The primary reason that the United States ranks lower than expected is the marked disparities in U.S. infant mortality among different racial and ethnic groups, with African-American infant mortality twice that of whites. A large percentage of infant death is associated with premature birth, which is about twice as likely among African-Americans and much more likely for twins and triplets.

## Key Findings

The regional infant mortality rate is approximately 7 or 8 deaths for every 1,000 live births. This rate is similar to the U.S. average, but much greater than other industrialized nations and much higher than the Healthy People 2010 goal of 4.5 deaths per 1,000 births.

There has been a slight decline in the overall 14-county Tristate infant mortality rates since the 2000 Indicators Report, which reported a rate of approximately 8 or 9 deaths for every 1,000 live births. In Ohio, most counties have rates that are similar to the state infant mortality rate (7.9); however, Hamilton (10.0) and Brown (10.2) counties have a significantly higher rate than the State of Ohio average. The Kentucky and Indiana counties in the Tristate area have rates below the corresponding state rates.

## Discussion

Infant mortality in the Greater Cincinnati area remains disturbingly high when compared to the United States as a whole and when also compared to neighboring metropolitan areas such as Cleveland and Columbus.

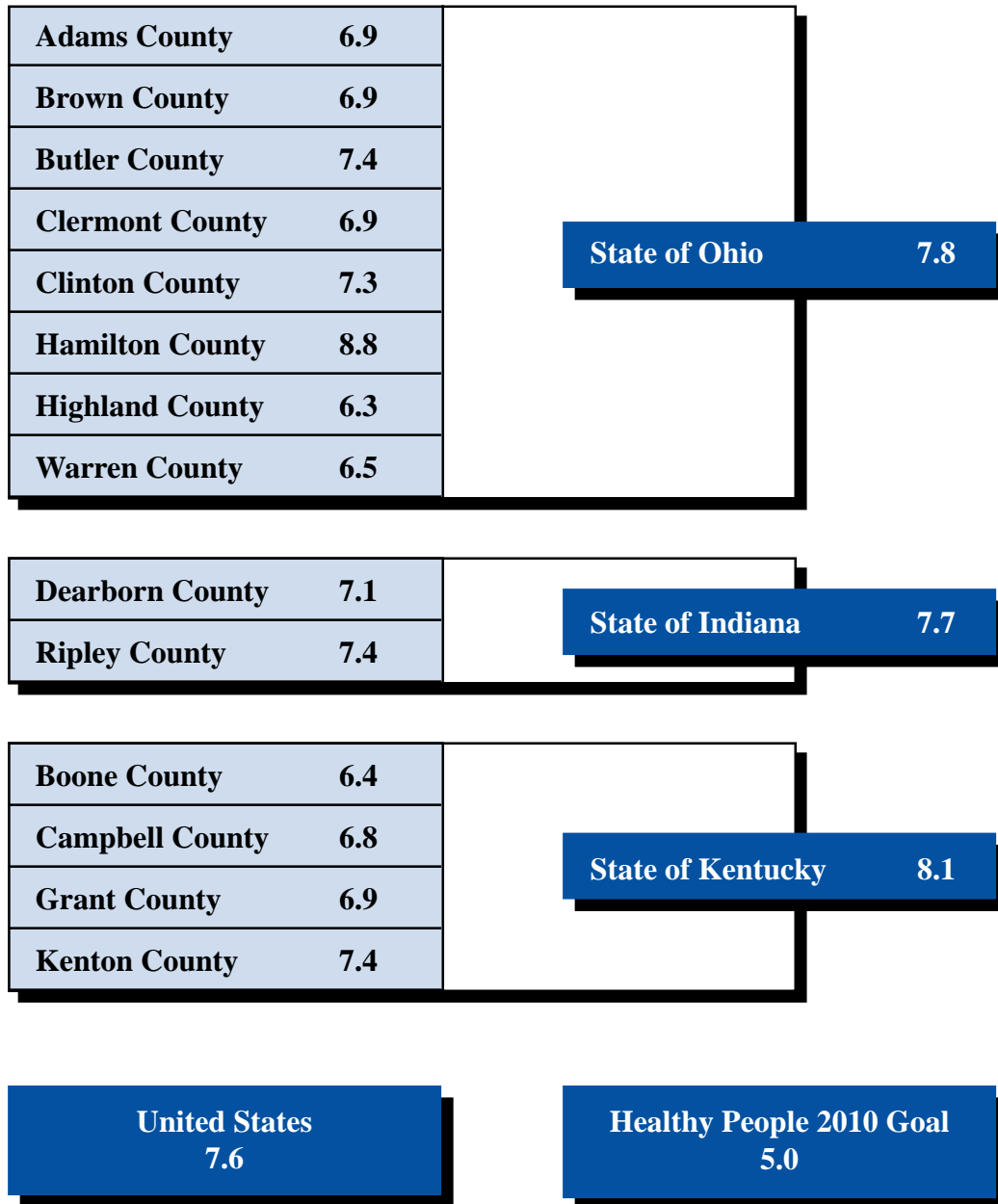
It is important for the community to focus on “potentially preventable” causes of infant death including premature birth, Sudden Infant Death Syndrome and infant injuries. Drastic increases in the number of U.S. multiple births, leading to higher premature birth rates, may in part be due to infertility treatments and to an older age of child bearing. While U.S. low birth weight (LBW) rates for singleton pregnancies have been decreasing since 1980, the increased numbers of low birth weight multiples have caused the overall low birth weight rate to increase.

Research that explains the increased risk of premature birth among African-Americans could lead to appropriate preventive strategies and important reductions in infant mortality. Selected social and behavior risk factors contribute to overall infant death risk particularly because of premature birth. These risk factors include maternal smoking, short intervals between pregnancies and poor maternal nutrition among others.

Greater Cincinnati mortality is unusually high in large part because infant mortality among African Americans is twice that of Greater Cincinnati whites. In fact, the infant mortality rate for whites in Greater Cincinnati is similar to that of the countries with the world’s lowest infant mortality rates, for example, Japan and Sweden.

It is believed that many infant deaths are preventable. Eliminating the large racial disparity in infant mortality in Greater Cincinnati will go a long way toward improving national and international comparisons.

# 1997–2000 Average Annual Percentage of Births Under 2,500 Grams (5.5 lbs)



**Notes:**

The Healthy People 2010 goal corresponds to Objective 16.10.

**Sources:**

Centers for Disease Control; Ohio Department of Health; Kentucky Department of Health; Indiana Department of Health

# Low Birth Weight and Prematurity

## Background

The worldwide definition of Low Birth Weight (LBW) is a weight at birth of less than 5.5 pounds (less than 2,500 grams). Because LBW is a major contributor to infant death and lifelong handicapping conditions, it is used as an important marker of child well-being.

Children are too small at birth either because they are born before their due date (prematurity) or because they did not grow well inside their mothers for many reasons including being a multiple birth. Both of these causes of low birth weight result in increased mortality and increased numbers of babies with handicapping conditions such as mental retardation and cerebral palsy. Many premature infants die in the first months of life thus contributing significantly to Greater Cincinnati's unusually high infant mortality rate.

## Key Findings

Across the 14-county Tristate area, low birth weight rates range from 6.3 in Highland County to 8.8 in Hamilton County. None of the area state rates nor any of the Tristate counties are below the Healthy People 2010 goal of 5.0 LBW babies for every 100 births. Hamilton County (8.8) is the only Tristate county to have a LBW rate higher than both its state and national rate.

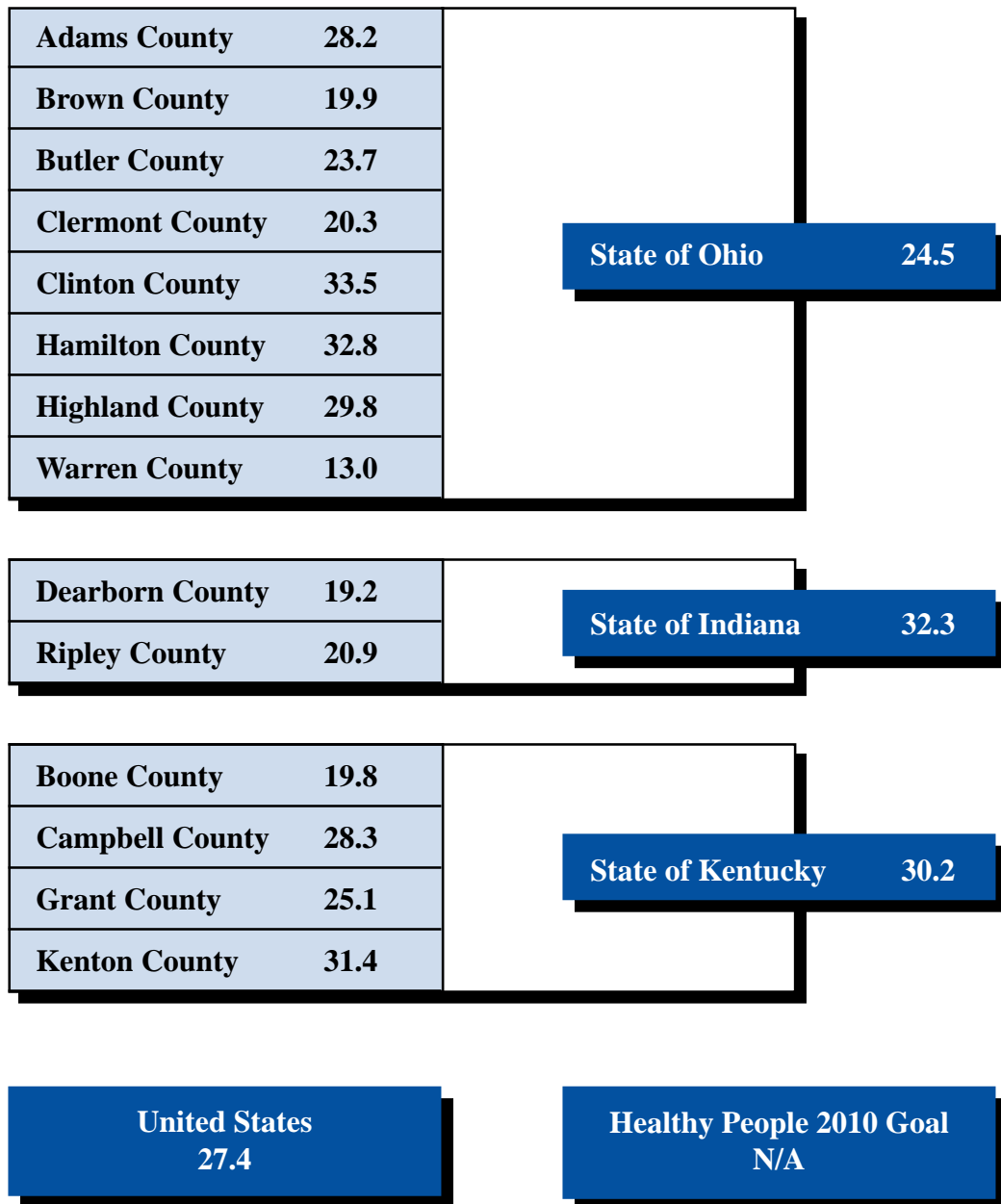
## Discussion

As with infant mortality, Greater Cincinnati's low birth weight and prematurity rates are greater than the United States overall and greater than neighboring metropolitan areas. These rates remain very high compared to those observed in other developed countries. In large part, this is because of much higher LBW rates among some racial/ethnic groups. If the United States achieved the Healthy People 2010 goal of 5.0 LBW babies for every 100 births, it would bring the United States in line with other countries.

The causes of continued elevation of low birth weight rates in the 14-county Tristate area relative to Health People 2010 goals merits additional investigation and may be due to a combination of several factors, including persistent elevation of LBW rates among African-Americans and increased occurrence of twins and triplets. Fifty percent of twins and 90 percent of triplets are born prematurely, and thus are usually underweight. Interventions to reduce the risk of low birth weights among African-Americans and to reduce the incidence of twins and triplets should be supported. Other important risk factors for premature and low birth weight births are maternal smoking, short intervals between pregnancies, single marital status and poor maternal weight gain during pregnancy.

Like in infant mortality, there is a large racial disparity in low birth weight (LBW) and prematurity, with the Greater Cincinnati African-Americans LBW and prematurity rates twice that of whites. Eliminating racial disparities in LBW and prematurity would greatly improve some of Greater Cincinnati's poor health statistics.

# 1998–2001 Average Annual Teen Birth Rate Per 1,000 Population Ages 15-17



**Notes:**

United States data from 2000 only.

No Healthy People 2010 goal is available for this indicator.

**Sources:**

Centers for Disease Control; Ohio Department of Health; Kentucky Department of Health; Indiana Department of Health

# Teen Pregnancy

## Background

More than 80 percent of births to U.S. adolescents are unintended – either they occur sooner than intended or are not wanted. Adolescent mothers are more likely to leave high school before graduation, have decreased earning potential and live in poverty. Furthermore, early sexual activity can result in higher risk for sexually transmitted diseases, which can impair the future fertility and health of adolescents. The monitoring of adolescent pregnancy trends provides a means for assessing the effects of intervention strategies to reduce unintended pregnancy among teens and for identifying geographic areas where teens may be at special risk.

This report focuses on births to 15- to 17-year-olds rather than the broader teenage range of 13- to 19-year-olds because births to females under age 15 account for less than 5 percent of teen births. The inclusion of females under age 15 in the denominator would dramatically lower the rate, providing an unrealistic assessment of the risk being faced by 15- to 17-year-old females. In the 2000 Indicators Report, the indicator included girls ages 10-17; however, the change for this report was made to better reflect the risk associated with teen births and to match the changing reporting methods of public health organizations.

In general, teen birth rates are decreasing in the United States with some variation among subpopulations.

## Key Findings

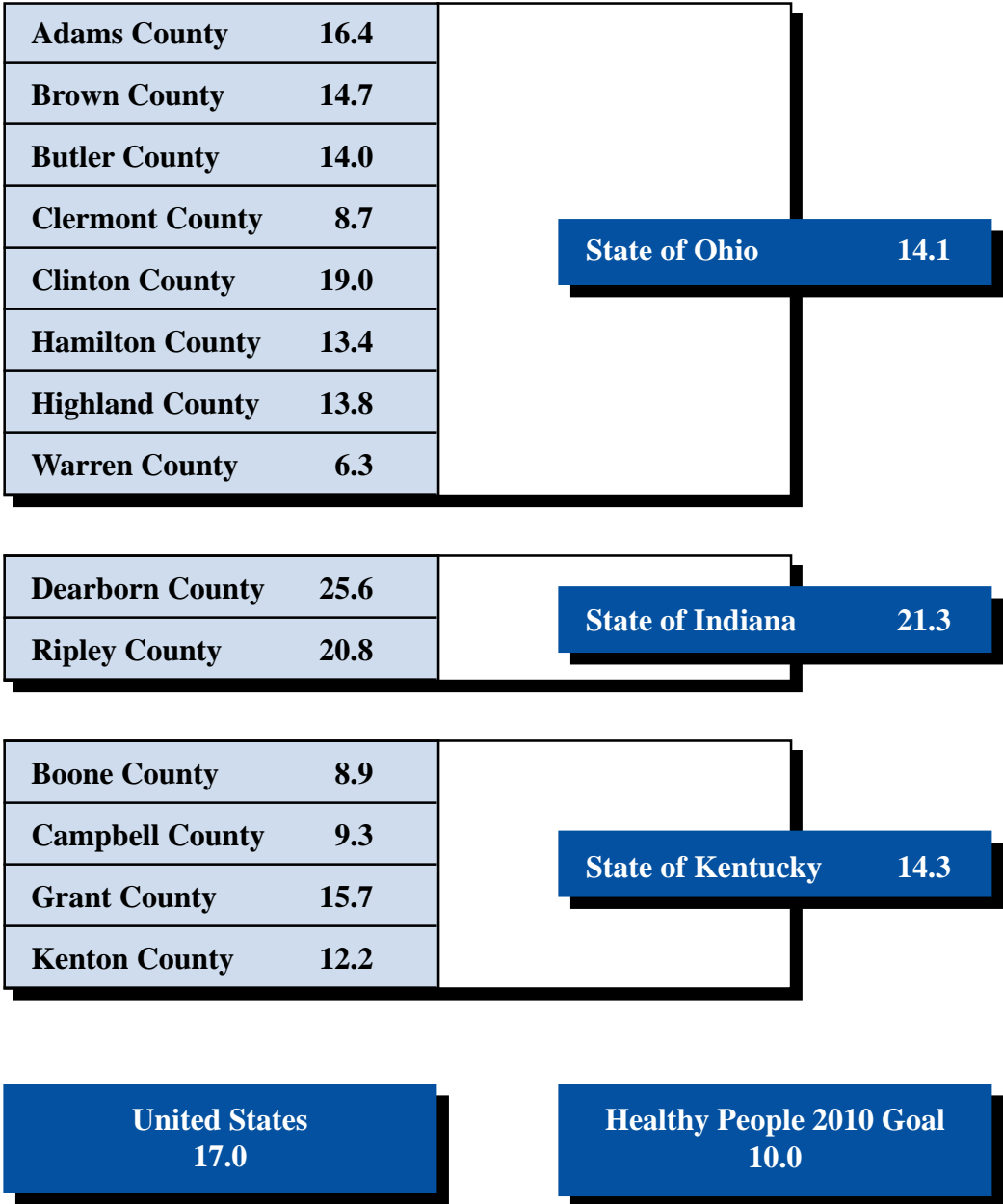
Among Greater Cincinnati counties, 1998-2001 births to teens 15-17 vary greatly from as low as 13 births for every 1000 girls age 15-17 in Warren County to as high as 34 births per 1000 girls in Clinton County. While Ohio (24.5) has a rate below the national rate of 27.4, both Indiana (32.3) and Kentucky (30.2) have higher rates. In Kentucky, three of the four Tristate counties are below the state rate, while Kenton County is higher with a rate of 31.4. In Ohio, only four Tristate counties—Brown (19.9), Butler (23.7), Clermont (20.3) and Warren (13.0) have rates below the state rate. Both Ripley and Dearborn counties in Indiana have rates below the Indiana state rate.

## Discussion

According to the Centers for Disease Control and Prevention, National Center for Health Statistics, the U.S. teen (15-17) birth rate increased significantly between 1986 and 1991. The teen birth rate has decreased since 1994, but remains at pre-1985 levels. The causes of fluctuations in the U.S. teen birth rate are poorly understood. Variation may be due to differing rates of sexual activity, use of contraception or abortion. Research is needed to determine the contributions of these factors.

As mentioned above, whatever the rates of teen births, births to females ages 15-17 are of concern due to the medical risks to both mother and infant. The occurrence of a birth at these ages also impacts the normal educational progress and teenage social development. Further investigation into which geographic areas are at special risk of teen birth would be helpful for targeting health services and educational interventions to at-risk teens. If a pregnancy does occur, lack of prenatal care and related services by the teen mother can create risks to the unborn child. In summary, a comprehensive approach to this issue is needed to improve this health status indicator.

# 1997–2000 Average Annual Percentage of Mothers Not Receiving Prenatal Care During First Trimester



**Notes:**  
Data are self-reported information from birth certificates.

The Healthy People 2010 goal is derived from Objective 16.6.

**Sources:**  
Centers for Disease Control; Ohio Department of Health; Kentucky Department of Health; Indiana Department of Health

# Prenatal Care

## Background

Health care providers recommend that women begin prenatal care as early as possible in the first trimester of their pregnancies. The percentage of women receiving early prenatal care is one measure of the extent to which expectant mothers seek and/or have access to an important health service.

The Healthy People 2010 goal is to reduce the proportion of all pregnant women who **do not** receive prenatal care in the first trimester (three months) of pregnancy to 10 percent or below. In 2000, 17 percent of mothers in the United States did not receive prenatal care in the first trimester of pregnancy, and 3.9 percent of mothers received late or no care at all, as self-reported by mothers on birth certificates.

## Key Findings

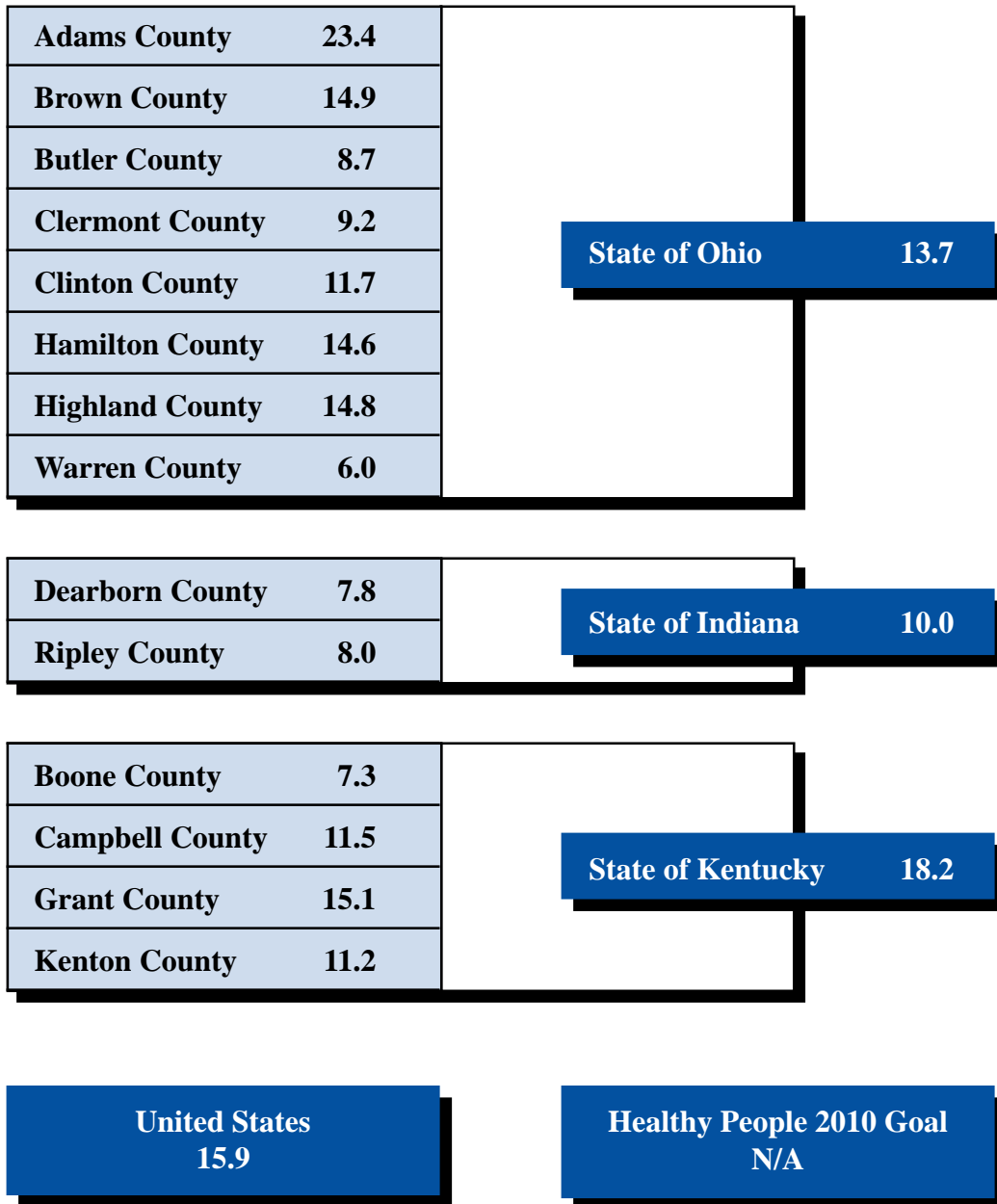
In the Tristate region, there is clearly less use of first trimester prenatal care in Indiana than in either Ohio or Kentucky, or nationally. In addition, there is even less prenatal care in Dearborn County when compared to the overall Indiana state percentage. These dismal numbers can, in part, be attributed to Indiana's later start in prenatal awareness and promotion. In Ohio, most of the Tristate counties have better rates than the state; however, Adams (16.4), Clinton (19.0), and Brown (14.7) counties report percentages higher than the State of Ohio rate of 14.1. In Kentucky, Grant County (15.7) has a higher percentage of women not receiving care compared to the state percentage of 14.3. Overall, use of early prenatal care has changed little in Greater Cincinnati if one compares the 1997-2000 time period to the 1995-1997 time period that was reported in the 2000 Indicators Report.

## Discussion

Early initiation of prenatal care has been shown to be associated with maternal health behaviors that are favorable to infant health outcomes. However, in some women, initiation of healthy behaviors (stopping smoking, improving nutrition, etc.) may occur independent of prenatal care. The benefits of a healthy lifestyle related to optimal birth outcomes clearly begin prior to pregnancy.

Use of prenatal care is a marker of access to health care. Use of care measures the availability and affordability of care, as well as the individual's willingness to seek care. The prenatal care statistics do not distinguish among these and other factors that may impact the rate. Studies of the relationship between prenatal care and infant outcome are ongoing. Counting the number of prenatal visits and when they begin may not provide the information needed for optimal policy decisions. For example, some women have more prenatal visits than others simply because they have pregnancy complications or underlying conditions that require more frequent visits compared to healthy mothers with uncomplicated pregnancies. Additional information about the quality and appropriateness of specific prenatal services is needed before solid links between care and outcome can be made.

# 1999 Percent of Children Below the Poverty Threshold Ages 5-17\*



**Notes:**

\*Estimates for Related Children Age 5 to 17 in Families in Poverty for United States in 1999. The poverty threshold is not a federal poverty level. The poverty threshold is defined by the federal government and is used in calculating federal poverty levels.

No Healthy People 2010 goal is available for this indicator.

**Source:**

U.S. Census Bureau: Tables B99-00, B99-18, B99-21, B99-39:

# Children in Poverty

## Background

The child poverty rate provides important information about the percentage of U.S. children whose current life circumstances are hard and whose futures are potentially limited as a result of their family's low income.

Poverty is defined by household—either everyone in the household is poor or no one in the household is poor. The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If a family's total income is less than that family's threshold, then that family, and every individual in it, is considered poor. For example, in 1999, a family of four with a combined annual income less than the federal poverty line of \$17,184 was considered poor (in 2002 it was \$18,556, and in 2003 it was over \$19,000).

It is important to note that this indicator uses the federal poverty threshold, which is not the same as federal poverty levels. The poverty threshold is a relatively conservative definition of poverty, and the federal government uses it to determine federal poverty levels.

## Key Findings

With improvements in the overall economy between 1995 and 1999, the child poverty rate decreased in all 14 Greater Cincinnati counties during this period.

Thirteen of the 14 Tristate counties have a lower percentage than the national average of 15.9 percent, whereas Adams County in Ohio is higher at 23.4 percent. Butler, Clermont, and Warren counties have lower percentages than Ohio overall. Dearborn and Ripley counties are also lower than their state of Indiana. All of the Kentucky counties in the Tristate area have lower percentages than the state of Kentucky. It is interesting to note that the rural counties — especially Adams, Brown, Highland and Grant counties — tend to have higher poverty rates than their urban neighbors.

## Discussion

The Federal Interagency Forum on Child and Family Statistics reports that “childhood poverty has both immediate and lasting negative effects. Children in low-income families fare less well than children in more affluent families for many indicators—including indicators in the areas of economic security, health and education. Children living in families who are poor are more likely than children living in other families to have difficulty in school, to become teen parents and, as adults, to earn less and be unemployed more frequently.”

Geographic and demographic variation in Tristate child poverty can be expected based on national projections. Nationally, in 2001, 9 percent of white, non-Hispanic children lived in poverty, compared with 30 percent of African-American children and 27 percent of Hispanic children. The Federal Interagency Forum states that the U.S. poverty rate for families with children was 16 percent. The percentage of African-American children living in female-householder families in poverty wavered around 66 percent until 1993 and has since declined to 47 percent in 2001.

For greater understanding of the problem, it is helpful to look at the Economic Deprivation Index (EDI), which identifies and measures characteristics of neighborhoods that affect child well-being. To learn more about childhood poverty or the EDI, visit the Child Policy Research Center's web site at <http://www.cprc-chmc.uc.edu>.

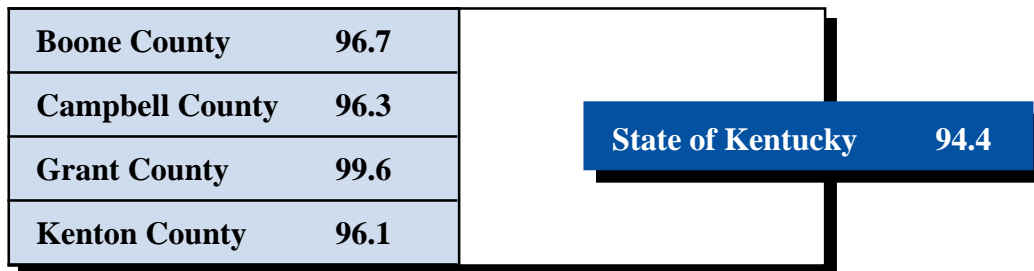
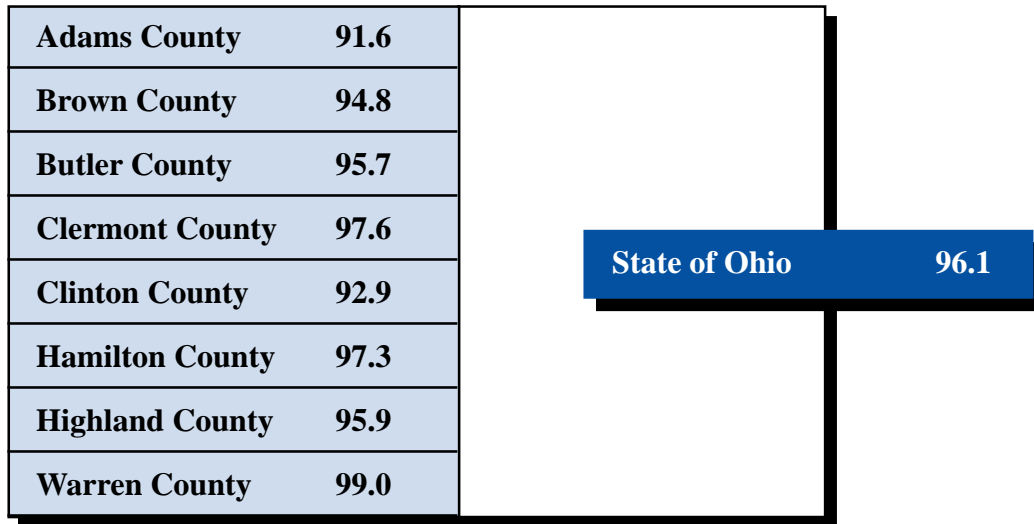




# Health Behaviors

Healthy behaviors often translate into healthier people. Monitoring health conditions in order to keep them in control, performing routine screenings to detect a disease in its early stages when it is more treatable, and making preventive habits routine are all very important steps towards maintaining good health. It is difficult to calculate the occurrence of these behaviors, but the 1999 and 2002 Community Health Status Surveys provide self-reported data that provide an insight into how well Greater Cincinnati is working to achieve a healthy life. New to this year's Indicators Report are indicators regarding overweight and obesity levels, physical activity and oral health.

# Percent of Adults Who Had Blood Pressure Checked Within the Past 2 Years



14-County Area  
96.8

United States  
94.6

Healthy People 2010 Goal  
95.0

## Notes:

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 1999 Behavior Risk Factor Surveillance System Trends Data Set.

The Healthy People 2010 goal is derived from Objective 12.12.

## Sources:

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
1999 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Blood Pressure

## Background

Hypertension or high blood pressure is a well-known risk factor for heart disease and stroke. Hypertension is sometimes referred to as the “silent killer” because it often has no symptoms. Early detection and treatment is the best way to prevent the long-term complications of hypertension. This indicator is designed to capture the percentage of individuals who have had their blood pressure checked within the past two years.

Anyone at any age can have high blood pressure. It is the most common chronic illness in the United States, and it is a leading cause of disability and death from stroke, heart attack, heart failure and kidney failure.

Systolic pressure is the force of blood in the arteries as the heart beats. It is shown as the top number in a blood pressure reading. High blood pressure is 140 and higher for systolic pressure. Diastolic pressure does not need to be high for you to have high blood pressure. When that happens, the condition is called “isolated systolic hypertension,” or ISH. Both numbers in a blood pressure test are important, but for people who are 50 or older, systolic pressure gives the most accurate diagnosis of high blood pressure. Also, individuals with a systolic blood pressure of 120-139 mmHg or a diastolic blood pressure of 80-89 mmHg should be considered as prehypertensive and require health-promoting lifestyle modifications to prevent cardiovascular disease.

## Key Findings

The 1999 and 2002 Community Health Status Surveys reveal that on average 96.8 percent of adults within the 14-county Tristate area had their blood pressure checked within the past two years of participating in the survey. In every county, the screening rates for adults were over 90 percent. Adams County has the lowest rate of screening with 91.6 percent, while Grant County residents have the highest rate of screening with 99.6 percent of adults had their blood pressure recently checked.

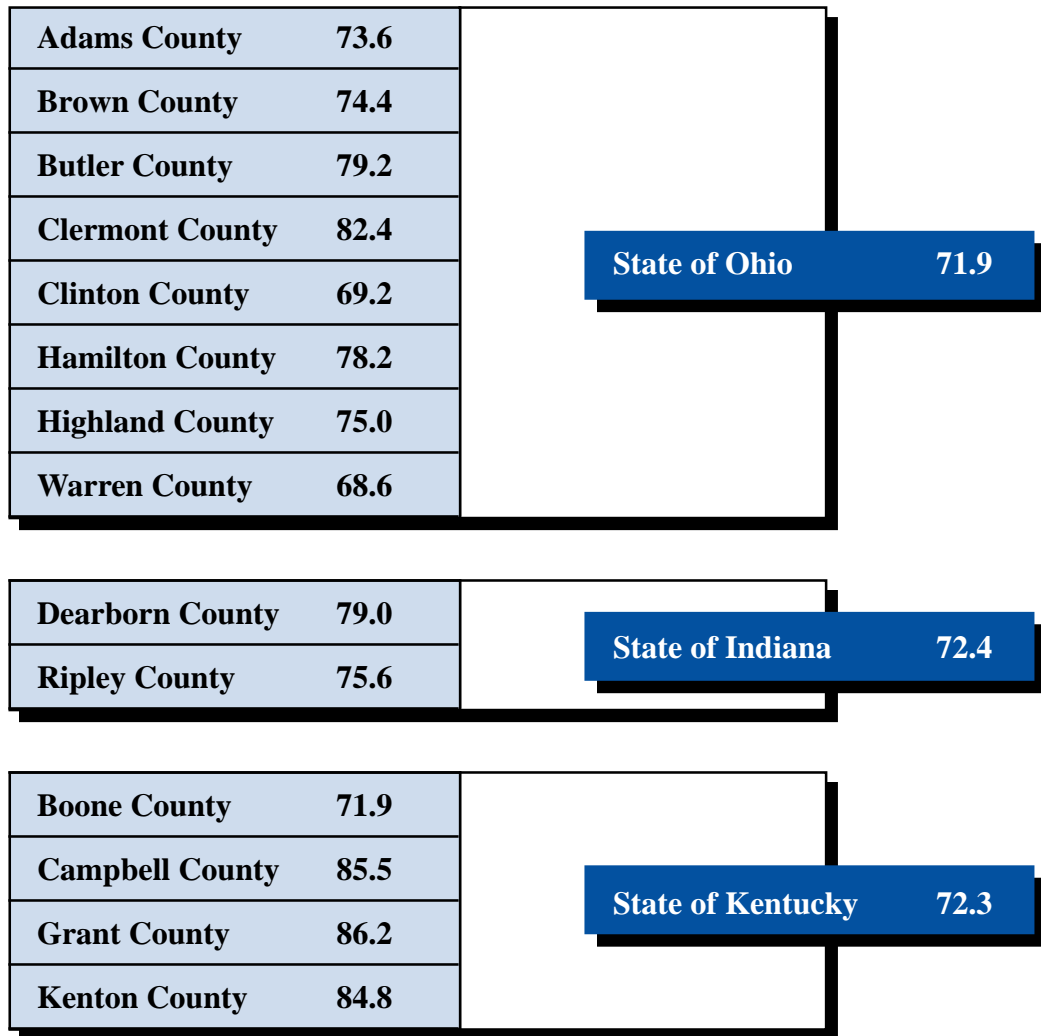
Overall, the Tristate area performs better than state and national benchmarks. However, Brown, Butler and Highland counties were below the Ohio screening rate, while Adams and Clinton counties were below the state rate and the Healthy People 2010 goal.

## Discussion

The Greater Cincinnati area is to be commended on this indicator. But while the Tristate area has shown improvement for this indicator, ongoing health promotion efforts need to continue to ensure that at-risk individuals are identified. Furthermore, there needs to be additional education about the importance of hypertension screening and treatment in order to help reduce the incidence of heart disease and stroke.

Joint National Committee also stresses the importance of individual dedication and motivation toward a healthy lifestyle. The most effective therapy prescribed by the most careful clinician will control hypertension only if patients are motivated. Motivation improves when patients have positive experiences with, and trust in, the clinician.

# Percent of Adults Who Had Blood Cholesterol Checked Within the Past 5 Years



**14-County Area**  
78.2

**United States**  
72.5

**Healthy People 2010 Goal**  
80.0

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2001 Behavioral Risk Factor Surveillance System Trends Data Set.

The Healthy People 2010 goal is derived from Objective 12.15.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2001 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Blood Cholesterol Level

## Background

An elevated blood cholesterol level, particularly the low-density lipoprotein (LDL) cholesterol level, is associated with an increased risk for heart disease and stroke. An elevated high-density lipoprotein (HDL) cholesterol level is associated with a decreased risk of heart disease. The American Heart Association recommends that low-risk adults with no symptoms undergo cholesterol screening every five years. Individuals at high risk for heart disease may need to be screened more frequently.

A variety of things can affect cholesterol levels. Diet, weight levels and physical activity are all things a person can control; age, gender and heredity are all risk factors out of a person's control.

Saturated fat and cholesterol in the food individuals eat make blood cholesterol levels go up. Saturated fat is the main culprit, but cholesterol in foods also matters. Being overweight is also a risk factor for heart disease, and heavy weight also tends to increase your cholesterol. Similarly, not being physically active is another risk factor for heart disease.

As women and men get older, their cholesterol levels rise. Before the age of menopause, women have lower total cholesterol levels than men of the same age. After the age of menopause, women's LDL levels tend to rise. Also, your genes partly determine how much cholesterol your body makes, and high blood cholesterol can run in families.

## Key Findings

The 1999 and 2002 Community Health Status Surveys indicate that on average 78.2 percent of adults in the 14-county area had their blood cholesterol checked within the past 5 years prior to completing the survey. The 2002 survey finding of 79.6 percent compared favorably to the 1999 survey average of 76 percent. Warren County (68.6 percent) and Clinton County (69.2 percent) have the lowest rates of screening, while Grant County residents have the highest rate of screening with 86.2 percent of adults having their blood cholesterol levels checked within the past five years. The Tristate area is comparable to the nation.

When comparing the Tristate area to state and national benchmarks, overall, the counties have better rates than their respective states and the national level. Clinton, Warren and Boone counties all have rates below the national rate and their respective state rates. However, most of the region is below the Healthy People 2010 goal of 80 percent, with only Clermont, Campbell, Grant and Kenton counties already at or above the Healthy People 2010 target.

## Discussion

Tristate blood cholesterol monitoring rates are lower than the blood pressure monitoring rates for the area. This is because the test for blood cholesterol is more complex and includes an 8-hour fast and a blood sample. More should be done in the area to increase awareness and screening rates.

Elevated cholesterol is now an established independent risk factor for heart disease. Heart disease remains the number one killer in industrialized nations around the world. Prevention, early detection and when indicated treatment is key in reducing the incidence of heart disease.

Appropriate diet, routine exercise and when appropriate medication are some of the ways in which blood cholesterol can be controlled or reduced. Reducing the amount of saturated fat and cholesterol in your diet helps lower your blood cholesterol level. Regular physical activity can help lower LDL (bad) cholesterol and raise HDL (good) cholesterol levels. It also helps you to lose weight. You should try to be physically active for 30 minutes on most, if not all, days. Losing weight can help lower your LDL and total cholesterol levels, as well as raise your HDL and lower your triglyceride levels.

# Percent of Women 50 Years & Older Who Have Had a Mammogram Within the Past 2 Years

2002 Community Health Status Survey Results	
Hamilton County, OH	82.8
Butler, Clermont & Warren Counties, OH	78.1
Adams, Brown, Clinton, Highland Counties, OH	62.0
Boone, Campbell, Grant, Kenton Counties, KY	85.5
Other Counties (including Dearborn, Ripley IN)	80.4

<b>14-County Area</b>	<b>82.5</b>
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2002 Benchmarks	
State of Ohio	83.2
State of Indiana	80.8
State of Kentucky	85.2
United States	83.0
Healthy People 2010 Goal	N/A

**Notes:**

Percents are based 2002 data only, as the survey question was changed from the 1999 survey question.

Due to the sample size of some counties (women over age 50) being too small to be statistically valid, the results were grouped into the five county areas listed above.

Benchmarks are from the 2002 Behavior Risk Factor Surveillance System Trends Data Set.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
 2002 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Mammography

## Background

Breast cancer is the second most common cancer in women with one out of every eight women at risk for developing this disease within her lifetime. Mammography is a test that is designed to detect breast cancer at an early stage before the disease spreads. Although there is controversy among national organizations as to which age regular screening for breast cancer should begin, there is general consensus that all women over age 50 should undergo an annual mammogram. Women younger than age 50 should discuss their risk for breast cancer and their need for mammograms with their primary health care provider. The American Cancer Society and the National Cancer Institute recommend that women have a mammogram annually after age 40.

## Key Findings

The sample sizes of women 50 and older in some counties were too small to be statistically valid; therefore, the results were grouped into five county areas.

The 2002 Community Health Status Survey results found that in the 14-county Tristate area 82.5 percent of women 50 years and older have had a mammogram within the past two years. This compares to the 1999 findings that found 71.4 percent of women **age 40** and older in 20 Tristate counties had a mammogram in the past two years. In the 2002 survey, the Kentucky counties have the highest screening rates (85.5 percent), while the more rural Ohio counties—Adams, Brown, Clinton, and Highland—have the lowest rates (62.0 percent).

Other than Hamilton County, the Ohio counties' screening rates were below the state and national rates, especially the more rural counties which include Adams, Brown, Clinton, and Highland counties.

## Discussion

Although the Greater Cincinnati rates do seem average as compared to the United States and the local state rates, there are still at least 20 percent of eligible women not being screened for breast cancer as recommended. Early detection and treatment are an essential part in fighting the battle against cancer and decreasing cancer mortality rates. Any serious effort to reduce breast cancer mortality must find ways to increase the number of persons receiving this valuable screening.

Breast cancer is more likely to be completely cured when it is detected early through screening, and cancers that are detected early require less extensive medical treatment and far fewer days away from work. Also, women whose breast cancer is detected early through screening are more likely to be eligible for less intensive therapy; for example, a lumpectomy (removal of the lump) rather than a mastectomy (removal of the breast).

# Percent of Women 18 Years & Older Who Have Had a Pap Smear Within the Past 2 Years

Adams County	73.3		
Brown County	80.2		
Butler County	82.2		
Clermont County	71.5		
Clinton County	81.6		
Hamilton County	83.6		
Highland County	79.6		
Warren County	84.1		
		State of Ohio	83.1

Dearborn County	87.2		
Ripley County	79.4		
		State of Indiana	79.1

Boone County	78.0		
Campbell County	81.0		
Grant County	87.9		
Kenton County	86.0		
		State of Kentucky	85.5

14-County Area  
82.2

United States  
92.4

Healthy People 2010 Goal  
N/A

## Notes:

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2002 Behavior Risk Factor Surveillance System Trends Data Set.

## Sources:

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2002 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Pap Smear (Papanicolaou)

## Background

Cervical cancer is the fourth most common occurring cancer in women. The Pap smear is designed to detect this type of cancer in women at an early stage before the disease spreads. This test is usually done at the time of a pelvic examination. Pap smears are very effective in detecting pre-cancerous changes in the cervix. However, part of the test's effectiveness depends on their being obtained regularly, because often a single Pap smear will not show any abnormal cells even when cancer is present.

As suggested by the American Accreditation HealthCare Commission, annual pelvic examinations, including a Pap smear, should begin when a woman becomes sexually active, or by the age of 20 in a non-sexually active woman. All abnormal findings should be followed up with colposcopy and biopsy.

No comparison can be made between the 2000 Indicators Report findings and this Indicators Report because there is a change in the indicator used.

## Key Findings

The 1999 and 2002 Community Health Status Surveys reveal that 82.2 percent of women in the 14-county Tristate area 18 years and older have had a Pap smear within the past two years. Clermont County has the lowest rate of testing with 71.5 percent, while Grant County residents have the highest rate of testing with 87.9 percent of women 18 years and older have had a Pap smear within the past two years.

When comparing the Tristate area to state and national benchmarks, the 14-county area is very similar to the U.S. rate of 92.4 percent, and most counties are near or above their state rates. However, Adams, Clermont, and Boone counties were well below their respective state rates.

## Discussion

From 1973 to 1996, mortality rates due to cervical cancer decreased by 47 percent. Much of the reduction in cervical cancer mortality has been associated with increased use of Pap smears. Because this test can also detect pre-cancerous lesions that have not presented symptoms and may develop into invasive cervical cancer if untreated, Pap smears are useful in preventing the occurrence of invasive cervical cancer, as well as the mortality from it.

Pap smears are a primary method for detecting cervical cancer. As with other types of cancer, early detection and treatment is key in reducing the mortality associated with cervical cancer. Women should discuss the need for a Pap smear with their health care provider during their yearly well woman exam.

Even if rates of cervical cancer are decreasing, there is still much work needed to improve these percentages. Health care providers should assess whether or not a woman has had a Pap smear within the past one to three years at every encounter and schedule a follow-up appointment when a woman has not had a recent Pap smear.

# Percent of Adults Who Are Overweight or Obese

	Overweight	Obese	Total
Adams County	28.6	23.8	52.4
Brown County	36.2	18.3	54.5
Butler County	36.2	16.7	52.9
Clermont County	36.8	16.5	53.3
Clinton County	31.8	30.0	61.8
Hamilton County	34.6	22.6	57.2
Highland County	24.9	30.3	55.2
Warren County	38.1	22.4	60.5
<b>State of Ohio</b>	<b>35.8</b>	<b>23.0</b>	<b>58.8</b>

Dearborn County	36.0	30.7	66.7
Ripley County	32.5	33.2	65.7
<b>State of Indiana</b>	<b>37.2</b>	<b>24.1</b>	<b>61.3</b>

Boone County	36.0	19.3	55.3
Campbell County	19.8	33.8	53.6
Grant County	28.6	29.2	57.8
Kenton County	45.4	18.2	63.6
<b>State of Kentucky</b>	<b>38.1</b>	<b>24.5</b>	<b>62.6</b>

<b>14-County Area</b>	<b>36.3</b>	<b>21.9</b>	<b>58.2</b>
<b>United States</b>	<b>37.0</b>	<b>22.1</b>	<b>59.1</b>
<b>Healthy People 2010 Goal</b>			<b>15.0</b>

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Percent Overweight are those people with a Body Mass Index greater than 25 but less than 30.

Percent Obese are those people with a Body Mass Index 30 or greater.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Percent of Adults Engaged in Physical Activity at Least Three Times per Week

Adams County	64.8	State of Ohio N/A
Brown County	54.4	
Butler County	55.1	
Clermont County	58.8	
Clinton County	63.9	
Hamilton County	56.3	
Highland County	64.2	
Warren County	53.2	

Dearborn County	67.5	State of Indiana N/A
Ripley County	55.7	

Boone County	64.5	State of Kentucky N/A
Campbell County	58.6	
Grant County	61.8	
Kenton County	64.4	

**14-County Area**  
57.9

**United States**  
N/A

**Healthy People 2010 Goal**  
30.0 at least 5 times per week

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

The Healthy People 2010 goal is derived from Objective 22.2.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Overweight, Obesity and Physical Activity

## Background

Being overweight is linked to several serious health conditions including heart disease, diabetes and high blood pressure. In June of 1998, the federal government announced guidelines that created a new definition of a healthy weight using a measurement called the Body Mass Index (BMI). The BMI is a measure that takes a person's weight and height to determine the amount of fat in adults. A person is considered at a healthy weight with a BMI measurement between 18.5 and 24.9. A BMI greater than 25 but less than 30 is considered overweight, while a BMI of 30 or greater is considered obese. One way to prevent excessive weight gain or reduce weight is to engage in regular physical activity at least three times per week.

The formula to calculate one's BMI is as follows: weight in pounds, divided by height in inches, divided again by height in inches, and multiplied by 703.

## Key Findings

The 1999 and 2002 Community Health Status Surveys reveal that in the 14-county Tristate area, 36.3 percent of adults were overweight and an additional 21.9 percent of adults were considered to be obese as determined by the BMI measurement. In other words, over half (58.2 percent) of all Tristate adults are at an unhealthy weight.

**Overweight:** Kenton County has the highest incidence of overweight, but not obese, individuals, (45.4 percent), while Campbell County has the lowest incidence with 19.8 percent of adults being assessed as overweight but not obese.

**Obese:** Interestingly, while Campbell County has the lowest incidence of overweight adults, the county has the highest rate of obesity in the Tristate area at 33.8 percent. Clermont (16.5 percent) and Butler (16.7 percent) counties have the lowest rates of obesity in the area, yet both counties have relatively high rates of overweight adults.

When combining both overweight adults and obese adults, over half of the counties' adults are at an unhealthy weight in each county of the Greater Cincinnati area. Dearborn (66.7 percent), Ripley (65.7 percent), Kenton (63.6 percent), Clinton (61.8 percent), and Warren (60.5 percent) counties have the highest combined rates of unhealthy weights.

**Physical Activity:** Additionally, the surveys reveal that only 57.9 percent of adults engaged in physical activity at least three times per week. Dearborn County is the most active county with 67.5 percent of its residents engaging in physical activity at least three times per week, while Warren County has the lowest rate at 53.2 percent.

## Discussion

Overweight people are more likely to have high blood pressure, a major risk factor for heart disease and stroke, than people who are not overweight. Very high blood levels of cholesterol and triglycerides (blood fats) can also lead to heart disease and often are linked to being overweight. Being overweight also contributes to angina (chest pain caused by decreased oxygen to the heart) and sudden death from heart disease or stroke without any signs or symptoms.

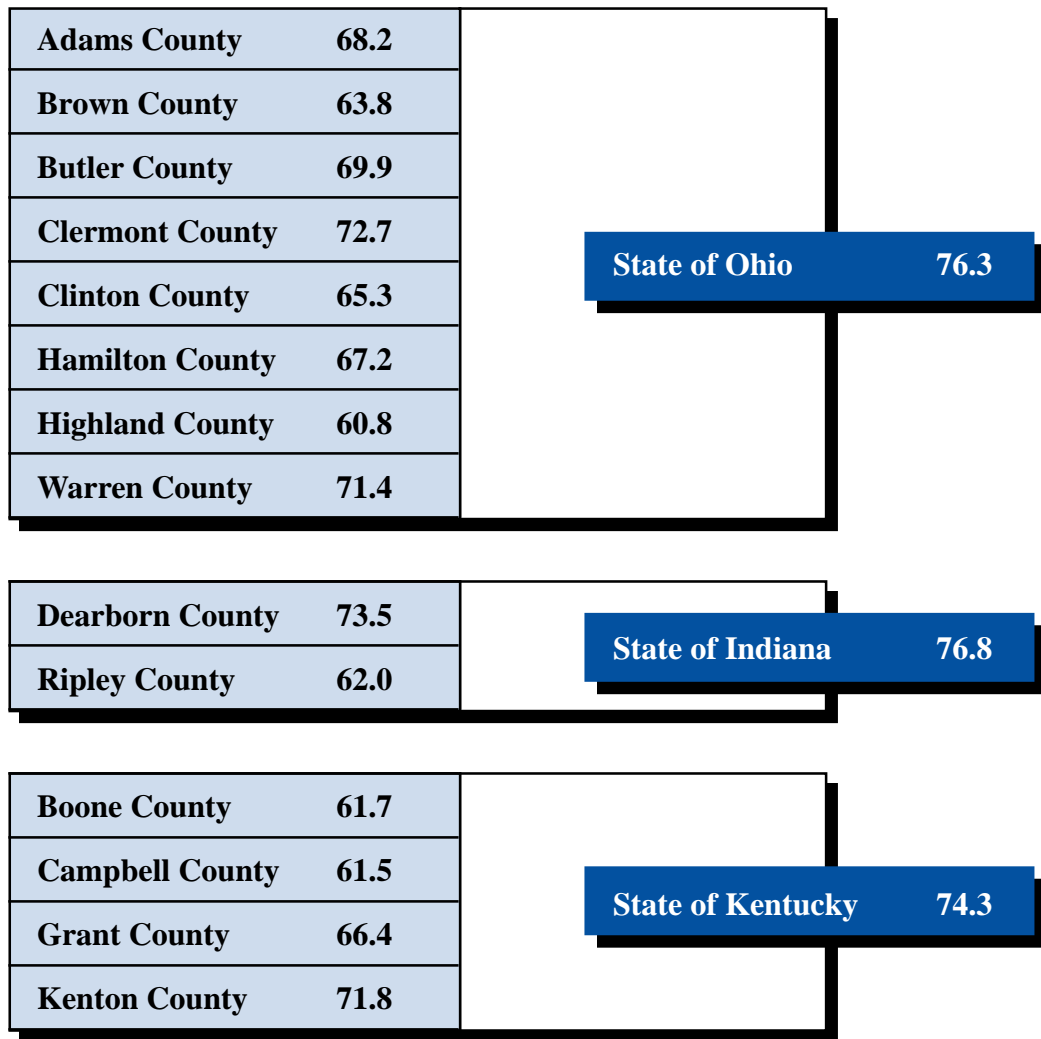
The good news is that losing a small amount of weight can reduce your chances of developing heart disease or a stroke. Reducing your weight by 10 percent can decrease your chance of developing heart disease by improving how your heart works, blood pressure, and levels of blood cholesterol and triglycerides.

Obesity is associated with many other co-morbidities. Overweight people are twice as likely to develop Type II diabetes as people who are not overweight. Type II is a major cause of early death, heart disease, kidney disease, stroke and blindness. Also, several types of cancer are associated with being overweight. In women, these include cancer of the uterus, gallbladder, cervix, ovary, breast and colon. Overweight men are at greater risk for developing cancer of the colon, rectum and prostate.

The risk for sleep apnea increases with higher body weights. Sleep apnea can cause a person to stop breathing for short periods during sleep and to snore heavily. Sleep apnea may cause daytime sleepiness and even heart failure.

Healthy eating and regular exercise is key in the prevention and reduction of weight gain. Losing as little as 5 to 10 percent of total body weight may improve problems linked to being overweight, such as high blood pressure and diabetes. Health care providers should be consulted prior to beginning any exercise or weight-loss program.

# Percent of Adults Who Always Wear a Seat Belt



**14-County Area**  
68.2

**United States**  
76.6

**Healthy People 2010 Goal**  
N/A

## Notes:

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2002 Behavior Risk Factor Surveillance System Trends Data Set.

## Sources:

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2002 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Seat Belt Usage

## Background

It has been demonstrated that wearing a seat belt in automobiles can reduce the incidence of fatalities in automobile accidents. In an effort to increase the use of seat belts there has been a number of educational campaigns along with the creation of state laws and fines in an attempt to motivate people to use this important safety measure while in automobiles.

## Key Findings

Combined findings from the 1999 and 2002 Community Health Status Surveys indicate that 68.2 percent of adults in the 14-county Tristate area always wear a seat belt. In the 2002 survey alone, 69.7 percent of adults in the area said they always wear a seat belt; this compares favorably to the 1999 findings of 65.9 percent. Over 70 percent of adults in Dearborn, Clermont, Kenton and Warren counties claim to always wear their seat belts. Highland County has the lowest compliance with 60.8 percent.

The 14-county area average is well below that of the national average of 76.6 percent of adults who always wear their seat belts. Every individual county in the area was also below the national benchmark, as well as below their respective state benchmark.

## Discussion

While progress has been made in the use of seat belts, further improvement is certainly possible in this important safety measure. Seat-belt use has been proven to save lives. Health care professionals and public service employees can assist in educating the public in the importance of seat-belt use.

The Tristate community may want to focus on high-risk groups, such as teenagers, to improve seat belt usage. As another example, as the Hispanic population in the area continues to grow, it is important to note that a recent medical study in 1998 showed that Hispanic drivers have lower safety belt use rates than non-Hispanic whites, with corresponding higher fatality rates in traffic crashes.

# Percent of Adults Who Visited a Dentist or Dental Clinic for Any Reason Within the Past 2 Years

Adams County	69.7		
Brown County	58.0		
Butler County	79.5		
Clermont County	68.4		
Clinton County	70.6		
Hamilton County	75.6		
Highland County	59.9		
Warren County	85.2		
		State of Ohio	73.1

Dearborn County	63.2		
Ripley County	65.7		
		State of Indiana	67.6

Boone County	69.8		
Campbell County	48.8		
Grant County	51.0		
Kenton County	72.0		
		State of Kentucky	67.3

**14-County Area**  
73.3

**United States**  
69.2

**Healthy People 2010 Goal**  
N/A

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2002 Behavior Risk Factor Surveillance System Trends Data Set.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2002 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Oral Health Indicator

## Background

Access to oral health care is the Tristate's number one unmet health need, according to local surveys. Lack of dental insurance (41 percent of persons in the Tristate are not insured for dental treatment), not understanding the relationship of oral health to general health, or being unable to find a dentist, afford care, or take time off from work are some of the reasons why this need is unmet. This survey reveals that more than one quarter of all adults in the Tristate are not getting regular dental care.

Disparities in access to dental care are a nationwide as well as a local problem. Thirty percent of all adults have untreated dental decay but the numbers are much higher in subpopulations. Socio-demographic variables such as poverty, race/ethnicity, geography, insurance, and education define who gets dental care and who does not.

For adults, poor oral health may mean additional sick days and time off from work. There is significant impact on the economy as American workers, as a result of dental problems, miss 164 million hours. The cost of these absences to the economy represents billions of dollars annually.

Significant health problems can be missed when oral care is neglected. Oral cancer rates in the United States are high and some populations, for example, African-American males, experience significant delays in diagnosis, leading to death rates several times higher than the general population. Periodontal disease can lead to heart disease, or to adverse pregnancy outcomes. Dental infections can also complicate diabetes, HIV, and other health problems.

## Key Findings

At the time of the surveys, 73.3 percent of Tristate adults had visited a dentist or dental clinic within the past two years. This rate compares favorably to the U.S. rate of 69.2 percent. While the Cincinnati region averages a respectable dental visitation rate, demographic variables reveal that subpopulations such as minorities, Appalachians living in the inner city or rural areas, and the elderly are significantly below the norm.

Geographically, the most likely to see a dentist annually are persons living in the suburbs. Those who live outside of a metropolitan area or living in the city are least likely to see a dentist. Rural areas—Brown, Highland, Dearborn, and Grant counties—have the lowest rates of persons with annual dental visits. While Hamilton County's rate appears high, if central city residents were separated from suburban residents, the city residents would likely have a low number of visits.

## Discussion

The data reflect only partially the scope of lack of access to dental care. Since oral health is not an integrated part of the health care system, it is viewed as a separate issue with a separate care system. Yet dental visits among low income, minorities and the elderly are often for acute needs because they lack the resources for routine or preventive care. For example, dental pain and infection is a significant reason for visits to the University Hospital emergency department, at tremendous cost to the individual, the health system and the taxpayer.

Increasing capacity for basic restorative services in the area's safety net clinics is one strategy that could help those without other access to dental care. Increased availability of early childhood dental education, disease prevention and access to periodic oral exams are other important measures to improve this indicator.

Community groups can look for ways to increase oral health services, and methods for overcoming racial or ethnic barriers to access can be encouraged, such as more availability of multi-lingual dental providers. Increased oral health and dental screening by medical care providers and schools, along with the application of sealants, could also assist in improving this indicator. Businesses could consider offering affordable dental coverage to their employees. Dentists can participate in volunteer programs, see Medicaid patients, accept younger children and visit nursing homes. Policymakers and opinion leaders can support improvements in the dental infrastructure, seek parity with medical services and champion oral health as a priority.

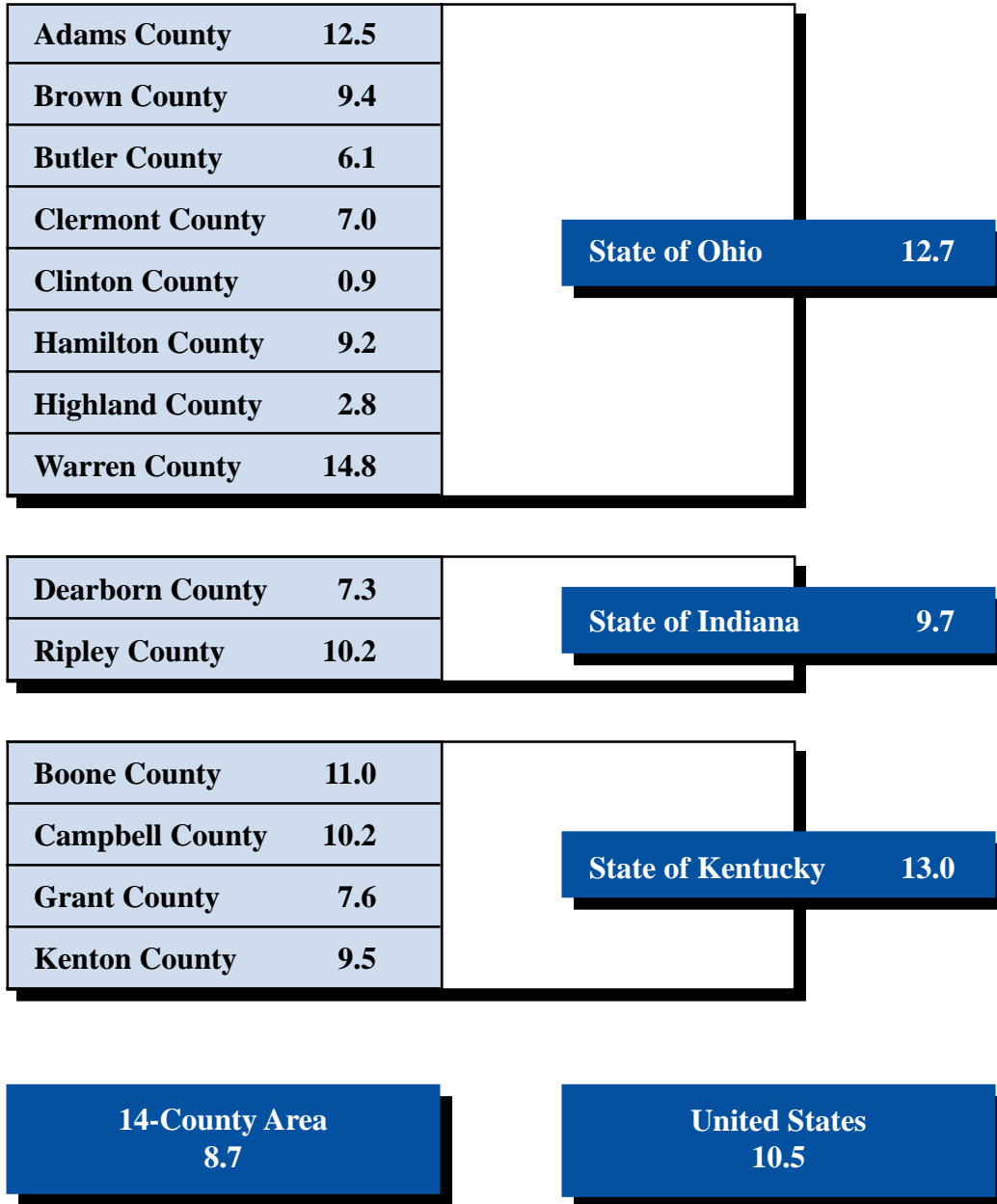




# **Behavioral and Mental Health**

Substance use is a major risk factor for many diseases. Smoking is linked to cardiovascular disease, cancer and chronic lung disease. Alcohol is often associated with violence, injury and HIV infection. In addition, as our community has begun to place greater importance on mental health, an indicator looking at depression diagnoses has been added. It is virtually impossible to know with accuracy how widespread substance use is or how many community members may need but are not seeking mental health treatment, but the data provided in this section from the 1999 and 2002 Community Health Status Surveys indicate that there is room for improvement in Greater Cincinnati.

# Percent Who Are Acute Alcohol Drinkers



## Notes:

Acute drinker was defined as a person who, on average, had five or more drinks per occasion in the past 30 days.

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2001 Behavior Risk Factor Surveillance System Trends Data Set.

## Sources:

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
 2001 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Acute Alcohol Drinkers

## Background

The Community Health Status Surveys asked participants about their average or regular drinking habits. The Centers for Disease Control and Prevention (CDC) defines an “acute alcohol drinker” as a person who has consumed alcoholic beverages in the past month and has had five or more alcoholic drinks on average when he/she drank during the past month. The National Center on Addiction and Substance Abuse at Columbia University (CASA) defines a binge drinker as a person who has consumed five or more alcoholic drinks during an episode in the past 30 days. In other words, an acute drinker is a pattern binge drinker, who, when drinking, tends to binge drink. Regardless of terminology, excessive drinking is a serious problem with serious repercussions.

In 2000, the CDC’s National Center for Health Statistics, National Health Interview Survey found that approximately 60 percent of adult Americans reported that they had a drink during the past year. According to the nationwide Behavior Risk Factor Surveillance System, 10.5 percent of adults who drink nationwide are acute drinkers. CASA reported in 2002 that alcohol is the number one drug for children and teens in America. More than five million high school aged teens (31 percent) say they binge drink at least once a month. These statistics for adults or youth have not changed significantly in the past five years.

Substance abuse and its related problems are among society’s most pervasive health and social concerns. Binge drinking is associated with automobile crashes, home and work accidents, poor school and work performance, family problems, violence, and various illnesses, including alcoholism, cirrhosis, cancer, and heart disease. In adolescents, alcohol use is most associated with risky behaviors such as drunk driving, teen pregnancy, suicide and violence.

## Key Findings

The Greater Cincinnati Community Health Status Surveys in 1999 and 2002 on average found that the percentage of acute drinkers is less in the Greater Cincinnati region than it is nationwide (8.7 percent vs. 10.5 percent); however, this difference is not sig-

nificant. Clinton and Highland counties have significantly less acute drinking (0.9 percent and 2.8 percent, respectively) than the region and the United States.

Adams, Warren, and Boone counties all have a higher percentage of acute drinkers than the national average. It is interesting to note that Adams County is the only “dry” county in the region and it has the area’s second highest rate of binge drinking at 12.5 percent.

## Discussion

The health problems associated with alcohol use are not limited to problems related to long-term excessive drinking or alcoholism. Single incidents of acute alcohol use are linked to injuries and deaths from motor vehicle crashes, falls, fires and drowning. Acute alcohol use is a factor in homicide, suicide, domestic violence and child abuse and has been associated with high-risk sexual behavior. The individual drinker is not the only person affected by the drinking behavior; family members, co-workers and friends become involved in the problems caused by the drinking and many times end up with emotional and physical illnesses themselves as a result.

Both prevention and treatment are effective in reducing the number of individuals who binge drink. To curtail the problem of binge drinking, Healthy People 2010 recommends several policies and strategies, including tougher state restrictions and penalties for alcoholic beverage retailers to ensure compliance with the minimum purchase age; restrictions on the sale of alcoholic beverages at recreational facilities and entertainment events where minors are present; and higher prices for alcoholic beverages.

A person who is binge drinking regularly may be in need of more treatment than preventive activities. Barriers that impede treatment for heavy drinking or alcoholism include the continuing stigma against addiction, the lack of adequate treatment services in many communities, and the disparities in insurance and other third-party coverage for substance abuse compared to physical illnesses. Insurance parity for substance abuse and advocacy for treatment availability are two strategies that could address the problem of binge drinking.

# Percent Who Are Current Tobacco Users

	Cigarette	Smokeless
Adams County	34.9	7.0
Brown County	44.0	6.6
Butler County	33.5	4.1
Clermont County	41.6	6.4
Clinton County	34.8	9.3
Hamilton County	30.3	2.8
Highland County	48.1	4.8
Warren County	37.0	1.7
<b>State of Ohio</b>	<b>26.6</b>	<b>N/A</b>

Dearborn County	36.7	5.8
Ripley County	25.1	9.1
<b>State of Indiana</b>	<b>27.6</b>	<b>N/A</b>

Boone County	29.5	3.4
Campbell County	32.9	2.4
Grant County	36.5	9.5
Kenton County	32.8	3.5
<b>State of Kentucky</b>	<b>32.6</b>	<b>N/A</b>

<b>14-County Area</b>	<b>33.3</b>	<b>3.8</b>
<b>United States</b>	<b>23.0</b>	<b>N/A</b>
<b>Healthy People 2010 Goals</b>		<b>0.4</b>
Adults	12.0	
Adolescents	16.0	

## Notes:

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002. Percent who smoked at least 100 cigarettes in lifetime and currently smoke.

The Healthy People 2010 goals are derived from Objective 27.1.

## Sources:

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2002 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Tobacco Use

## Background

Tobacco use is the single most preventable cause of disease and death in the United States. Tobacco use causes more than 400,000 deaths in the United States each year, more than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes and fire combined. According to former Surgeon General David Satcher, more than \$75 billion in direct medical costs in 2000 were attributed to the use of tobacco products.

Approximately 80 percent of adult smokers started smoking before the age of 18; and every day, nearly 4,000 young people under the age of 18 try their first cigarette. In the United States, a higher percentage (28.5 percent) of high school age youth smoke than adults, according to the Youth Risk Behavior Surveillance System (YRBSS). The percentage of youth smokers is higher in Kentucky (33 percent) and Ohio (33 percent) than it is nationally. Indiana (28.5 percent) has the same rate as the national average. The trend for youth smoking has been going down over the past six years, after it increased from 1991 to 1997. However, current use by youth is not yet down to the 1991 rate of 27.5 percent.

The rate of smokeless tobacco use in the United States is much lower than that of smoking cigarettes, according to the Behavioral Risk Factor Surveillance System (BRFSS) (3.6 percent and 23.2 percent, respectively). Unfortunately smokeless tobacco use is increasing, possibly because people believe that smokeless tobacco has fewer carcinogens, which is not true.

## Key Findings

**Cigarette Use:** According to averages of the 1999 and 2002 Greater Cincinnati Health Status Surveys, 33.3 percent of those living in the 14-county Greater Cincinnati area currently smoke. This rate is 50 percent higher than the national average. Rates for the combined 1999 and 2002 surveys range from 25.1 percent in Ripley County to 48.1 percent in Highland County.

Every county in the Tristate region has a smoking rate above the national rate of 23.0 percent. And with the exception of Ripley and Boone counties, every

county has a rate higher than its respective state rate. Smoking tends to be higher in the more rural counties (with the exception of Ripley County).

**Smokeless Tobacco Use:** Smokeless tobacco use is also significantly higher in the rural counties. In Ripley, Clinton and Grant counties, the smokeless tobacco use rate of over 9 percent is approximately three times higher than the national average.

## Discussion

The Greater Cincinnati area is a tobacco-growing region of the country, which increases the acceptance of use within the region. Because our rates and the acceptance of use are higher, people in Greater Cincinnati are at higher risk for tobacco-related health problems. Conscious efforts by concerned citizens and health professionals are needed to increase awareness of risk, promote disapproval and encourage non-use.

The community can implement policies and practices to help prevent tobacco use. For example, the community could encourage parents to talk to their children on a regular basis about not using tobacco products. Research has shown that parental disapproval is a primary reason why youth do not smoke. The community could also establish a smoke-free and tobacco-free environment in schools, including all school facilities, property, vehicles, and school events. This is also one of the Health People 2010 goals.

Also of concern is nonsmokers' exposure to cigarette smoking. Secondhand smoke, or passive smoking, is a mixture of the smoke given off by the burning end of a cigarette, pipe or cigar, and the smoke exhaled from the lungs of smokers. This mixture contains more than 4,000 substances, more than 40 of which are known to cause cancer in humans or animals. Passive smoking is estimated to cause approximately 3,000 lung cancer deaths in nonsmokers each year.

The community needs to develop policies that would be useful in reducing rates of tobacco use, such as providing universal insurance coverage of evidence-based treatment for nicotine dependency. Research suggests that smoking cessation programs are more cost-effective than interventions for many common diseases, such as treatment of high cholesterol or mild to moderately high blood pressure.

# People Who Have Been Diagnosed with Depression\*

Adams County	22.8	
Brown County	19.8	
Butler County	9.9	
Clermont County	12.8	
Clinton County	8.4	
Hamilton County	15.7	
Highland County	15.4	
Warren County	13.7	

Dearborn County	15.3	
Ripley County	15.7	

Boone County	10.8	
Campbell County	11.8	
Grant County	23.8	
Kenton County	17.7	

<b>14-County Area</b>	<b>14.2</b>	
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**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

\*Percent who have ever been told by a doctor or other health professional that they have had depression.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Depression

## Background

Depression is a common, real and treatable illness. Community-based epidemiological studies have found that the lifetime prevalence rate is approximately 17 percent for major depression (severe and prolonged depressed mood that may include thoughts of suicide), 6 percent for dysthymia (long-lasting, low-grade depression) and 8-12 percent for minor depression (intermittent periods of depressed mood that are not as severe as major depression or as long-lasting as dysthymia). Hence, nearly a third of people in the United States will suffer from depression at some time during their lives. Suicide is the eighth leading cause of death in the United States and depression is the most common underlying disorder associated with suicide.

Depression causes suffering not only for individuals and their families, but it also impacts society. Depression among employees costs U.S. employers about \$31 billion per year in lost productivity. Depression can also lead to school failure, poor health, poverty, homelessness, incarceration, and family neglect and abuse.

Fortunately, depression is very treatable. The most commonly used treatments are antidepressant medication, psychotherapy or a combination of both. Nationally, about 23 percent of people diagnosed with depression are receiving treatment. More than 80 percent of those who seek treatment show improvement. One Healthy People 2010 target is to increase the proportion of adults with recognized depression who receive treatment to 50 percent. However, this leaves 50 percent untreated, in addition to the people with undiagnosed depression.

## Key Findings

The Greater Cincinnati Community Health Status Surveys in 1999 and 2002 find that in the 14-county Tristate area, 14.2 percent of adults were told by a professional (a doctor or other health care provider) that they had depression. This average rate ranged from 8.4 percent in Clinton County to 23.8 percent in Grant County.

Within the 20-county region, certain geographic and demographic trends emerge. Of the people told by a professional that they had depression, the highest percentage of people reside in rural Kentucky (23.8 percent in Grant County) and rural Ohio (22.8 percent in Adams County); twice as many are women than men; and almost two-thirds are between the ages of 30 and 64. People who report that they were told by a professional that they had depression are also more likely to be below 200 percent of the federal poverty level, less educated and more likely not to work outside the home.

## Discussion

Depression is one of the nation's most serious health problems. Anyone can have depression, at any age, in any racial or ethnic group, regardless of income or education. In the Greater Cincinnati area, 14.2 percent said a professional had told them that they were depressed. National studies indicate that about 30 percent of people have depression. Therefore, many people in our region may be undiagnosed. This points to a need for broader recognition and diagnosis of depression. Recent data also show that although more Americans are receiving treatment for depression than in the past, only about 20 percent are adequately treated. The researchers noted that depression is not treated aggressively enough with adequate doses of antidepressant medications. So, in addition to improving the diagnosis of depression, there needs to be an emphasis on improving treatment quality once depression is diagnosed.

Underlying barriers that prohibit treatment for depression include the pervasive stigma against mental illnesses such as depression in society. There are also disparities in insurance and other third-party coverage for mental illnesses compared to physical illnesses. People may have no third-party coverage for mental health treatment or if they have coverage, this coverage usually has higher co-payments and more limitations on use of services than that for physical illnesses.

Continued on next page

## **Depression (continued)**

A suggestion for action would be to improve diagnosis of depression by identifying people with depression in everyday settings — schools, work sites, primary care offices, social service agencies and nursing homes. Also, we can encourage collaboration among health, mental health and social service systems to pool resources, redesign services and realign funding to make treatment of depression a priority and accessible and affordable to all who need it. Promoting public awareness about depression, including media campaigns, can also be helpful.

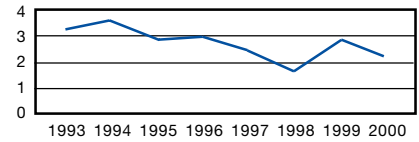
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# Infectious Disease

Infectious diseases comprise the largest number of human illnesses. More specifically, sexually transmitted diseases (STDs) represent the largest number of reported cases, with an estimated 15 million new cases each year. About 4 million of these infections occur in adolescents. It is an unfortunate fact that the United States leads the industrialized nations in rates of many STDs. The term, sexually transmitted disease, refers not to one disease, but to over 25 different infections that are transmitted through sexual activity. All sexually active persons have the potential to be exposed to these infections, but women are more likely than men to suffer more serious complications. In the United States, African-Americans and Hispanics have higher rates of STDs than whites. Furthermore, STDs in general increase risk for HIV transmission. In addition to STDs, there are concerns about emerging and reemerging communicable diseases such as tuberculosis. This section highlights four major reportable infectious diseases, which includes tuberculosis, and the STDs chlamydia, syphilis and HIV/AIDS.

# 1998-2002 Average Annual Rate of Tuberculosis per 100,000 Population

Community Tuberculosis Incidence Rate Trend



Adams County	2.2	<b>State of Ohio</b> 2.6
Brown County	1.4	
Butler County	2.2	
Clermont County	0.9	
Clinton County	2.5	
Hamilton County	2.7	
Highland County	0.0	
Warren County	0.6	

Dearborn County	N/A*	<b>State of Indiana</b> 2.1
Ripley County	N/A*	

Boone County	2.1	<b>State of Kentucky</b> 4.5
Campbell County	2.1	
Grant County	4.5	
Kenton County	2.4	

**United States**  
4.6

**Healthy People 2010 Goal**  
1.0

**Notes:**

\*N/A: Counties could not be reported because annual number of cases was 5 or less. Small numbers create unstable rates that should be interpreted with caution.

The Healthy People 2010 goal is derived from Objective 14.11.

**Sources:**

Ohio Department of Health, Indiana State Department of Health, Kentucky Department of Public Health, Centers for Disease Control

# Tuberculosis

## Background

Tuberculosis is an infection caused by the inhalation of airborne *Mycobacteria tuberculosis* organisms. Individuals with a *tuberculosis infection* house the bacterium in a dormant state within their lungs, but their healthy immune system prevents them from becoming sick or spreading the infection to others. Individuals with *tuberculosis disease* are individuals that are not able to suppress the tuberculosis infection, whether from recent exposure or from harboring bacteria from past exposure. They become ill with symptoms such as productive or bloody cough, night sweats, fever, unexplained loss of weight and/or malaise, and are considered to be contagious. The data provided here are the incidence of the active tuberculosis disease, but most individuals who get the tuberculosis infection do not develop into this active disease.

In most areas of the United States, 1996 and later years have shown persistent improvements in the incidence of tuberculosis disease, due primarily to the shift of resources back into tuberculosis control and improved medical care of the HIV/AIDS population.

## Key Findings

Although most Tristate counties have lower rates than their corresponding state, most of the counties in the Greater Cincinnati area have not reached the Healthy People 2010 goal of only 1.0 case per 100,000 population. The exceptions to this are Clermont, Highland and Warren counties in Ohio. Grant County had the highest rate with 4.5 cases per 100,000 population on average for the five years; this rate is also the rate for the state of Kentucky, and similar to the U.S. rate of 4.6. The state rates of Ohio (2.6) and Indiana (2.1) are both lower than the Kentucky rate and the U.S. rate.

## Discussion

It is important to look at the local tuberculosis case rates with some caution. The small absolute numbers of tuberculosis cases can lead to large changes in rates from one year to the next that may not truly reflect changes in the amount of infection in the community. It is more accurate to look at trends over several years.

Since about 1950, the number of tuberculosis cases had been generally declining in the United States. During the late 1980s, this downward trend reversed. The extreme susceptibility of the HIV infected population to tuberculosis and decreased funding to health departments for tuberculosis control were major contributors to this resurgence of tuberculosis numbers.

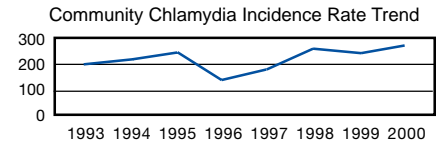
Dangerous MDR strains (multiple drug resistant) strains of tuberculosis have also emerged, presenting new challenges to caregivers. MDR strains do not respond to current treatments and medications available.

In 1993, the World Health Organization declared tuberculosis a global emergency. Two million people die each year from tuberculosis. Throughout the developing world, tuberculosis is a leading cause of death from infection. Locally, a considerable percentage of cases occur among the foreign-born population that were infected when they arrived. In this age when international travel is commonplace (particularly with an international airport located in the area) Greater Cincinnati cannot afford to lessen the tuberculosis efforts without taking into account the global situation.

A large percentage of the tuberculosis cases occur among homeless men. This fact indicates not only the need to continue to support public health tuberculosis control programs, but also a need to address the socioeconomic factors that lead to development of this population.

The emergence of a population of highly vulnerable individuals, the HIV-infected, played a major role in the re-emergence of tuberculosis as a major public health concern in the country. Prevention, diagnosis and treatment of HIV infection remain an important component of any effort to control tuberculosis infections.

# 1996-2000 Average Annual Rate of Chlamydia per 100,000 Population



<b>Adams County</b>	<b>44.6</b>	<b>State of Ohio</b> <b>234.1</b>
<b>Brown County</b>	<b>118.7</b>	
<b>Butler County</b>	<b>159.6</b>	
<b>Clermont County</b>	<b>75.1</b>	
<b>Clinton County</b>	<b>164.3</b>	
<b>Hamilton County</b>	<b>425.7</b>	
<b>Highland County</b>	<b>81.2</b>	
<b>Warren County</b>	<b>57.7</b>	

<b>Dearborn County</b>	<b>57.3</b>	<b>State of Indiana</b> <b>189.6</b>
<b>Ripley County</b>	<b>52.0</b>	

<b>Boone County</b>	<b>122.7</b>	<b>State of Kentucky</b> <b>174.5</b>
<b>Campbell County</b>	<b>166.2</b>	
<b>Grant County</b>	<b>118.4</b>	
<b>Kenton County</b>	<b>221.8</b>	

**United States**  
242.1

**Healthy People 2010 Goal**  
N/A

**Note:**  
A Healthy People 2010 goal was not available for this indicator.

**Sources:**  
Ohio Department of Health, Indiana State Department of Health, Kentucky Department of Public Health, United States Division of STD Prevention, Centers for Disease Control

# Chlamydia

## Background

Chlamydia, which may have a severe impact on reproductive health, is the most common bacterial sexual transmitted disease (STD) in the United States. Under-reporting of chlamydia infections is believed to be considerable. It is estimated that about 3 million new cases occur in the United States each year. Only about 520,000 are reported. Chlamydia infections can easily go undetected, untreated and unreported. Approximately 85 percent of infected women and 40 percent of infected men will have no symptoms whatsoever. Complications of this infection, whether left untreated, or treated late or inadequately, include pelvic infections, infertility, ectopic pregnancy and chronic pelvic pain. Recent research indicates that chlamydia infections may contribute to risk for cervical cancer.

## Key Findings

Rates for chlamydia in our community in general tend to be lower than both the corresponding state rates and the national rate, with two notable exceptions. The rate in Hamilton County (425.7) exceeds both the state (234.1) and national rates (242.1); and the rate of chlamydia in Kenton County (221.8) exceeds the Kentucky state rate (174.5). Adams (44.6), Ripley (52.0), Dearborn (57.3), and Warren (57.7) counties have the lowest rates in the region.

## Discussion

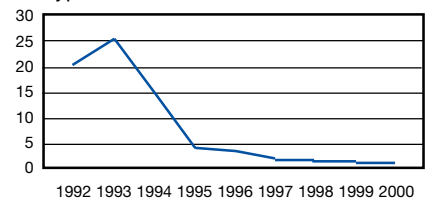
It is important to take into account several factors in assessing trends in sexually transmitted infection rates. Under-reporting, the prevalence of screening programs, and the implied stigma of an STD diagnosis all impact rates. Increased screening can cause a rise in rates due to increased case finding. Avoidance of stigma can lead to inaccurate diagnostic labeling, under-reporting and thus falsely low rates. Chlamydia became a nationally notifiable disease only in 1994, and it usually takes some time before there is compliance in reporting the numbers.

Chlamydia genital infections are eminently treatable, in most cases, with a single dose of antibiotics.

However, because of the frequency of cases with no symptoms, it takes generalized screening of at-risk populations in order to find these cases and subsequently treat these individuals and their exposed partners. Improving rapid diagnostic techniques for detection of chlamydia and other STDs make such screening programs simpler and more cost effective. National estimates indicate that chlamydia costs this country about \$2.4 billion per year. It has been further estimated that every one dollar spent on early detection would save 12 dollars in complication-associated costs.

# 1996-2000 Average Annual Rate of Primary and Secondary Syphilis per 100,000 Population

Community Primary/Secondary Syphilis Incidence Rate Trend



Adams County	0.0	State of Ohio	1.8
Brown County	1.9		
Butler County	0.6		
Clermont County	0.4		
Clinton County	0.5		
Hamilton County	3.4		
Highland County	0.0		
Warren County	0.4		

Dearborn County	0.0	State of Indiana	7.5
Ripley County	0.0		

Boone County	0.0	State of Kentucky	2.6
Campbell County	0.0		
Grant County	0.0		
Kenton County	0.2		

United States	2.8
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Healthy People 2010 Goal	0.2
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**Note:**  
Small numbers create unstable rates that should be interpreted with caution.

The Healthy People 2010 goal is derived from Objective 25.3.

**Sources:**  
Ohio Department of Health, Indiana State Department of Health, Kentucky Department of Public Health, United States Division of STD Prevention, Centers for Disease Control

# Syphilis

## Background

Syphilis is a sexually transmitted disease. The first indication of the infection is the development of lesions that occur on the genital area, and transmission of the disease is through contact with the bacterial organisms present in these lesions. If untreated, the disease can affect other parts of the body over time, including the heart and central nervous system. The incidence of syphilis is the result of high-risk sexual behavior that is often associated with illegal drug use. For this reason, outbreaks most often occur in urban areas. The last major outbreak of syphilis in the Tristate area occurred in 1993-1994 with declining numbers in 1995, 1996 and 1997.

## Key Findings

The numbers of cases have remained at a very low level in the Tristate area since 1998, and even in the urban areas within the region, including Hamilton and Kenton counties, the rates are approaching the Healthy People 2010 Goal of 0.2 cases per 100,000 population.

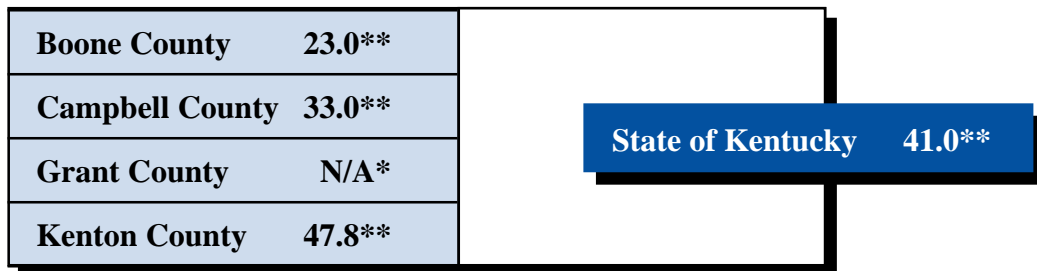
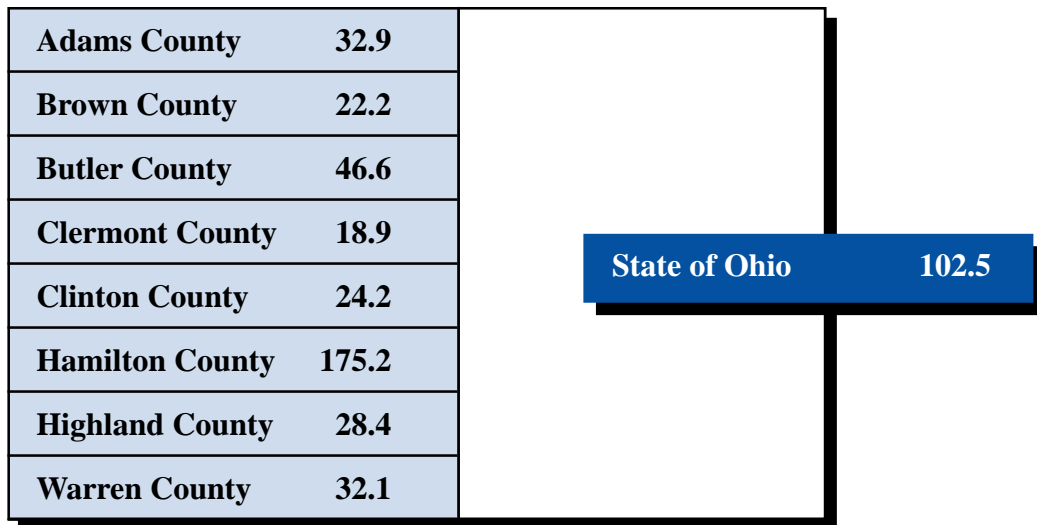
Hamilton County (3.4) has the highest rate of syphilis in the Tristate region, and is the only area county that exceeds the U.S. rate of 2.8 cases per 100,000 population. Hamilton County's higher infection rate can mostly be attributed to the tail end of the early 1990s outbreak. As a result of public health efforts, recent years have seen much-improved rates.

## Discussion

Epidemiological studies conducted by the Centers for Disease Control and Prevention (CDC) indicated a strong correlation between the increase in syphilis that occurred in Cincinnati in 1993-1994 and the sale and/or trade of sex for crack cocaine. The local outbreak was brought under control by intensive case finding, contact tracing and treatment efforts carried out by public health agencies.

This disease is effectively treated by the use of penicillin, and there remains a low incidence in major urban areas. To control the disease into the future, aggressive diagnosis and treatment is necessary to prevent further transmission, which can increase rapidly in high-risk populations. The same prevention efforts that are targeted at HIV/AIDS are needed for syphilis because it is transmitted by the same high-risk sexual practices. In addition, work to reduce the sale and use of illegal drugs can directly decrease the future outbreaks of this disease.

# 1998–2002 Average Annual Rate of People Living with HIV/AIDS per 100,000 Population



**Notes:**

\*N/A: Counties could not be reported because annual number of cases was 5 or less

Small numbers create unstable rates that should be interpreted with caution.

For United States, Ohio and Indiana: People living with AIDS also include those diagnosed and living with HIV.

\*\*For Kentucky: People living with AIDS statistic does not include those with HIV, just those with full-blown AIDS

United States data is a five- year average of 1996-2000.

A Healthy People 2010 goal was not available for this indicator.

**Sources:**

Ohio Department of Health, Indiana State Department of Health, Kentucky Department of Public Health, United States Division of STD Prevention, Centers for Disease Control

# AIDS

## Background

AIDS is caused by infection with the Human Immunodeficiency Virus (HIV) that is spread by contact with blood or bodily fluids of infected persons. This indicator was changed from the Average Annual Rate of AIDS per 100,000 Population used in the 2000 Indicators Report to the Average Annual Rate of People Living with HIV/AIDS per 100,000 Population in the 2003 Report to reflect the change in the way statistics are being reported by public health agencies. This change was made to reflect the ongoing need for prevention, treatment and care services for HIV-infected persons.

Since the mid-to-late 1990's, effective drug treatments have led to dramatic declines in the progression of HIV infection to AIDS and AIDS deaths. However, in recent years, the decline for both cases and deaths began to slow, and the annual number of AIDS cases appears to be increasing; the number of people living with AIDS in the United States increased from 274,624 in 1998 to 322,865 in 2000. Unfortunately, between 800,000 and 900,000 people are currently infected with HIV in the United States, with approximately 40,000 new infections occurring in the United States every year.

The demographics are also changing with an increasing and disproportionate number of African-Americans and Hispanics affected; estimates of annual new infections by race include 54 percent African-American, 26 percent White, 19 percent Hispanic and 1 percent other groups. HIV/AIDS is the leading cause of death for African-American men between the ages of 25-44 and the third leading cause for African-American women in this same age group. In addition, there is evidence that high risk behaviors are increasing among young people leading to higher infection rates.

Male-to-male sexual contact remains the highest risk factor for males, and injection drug use is associated with a high percentage of both male and female cases. High-risk heterosexual activity is associated with an increasing number of new cases across all demographic categories.

On a positive note, the United States has seen a dramatic decline in mother-to-child, or perinatal, HIV transmission with voluntary testing of pregnant women for HIV and preventive treatment provided during pregnancy and delivery, and for the infant after birth.

## Key Findings

The majority of HIV and AIDS cases are in urban areas as reflected in the finding that Hamilton and Kenton counties are the only counties with rates that exceed those of their respective states. Ripley in Indiana and Grant in Kentucky continue to have very low numbers of cases, but in general, there are an increasing number of people living with HIV/AIDS across the region.

## Discussion

The number of people living with HIV infection and/or AIDS is growing. The increased incidence of HIV means that more prevention efforts are needed, not fewer. Past prevention efforts have resulted in behavior change for many individuals and have helped slow the epidemic, but recent studies have found that high-risk sexual behaviors are continuing at far too high a rate, especially in younger populations.

Unfortunately, many people view the effectiveness of the antiviral therapies as a "cure" for AIDS with less need to be diligent about prevention. The lack of a cure must be stressed to overcome complacency in HIV prevention. The facts are that the long-term effectiveness of these therapies is unknown and that those infected with HIV must continuously take these drugs for the rest of their life in order to prevent the onset of AIDS; the drugs do not eliminate the virus but keep the infection from progressing. In some cases, HIV has developed resistance to the drugs, especially in instances where the individual is inconsistent in taking the drugs or has stopped the therapy for a period of time. In addition, some people are forced to stop taking the drugs because of intolerable side effects.

Continued on next page

## **AIDS (continued)**

Prevention and education efforts must continue. Transmission of HIV can be prevented by consistently avoiding high-risk sexual behaviors and/or shared needles for use of illegal drugs. Also, persons at risk should obtain a screening test to determine if they are infected with HIV in order to obtain early therapy to prevent progression to AIDS. Prevention efforts must be tailored to the changing groups being disproportionately affected such as minority populations and young people.

The increasing numbers of people living with HIV/AIDS will also result in increasing costs for therapies and significant economic impact into the future.



# Health Services Utilization

How people utilize health services depends on many different factors including whether a person has health insurance coverage, whether individuals can afford any out-of-pocket costs associated with their care, and whether the care is geographically accessible. Some medical services could be avoided if individuals sought care before a condition becomes serious enough to require hospitalization. This section of the report explores how residents of the Tristate regard the cost, availability and quality of local health care services, including the 8.6 percent of individuals reporting having no health insurance. The 7.9 percent of annual hospital visits that can be classified as “avoidable” are also noted, in addition to the primary reasons for hospitalization in our community.

# Percent Satisfied With Quality of Care\*

Adams County	74.8	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <b>State of Ohio</b>      <b>N/A</b> </div>
Brown County	88.3	
Butler County	91.6	
Clermont County	77.4	
Clinton County	87.6	
Hamilton County	88.3	
Highland County	85.5	
Warren County	90.7	

Dearborn County	82.3	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <b>State of Indiana</b>      <b>N/A</b> </div>
Ripley County	91.2	

Boone County	88.4	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <b>State of Kentucky</b>      <b>N/A</b> </div>
Campbell County	87.1	
Grant County	82.1	
Kenton County	82.0	

**14-County Area**  
87.2

**United States**  
N/A

**Healthy People 2010 Goal**  
N/A

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

\*Percent who answered “very satisfied” or “fairly well satisfied” with the availability of health care when they need it.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Percent Satisfied With Quality of Care

## Background

Percent Satisfied with Quality of Care is an indicator of the extent to which community residents feel that the health care system is meeting expectations for services. It may measure not only the technical aspects of the care received, but also the interpersonal relationships between patient and provider. Non-health professionals often define quality from the perspective of the care process, the outcomes of care, and the structure and operation of the health care provider. Therefore, this indicator may be reflective of what residents experience themselves as well as the experiences of their family members, friends and other acquaintances. In addition, resident perceptions of quality may be influenced by what they read, see on television or hear on the radio.

## Key Findings

Based on the 1999 and 2002 Community Health Status Surveys, approximately 87 percent of adults in the 14-county Greater Cincinnati area are fairly well or very satisfied with the health care they receive when asked to think of all their health care needs, not just their family doctor. The level of satisfaction with the quality of care in the Greater Cincinnati area did not appear to change significantly between 1999 and 2002. Also, the percent of satisfied adults is the same as that found in a similar survey in 1996.

Butler, Ripley and Warren counties have the highest percentage of adults who are satisfied with the health care they receive (91 percent), while Adams and Clermont counties have the lowest percentages (75 percent and 77 percent, respectively). Comparable data are not available on a state or national basis.

## Discussion

The finding that the vast majority of area residents are satisfied with the quality of care they receive is a positive reflection on the health care services provided in the Greater Cincinnati community. Efforts should continue to promote the quality of the area's health care services.

However, 13 percent of area residents are not too or not at all satisfied with the care they receive. Low levels of satisfaction tend to be most strongly associated with adults with low income and lack of health care coverage at some time in the past year. These persons tend to have the most problems accessing health care services and navigating the health care system. Often they feel that they do not receive personal, empathetic care and are not really wanted as patients.

Improvement efforts based on this indicator need to begin with a clear understanding of the definition of quality used by various subgroups of area residents as well as of the sources for their perceptions of the quality of health services. Particular attention should be given to the poor to understand not only their perspectives regarding quality of care, but also their interactions with the health care system. Because patients tend to focus less on the non-technical aspects of the care received, and more on the interpersonal relationships with their health care provider, improvement efforts within the community should continue to strive to provide the most effective and efficient care possible to all area residents in a personable, empathetic manner.

# Percent Satisfied With Availability of Care

Adams County	77.1	<table border="1"> <tr> <td>State of Ohio</td> <td>N/A</td> </tr> </table>	State of Ohio	N/A
State of Ohio	N/A			
Brown County	81.5			
Butler County	85.5			
Clermont County	80.1			
Clinton County	86.8			
Hamilton County	83.6			
Highland County	76.4			
Warren County	74.6			

Dearborn County	78.3	<table border="1"> <tr> <td>State of Indiana</td> <td>N/A</td> </tr> </table>	State of Indiana	N/A
State of Indiana	N/A			
Ripley County	91.7			

Boone County	82.8	<table border="1"> <tr> <td>State of Kentucky</td> <td>N/A</td> </tr> </table>	State of Kentucky	N/A
State of Kentucky	N/A			
Campbell County	88.1			
Grant County	81.8			
Kenton County	89.9			

**14-County Area**  
83.4

**United States**  
N/A

**Healthy People 2010 Goal**  
N/A

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

\*Percent who answered "very satisfied" or "fairly well satisfied" with the availability of health care when they need it.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Percent Satisfied With Availability of Care

## Background

Percent Satisfied with Availability of Care is an indicator of the extent to which area residents feel that health care services will be available when they need services. It may be reflective of the perceived level and nature of services that are available within the community as well as perceived access to those services when the need arises, in terms of physical proximity, convenience, affordability, ability to obtain services and other aspects of service accessibility. Resident level of satisfaction may be based on personal experiences, as well as the experiences and perceptions of family, friends and acquaintances, and may be influenced by what is read, heard or seen in the media.

## Key Findings

Based on the 1999 and 2002 Community Health Status Surveys, 83 percent of adults in the 14-county Greater Cincinnati area are fairly well or very satisfied with the availability of health care services when they need services. The level of satisfaction with the availability of health care services in the Greater Cincinnati area did not appear to change significantly between 1999 and 2002. Also, the percent of satisfied adults is similar to the 86 percent found in a similar survey in 1996.

Residents of Warren, Highland and Adams counties in Ohio are the least satisfied with the availability of health care services (75 percent, 76 percent and 78 percent, respectively). Ripley and Kenton counties have the highest percentages of adults who are satisfied with the service availability (92 percent and 90 percent, respectively). Comparable state and national data are not available.

## Discussion

The finding that a large percent of adults are satisfied with the availability of health services is a positive reflection on the area's health care delivery system. Despite the continued restructuring of the health care providers in the Greater Cincinnati area, coupled with the shortage of physician specialists, the community has continued to provide services to the vast majority of its residents.

However, 17 percent of area residents are not too or not at all satisfied with the availability of health services. Lower levels of satisfaction appear to be most strongly associated with males, larger household size, and lack of health care coverage at some time in the past year. Given job constraints, males may find it difficult to access health services when in need or may have high expectations for the health care system in terms of readily available and immediately accessible services. Larger households may experience greater difficulty accessing and coordinating care for multiple persons within the household, particularly when those persons may range in age and have different sources of care. Uninsured persons have the most problems accessing health care services and navigating the health care system. Often they feel that they do not receive personal, empathic care and are not really wanted as patients. In addition, level of dissatisfaction with the availability of health care services may vary by health system characteristics. For example, Adams and Highland counties have low numbers of physicians per capita in comparison to Ripley and Kenton counties, while Warren County lacks a hospital facility.

As with resident satisfaction with the quality of health services, improvement efforts need to begin by examining more closely the relevant dimensions of availability and the sources for satisfaction/dissatisfaction with the availability of services. This examination is needed to understand the perceived interrelationships between availability and accessibility of health services. Particular attention should be directed toward the working population of residents, who may find it difficult to access health care services before or after working hours.

# Percent Who Perceive Cost of Care To Be Reasonable\*

Adams County	50.2	
Brown County	45.2	
Butler County	58.8	
Clermont County	58.2	
Clinton County	55.4	
Hamilton County	55.1	
Highland County	44.9	
Warren County	51.7	
		State of Ohio N/A

Dearborn County	54.5	
Ripley County	55.9	
		State of Indiana N/A

Boone County	60.8	
Campbell County	50.7	
Grant County	36.7	
Kenton County	50.0	
		State of Kentucky N/A

**14-County Area**  
54.3

**United States**  
N/A

**Healthy People 2010 Goal**  
N/A

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

\*Percent who answered “very satisfied” or “fairly well satisfied” with the availability of health care when they need it.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results

# Percent That Perceive Cost of Care To Be Reasonable

## Background

Percent that Perceive Cost of Care to be Reasonable is an indicator of the extent to which area residents perceive the dollar amount required to obtain health care services to be an appropriate price to pay for those services. It may reflect not only what residents pay out-of-pocket for services, in terms of copayments, deductibles or full-price payments, but also the cost of their health insurance premiums. Resident perceptions may be a reaction to what the total bill is for services received, regardless of what they actually pay, as well as published fee schedules or rates. These perceptions may be based on personal experiences and/or the experiences and perceptions of family members, friends and acquaintances and may be dependent on what is read, heard or seen in the media, provided from employers, or obtained through other sources such as labor unions and other professional organizations.

## Key Findings

Based on the 1999 and 2002 Community Health Status Surveys, approximately 54 percent of adults in the 14-county Greater Cincinnati area feel that the cost of the health care they receive is reasonable. However, there was a significant decrease between 1999 and 2002 in the percent of area adults who consider the cost of health care services to be reasonable (57 percent in 1999 vs. 50 percent in 2002). A similar survey in 1996 found that 51 percent of area adults felt that the cost of the health care services they receive is reasonable.

Counties that have less than a majority of residents who feel that the cost of the health care they receive is reasonable include: Grant (37 percent), Highland (45 percent), and Brown (45 percent). Boone County has the highest percent of adults who consider the cost to be reasonable (61 percent), followed by Butler (59 percent) and Clermont (58 percent) counties.

## Discussion

In light of the fact that perceived cost of health care can be a major barrier to accessing health care services, it is important to note that a lesser percent-

age of area residents feel that the cost of health care is reasonable in 2002 as compared to 1999. This substantial change in perception about the cost of care may be due to several factors, including a weaker economy and the associated higher unemployment rate, lower standard of living, and workers assuming a greater proportion of health care benefits and costs. Given the strong economic development that is occurring in Boone, Butler and Clermont counties coupled with the fact that rural counties in the area, such as Grant, Highland and Brown, may be impacted more by a weaker economy may explain the differences in perceptions between rural residents and the residents of the suburban counties. However, Adams and Warren counties have similar percentages of residents that feel that the cost of health care is reasonable despite the economic differences in these two counties.

However, a sizeable proportion of the population, almost half, feel that costs are still unreasonable. These persons tend to be in the middle age group (age 25-54) with a high school education or less. Also, adults without health insurance coverage, either currently or in the past year, are more likely to feel that costs are unreasonable. This population tends to be a working population, which is typically in a high debt load situation due to auto and housing financial needs. Education level may restrict job/salary level opportunities as well as insurance coverage options that result in the cost of health care services being a greater financial burden.

Without moving to a universal system of coverage with no or minimal financial contribution earmarked specifically for health care services, there will continue to exist a sizeable proportion of the population who will perceive the cost of health care services to be unreasonable, just as they do for other essential services such as food, housing, clothing and education. Providers and insurers have the responsibility to ensure that costs are kept reasonable and equitable. In addition, providers and insurers must realize that they are accountable to the customers of their services, that they need to educate their customers and general public regarding the nature of health care costs, and that they must provide assurances that they are in fact good stewards of the public's financial resources.

# Percent Uninsured\*

Adams County	15.5	
Brown County	9.0	
Butler County	7.9	
Clermont County	8.4	
Clinton County	5.6	
Hamilton County	9.1	
Highland County	11.4	
Warren County	13.4	
		State of Ohio 11.1

Dearborn County	4.6	
Ripley County	4.6	
		State of Indiana 13.7

Boone County	5.4	
Campbell County	0.8	
Grant County	7.3	
Kenton County	9.1	
		State of Kentucky 15.1

**14-County Area**  
8.6

**United States**  
13.3

**Healthy People 2010 Goal**  
N/A

**Notes:**

Percents are based on the 1999 and 2002 data combined, even though there may have been significant changes in the individual year percents between 1999 and 2002.

Benchmarks are from the 2001 Behavior Risk Factor Surveillance System Trends Data Set.

\*Percent of adults who did not have any health insurance or health care coverage at time of survey.

**Sources:**

1999 Community Health Status Survey Results & 2002 Community Health Status Survey Results  
2001 Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion

# Percent Uninsured

## Background

Percent Uninsured is an indicator of the extent to which community residents have any type of health insurance that provides at least some coverage of the costs of health care services. Health insurance coverage is an important determinant of access to health care. Persons without health insurance coverage are less likely to have a usual source of care, more likely to report an unmet need for health care and less likely to receive preventive services.

Because of Medicare coverage, the issue of having no insurance coverage is most relevant to persons under age 65. People 18 to 24 years old are more likely than other age groups to lack insurance coverage. Poor and near-poor adults are much more likely to be uninsured than those with higher incomes regardless of race, ethnicity or gender. The likelihood of being uninsured declines as the level of education rises. Part-time workers have higher non-coverage rates than full-time workers. Men are more likely to be uninsured than women.

There are different definitions of uninsured. A person may be uninsured at some time during a particular time period, such as a year; may be uninsured for the entire time period; or, may be uninsured at a given point in time. The Percent Uninsured indicator in this report is based on the latter definition; i.e., whether the person is currently without health insurance coverage.

## Key Findings

Based on the results of the 1999 and 2002 Community Health Status Surveys, approximately 9 percent of adults in the 14-county Greater Cincinnati area are currently uninsured. Although the percent of currently uninsured adults in the area has increased from 7.9 percent in 1999 to 9.6 percent in 2002, the increase is not statistically significant.

The percent uninsured in the Greater Cincinnati area varies by poverty status. Approximately 23 percent of persons below 100 percent of the federal poverty level are currently uninsured as compared to 6 percent above the poverty level.

Adams, Warren and Highland counties have the highest rates of currently uninsured residents, while Campbell County has the lowest percent. The area's rate is less than state and national benchmarks.

## Discussion

As with the nation, the percentage of uninsured in the Greater Cincinnati community has remained relatively constant during the past six years, fluctuating between 8 and 10 percent. Given that the population in the Greater Cincinnati area has remained fairly stable with only modest growth, the fairly constant rate of currently uninsured suggests that the actual number of uninsured persons may have remained the same or increased slightly. This assumes that any changes in the population have been the same for all population subgroups. If population growth occurred among those subgroups that would typically have health insurance coverage, such as the full-time employed or the elderly, the actual number of uninsured may have actually increased. This would be consistent with the reports from safety-net providers in the Greater Cincinnati area of substantial increases in the number of uninsured users of services in the past few years.

Regardless of the trend in the number of uninsured, the Greater Cincinnati community does have a sizable number of adults, roughly 139,000, who at a given point in time are without health insurance coverage. This does not include the unknown number of adults who have inadequate health insurance coverage or the number of children without any or with inadequate health insurance coverage. This number continues to stress the area's health care delivery system in terms of unreimbursed services in an era of tightly managed costs. Steps to reduce the number and percent of adults without health insurance coverage in the Greater Cincinnati area require a careful examination of the underlying causes of uninsurance, which is a multifaceted societal issue involving education, employment and poverty. In the absence of some form of universal health insurance coverage, efforts need to be taken to ensure that the uninsured have, and feel that they have, access to timely and appropriate health care services.

## 2001–2002 Potentially Avoidable Hospitalizations for Persons Less than Age 65\*

CONDITION	Number of Admissions	
	2001	2002
Pneumonia	3,471	3,477
Asthma	2,012	1,946
Congestive heart failure	2,037	2,114
Cellulitis	1,744	1,871
Pyelonephritis	746	701
Diabetes	954	1,023
Ruptured appendix	462	494
Perforated or bleeding ulcer	327	309
Malignant hypertension	163	130
Hypokalemia	89	83
Immunizable condition	37	35
Gangrene	15	16
<b>TOTAL</b>	<b>12,057</b>	<b>12,199</b>
<b>% of total hospitalizations</b>	<b>7.9%</b>	<b>7.8%</b>

**Notes:**

\*Potentially avoidable hospitalizations are viewed as those conditions for which hospitalization can often be avoided if timely and effective ambulatory care is provided.

See index for list of hospitals included.

**Source:**

Greater Cincinnati Health Council Hospital Utilization Study

# Potentially Avoidable Hospitalizations

## Background

Potentially avoidable hospitalizations are hospital stays for conditions that may be preventable with appropriate and timely ambulatory care. This indicator is used as both a measure of ambulatory care effectiveness and a measure of access. Persons who delay or do not receive needed ambulatory care may become seriously ill and require hospitalization. However, if the patient's condition is timely diagnosed and effectively managed in the ambulatory setting, there may be no need to hospitalize the patient. Avoidance of a hospitalization requires not only appropriate actions on the part of the physician, but also responsibility on the part of the patient to seek out health services in the early stages of the disease and not delay seeking care until the condition requires hospitalization. Thus, ambulatory care services must be readily accessible to the patient.

The actual underlying reasons for an avoidable hospitalization are often difficult to identify. Previous studies have found that the rate of avoidable hospitalizations is inversely associated with the median income of the patient's area of residence, e.g. the rate of avoidable hospitalizations is higher among people living in low-income areas. Also, the avoidable hospitalization rate is reported to be higher for African-American persons than for white persons, with this racial difference being greatest for residents of low-income areas.

## Key Findings

According to the Greater Cincinnati Health Council Hospital Utilization Study, almost 8 percent of area hospitalizations of persons under age 65 in 2001-2002 were considered potentially avoidable. This was substantially lower than the national rate of 9.4 percent. In Greater Cincinnati and nationally, pneumonia, asthma, and congestive heart failure account for about two-thirds of the potentially avoidable hospitalizations of persons under age 65.

The percent of avoidable hospitalizations was slightly higher in 2001-2002 than in 1997-1998 (7.9 percent vs. 7.0 percent), with substantially greater

numbers of avoidable hospitalizations across the two year time periods for congestive heart failure (4,151 vs. 3,451), cellulitis (3,615 vs. 2,856), and diabetes (1,977 vs. 1,446). However, there were fewer avoidable hospitalizations for the two major categories, asthma (3,958 vs. 5,033) and pneumonia (6,948 vs. 7,353).

## Discussion

While it is encouraging that the Greater Cincinnati area has a lower percentage of total hospitalizations that are considered to be potentially avoidable relative to the entire nation, over 12,000 area hospitalizations were considered potentially avoidable in 2001-2002. A closer examination needs to be conducted to assess whether the avoidable hospitalizations were in fact necessary in light of the patient's help-seeking behaviors and the management of the patient in the ambulatory care settings. If any of these hospitalizations might be considered unnecessary, further study needs to be conducted to assess whether the underlying reasons relate to issues of access, physician practice patterns, or a combination of the two. Based on this further investigation, appropriate strategies can be implemented to reduce the number of potentially avoidable hospitalizations.

Consistent with national trends, the number and percent of avoidable hospitalizations increased slightly since 1997-1998. While the number of avoidable hospitalizations locally declined between 1997-1998 and 2001-2002 in the two most prevalent conditions, pneumonia and asthma, substantial increases occurred for congestive heart failure as well as cellulitis and diabetes.

Improvement efforts should initially focus on the three most prevalent avoidable hospitalization conditions - pneumonia, asthma, and congestive heart failure. While these conditions account for smaller percentages of the area's total hospitalizations than they do nationally, they represent approximately two-thirds of the area's potentially avoidable hospitalizations. Particular attention should be given to congestive heart failure, which had a 20 percent increase in avoidable hospitalizations since 1997-1998.

# 2001 Discharge Rates per 10,000 Population by Primary Diagnosis

CATEGORY OF PRIMARY DIAGNOSIS	TRISTATE RATE	U.S. RATE
Diseases of the circulatory system	215.1	219.5
Disease of the respiratory system	116.7	121.3
Diseases of the digestive system	104.3	116.3
Mental disorders	89.6	83.2
Injury and poisoning	81.8	92.1
Symptoms, signs, and ill-defined conditions	75.9	8.7
Diseases of the genitourinary system	65.3	63.1
Neoplasms	59.9	57.9
Diseases of the musculoskeletal system and connective tissue	58.6	56.5
Endocrine, nutritional and metabolic diseases (including diabetes)	39.8	55.1
Infectious and parasitic diseases	25.5	29.7
Diseases of the nervous system and sense organs	16.2	17.4
Diseases of the skin and subcutaneous tissue	16.0	20.2
Diseases of the blood and blood-forming organs	11.8	14.2
Congenital anomalies	6.3	7.3

**Notes:**

See Index for more detailed discharge rates within each category.

**Source:**

Greater Cincinnati Health Council Hospital Utilization Study

# Discharge Rates By Primary Diagnosis

## Background

Discharge Rates per 10,000 Population by Primary Diagnosis is an indicator of the types of medical problems for which area residents are being hospitalized. Assuming this demand for inpatient hospital services is a proxy measure of the need for services, discharge rates can be an indicator of community health needs. However, previous research has consistently demonstrated that there is substantial variation in hospitalization rates across communities due to not only the health needs of the community, but also physician practice style.

The discharge rates are based only on the primary diagnosis and do not take into consideration any secondary diagnoses that may also be present at time of hospitalization. Variation in coding practices within and among hospitals may affect which disease category is determined to be the primary diagnosis. Thus, the discharge rates may not be an accurate representation of disease prevalence associated with hospitalization and/or within the community.

## Key Findings

For 10 of the 15 major primary diagnostic categories, the Greater Cincinnati area had lower hospital discharge rates per 10,000 population in 2001 than the nation. In particular, the local area had substantially lower discharge rates for endocrine, nutritional and metabolic diseases; diseases of the digestive system; and injury and poisoning. On the other hand, the local discharge rates were substantially higher than national rates for symptoms, signs and ill-defined conditions.

Diseases of the circulatory system were the most frequent reasons for hospitalization in the area in 2001, as well as nationally, with heart disease being the most prevalent condition within this disease category. The discharge rate for the overall category were slightly less than the national rate, while the rates for heart disease were the same. Diseases of the respiratory system (predominantly pneumonia) were the second most frequent reasons for hospitalization locally and nationally.

With the exception of diseases of the respiratory system, mental disorders, and infectious and parasitic diseases, the Greater Cincinnati hospital discharge rates in 2001 were higher than they were in 1997. In particular, substantial increases in discharge rates occurred for symptoms, signs and ill-defined conditions; injury and poisoning; and diseases of the digestive system. Nationally, discharge rates increased for diseases of the digestive system and decreased for injury and poisoning as well as symptoms, signs and ill-defined conditions.

## Discussion

Relative to the nation, the Greater Cincinnati area performed well in terms of hospital discharges per 10,000 population for the vast majority of diseases in 2001. There are several possible reasons for this finding. First, the local community may be healthier than the nation on average, thus requiring less hospitalization. Second, community residents may be seeking care earlier for potential problems and/or the medical community may be identifying and treating potential problems earlier, thus avoiding the need for hospitalization. Third, physicians may be more effectively using alternative settings, such as outpatient clinics and emergency rooms, rather than inpatient hospital services. This may be in response to the community-wide effort that has been occurring for the past decade by area hospitals, employers, third-party payers and physicians via the Health Improvement Collaborative to closely monitor and evaluate hospital utilization. Fourth, there may be some confounding due to potential disease coding practices. Improvement efforts directed towards hospital discharge rates must first gain a better understanding of the diagnosis specification and coding practices within the community.

However, the gaps in discharge rates between the Greater Cincinnati area and the nation appear to be closing. This is due primarily to the fact that national discharge rates for a number of the major diagnoses have in general decreased in the past years, while the local discharge rates have tended to increase.

Continued on next page

## **Discharge Rates** (continued)

As with the entire nation, diseases of the circulatory system, in particular heart disease, are the most frequent reasons for hospitalization in the Greater Cincinnati area. These diseases, which are also the leading causes of death locally and nationally, are strongly related to lifestyle. Unhealthy habits such as smoking, lack of exercise, high fat/cholesterol diet, obesity and stress have been shown to result in circulatory system related morbidity and mortality. Improvements in this area need to focus on community-wide efforts to modify residents' lifestyles.

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# Mortality

Mortality data assist health officials in identifying those at high risk of certain diseases and in planning prevention programs. Cardiovascular disease (including heart disease and stroke) and cancer continue to be the leading causes of death for Tristate residents. Other areas of high mortality are also examined in this section. The mortality rates are age-adjusted, which enables counties with dissimilar age stratifications to be compared meaningfully over time and between groups. In the 2000 Indicators report, age adjustments were made to the 1940 population; however, to better reflect demographic changes and to align with Healthy People 2010, the age adjustments for this report are to the 2000 population. The data from the 2000 Indicators Report (for 1992-1996) have also been re-adjusted to the 2000 population figures and are included again in this report to allow for comparison (see numbers in parentheses in the charts).

# 1994–1998 Average Annual Age-Adjusted Mortality Rate (All Causes) per 100,000 Population

	1994-1998	1992-1996*	
Adams County	1038.3	1004.0	State of Ohio 933.6
Brown County	967.0	967.6	
Butler County	894.0	898.7	
Clermont County	1003.9	1010.7	
Clinton County	918.5	932.7	
Hamilton County	935.9	950.4	
Highland County	943.3	930.5	
Warren County	972.2	888.6	

Dearborn County	880.9	904.5	State of Indiana 941.4
Ripley County	917.7	909.2	

Boone County	875.6	908.9	State of Kentucky 1012.7
Campbell County	1003.4	1020.8	
Grant County	1082.2	1065.5	
Kenton County	958.9	976.0	

**United States**  
881.9

**Healthy People 2010 Goal**  
N/A

**Notes:**

ICD-9 codes 000.0-999.8 were used for this indicator.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

There is no Healthy People 2010 goal for this indicator.

**Source:**

Centers for Disease Control: CDC Wonder

# Overall Mortality

## Background

Currently in the United States, there is a trend towards lower mortality rates. Death rates are falling at every stage of life and for many diseases. Recent data show 30 percent of deaths due to heart disease, 23 percent due to cancer, 7 percent due to stroke, 5 percent due to chronic respiratory diseases, 4 percent due to accidents and 3 percent each due to diabetes and to influenza and pneumonia. The other quarter of all deaths are due to many different causes. Life expectancy is now 76.9 years, with women living on average about 5 years longer than men.

Mortality information can be employed to suggest preventive measures that can be used to postpone death. Improvements in medical treatment can be evaluated by reductions in the death rate. Thus an international system has been created to track the cause of death in a standardized manner so that trends in mortality rates can be ascertained. Since the average age of the population changes, getting older in the last decade, statistical techniques have been developed to eliminate age differences as a cause of variation. Data that are “age-adjusted” have had changes in the age structure removed from the statistics so an alternative explanation is necessary (if the comparison is adjusted to the same base year). Recent data including the data shown here have been age adjusted to the U.S. population in the year 2000.

## Key Findings

The states of Ohio, Kentucky and Indiana were all above the national average rate of 881.9 per 100,000 (age adjusted to the year 2000 population). Among Ohio counties, Adams (1038.3) and Clermont (1003.9) have the highest total mortality while Butler (894.0) and Clinton (918.5) counties are the lowest. These rates are all within the usual statistical variation around the Ohio rate of 933.6. Dearborn and Ripley counties are each lower than the state of Indiana average of 941.4. Grant County is above the state average of 1012.7 while the other three counties were below.

## Discussion

Mortality data help identify where rates are higher and lower than usual and enables one to ascertain if a problem exists. Caution is required in interpreting differences since statistical variation from year to year is a major factor. These data have been age-adjusted to the year 2000 population which implies that differences in the age distributions of the counties have been eliminated from the rates. When comparing with the older statistics age-adjusted to 2000, there is little difference between the numbers with the exception of Warren County increasing to 972.2 deaths per 100,000 population in the period of 1994 to 1998 from 888.6 deaths during 1992 to 1996.

Heart disease, cancer and stroke are responsible for the most deaths and have the highest death rates. If one considers the years of life lost by the deaths, accidental deaths have the greatest contribution since so many of these deaths involve younger persons. Chronic obstructive pulmonary diseases and diabetes are the two leading causes with increasing death rates in the last decade. The downward trend in mortality rates continues but there is clearly room for much improvement through preventive medicine and effective clinical care.

# 1994–1998 Average Annual Age-Adjusted Coronary Heart Disease Mortality Rate per 100,000 Population

	1994-1998	1992- <sup>*</sup> 1996	
Adams County	245.5	261.5	State of Ohio 219.3
Brown County	208.1	216.8	
Butler County	205.4	224.5	
Clermont County	223.0	236.0	
Clinton County	217.9	230.0	
Hamilton County	216.5	237.7	
Highland County	228.9	237.5	
Warren County	197.9	199.9	
Dearborn County	194.7	222.8	State of Indiana 206.1
Ripley County	204.5	209.2	
Boone County	221.1	231.1	State of Kentucky 216.2
Campbell County	232.2	259.6	
Grant County	246.0	265.8	
Kenton County	221.9	236.0	
United States			208.3
Healthy People 2010 Goal			166.0

**Notes:**

ICD-9 codes 402; 410-414.9; 429.2 were used for this indicator.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 12.1.

**Source:**

Centers for Disease Control: CDC Wonder

# 1992–1996 Average Annual Age-Adjusted Stroke Mortality Rate per 100,000 Population

	1994-1998	1992-1996	
Adams County	65.3	61.8	State of Ohio
Brown County	64.9	63.3	
Butler County	58.9	57.4	
Clermont County	61.6	61.3	
Clinton County	61.4	73.9	
Hamilton County	61.7	59.0	
Highland County	62.1	60.8	
Warren County	67.4	71.4	
			58.8

Dearborn County	75.7	71.8	State of Indiana
Ripley County	98.6	90.2	
			67.7

Boone County	64.3	65.9	State of Kentucky
Campbell County	76.7	77.1	
Grant County	79.2	79.8	
Kenton County	57.3	57.1	
			65.7

**United States**  
59.6

**Healthy People 2010 Goal**  
48.0

**Notes:**

ICD-9 codes 430-438.9 were used for this indicator.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 12.7.

**Source:**

Centers for Disease Control: CDC Wonder

# Cardiovascular Disease Mortality

## Background

Cardiovascular disease, which includes heart disease and stroke, is the leading cause of death in the United States. Fortunately, the rates of death for each have generally been declining for some years, but the rates have improved little in the most recent years. Major improvements have been attributed to a decline in the cigarette smoking rate and to improved detection and treatment of risk factors for mortality. Control of high blood pressure, diabetes and serum cholesterol are all methods of reducing this risk. The current concerns are the increase in obesity and the lack of sufficient physical activity of many members of the community.

Although stroke continues to be the third leading cause of death in the U.S., the risk of dying from a stroke is less than half of what it was 20 years ago. This decrease can be attributed to better control of risk factors and improved treatment. Now about 950,000 Americans die of cardiovascular disease each year, which amounts to one death every 33 seconds. The risk of stroke is higher for men, African-Americans, persons with hypertension, and persons with a family history of stroke. And although heart disease and stroke are often thought to affect men and older people primarily, it is also a major killer of women and people in the prime of life.

## Key Findings

**Coronary Heart Disease Mortality:** Heart disease mortality rates for Ohio (219.3) and Kentucky (216.2) exceed the national average of 208.3 while Indiana is lower at 206.1. Three of the Ohio counties in the Greater Cincinnati area are above the state average and five are below. Both Dearborn and Ripley counties in Indiana are below the state average, and all four Kentucky counties in the area are above the state average.

**Stroke Mortality:** Stroke mortality rates in Ohio (58.8) are below the national average of 59.6, while the rates for Indiana (67.7) and Kentucky (65.7) are above the national average. All eight Ohio counties are above the state average as are the two counties in Indiana. Kenton and Boone counties fall below the Kentucky average, while Campbell and Grant are above.

## Discussion

Over the past 20 years, the death rate for heart disease has declined dramatically, but this condition still kills more Americans than any other disease and with far-reaching effects. For example, the economic effects of cardiovascular disease on the U.S. health care system grow larger as the population ages. In 2003, the cost of heart disease and stroke is projected to be \$351 billion: \$209 billion for health care expenditures and \$142 billion for lost productivity from death and disability.

The risk factors that contribute to heart disease can be modified primarily with lifestyle changes and healthy behaviors. Based on Healthy People 2010 objectives, key behavior changes to decrease mortality due to heart disease include increasing the control of high blood pressure, reducing the prevalence of high blood cholesterol, reducing obesity, reducing the prevalence of cigarette smoking, and increasing moderate physical activity. Actions that can be taken to modify the risk for stroke include more screening for elevated blood pressure, increasing blood cholesterol screenings, and the initiation of appropriate diet and/or drug therapy for those at risk.

Exercising regularly, avoiding cigarette smoke, controlling weight, and seeing a doctor for yearly check-ups to control high blood pressure and high cholesterol will reduce the chance of dying from heart disease and stroke.

The Centers for Disease Control (CDC) aims to build a nationwide program to prevent heart disease and stroke. With this program the CDC wants to reduce disparities in cardiovascular health among high-risk populations; to define geographic variations in the risk factors and the rates of illness and death associated with heart disease and stroke; to promote secondary prevention of heart disease and stroke; to increase research into heart failure and to develop interventions to prevent it; and finally, to develop and assess new methods for preventing heart disease and stroke.

# 1994–1998 Average Annual Age-Adjusted Cancer Mortality Rate per 100,000 Population

	1994-1998	1992-1996*	
Adams County	204.4	234.1	State of Ohio 215.7
Brown County	240.7	246.3	
Butler County	208.0	209.4	
Clermont County	235.0	246.7	
Clinton County	229.5	232.0	
Hamilton County	227.3	233.1	
Highland County	215.8	218.2	
Warren County	206.2	214.3	

Dearborn County	219.6	219.9	State of Indiana 217.7
Ripley County	211.8	211.4	

Boone County	202.5	211.0	State of Kentucky 227.2
Campbell County	250.6	261.2	
Grant County	254.3	246.4	
Kenton County	234.0	250.4	

**United States**  
202.4

**Healthy People 2010 Goal**  
159.9

**Notes:**

ICD-9 codes 140-208.9 were used in this indicator.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 3.1.

**Source:**

Centers for Disease Control: CDC Wonder

# Cancer Mortality

## Background

Cancer is the name given to a collection of diseases having in common out-of-control replication of abnormal cells. The cells form tumors, a collective term for either a cancerous or a non-cancerous swelling. Non-cancerous or benign tumors do not spread to other tissues (metastasis) and are generally not life-threatening (brain tumors are an important exception to this rule). Five out of every eight persons diagnosed with cancer will survive at least five years.

Different types of cancer vary in their rates of growth, patterns of spread, responses to different types of treatment, and probability of death. Cancer rates vary from region to region within the United States, which suggests geographic, environmental and cultural risk factors. The two largest causes of cancer are cigarette smoking and diet. Avoiding cigarette smoke reduces the risk. Diet has proven to be a very complex issue and optimum diet cannot be described in a few simple recommendations; however, one effective recommendation is to eat many servings of fresh fruits and vegetables.

The American Cancer Society states that over one million people develop cancer each year. Approximately one out of every two American men and one out of every three American women will have some type of cancer at some point during their lifetime. Anyone can get cancer at any age; however, about 77 percent of all cancers are diagnosed in people age 55 and older. Although cancer occurs in Americans of all racial and ethnic groups, the rate of cancer occurrence (called the incidence rate) varies from group to group.

## Key Findings

Every county in our region has a cancer rate higher than the national average of 202.4 per 100,000 population. The Ohio counties vary from 206 to 240, compared to the state rate of 215.7, with Hamilton County in the middle. In Indiana, Dearborn is above the state rate (217.7) and Ripley below. Kentucky has the highest rate of 227.2 and has one of the highest cancer mortality rates in the country. Alarming, Grant, Campbell and Kenton counties have rates even higher than the state.

## Discussion

The major preventable cause of cancer is still cigarette smoking and that is particularly the case in this region. Cancer rates are still higher in this region than other parts of the country as are cigarette smoking rates. Two or three decades ago, Hamilton County and the nearby Kentucky counties had the highest rates in the region. However, while Hamilton County rates have come down, Northern Kentucky still has excessive rates compared to state and national benchmarks.

An optimal diet is associated with lower cancer rates especially a diet high in fresh fruits and vegetables. Many other dietary issues are still to be resolved. One clear result from recent research suggests that the classic recommendation of weight control and reasonable physical exercise is helpful in the control of cancer as well as cardiovascular disease. Screening for several cancer sites will allow earlier diagnosis of cancer with the result that survival rates will likely continue to improve.

Decreasing the rate of death due to cancer takes a concerted effort among health agencies and area residents. Many cancers can be prevented through lifestyle changes, and death can be avoided by early treatment. Community awareness and prevention programs cannot be effective in reducing death due to cancer unless personal commitment is made to eliminate behaviors associated with cancer.

# 1994–1998 Average Annual Age-Adjusted Lung Cancer Mortality Rate per 100,000 Population

	1994-1998	1992-1996*	
Adams County	79.2	75.4	State of Ohio 62.9
Brown County	79.4	83.5	
Butler County	66.6	65.7	
Clermont County	83.6	82.6	
Clinton County	58.4	59.9	
Hamilton County	68.7	70.3	
Highland County	59.5	64.4	
Warren County	64.8	67.8	

Dearborn County	68.5	72.3	State of Indiana 65.7
Ripley County	74.7	68.2	

Boone County	74.7	74.1	State of Kentucky 78.5
Campbell County	80.9	79.8	
Grant County	95.1	90.0	
Kenton County	77.9	83.3	

**United States**  
57.6

**Healthy People 2010 Goal**  
44.9

**Notes:**

ICD-9 codes 162.2-162.9 were used.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 3.2.

**Source:**

Centers for Disease Control: CDC Wonder

# Lung Cancer Mortality

## Background

After increasing for 60 years, lung cancer mortality rates in the United States started to decline in men from about 1992 and have started to decline in women in the most recent data. Lung cancer has been the greatest cancer killer in men since 1957 and earned that dubious role in women in 1988 when it surpassed breast cancer. These declines should continue since the exposure to lung carcinogens, especially cigarette smoking, has dropped in recent decades.

Lung cancer is the uncontrolled growth of abnormal cells in one or both of the lungs. While normal lung tissue cells reproduce and develop into healthy lung tissue, these abnormal cells reproduce rapidly and never grow into normal lung tissue. Lumps of cancer cells (tumors) then form and disrupt the lung, making it difficult to function properly.

More than 87 percent of lung cancers are smoking-related. However, not all smokers develop lung cancer. Quitting smoking reduces an individual's risk significantly, although former smokers remain at greater risk for lung cancer than people who never smoked. Exposure to other carcinogens such as asbestos and radon gas also increases an individual's risk, especially when combined with cigarette or cigar smoking.

Exposure to secondhand smoke can also be a risk factor for lung cancer. Secondhand smoke is a mixture of the smoke given off by the burning end of a cigarette, pipe or cigar, and the smoke exhaled from the lungs of smokers. This mixture contains more than 4,000 substances, more than 40 of which are known to cause cancer in humans or animals, and many of which are strong irritants. Secondhand smoke is also called environmental tobacco smoke (ETS); exposure to secondhand smoke is called involuntary smoking, or passive smoking. Passive smoking is estimated by to cause approximately 3,000 lung cancer deaths in nonsmokers each year.

## Key Findings

Every county in this region has a higher lung cancer rate than the national average of 57.6. Kentucky at 78.5 lung cancer deaths per 100,000 population has the highest rate in the nation and is 36 percent above the national average. Grant County (95.1, or 65 percent above the national average) and Campbell (80.9, or 40 percent above the national average) further exceed the rate for Kentucky. Ripley County (74.7) exceeds the Indiana state rate of 65.7 while Dearborn is below that rate. Clermont (83.6), Brown (79.4) and Adams (79.2) counties all have rates of more than four deaths for every three deaths in the United States.

## Discussion

Lung cancer usually becomes symptomatic too late to be treated effectively. Moreover, no screening method has been shown to save lives. On the other hand, we know enough to prevent the great majority of this disease, and there are many studies under way to find a good screening tool. Regardless, those at high risk should be checked regularly. Those at high risk include men and women 60 years of age who currently smoke or have a history of smoking; persons with previous lung tumors; and persons with chronic obstructive pulmonary disease (COPD).

Cigarette smoking is the primary cause of the great majority of this disease including exposure of nonsmokers to environmental tobacco smoke. Ending cigarette smoking at any time in life reduces the mortality risk from lung cancer and other cancers and diseases. There is a concern that children's exposure to cigarette smoking — both active and passive smoking — has not been curtailed to the same degree as adults, which would create a lung cancer problem in the future. Elimination of asbestos and other occupational lung carcinogens has greatly reduced disease incidence from these sources. Current research is exploring the role of air pollution as a potential cause of lung cancer.

# 1994–1998 Average Annual Age-Adjusted Female Breast Cancer Mortality Rate per 100,000 Population

	1994-1998	1992-1996*	
Adams County	10.6	8.7	State of Ohio 18.1
Brown County	17.3	19.7	
Butler County	17.1	17.3	
Clermont County	17.3	18.9	
Clinton County	17.5	17.6	
Hamilton County	19.6	20.9	
Highland County	15.3	17.0	
Warren County	14.7	15.6	

Dearborn County**	N/A	14.5	State of Indiana 17.2
Ripley County**	N/A	9.2	

Boone County	12.7	14.3	State of Kentucky 16.5
Campbell County	20.5	24.8	
Grant County	10.1	8.1	
Kenton County	17.6	18.6	

**United States**  
16.7

**Healthy People 2010 Goal**  
22.3

**Notes:**

ICD-9 codes 174-174.9 were used for this indicator.

\* Numbers in the second column indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

\*\* Unreliable numbers due to small numbers

The Healthy People 2010 goal corresponds to Objective 3.3.

**Source:**

Centers for Disease Control: CDC Wonder

# Female Breast Cancer Mortality

## Background

Breast cancer is the most frequently diagnosed cancer in women. It is the second leading cause of cancer deaths in women, after lung cancer. The American Cancer Society estimates that this year there will be 210,000 new cases in the United States — including 9,900 in Ohio, 4,700 in Indiana, and 3,200 in Kentucky — and 40,000 deaths from this disease. Thus this disease should be seen as very important but also highly curable. In the last decade, the mortality rate from breast cancer has dropped dramatically with earlier detection and better treatment options.

Breast cancer is a type of cancer where cells in the breast tissue divide and grow without the normal control. Cancerous tumors in the breast usually grow very slowly so that by the time one is large enough to be felt as a lump, it may have been growing for as long as ten years.

The risk of breast cancer is affected by a number of factors, some of which are beyond a person's control, such as age and family history. Age is a well-established risk factor for breast cancer. The older a woman is, the more likely she is to develop the disease. In general, rates of breast cancer are low in women under age 40, begin to increase after age 40 and are highest in women over age 70. According to recent research funded by the Susan G. Komen Foundation, 77 percent of the women diagnosed with breast cancer each year are age 50 or older. Age also increases the risk of breast cancer because as women get older, it becomes more likely that abnormal changes will take place in their cells. Multiple changes have to occur within cells before cancer will develop.

Another risk factor is family history. Having an immediate family member (mother, sister, daughter) with breast cancer increases a woman's chance of developing breast cancer 2 to 3 times compared to a woman with no family history of the disease.

The earlier breast cancer is found and diagnosed, the better chance of survival. Currently there are three main ways to screen for breast cancer — mammography, clinical breast exam and breast self-exam. Breast self-exam should be part of every woman's monthly health care routine. And there is consensus that if a woman is over 50 or at a high risk for the disease, she should also have an annual mammogram and physical exam by a doctor; other organizations suggest these medical screenings to be conducted annually after the age of 40.

## Key Findings

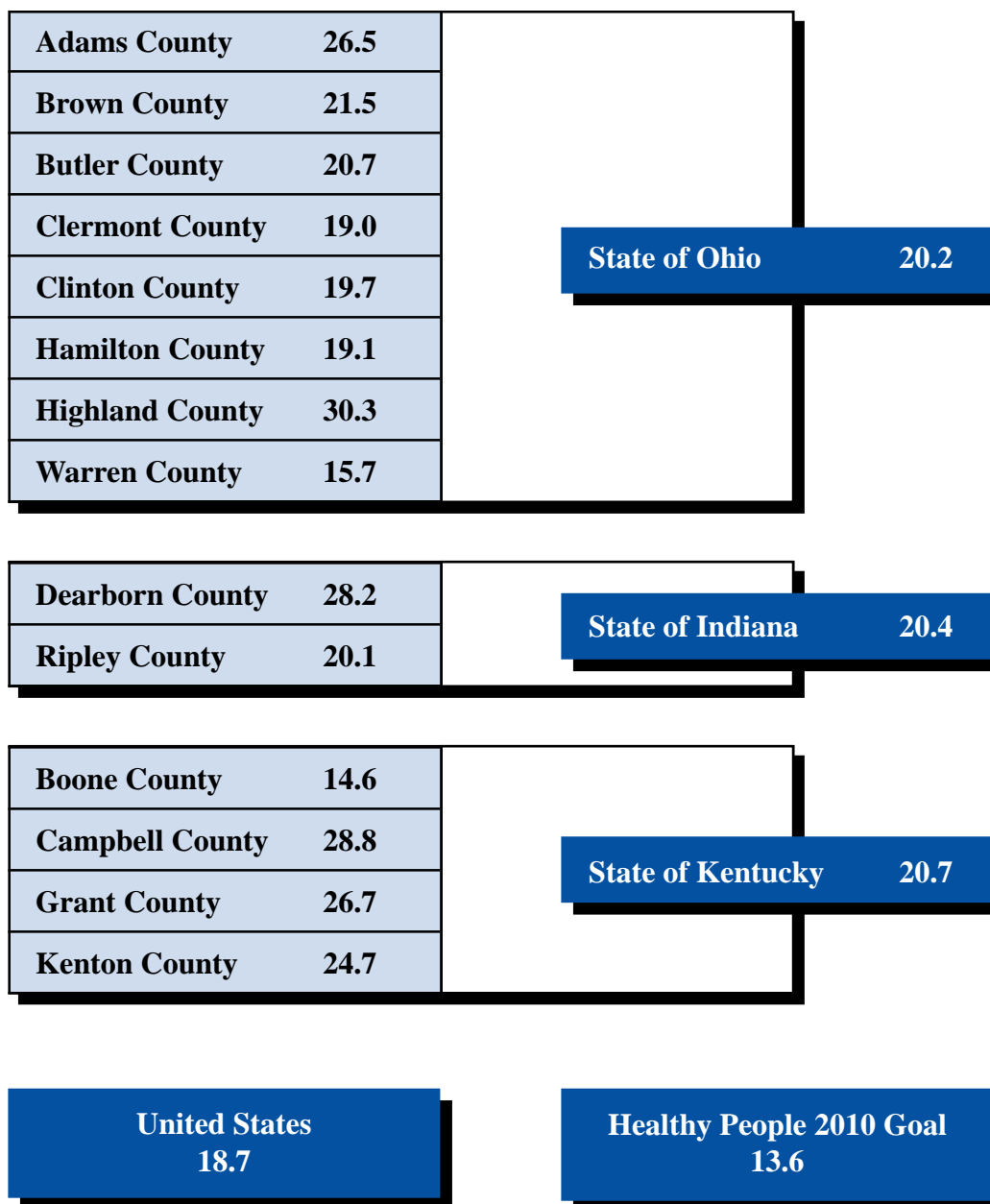
The U.S. mortality rate was 16.7 per 100,000 women while Ohio was at 18.1, Indiana at 17.2, and Kentucky at 16.5. The counties in Ohio varied from a low of 10.6 in Adams County to a high of 19.6 in Hamilton County. The Kentucky counties varied from a low of 10.1 in Grant County to a high of 20.5 in Campbell County. Dearborn and Ripley county rates may not be reliable figures because they are based on small numbers. The rates in the area have become more homogeneous since the last Indicators report.

## Discussion

The prevention of breast cancer is not straightforward. Many non-modifiable risk factors such as age, family history of breast cancer and benign breast disease have all been identified as risk factors that are difficult to change. Other factors known to be associated with lower rates of breast cancer, such as having a first pregnancy at an early age, are not available for preventive purposes.

Early detection is currently the key to controlling breast cancer mortality. Thus breast physical examinations and regular mammographic screenings are currently the best methods for lowering mortality risk. Much research is being devoted to finding risk factors for the disease.

# 1994–1998 Average Annual Age-Adjusted Colon Cancer Mortality Rate per 100,000 Population



## Notes:

ICD-9 codes 153-153.9 were used for this indicator.  
 Age-adjusted rates are used to compare populations of differing age distributions.  
 The standard adjustment year for this indicator is the 2000 population.  
 The Healthy People 2010 goal corresponds to Objective 5.3.

## Source:

Centers for Disease Control: CDC Wonder

# Colon Cancer Mortality

## Background

Colon cancer, including cancer of the rectum, is also known as colorectal cancer, and is the third most common cancer in both women and men for both new cases and for mortality rate. The American Cancer Society estimates that this year there will be over 100,000 new cases in the United States (and another 42,000 cases of rectal cancer) and 57,000 deaths from both colon and rectal cancer. Ninety percent of cases occur in those over age 50. Mortality rates for colon and rectal cancer have continued to decline for both men and women over the last decade and a half.

The exact causes of colorectal cancer are not known. However, studies show that there are factors that increase a person's chances of developing colorectal cancer. Risk factors include people over the age of 50; diets that are high in fat and calories and low in fiber; some types of polyps, which are growths on the inner wall of the colon and rectum; and a person's medical history.

## Key Findings

The United States rate is 18.7 per 100,000 with rates a little higher in the Tristate region (20.2 in Ohio, 20.4 in Indiana, and 20.7 in Kentucky). The Ohio rates vary from a low of 15.7 in Warren County to a high of 30.3 in Highland County. The Kentucky rates vary from 14.6 in Boone County to 28.8 in Campbell County. Ripley County in Indiana is at 20.1 while Dearborn County is at 28.2.

## Discussion

Colon cancer can be detected early through the use of a test for blood in the stool. Also sigmoidoscopy can be used to visualize any lesions in the colon and to remove polyps which are not cancer but often turn into a cancerous lesion. Prevention is based on the use of a diet high in fresh fruits and vegetables and getting sufficient physical exercise, two recommendations that are useful for general health as well as this specific disease.

Research from the National Cancer Institute shows that colorectal cancer develops gradually from benign polyps. Early detection and removal of polyps may help to prevent colorectal cancer. Studies are looking at smoking cessation, use of dietary supplements, use of aspirin or similar medicines, decreased alcohol consumption, and increased physical activity to see if these approaches can prevent colorectal cancer. Some studies suggest that a diet low in fat and calories and high in fiber can help prevent colorectal cancer.

Researchers have discovered that changes in certain genes raise the risk of colorectal cancer. Individuals in families with several cases of colorectal cancer may find it helpful to talk with a genetic counselor. The genetic counselor can discuss the availability of a special blood test to check for a genetic change that may increase the chance of developing colorectal cancer. Although having such a genetic change does not mean that a person is sure to develop colorectal cancer, those who have the change may want to talk with their doctor about what can be done to prevent the disease or detect it early.



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# Injury Deaths

Injury is a leading cause of death among thousands of Americans each year. For persons under the age of 34 years, it is the leading cause of death. These deaths are from falls, motor vehicle crashes and firearms. Injury deaths do not happen by chance, as most injuries are predictable and preventable. Programs that reduce the risk factors or increase protective environmental factors can reduce the burden of injury. In this section, three sources of injury mortality—suicide, homicide and motor vehicle occupant injuries—are explored.

# 1994-1998 Average Annual Age-Adjusted Suicide Rate per 100,000 Population

	1994-1998	1992-*	
Adams County	16.8	19.2	State of Ohio 9.4
Brown County	14.6	15.0	
Butler County	9.8	9.8	
Clermont County	9.4	9.7	
Clinton County	8.4	9.9	
Hamilton County	9.3	9.9	
Highland County	13.7	12.6	
Warren County	8.0	7.6	
Dearborn County	11.8	10.7	State of Indiana 12.2
Ripley County	15.7	17.8	
Boone County	8.5	9.3	State of Kentucky 12.8
Campbell County	12.8	10.3	
Grant County	11.3	14.7	
Kenton County	14.1	15.8	
United States			11.7
Healthy People 2010 Goal			5.0

**Notes:**

ICD-9 Ecodes E950-E959.9 were used for this indicator.

\* Numbers in parentheses indicate readjusted rates from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 18.1.

**Source:**

Centers for Disease Control: CDC Wonder

# Suicide

## Background

In the United States, suicide took the lives of 29,350 Americans in 2000, almost twice the number of deaths compared to homicides. Males were more than four times more likely to die from suicide than were females. However, females had more suicide attempts than males. More than half (60 percent) of all suicides are committed with a firearm. Risk factors for suicide differ in older persons than among the young. Elderly suffer more symptoms of depression and have more social isolation.

There is no typical suicide victim. It happens to young and old, rich and poor. Fortunately there are some common warning signs which, when acted upon, can save lives. A person thinking about committing suicide may: talk about committing suicide, have trouble eating or sleeping; experience drastic changes in behavior; withdraw from friends and/or social activities; lose interest in hobbies, work or school; prepare for death by making out a will and final arrangements; give away prized possessions; have attempted suicide before; take unnecessary risks; have had recent severe losses; be preoccupied with death and dying; lose interest in their personal appearance; and/or increase their use of alcohol or drugs.

## Key Findings

Annual average age-adjusted suicide rates per 100,000 persons for the years 1994-1998 in Greater Cincinnati vary by county (from 8.0 to 16.8). Adams County, Ohio and Ripley County, Indiana have the highest suicide rates, 16.8 and 15.7 per 100,000, respectively. The age-adjusted suicide rate in the United States for the years 1994-1998 was 11.7 per 100,000. The target Healthy People 2010 goal is to reduce the suicide rate by more than half to 5.0 suicides per 100,000. No county in the area is close to reaching that goal; Warren County has the lowest rate in the Tristate at 8.0 per 100,000 people.

## Discussion

Suicide rates in the Greater Cincinnati area have changed little from the 1992-1996 reporting years. The Surgeon General's call to action in suicide prevention recommends that the public's awareness of suicide and its risk factors be increased and that mental health services and programs be enhanced through both population-based programs and clinical care.

# 1994–1998 Average Annual Age-Adjusted Homicide Rate per 100,000 Population

	1994-1998	1992- <sup>*</sup> 1996	
Adams County	3.0	5.4	State of Ohio 3.9
Brown County	3.1	4.3	
Butler County	3.9	4.4	
Clermont County	2.1	2.4	
Clinton County	0.5	1.6	
Hamilton County	5.7	6.0	
Highland County	4.2	3.8	
Warren County	1.4	1.5	
Dearborn County	0.0	1.4	State of Indiana 6.7
Ripley County	0.8	4.6	
Boone County	2.4	1.7	State of Kentucky 6.3
Campbell County	3.9	4.5	
Grant County	0.0	0.0	
Kenton County	3.5	3.2	
United States		6.5	
Healthy People 2010 Goal		3.0	

**Notes:**

The ICD-9 Ecodes E960-E969.9 were used for this indicator.

\* Numbers in parentheses indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 15.32.

**Source:**

Centers for Disease Control: CDC Wonder

# Homicide

## Background

Violence is a public health issue because of its tremendous impact on the health and well-being of our community. Homicide is of interest not only because of its severity but also because it is a fairly reliable barometer of all violent crime. At a national level, no other crime is measured as accurately and precisely. In the United States, the homicide rate was 6.2 per 100,000 persons in 1998. Of all homicide victims in 1994, 38 percent were under age 24 years. Over 67 percent of all homicides are committed with a firearm.

There are some trends in homicide that have been observed. Young males, particularly young black males, experienced dramatic increases in both homicide victimization and offending rates in the late 1980s and early 1990s. Homicides also tend to occur more in cities than in rural areas. The Bureau of Justice Statistics found that 57.3 percent of all homicides occur in large cities, 11.4 percent in small cities, 20.9 percent in suburban areas, and only 10.5 percent of all homicides occur in rural areas.

## Key Findings

Annual average age-adjusted homicide rates per 100,000 persons for the years 1994-1998 in Greater Cincinnati vary by county (from 0 to 5.7). The homicide rate for this five-year time period is 6.7 in Indiana, higher than the rate of 6.5 for the United States. Although the homicide rates for Kentucky and Ohio are lower than that of the United States, 6.3 and 3.9, respectively, neither state is below the Healthy People 2010 goal of 3.0 homicides per 100,000 population. In Ohio, both Brown and Adams County have lower age-adjusted rates than those in the 2000 Indicator Report. In Indiana, Ripley County's rate dropped from 4.6 per 100,000, in 1992-1996 to 0.8 per 100,000 in 1994-1998.

## Discussion

The homicide rates in the Greater Cincinnati community changed little from the previous reporting years. The factors that lead to increase homicide rates need to be studied in relation to urbanization, socioeconomic and cultural conditions, particularly for African-American males who are the most likely victims of homicide in our community. Programs that prevent violence should begin in youth. Attention should be made to youth with an early history of aggression, academic failure and diminished economic opportunity.

# 1994–1998 Average Annual Age-Adjusted Motor Vehicle Crash Mortality Rate per 100,000 Population

	1994-1998	1992-1996*	
Adams County	36.6	32.9	State of Ohio 12.8
Brown County	24.6	26.4	
Butler County	12.9	13.8	
Clermont County	16.3	17.6	
Clinton County	22.1	21.3	
Hamilton County	7.3	8.0	
Highland County	23.3	21.3	
Warren County	13.3	14.2	
Dearborn County	22.7	21.5	State of Indiana 17.6
Ripley County	22.0	25.4	
Boone County	16.9	14.8	State of Kentucky 20.7
Campbell County	9.5	10.2	
Grant County	27.3	24.2	
Kenton County	9.5	9.7	
United States		16.1	
Healthy People 2010 Goal		9.2	

**Notes:**

ICD-9 Ecodes E810-E825.9 were used for this indicator.

\* Numbers in parentheses indicate readjusted rates for 1992-1996 from the 2000 Indicators Report.

Age-adjusted rates are used to compare populations of differing age distributions.

The standard adjustment year was changed to the 2000 population to more accurately reflect the aging population.

The Healthy People 2010 goal corresponds to Objective 15.15.

**Source:**

Centers for Disease Control: CDC Wonder

# Motor Vehicle Crash Mortality

## Background

Injuries related to motor vehicles kill more children and young adults (i.e., those aged 1–24 years) than any other single cause in the United States. Approximately 41,000 persons in the United States die in motor-vehicle crashes each year. Moreover, crash injuries result in approximately 500,000 hospitalizations and 4 million emergency department visits annually.

## Findings

Annual average age-adjusted motor-vehicle related mortality rates per 100,000 persons for the years 1994-1998 in Greater Cincinnati vary by county (from 7.3 to 36.6). The age-adjusted mortality rate for the United States for the years 1994-1998 is 16.1 per 100,000. Five counties in the Greater Cincinnati area are lower—Butler, Hamilton, Warren, Campbell and Kenton Counties (12.9, 7.3, 13.3, 9.5, and 9.5, respectively). Adams County has the highest rate of all area counties at 36.6 per 100,000. Among all the counties, the rates vary little with comparison to the 1992-1996 rates. Only Hamilton County has a rate lower than the Healthy People 2010 goal of 9.2 per 100,000 population.

## Discussion

Fatalities resulting from motor-vehicles crashes are highly preventable through education, engineering and enforcement. Successful interventions include: laws requiring use of child safety seats, distribution and education programs for child safety seats and safe teen driving behaviors, both primary and enhanced enforcement of safety belt use laws, laws that lower the legal blood alcohol concentration (BAC) limit for adult drivers to 0.08 percent, laws that maintain the minimum legal drinking age at 21 years and use of sobriety checkpoints.

As the Hispanic population in the area continues to grow, it is important to note that nationally motor vehicle crashes are the leading cause of death for Hispanics from 1 to 34 years of age, and are the sixth leading cause of death for Hispanics of all ages.

Seat-belt use is the most effective means of reducing traffic-related fatalities. The Healthy People 2010 target goal for seat-belt use is 92 percent, where only 62 percent used safety belts in 1998. In Greater Cincinnati, an average of the Community Health Status Surveys in 1999 and 2002 indicate 68.2 percent of area adults always wear a safety belt.



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# Highlights by County

The purpose of this section is to provide summary comments regarding how the health-related indicators differ for a particular county. Comparisons are made to the appropriate state for public health statistical indicators or to the 14-county Tristate region. Differences discussed include those values that are both higher and lower than the relevant benchmark values.

# County Highlights

The intent of this section is to discuss differences with regard to a particular area that are substantial, and to highlight where a county's strengths and weaknesses may lie. For a few indicators where additional data were readily available, supplemental analyses were done to further examine subgroup differences.

It is also important to note that the Tristate area is unique from many other communities in that it has four federally designated Appalachian counties — Adams, Brown, Clermont and Highland counties. These counties have distinct demographic characteristics that often result in outcomes different from the rest of the Tristate community.

It should be noted that a variety of estimation methods are used in assessing survey results and only replication of surveys over time will validate the consistency of survey findings. Surveys done with the same methods and at the same time can have chance

differences in results due to who happened to be included in the sample, non-response rate variation, etc.

It should also be noted that all aspects of this discussion are descriptive only and the reasons for differences or potential impact on a population's health will need to be judged by the reader. For very well-studied risk factors such as prevalence of regular smoking, the impact is quite clear; however, the impact of other differences on risk of disease incidence could be difficult to assess. Many of the disease conditions that occur today are multifactorial in origin and thus elevated levels of several potential risk factors in a given area is worthy of attention. On the other hand, if an area has an elevated level of a few well-established risk factors that are known to have a strong adverse effect on health, then reduction of exposure to those factors could be the focus for health improvement efforts.

## Ohio

### Adams County

Several socioeconomic-related characteristics are different in Adams County. The percent unemployed, uninsured, in poverty, of children in poverty, and not having a high school diploma are higher than in Ohio overall. Adams County also has the highest unemployment, uninsured and poverty rates in the Tristate area. Over 23 percent of Adams County children live in poverty. Given the data, Adams County has essentially 100 percent of days in 2002 having a "good" AQI levels. The age-adjusted suicide rate in Adams County for 1994-1998 was significantly higher than for Ohio, and it is the highest rate in the Tristate. Acute alcohol use and depression are also higher in Adams County than for many of the other counties and the state. The county has the highest heart disease mortality rate, but some of the lowest cancer mortality rates in the area.

### Brown County

Brown County has the highest homeownership rate in the Tristate area. The county has the highest infant mortality rate with 10.2 deaths per 1000 births. This rate is also higher than the Ohio rate. The county has a relatively high syphilis rate and a high suicide rate. The majority of Brown County residents believe the cost of health care to be unreasonable, yet more over 88 percent of its residents report the quality of health care to be satisfactory.

### Butler County

From an environmental perspective, Butler County has the second highest number of days exceeding the ozone standard in the Tristate region in 1998-2002, and it is the only county with two violations of health water standards in 2002. However, Butler County has the highest rate in the area of people satisfied with the quality of their health care. Also, there is a relatively low number of people that have been diagnosed with depression.

## Clermont County

Environmentally, Clermont County has the most days exceeding ozone standards in 1998-2002. Clermont County residents have some of the lowest satisfaction rates for the quality of their health care. Behaviorally, the county has the lowest Pap smear testing compliance rate and the lowest number of obese adults compared to their fellow Tristate counties. The HIV/AIDS rate in Clermont County is also lower than most of the area counties.

## Clinton County

Clinton County has the second highest usage of smokeless tobacco in the region, yet conversely has the lowest lung cancer mortality rate. It also has the lowest acute alcohol usage and the lowest percent of people diagnosed with depression. Also, Clinton County has the highest teen birth rate in the Tristate area.

## Hamilton County

Hamilton County is the most populated county in the Tristate area, yet it has the lowest home ownership rate, which is also lower than the state rate. The infant mortality and low birth weight (LBW) rates in Hamilton County are higher than the state of Ohio rates and some of the highest rates in the area. Other data available from the CDC (Centers for Disease Control) and the Ohio Department of Health indicate that the rates for infant mortality and LBW are consistently higher in recent years for African-Americans. This fact contributes to the higher rates for these indicators in Hamilton County overall. The county's teen birthrate is also higher than the Ohio rate. Infectious disease incidences, including tuberculosis, syphilis, Chlamydia and HIV/AIDS, are all higher in Hamilton County than any other county in the area or the state. Regarding mortality rates, Hamilton County has a higher age-adjusted homicide rate than the area or the state, while the age-adjusted mortality rate for motor vehicle crashes in 1994-1998 is significantly lower in Hamilton County than the neighboring counties or in Ohio.

## Highland County

In terms of health services utilization, residents of Highland County are not satisfied; they have the lowest percentage of adults who think the cost of health care is reasonable and are also more dissatisfied with the availability of health care services. Highland County has the poorest low birth weight rates in the Tristate, and the highest cigarette-smoking rate. The county also has the lowest seat belt compliance rate and the highest colon cancer mortality rate.

## Warren County

Warren County has the lowest rates of unemployment and poverty in the Tristate area, and also has the highest high school completion rate. The county has the area's lowest teen birth rate and the most success with prenatal care, with only 6.3 percent of mothers *not* receiving care in the first trimester. The county also has the highest percentage of those who regularly visit a dentist or dental clinic. However, Warren County has the lowest blood cholesterol screening rates and the lowest levels of physical activity. Also, the county has the highest number of acute alcohol drinkers. From a health utilization standpoint, Warren County has a high number of people uninsured and has the lowest satisfaction of all counties in the Tristate area with availability of health services.

# Kentucky

## Boone County

A lower percentage of adults in Boone County are living in poverty and a higher percentage have high school diplomas than the Kentucky state average. Boone County also has a relatively low unemployment rate. The county has the lowest overall mortality rate in the area, as well as the lowest overall cancer and colon cancer mortality rates. Over 60 percent of Boone County residents are satisfied with the cost of health care, the highest cost satisfaction rating in the area.

## Campbell County

Less than 1 percent of Campbell County residents report they are uninsured, and report high satisfaction in the availability of care. However, Campbell County has the worst oral health rate, with less than half its adult residents seeking dental care in the last two years. The county has the lowest percentage of overweight adults, yet the highest percentage of obese adults. Campbell County also has the highest breast cancer mortality rate and one of the lowest motor vehicle crash mortality rates.

## Grant County

Grant County is the least populated county in the Tristate area. Grant County has the area's highest blood pressure and blood cholesterol screening rates, as well as the highest Pap smear testing rate. However, Grant County residents have one of the lowest dental care rates, highest smokeless tobacco rate, highest tuberculosis rate, and highest rate of adults reported with depression. Grant County also has some of the highest mortality rates in the Tristate, including the highest overall mortality, overall cancer mortality, lung cancer mortality and a high heart disease mortality rate. However, the county does have the lowest breast cancer mortality rate in the region.

## Kenton County

Over 45 percent of Kenton County adults are overweight, with another 18 percent obese, making it one of the "fattest" counties in the Tristate area. However, it does have the lowest stroke mortality rate and a very low motor vehicle crash mortality rate. County residents also are overwhelmingly satisfied with the availability of their health care.

# Indiana

## Dearborn County

Environmentally, Dearborn County is very healthy, with 99 percent of its days "good" and no days "unhealthful" by the Air Quality Index. The county is the "fattest" county in the Tristate area with over 66 percent of its adults either overweight or obese, yet it reports the highest level of physical activity among its adults. The county also has one of the lowest overall mortality rates, and the lowest heart disease mortality rate in the region. Dearborn County has, by far, the worst prenatal care numbers, with over a quarter of pregnant women not receiving care in the first trimester.

## Ripley County

Often Ripley County data could not be reported due to small sample sizes. However, residents of the county report relatively high satisfaction with the quality and availability of their health care services. Ripley County has the lowest rate of cigarette smoking for the Tristate area, but it is still over 25 percent. Also, the county, by far, has the highest stroke mortality rate in the area.